
RECENT DRUG ABUSE TRENDS IN THE SEATTLE-KING COUNTY AREA

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Many indicators seem to show an increase in drug-related problems in our area over the past year. Cocaine use indicators 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 in terms of drug-related deaths, emergency department episodes and criminal justice involvement. Methamphetamine use appears stable in Seattle-King County but is on an upward trend in other areas of the state. Marijuana remains readily available and recent school surveys indicate a sharp increase in use among school children in this state when compared to several years ago and to national averages. 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. The Young Men's Survey studies the relationship between drug use and sexual risk among young MSMs.

INTRODUCTION

1. Area Description

Located on Puget Sound in western Washington, King County spans 2,130 square miles. The Port of Seattle is the world's 26th busiest container port, handling 1.475 million container units in 1997. 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 1998 population was 1.665 million which represents nearly 30 percent of Washington State's 5.685 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 90 percent of adult residents have completed high school or GED equivalent, and one-third 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 1998, 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), the Washington State Patrol's Narcotics Unit (Tom Zweiger). Ethnographic studies being conducted in the area provided interview data as well.
- **King County Medical Examiner (ME) data base** - Automated information about drug overdose deaths in King County has been available since 1983. Exhibit 1 displays data by calendar quarter from January 1, 1995 to December 31, 1998. 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 1997.
- **RAVEN and GRACKLE Studies** - Two longitudinal cohort studies of Seattle area drug injectors funded by NIDA are conducted by the Seattle King County Dept of Public Health. The studies began in 1994 and continue through 2002.
- **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 July 1, 1996, through December 31, 1998 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 December 31, 1998 are shown in Exhibit 5.

- **HIV/AIDS Epidemiology Report** - Data displayed in Exhibit 6 on acquired immunodeficiency syndrome (AIDS) cases, including exposure related to injecting 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.
- **Young Men's Survey** - Data on HIV and drug use among young men who have sex with men are from a CDC-funded survey conducted by the HIV/AIDS Epidemiology Program of Public Health-Seattle & King County (PHSKC). Interviews were conducted between October 1997 and October 1998.
- **Alcohol and Drug Abuse Monitoring System (ADAM)** – King County ADAM results for the 3rd and 4th Quarters, 1998 (combined) are included in the narratives for cocaine, depressants, heroin, marijuana and stimulants. Across the two quarters, 657 adult male arrestees were approached for interview, 475 (70% of those approached) agreed to be interviewed, and 389 (82% of those agreeing to be interviewed and 60% of all those approached) agreed to provide a urine specimen. For adult females, interviews began in the 4th quarter with 83 arrestees approached, 67 (87% of those who approached) agreeing to be interviewed, and 58 (87% of those agreeing to be interviewed and 70% of those approached) agreeing to provide a urine specimen.

- **United States Customs Service** – Data from the USCS' Illicit Drug Seizures in Washington State, 1993-98 are included in the narratives on cocaine, stimulants and marijuana.
- **United States Department of Justice Drug Enforcement Administration** – Data from the DEA's Domestic Monitoring Program (DEA/NNDA/11-16-98) on heroin purity are included in the narrative on heroin. The 1998 data are through 6/30/98 and are preliminary.

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 again in 1998 to 69 such deaths (Exhibit 1). These deaths represented 31.1% of all drug-related deaths in 1998. Cocaine alone was found in 6 (8.7%) of the individuals whose death was characterized as a cocaine-related drug death; this ratio is lower than in previous years. The remaining 63 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 73.9% of these deaths. In 42 (60.9%) of these deaths the determined route of administration for both the cocaine and heroin was intravenous, suggesting the possibility of the injection of "speedballs." Eighty one percent of the cocaine-related drug deaths were male and 16% were African-American; both a decrease from the previous two years.

DAWN system reports indicate a resurgence in the rate per 100,000 in ED mentions for

cocaine in 1997. This increase in the rate of ED mentions for cocaine came after declines in such mentions during 1995-96 and represent a return to near the peak of 157 mentions per 100,000 last seen in 1994. The rate per 100,000 for 1997 (149.7) was a 24% increase as compared to 1996 (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 those two years (Exhibit 4).

ADAM data show that 36.0% of male and 56.9% of female arrestees had cocaine in their urine. Expressed another way, cocaine was found in 54.6% of all drug-positive urine samples in men and in 76.6% of all drug-positive of samples from women.

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 $\frac{1}{5}$ of a gram. Weighed grams sell for as low as \$35-\$40. Larger units of sale are "teeners" (1.75 grams) for about \$70; this unit tends to be of higher purity than smaller lots. These prices are unchanged since our last report. Crack prices have remained relatively stable for the last 4-5 years: a $\frac{1}{10}$ - $\frac{1}{8}$ gram. quantity sells for \$20 ("20 rock"), and a $\frac{1}{5}$ - $\frac{1}{4}$ gram. quantity sells for \$40 ("40 rock").

