



ADAI RESEARCH BRIEF

No. 04-03 February 2004

KING COUNTY – DRUG USE EPIDEMIOLOGY

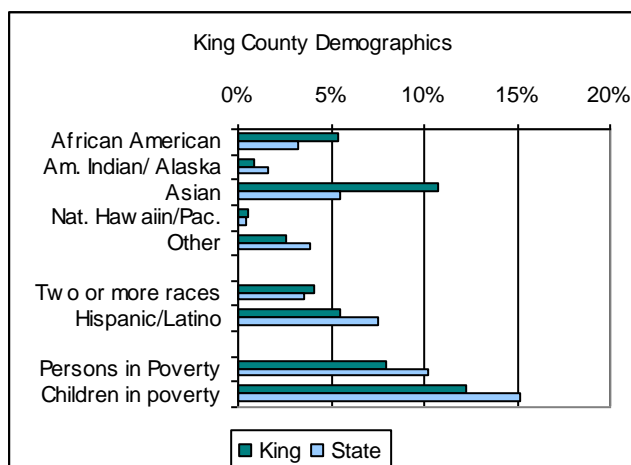
LOCATION AND POPULATION OVERVIEW

Located on Puget Sound in western Washington, King County spans 2,130 square miles, of which the city of Seattle occupies 84 square miles. The Seattle harbor is the home of the world's 26th busiest container port; the combined ports of Seattle and nearby Tacoma make Puget Sound the second largest combined loading center in the United States. Seattle-Tacoma international airport, located in King County, is the largest airport in the Pacific Northwest.

Interstate 5 runs through the County all the way from Mexico to the south, northward to Canada (90 miles north of the County). Interstate 90's western terminus is in Seattle, running east over the Cascades, through Spokane and across Idaho and Montana.

According to the 2000 Census, the population of King County is 1,737,034, an increase of 15.2 percent since 1990. King County is the twelfth largest county in the U.S.. Of Washington's 5.9 million residents, 29% live in King County. The City of Seattle's population is 563,374; the suburban population of King County is growing at a faster rate than Seattle itself.

The County has a smaller proportion of Caucasians than the State, with higher proportions of African Americans and Asians. There are lower levels of poverty in the County than Statewide.

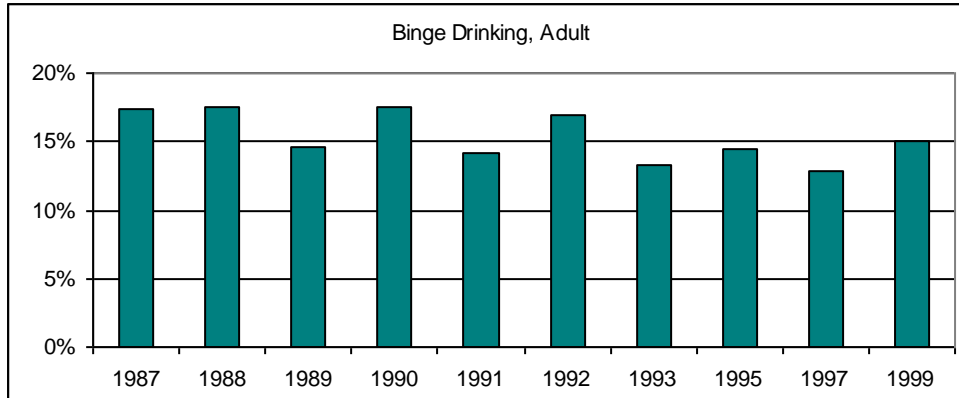


ALCOHOL AND OTHER DRUG USE - ADULTS

Alcohol Use

Adult Binge Drinking

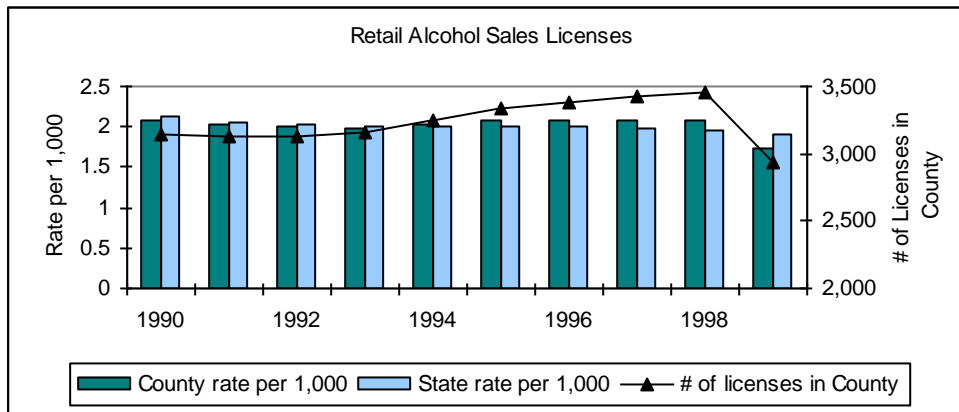
Binge drinking, 5 or more drinks on one occasion, appears to have declined from 1987 to 1998, with 15% of those who drank reporting binge drinking in the prior month in 1999, compared with the Statewide average of 14%.