As reported by the USCS, seizures of cocaine coming into Washington State increased dramatically in 1998 with 91,171 grams seized at various ports of entry. There were 31 such seizures and the average amount of cocaine seized (2,941 gram) was significantly higher than at any time during the past 6 years. The

most common conveyance was by automobile and the most common port of entry was Blaine, WA, on the Canadian border, with 66% of the cocaine (by weight) seized there.

2. Heroin

There are several indications that an increase in heroin use in Seattle and King County, first observed in 1995, persisted in 1998. This rise in heroin use is suggested by data from three independent sources. First, the number of opiate-related deaths investigated by the King County Medical Examiner's office reached an all-time high. Secondly, data from two epidemiologic studies of injection drug users suggest that new study recruits and young injectors are more likely to report heroin use than in previous years of the study. Finally, the Seattle needle exchange program and all opiate substitution treatment centers in Seattle report an increase in demand for treatment. Data on prosecutions also suggest an increase, although this data is difficult to interpret over the years because arrests may be targeted toward users of specific drugs.

The number of heroin-related drug-caused deaths increased in 1998 after a decline in 1997. Between 1994 and 1997, the King County Medical Examiner's Office reported 466 investigated drug-caused deaths in which morphine (a metabolite of heroin) was detected. In 1994, the number of heroin-deaths was 89, increasing to 131 in 1995, and 135 in 1996. In 1997, the number decreased to 111. However, in 1998, there were 144 heroin-related deaths investigated by the Medical Examiner's Office. This constituted 65% of all drug-related deaths in King County in 1998. As has been true in past years the majority of the decedents had multiple drugs, including alcohol, in their systems at the time of death. Analysis of characteristics of the individuals who died indicates that males 25-34 years old continue to make up the majority

of these deaths. Emergency Department mentions for heroin increased 1997 (last full year available) both in terms of rate (18.4%) and number (Exhibit 3).

Two longitudinal cohort studies of Seattle area drug injectors, the RAVEN and GRACKLE Studies, are conducted by Public Health, Seattle & King County (PHSKC) with funding from the National Institute on Drug Abuse. There have been approximately 3800 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 new recruitment of another 250 drug injectors. With this change in sample size, the study eligibility criteria also changed, permitting only cautious comparison to previous years' data. However, the examination of trends in heroin use within specific subgroups of study participants remains valid.

The RAVEN Study data strongly suggest that heroin use has increased, and that the increase has occurred primarily 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. In 1998, the number of new recruits who primarily inject heroin was 87%. A similar proportion of original RAVEN cohort members followed up in 1998 also reported heroin as their primary drug (88%). Among injectors younger than 20, the proportion reporting heroin increased from 78% to 100% in 1998. In the 20-29 age group, the increase was somewhat smaller, from 75% to 84%, and it rose from 80% to 87% in those 30-39 years old. Injectors forty years or older were just as likely to report primarily injecting heroin 1994-97 as in 1998 (88%). It must be kept in mind that the sample sizes for the younger age groups were small, so that the observed increases may be a result of chance (the p-

value for a linear trend in heroin use in this age group was 0.12).

The number of prosecutions for heroin-related legal offenses in Seattle-King County had remained between 2,200 to 2,600 between 1991-96, until in 1997 it rose to over 3,100. In 1998, the number was 3,270; as in previous reporting periods African-Americans are disproportionately represented in these in arrests and convictions (54%) as compared to their percentage in the population (6%) (Exhibit 5). The number of convictions for heroin-related offenses also increased in 1998. Urinalysis data from King County adults arrested in 1998 (ADAM) indicate that opiates were present in 17% of both male and female arrestees who agreed to urine testing. There are no comparable data from previous years.

Seattle-King County drug treatment admissions for those who use primarily heroin do not indicate any increase has occurred between 1994-97, but the restricted capacity of treatment slots during that period would obscure any increase in demand for treatment. Demand for drug treatment at the Seattle needle exchange program has increased in the past year, and the waiting lists have grown to several hundred.

According to the DEA's Domestic Monitoring Program, the purity of heroin, almost exclusively Mexican tar, in Seattle has remained relatively constant over the past three years. Prices locally have remained unchanged at \$80 -\$100 per gram since our last report.

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% from 25 deaths (29 other opiates identified) in 1997 to 43 deaths (48 opiates identified) in 1998 [Exhibit 1]. 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 most frequently reported other opiate by the ME last year (17 cases). Nearly 47% of other opiate victims in 1998 were female. Ninety-three percent of victims were white and 7% were black. Decedents ranged in age from 27 to 82 years old with a mean of 42.1. One-quarter of other opiate cases involved alcohol-in-combination with a mean blood alcohol content (BAC) of 0.16 gm/100 ml of blood.

The King County ME recorded five (5) deaths involving fentanyl in 1998; none were reported in 1997 and very few in previous years. Fentanyl, a synthetic (non-morphine base) opioid, mimics the effects of heroin but is on the order of 100 times more potent. Two of the King County cases in 1998 involved injection; the other three cases involved oral administration.