Alcohol Retail Sales Licenses

The number of alcohol retail sales licenses in a county is an important measure of the availability of alcohol. Sales licenses indicate the number of active licenses at locations including restaurants, grocery stores and wine shops, it does not include liquor stores.

King County has seen a slight decrease in the number, per capita, of locations that can sell alcohol. Rates are based upon the total number of licenses divided by the population, then multiplied by 1,000. This allows for adjustments as the number of county residents changes over time and also allows for comparisons between counties with populations of different size. The rate in 1999 was 1.74 liquor licenses per 1,000 residents, or 2,936 licenses, a substantial decrease from 1998¹. The County rate is below the State rate of 1.91 per 1,000 residents.



Other Drug Use

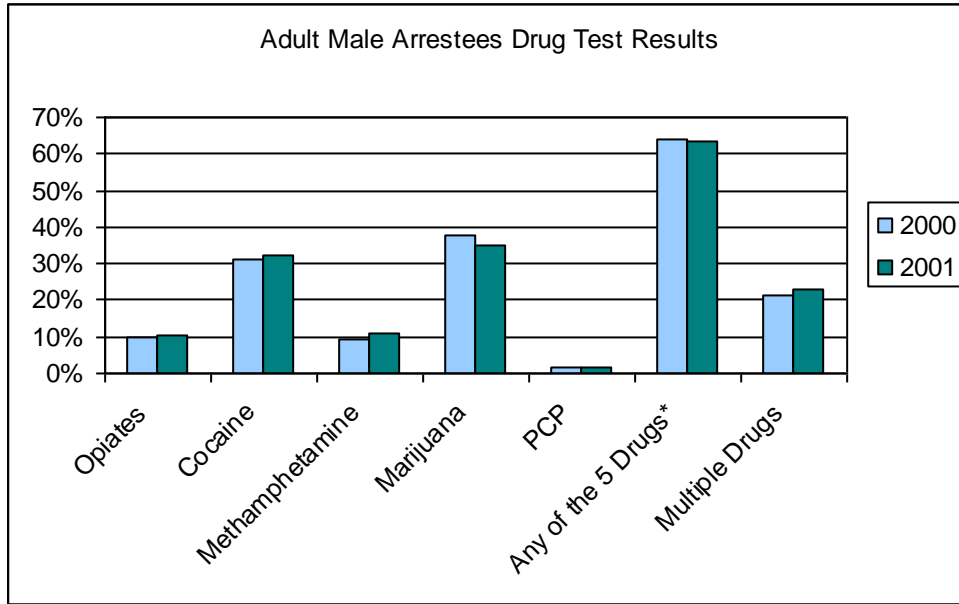
No recent survey data are available on the prevalence of illegal drug use among all adults. However the Drug Abuse Warning Network provides information on drugs mentioned by those seen in emergency rooms and the Arrestee Drug Abuse Monitoring System surveys those newly arrested about their drug use.

Arrestee's Use of Illegal Drugs

Among those adult males newly arrested in King County Jails almost two-thirds test positive for an illegal drug. Marijuana is the drug most commonly identified, and this is probably due both to its widespread use as well as the extended time it remains in the body compared to other illegal drugs. Cocaine is the second most common drug identified, found in 31% of arrestee's in 2000 and 2001, followed by opiates and methamphetamines at approximately 10%.