The U.S. Customs Service (USCS) seized nearly 53,500 grams (approx. 118 lbs.) of raw opium last year at Seattle-Tacoma International Airport from mail parcels addressed to residents of Anchorage, AK. The 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. All seizures in 1998 occurred in November and involved express mail parcels marked "return to sender." Each of these

parcels had returned from Bangkok, Thailand on commercial air transport. According to the local USCS Office, someone in the Bangkok post office "was probably slitting the packages open, inserting the opium and stamping the packages 'return to sender' to facilitate entry back into the U.S. – not a new (smuggling) method." The raw opium was concealed inside books, candy bar wrappers, large shampoo bottles, and loose-leaf binders and notebooks.

4. Marijuana

Cannabinoids in this analysis include marijuana and hashish.

In King County for the second half of 1998, marijuana accounted for 18% of adult, public drug treatment admissions – down slightly from 19% for the same time period in 1997. Data for calendar year 1998 pertaining to characteristics of clients admitted for treatment of marijuana as the primary drug of abuse has remained relatively consistent with data from 1997; 73.6% were men, 26.4% women, 56.1% white (up slightly from 53.8% in 1997), 24.1% African-American, 7.6% Latino, 6.4% Native American and 6.3% Asian-American. Marijuana was cited as the primary drug of abuse for 55.4% of treatment admissions in persons 17 years of age and younger, a decrease over 1997 of nearly 5%. The total King County figure of 1,634 marijuana treatment admissions in 1998 represents a 5% increase over the 1,556 marijuana admits during calendar year 1997.

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 389 male prisoners screened in the second half of 1998, 35.5% tested positive for marijuana, which nearly matched

the prevalence of cocaine/crack at 36%. Urine testing for incarcerated females (N=58) began in 4th quarter, 1998, and showed a similar marijuana prevalence rate of 37.9% (though this ranked a distant second to cocaine/crack, for which 56.9% of females tested positive).

The most recent DAWN data (Exhibit 3) show an 83.4% increase in the rate of marijuana mentions in emergency departments during 1997 compared to 1996. This rate for marijuana has increased four fold since 1993.

Marijuana remains the most widely used illegal drug in both King County and Washington State. In addition to locally grown sinsemilla, high-grade Canadian and low-grade Mexican marijuana varieties continue to proliferate throughout the state. The Seattle Field Division of the Drug Enforcement Administration reports that local growers are continuing to cultivate reduced crop sizes at levels below the minimum threshold for federal prosecution: 500 plants in western Washington, 100 plants in eastern Washington. In addition, according to Washington State Narcotics Investigators Association the number of indoor crops in northern Washington has dropped dramatically as high quality Canadian marijuana makes its way over the border. Previous reports have noted this trend, as U.S. growers of high-grade, indoor-grown marijuana have set up operations across the Canadian border. The product, in addition to being sold in Canada, is shipped back across the border to Washington and other western states for sale. The Washington State Patrol reports a continued influx of low-grade Mexican marijuana into Washington State at the rate of 5-10 tons/month. Compared to hydroponically grown hybrid Canadian sinsemilla with high THC levels (20% and higher), this type of marijuana is relatively low in THC (2-6%), is not particularly clean, and is quite inexpensive. Most of this

marijuana is transported over-ground by Mexican crime cartels.

Showing significant increases in cannabis seizure rates from 1997 to 1998, data from the U.S. Customs Service (USCS) would appear to confirm this shift in production to areas north of the US/Canadian border. The USCS reported 853 seizures in 1998, an increase of 17.5% from the 726 seizures reported for 1997. In addition, these data reveals that at an average weight of 34 lbs., the typical seizure size has more than tripled since 1997.

Combining these increases in both seizure rate and quantity, it is not surprising to note that the 29,008 lbs. seized in 1998 constituted an increase of 376% over rates for 1997. Among reported USCS seizures, the most common port of entry was in Blaine, WA, at the US/Canadian border, and the most common method of conveyance was via automobile.

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. A cursory examination of the marijuana data reveals that, compared to calendar year 1997, 1998 saw a marked decrease in both felony prosecutions (down 10%) and convictions (down 22%). This is in considerable contrast to calendar year 1997, which saw increases in both prosecution (up 48%) and conviction (up 72%) rates over data for 1996. The reasons for these decreases remain unclear at this time.

A 1998 Washington State Survey of Adolescent Health Risk Behaviors conducted in randomly selected schools (grades 6, 8, 10 and 12) shows that current use of marijuana

has risen sharply since 1992 in all but Grade 6. Among 10th graders, the 30-day prevalence of marijuana use rose to 26.6% in 1998 from 10.6% in 1990. In the same time period, the 30-day prevalence among 12th graders rose to 28.7% from 15.9%. Survey data extrapolated from participating King County schools show that 2.6% of 6th graders, 13.8% of 8th graders and 25.9% of 10th graders had used marijuana in the last 30 days. Data were not available for Grade 12 in King County. All of these percentages exceed the national averages for each grade as reported in the 1998 Monitoring the Future Study.