Heroin use varies geographically as shown by data from arrestees gathered in 1998 and 1999. Positive tests for opiates represented a greater proportion of those at the downtown jail

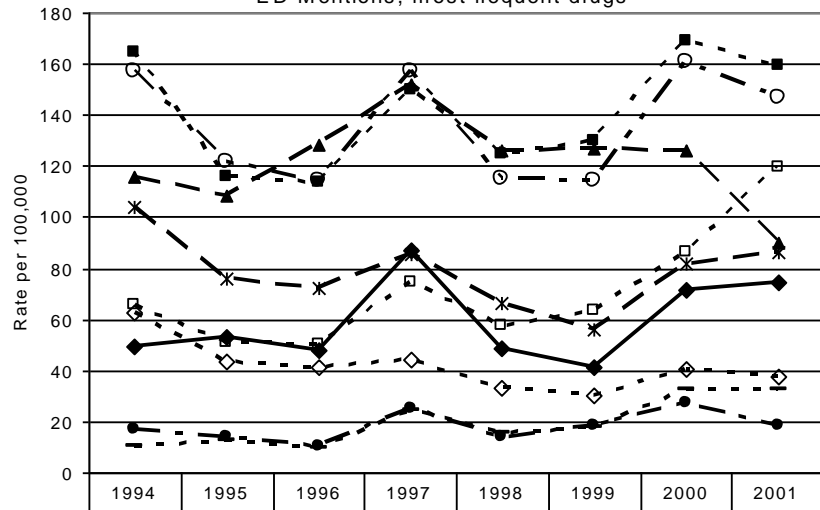
(19.7% for men, 24.5% for women) than those at the jails in Kent and Auburn, to the south of Seattle (6.9% for men, 6.8% for women)¹.



Emergency Room Mentions of Illegal Drug Use by Youth and Adults

Alcohol, cocaine, and heroin are most commonly mentioned in the emergency room. All have shown recent declines. During the same time, depressants e.g. benzodiazepines and marijuana, have held steady at new higher levels parallel to heroin. The only major drugs showing a strong trend upward are the narcotic analgesics. Methamphetamine peaked in 2000 and decreased in 2001 to a rate similar to that seen in 1994. PCP ED mentions remain at new higher levels, MDMA and GHB indicators remain elevated and LSD use has continued a long trend downward; all of these 'club drugs' ED mentions are at relatively low levels. Club drugs are most commonly reported by those aged 18-25.

ED Mentions, most frequent drugs

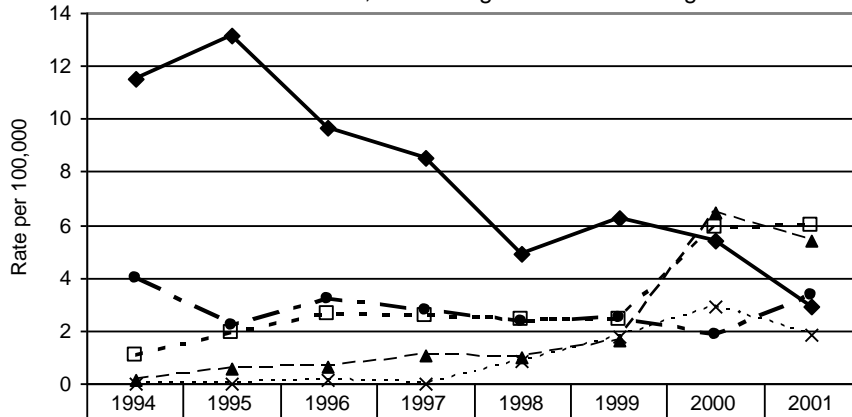


—○— Alcohol-in-combination	157	122	114	157	115	115	161	147
-■- Cocaine	164	116	114	150	125	130	169	160
-▲- Heroin	116	109	128	152	126	127	126	90
-◆- Marijuana	49	53	48	87	49	42	72	75
- - - Amphetamines	10	13	9	24	15	18	32	33
-●- Methamphetamine	17	14	10	25	14	18	27	18
-◇- Antidepressants	62	44	41	44	34	30	40	37
-*-- Depressants*	104	76	72	86	66	56	82	86
-□- Narcotic analgesics	66	51	50	75	57	64	86	120

*Barbiturates, benzodiazepines, misc. anxiolytics, sedatives and hypnotics

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ED Mentions, Hallucinogens and 'Club Drugs'

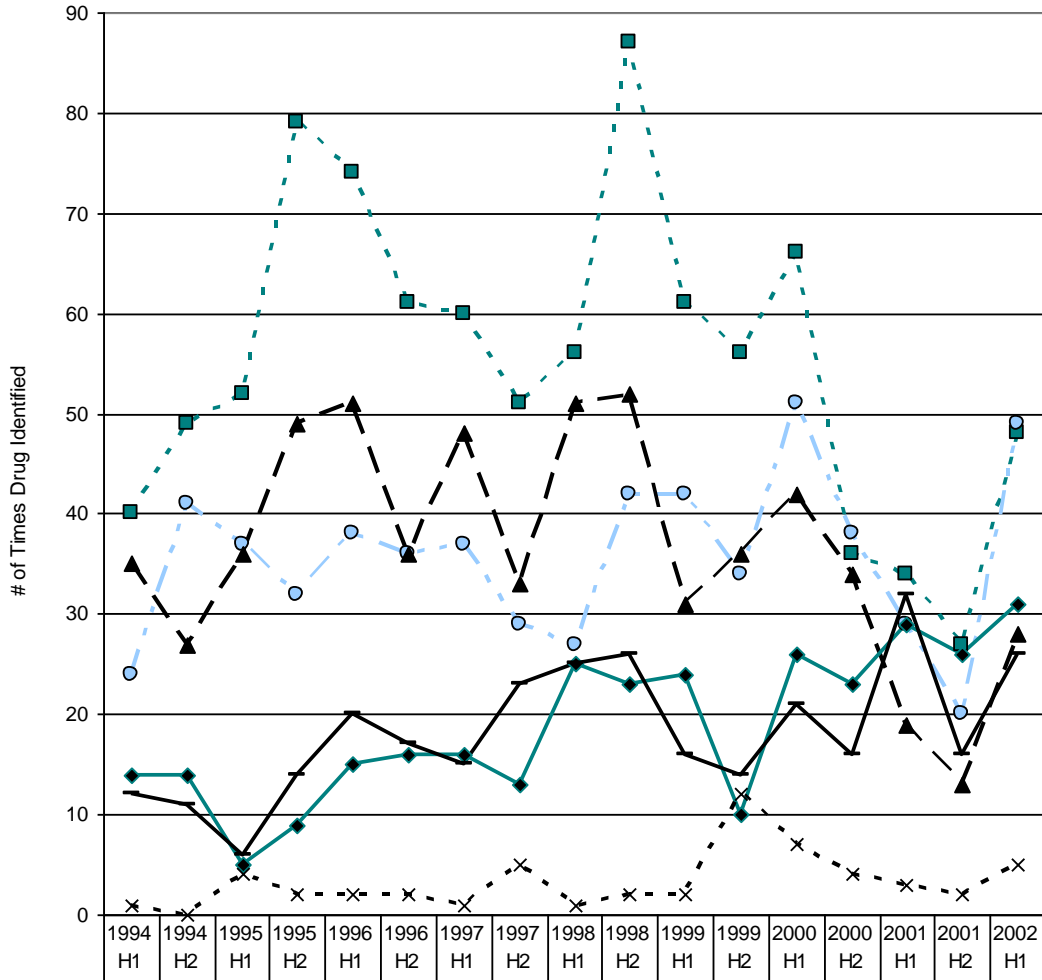


-▲- MDMA (Ecstasy)	0	1	1	1	1	2	6	5
-◆- LSD	11	13	10	9	5	6	5	3
-□- PCP	1	2	3	3	2	2	6	6
-●- Misc. hallucinogens	4	2	3	3	2	2	2	3
-*-- GHB	0	0	0	0	1	2	3	2

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Deaths

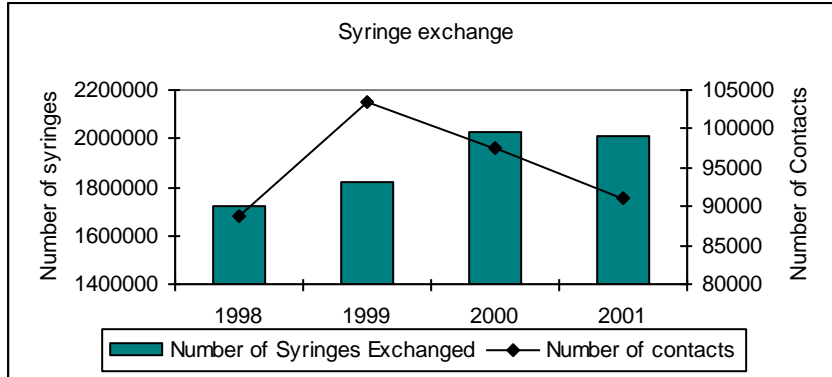
The King County Medical Examiner’s office provides data on drug involved deaths. For each death multiple drugs are often identified. In the first half of 2002 total drug deaths increased following three half year periods of lower numbers. Heroin and cocaine, the two drugs most commonly identified in drug-related deaths, had noticeable declines in 2001, which were reversed in the first half of 2002. Other opiates, such as oxycodone, methadone and hydrocodone have steadily increased. Levels of depressants have been elevated for several years, and in 2002 were always identified in combination with other drugs, a common pattern. Methamphetamine deaths have dropped since the peak in 1999 when there were 14 deaths in which methamphetamine was identified.