Prices for locally grown marijuana remain at the same level as the last reporting period. A gram of sinsemilla, called "bud," sells locally for \$15-\$25. For end consumers, locally grown sinsemilla generally sells for \$40-\$50 per $\frac{1}{8}$ ounce. Price breaks may occur for larger quantities: \$340-\$400 per ounce, \$1200-\$1,400 per $\frac{1}{4}$ pound. Bulk quantities of mid- to high-grade local and Canadian sinsemilla sell for \$2,500-\$4,000 per pound and \$5,000-\$8,000 per kilogram. Lower quality Mexican sinsemilla is currently pricing out at \$500 - \$700 per pound. There continue to be anecdotal reports about the local availability of "blunts," especially among adolescent and young adult users, both as small cigars stuffed with marijuana alone or with marijuana adulterated with formaldehyde.

With the passage of ballot Initiative 692 in November, 1998, Washington State joined the ranks of five other western states granting physicians permission to prescribe marijuana for medically-related uses. The impact of this legislation on both use/abuse and judicial trends is yet to be seen.

5. Stimulants

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

Admissions for adults citing methamphetamine as their primary drug have increased a dramatic 850% in King County from 1992 to the first half of 1998, as compared to increases in admissions for cocaine and heroin as primary drug of 119% and 234% respectively. Methamphetamine admissions account for approximately 6% of total admissions in the County (Exhibit 4). Over half of admissions (54%) were male; 86% were White, 7% Native American, nearly 5% Hispanic and the remainder African-American or Asian-American. Forty-one percent (41%) reported a history of injection use, 33% smoking. Age distribution was as follows: 43% were between 26-34; 38% were between 18-25; 22% were over 35 and approximately 6% were less than 18.

In comparison, statewide methamphetamine admissions for Washington increased more than 1000% during the period 1992 to the first half of 1998. In the first half of 1998 for the first time the percentage of women entering treatment citing methamphetamine as their primary drug exceed the number of men, 52% to 48%. Statewide 91% of those admitted were White, 5% Native American, 3% Hispanic and the remainder African-American or Asian-American. Statewide, approximately 37% reported a history of injection use, 27% smoking. There appears to be a trend toward smoking as a route of administration, which increased from 4% in 1992 to 27% in the first half of 1998.

Statewide, admissions for adults with methamphetamine as their primary drug have been increasing as a percentage of total treatment admissions during the past two years. The rate of these treatment admissions have increased most in the rural counties of

southern and central Washington. In addition, 1998 statewide admissions for methamphetamine exceeded those for both cocaine and heroin.

The most recent DAWN data (Exhibit 3) show a 144.7% increase in the rate per 100,000 for emergency department mentions of methamphetamine during 1997 as compared to 1996. This rate for methamphetamine had been declining from 1994 to 1996 so this recent increase appears to reverse that trend.

In 1998 in King County there were a total of 3 drug-caused deaths reported to involve methamphetamine (1.4% of the total drug caused deaths), one with methamphetamine alone. The number of stimulant-caused drug deaths in King County has been low for the past several years and 1998's total was the lowest since 1994. ADAM data for Seattle King-County during the 3rd and 4th Quarters of 1998 indicated that about 7% of men and women arrestees tested positive for methamphetamine.

In King County the DEA reports that they are seeing more and larger local methamphetamine labs and less imported product. This is corroborated by the U.S. Customs drug seizure data which shows declining seizures over the past year. The increase in local labs includes more labs found in urban areas. This increase in locally manufactured methamphetamine suggests an increase in the quality and quantity available locally.

Ethnographic sources suggest that current street level prices for methamphetamine have remained stable at \$20 - \$30 per 1/4 gram. Quantities of 1/16 ounce, known as "teeners" continue to sell for \$100 to \$140, and 1/8 ounce, known as "eightballs," sell for \$200 - \$240. The form of this drug was reported to vary significantly and to be an indicator of

quality.

In addition, ethnographic data collected by the NIDA-funded SURE (Substance Use Risk Exploration) study at the University of Washington suggest great variability in methamphetamine use patterns and contexts of use depending on population, location and history of use. These ethnographic data also suggest important gender differences in methamphetamine use as well as significant co-occurring risk behaviors for HIV and hepatitis C.

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), butobarbital, pentobarbital (Nembutal), phenobarbital, secobarbital (Seconal), promethazine, (Phenergan), and choral hydrate (Noctec).

Data sources are mixed in terms of depressant use in 1998. There has been an increase in the number of deaths involving depressants. Although death rates remained relatively constant from 1993 through 1995 (averaging 19 cases with 20 depressants identified), a 63.2% increase was noted in 1996 (31 cases with 37 depressants identified). The higher rate was maintained in 1997 (32 cases with 38 depressants identified), and has again increased 34.5% in 1998 (43 cases with 51 depressants identified). The number and rate

of depressant deaths per 100,000 population in King County has therefore more than doubled during this period, increasing from 1.2 in 1995, to 1.9 in 1996-97 and to 2.6 in 1998. The demographics of the decedents was unchanged from previous reporting periods, with 90% white, 42% female, an age range from 24 to 85 years, and a mean age of 41 years.

A trend first noted in 1998 has continued into this reporting period, involving the concomitant injection of heroin and a depressant, typically diazepam. A total of 13 such cases were identified in 1998, representing 30% of the depressant-related deaths. The number of deaths determined to be suicides in turn decreased to 21% of the total. Deaths involving depressants and alcohol-in-combination also decreased from 40% this time last year to 33%, with a mean BAC of 0.15gm/100ml of blood. In keeping with past reports, benzodiazepines were involved in 70% of the depressant-related deaths in 1998, with 51% involving diazepam.

Data reported by the Arrestee Drug Abuse Monitoring (ADAM) study, conducted under the auspices of the King County Department of Adult Corrections, have been analyzed for the 3rd and 4th quarters of 1998. Of the males approached at booking during both quarters 60% agreed to provide urine specimens with 3.6% testing positive for depressants. Females were approached beginning in the 4th quarter with 70% agreeing to provide urine specimens and 5.2% testing positive for depressants.

DAWN ED rates per 100,000 for alprazolam, clonazepam, diazepam, lorazepam, triazolam and phenobarbital show a bell-shaped curve during the period 1990-97 with the peaks occurring 1992-94 and a decline since that time. Diazepam and clonazepam were 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) remain stable at \$1 for 5-milligram tablets and \$2-4 for 10-milligram tablets.

Anecdotal reports of the use and overuse of GHB have continued to increase throughout the area, with incidents of incapacitation, induced intoxication, rape and other criminal behaviors noted in local emergency rooms at the rate of 3-4 per month. Emergency rooms now more frequently draw urine samples in cases of incapacity with undetermined origins, given the quick metabolism and inconclusive results of blood samples taken to detect GHB. Local law enforcement and public health agencies and school personnel have increased efforts to broaden public education and awareness of GHB and GHB analog production, possession and use, particularly among students and young adults.

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.

Respondents in ethnographic interviews mention frequent mixing of Ecstasy with other drugs; LSD (candy flipping), mushrooms (flower flipping), and heroin (H-bomb). Street outreach workers report that a new liquid form of Ecstasy has been seen in Seattle. Ecstasy is a drug of particular concern as its purity ranges wildly and it is cut

with a number of different drugs. Users are always uncertain what they are getting, particularly when the drug is packaged in the capsule form.

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 drug treatment shows a low and stable pattern of infection. Cumulative HIV prevalence among treatment admits from 1988 through 1997 is 1.9%. Males have significantly higher prevalence than females (2.1% vs. 1.4%; $p < 0.05$) due to higher infection rates among men who have sex with men (MSM, 16.7%). Drug treatment center clients of African-American or Native-American background have significantly higher HIV prevalence compared to white clients (AA 2.6%, NA 4.2%, W 1.5%; $p < 0.05$). Clients 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 RAVEN, a NIDA- and CDC-funded follow-up study of blood-borne and sexually transmitted infections and risk behaviors among King County IDUs, showed a two-fold increase in HIV infections among IDUs who were not in drug treatment compared to in-treatment IDUs. The same study estimated HIV seroprevalence among local MSM who inject methamphetamine to be 47%. This is

the highest rate of infection of any risk group in the Seattle area.

Combined drug use and sexual risk behaviors are a continuing concern among MSM in King County. The Health Department recently completed Phase 1 of the Young Men's Survey (YMS), a study of HIV and hepatitis prevalence, sexual and drug use behaviors and related psychosocial factors among men aged 15-22 who have sex with men. The Young Men's Survey is an anonymous cross-sectional probability sampling survey that utilizes multi-stage sampling methods to recruit young men at community venues that are frequented by young MSM. The following analysis is based on a survey sample of 368 young MSM, 95% of whom self-identified as gay or bisexual. All reported sex with another man at some point in their life. Seventy-six percent of 15-18 year olds reported anal sex with another man compared to 82% of 19-22 year olds. Reported number of sex partners was significantly higher among the older group with 72% reporting 5 or more in their lifetime and 28% reporting 5 or more in the past 6 months compared to 45% and 13%, respectively, of the younger men. Over half also reported sex with a female; 20% reported a female sex partner in the 6 months prior to interview. Among those who reported anal sex with another man in the past 6 months, 43% said they always used a condom with any male partner. Condom use was lower during receptive anal sex with a steady partner (43%) compared to receptive anal sex with a non-steady partner (56%) and did not vary significantly by age group.

Ninety-five percent of participants reported drinking alcohol. Other drug use was also very prevalent in the study population and generally higher among the older group of young men. Many participants had tried a variety of different drugs, but fewer reported using in the past 6 months. Marijuana use in

the past 6 months was reported by almost two-thirds. Other common drugs reported in the past 6 months included amphetamines/speed (28%), LSD/hallucinogens (26%), Ecstasy (20%), cocaine (19%), poppers/nitrates (13% of the 15-18 year olds and 21% of the 19-22 year olds), and barbiturates/downers (12%).

Thirteen percent reported ever injecting drugs, while 5% reported injecting in the past 6 months. The most commonly injected drug was amphetamine which was reported by 71% of those who had injected, followed by heroin (47%), cocaine (37%), and speedball (27%). Only 4% reported injection of steroids and none reported injecting other hormones.

Drug use among 15-18 year old YMS participants was much higher than drug use reported by Seattle high school students in the 1995 Teen Health Risk Survey. Forty-eight percent of students reported ever using marijuana compared to 69% of the 15-18 year old YMS participants. Lifetime use of hallucinogens was 15% among high school students compared to 43% in 15-18 year old YMS participants. These findings are worrisome, but consistent with other studies that report higher drug and alcohol use among gay, lesbian and bisexual high school students compared to heterosexual high school students. An abstract presented by CDC at the 12th World AIDS Conference in Geneva reported that predictors of unprotected receptive anal intercourse from YMS studies in other US cities included being high on alcohol or amphetamines during sex. In the local study, 48% of young MSM reported having sex while high on alcohol within the past 6 months and 13% reported sexual activity while high on methamphetamine during the past 6 months. The CDC recommends targeting alcohol and amphetamine use in addition to promoting safer sex to help prevent HIV transmission among young MSM.

The local study also looked at infection rates among participants; prevalence of infections was somewhat higher among older YMS. A total of 8 (2%) tested positive for antibodies to HIV; five knew about their HIV infection and three were newly diagnosed. All but one of the infections were among 19-22 year olds. Five percent showed markers of past infection with hepatitis B, but only 1% had chronic hepatitis B infection. Thirty-six percent reported having completed a vaccine series for hepatitis B and 10% reported incomplete series; serology revealed markers of immunity to hepatitis B infection in 32% of samples. A significantly higher proportion of 19-22 year olds had seromarkers of past hepatitis A infection compared to 15-18 year olds (15% vs. 4%). Five respondents were positive for antibodies to hepatitis C and four of those reported injection drug use.

Results from the YMS study will be used by the local HIV/AIDS planning council in setting funding and strategy priorities for HIV prevention interventions.

EXHIBIT 1

SEATTLE-KING COUNTY
 QUARTERLY NUMBER OF IDENTIFIED DRUGS IN DRUG-CAUSED DEATHS
 JANUARY 1, 1995 - DECEMBER 31, 1998

DRUG(S) IDENTIFIED*	1995				1996				1997				1998			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q ²
Cocaine	19	18	16	16	21	17	17	19	20	17	12	17	9	18	19	23
Heroin/Morphine	28	24	36	43	34	40	28	33	23	37	22	29	16	40	48	39
Other Opiates	4	1	4	5	7	8	10	6	8	8	6	7	7	18	16	7
Amphetamines ¹	2	2	2	0	1	1	1	1	1	0	3	2	1	0	0	2
Sedatives/Depressants	4	2	7	7	9	11	7	10	7	8	14	9	12	13	11	8
Alcohol	19	17	23	26	26	25	17	19	18	30	19	14	18	33	26	26
Antidepressants	7	5	6	5	6	8	7	12	7	10	12	12	8	16	13	9
Actual Number of Drug Deaths	45	36	48	54	55	57	50	56	45	58	33	43	39	63	67	53

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

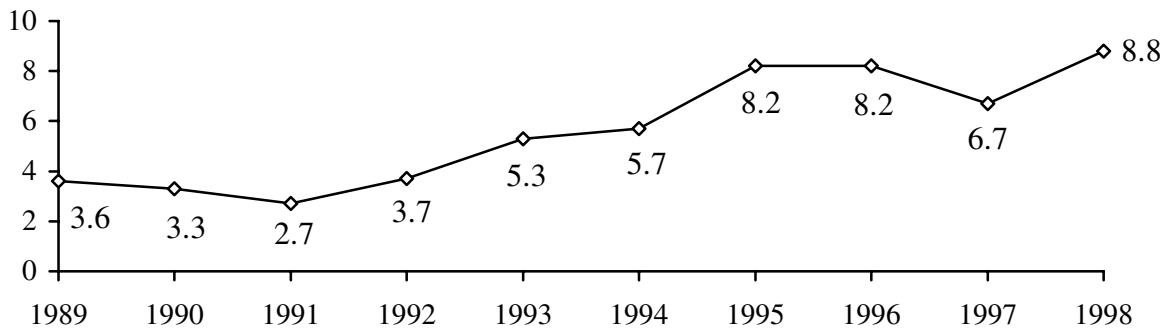
¹ The amphetamines identification category includes methamphetamine.

² Fourth Quarter 1998 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

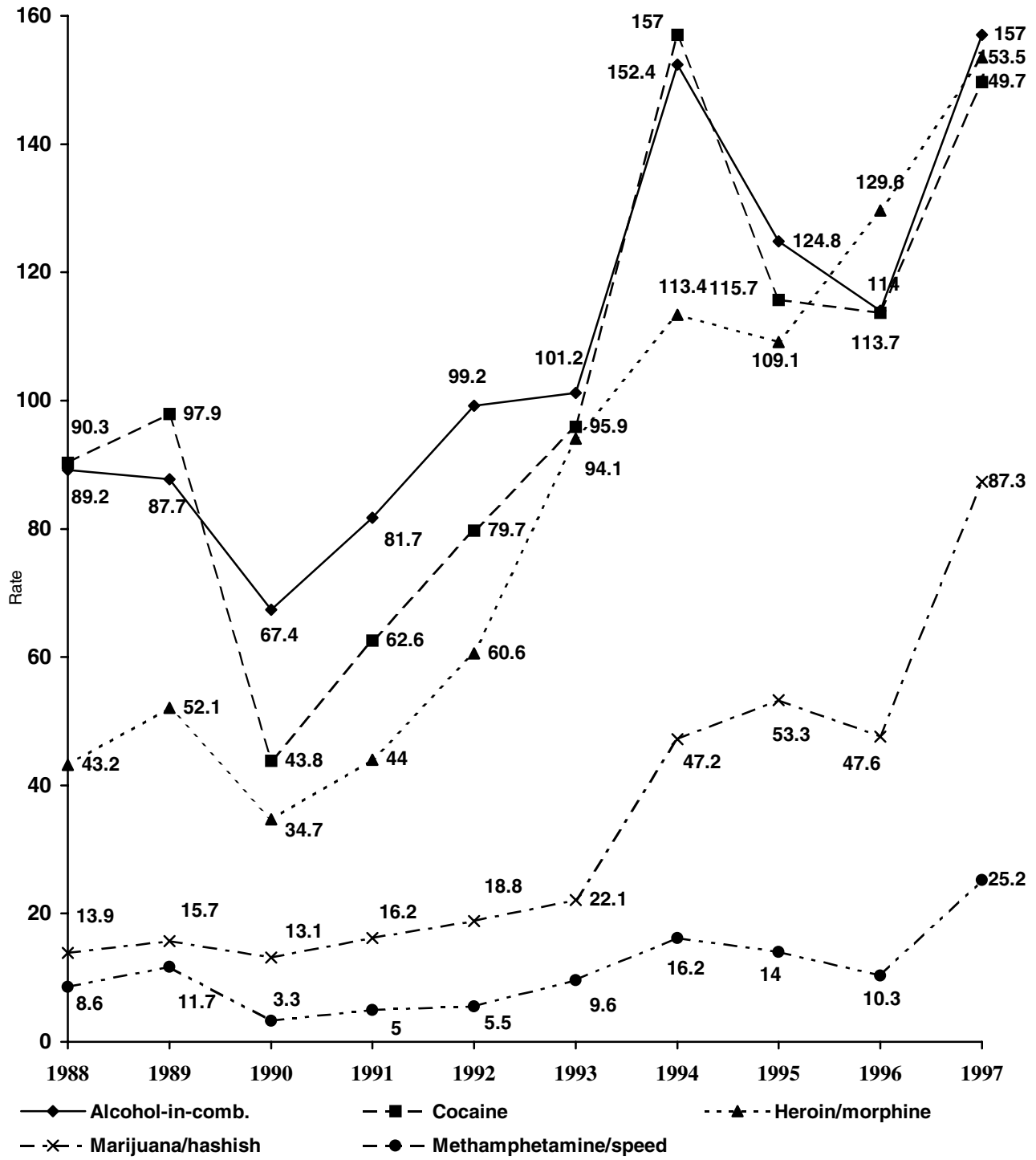


Source: King County Medical Examiner

—◇— Heroin deaths per 100,000

EXHIBIT 3

Seattle-King County
 Estimated Rate (per 100,000 population) ED mentions
 1988 - 1997



SOURCE: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, June 1998 files

EXHIBIT 4

SEATTLE-KING COUNTY
 HALF-YEARLY DEMOGRAPHIC TRENDS IN ALCOHOL/DRUG TREATMENT ADMISSIONS
 JULY 1996 – DECEMBER 1998

Client Profiles	Jul - Dec 1996		Jan - Jun 1997		Jul - Dec 1997		Jan - Jun 1998		Jul - Dec 1998	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
UNDUP ADMITS	3,330	(100)	3,776	(100)	3,559	(100)	3,814	(100)	4,044	(100)
GENDER										
Male	2,418	(64)	2,265	(60)	2,275	(63)	2,453	(64)	2,636	(65)
RACE/ETHNICITY										
Nat. - American	218	(6)	287	(8)	271	(8)	284	(8)	294	(7)
Afr. - American	853	(26)	823	(22)	812	(23)	831	(22)	888	(22)
White	1,935	(59)	2,291	(61)	2,107	(59)	2,285	(60)	2,450	(61)
Other	275	(8)	375	(10)	369	(10)	414	(11)	412	(10)
AGE										
<14	48	(1)	91	(2)	75	(2)	81	(2)	63	(2)
14 - 18	542	(16)	749	(20)	704	(20)	811	(21)	723	(18)
19 - 20	77	(2)	85	(2)	111	(3)	99	(3)	126	(3)
21 - 40	1,935	(59)	2,027	(54)	1,864	(53)	1,964	(52)	2,137	(53)
41 - 65	722	(22)	819	(22)	797	(22)	854	(23)	988	(24)
65+	6	(<1)	5	(<1)	8	(<1)	5	(<1)	7	(<1)
ROUTE ADMIN										
Oral	1,595	(48)	1,747	(46)	1,636	(46)	1,802	(47)	1,966	(49)
Smoking	959	(29)	1,135	(30)	1,094	(31)	1,195	(31)	1,275	(32)
Inhaling	21	(1)	17	(<1)	20	(1)	23	(<1)	19	(<1)
Injecting	649	(19)	760	(20)	690	(19)	684	(19)	663	(16)
Other	108	(3)	117	(3)	120	(3)	110	(3)	121	(3)
PRIMARY DRUG										
Alcohol	1,542	(46)	1,672	(44)	1,574	(44)	1,720	(45)	1,880	(46)
Amphetamines	147	(5)	188	(5)	208	(6)	231	(6)	231	(6)
Cocaine	520	(16)	501	(13)	457	(13)	416	(12)	573	(14)
Hallucinogens	13	(<1)	17	(<1)	14	(<1)	11	(<1)	17	(<1)
Heroin	561	(17)	669	(18)	577	(16)	578	(15)	553	(14)
Marijuana	512	(15)	677	(18)	676	(19)	773	(20)	736	(18)
Other	35	(1)	52	(1)	53	(2)	85	(2)	54	(1)

* Counts for the second half of 1998 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 – 1998

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)
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)

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

SOURCE: King County Prosecuting Attorney

EXHIBIT 6

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

Case Numbers and Deaths	King County		Other WA Co.		Washington State		United States*	
Cumulative Cases	5,682		2,991		8,673		665,357	
Cumulative Deaths	3,437		1,668		5,105		401,028	
Currently living with AIDS	2,245		1,323		3,568		264,329	
Case Demographics	King County**		Other WA Co.**		Washington State**		United States***	
(last 3 years)	Number	(%)	Number	(%)	Number	(%)	Number	(%)
<u>Gender:</u>								
Male	856	(92)	590	(83)	1,446	(88)	148,450	(79)
Female	71	(8)	118	(17)	189	(12)	40,011	(21)
<u>Age:</u>								
<13	5	(1)	2	(<1)	7	(<1)	1,669	(1)
13-19	2	(<1)	3	(<1)	5	(<1)	1,118	(1)
20-29	123	(13)	114	(16)	237	(15)	27,334	(15)
30-39	474	(51)	335	(47)	809	(49)	83,639	(44)
40-49	232	(25)	178	(25)	410	(25)	53,649	(28)
50-59	71	(8)	55	(8)	126	(8)	15,571	(8)
60+	20	(2)	21	(3)	41	(3)	5,481	(3)
<u>Race/Ethnicity:</u>								
White	649	(70)	545	(77)	1,194	(73)	67,791	(36)
Black	133	(14)	74	(10)	207	(13)	80,779	(43)
Hispanic	95	(10)	54	(8)	149	(9)	37,574	(20)
Asian	23	(2)	11	(2)	34	(2)	1,521	(1)
Native American	27	(3)	24	(3)	51	(3)	646	(<1)
Unknown	0	(0)	0	(0)	0	(0)	881	(<1)
<u>Exposure Category:</u>								
Male-male sex	618	(67)	337	(48)	955	(58)	73,627	(39)
Injecting drug user	71	(8)	121	(17)	192	(12)	49,314	(26)
IDU & male-male sex	82	(9)	61	(9)	143	(9)	11,069	(6)
Heterosexual contact	41	(4)	91	(13)	132	(8)	26,917	(14)
Hemophilia	5	(1)	7	(1)	12	(1)	917	(<1)
Transfusion	6	(1)	10	(1)	16	(1)	1,199	(1)
Mother at risk/has AIDS	5	(1)	2	(<1)	7	(<1)	1,587	(1)
Undetermined/other	99	(11)	79	(11)	178	(11)	23,832	(13)
Total Cases (last 3 years)	927	(57)	708	(43)	1,635	(100)	188,462	(100)

* Data as of 6/30/98

**Data from 4/1/96 through 3/31/99

***Data from 6/30/95 through 6/30/98

Sources: PHSKC, Washington Department of Health, CDC