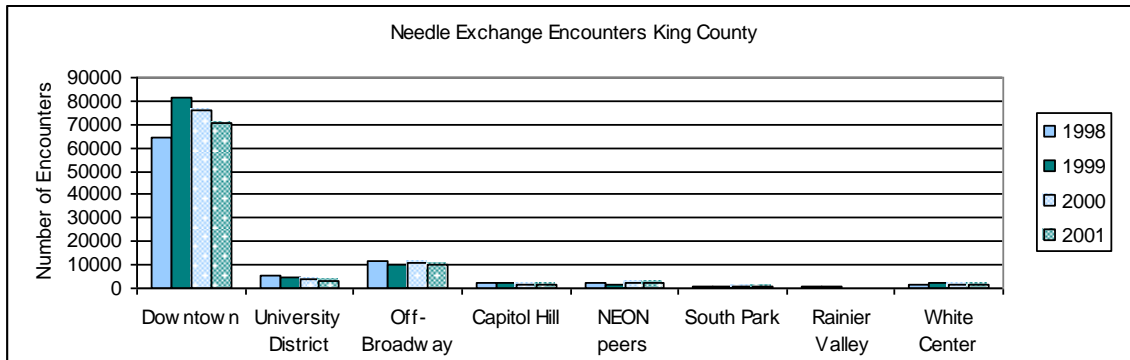
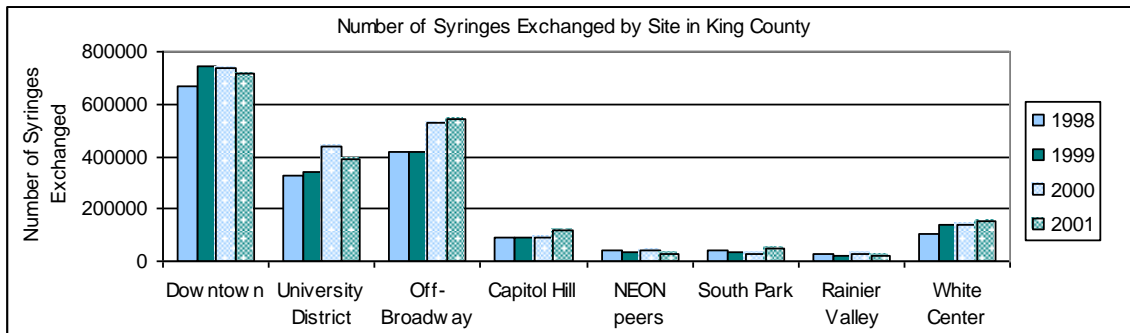
	1994 H1	1994 H2	1995 H1	1995 H2	1996 H1	1996 H2	1997 H1	1997 H2	1998 H1	1998 H2	1999 H1	1999 H2	2000 H1	2000 H2	2001 H1	2001 H2	2002 H1
Heroin	40	49	52	79	74	61	60	51	56	87	61	56	66	36	34	27	48
Cocaine	24	41	37	32	38	36	37	29	27	42	42	34	51	38	29	20	49
Alcohol	35	27	36	49	51	36	48	33	51	52	31	36	42	34	19	13	28
Other Opiates	14	14	5	9	15	16	16	13	25	23	24	10	26	23	29	26	31
Depressants	12	11	6	14	20	17	15	23	25	26	16	14	21	16	32	16	26
Amphetamines	1	0	4	2	2	2	1	5	1	2	2	12	7	4	3	2	5
Total Deaths	75	83	81	102	112	106	103	76	102	120	103	102	130	89	86	67	102

Needle Exchange

Overall numbers for King County for 1998 to 2001 years show a substantial increase in the number of syringes exchanged as well as an increase in the number of contacts with exchangers. In 2001, 2,011,198 syringes were exchanged during 91,188 encounters with clients.



Syringes are exchanged in seven fixed sites as well as by Project NEON peer outreach workers, who work primarily with men who have sex with men and inject crystal methamphetamine. The Downtown site has the highest volume of syringes exchanged and the most encounters. However, even the smallest site in terms of volume and encounters, Rainier Valley, still exchanged 17,415 syringes and saw 240 clients (duplicated) in 2001.



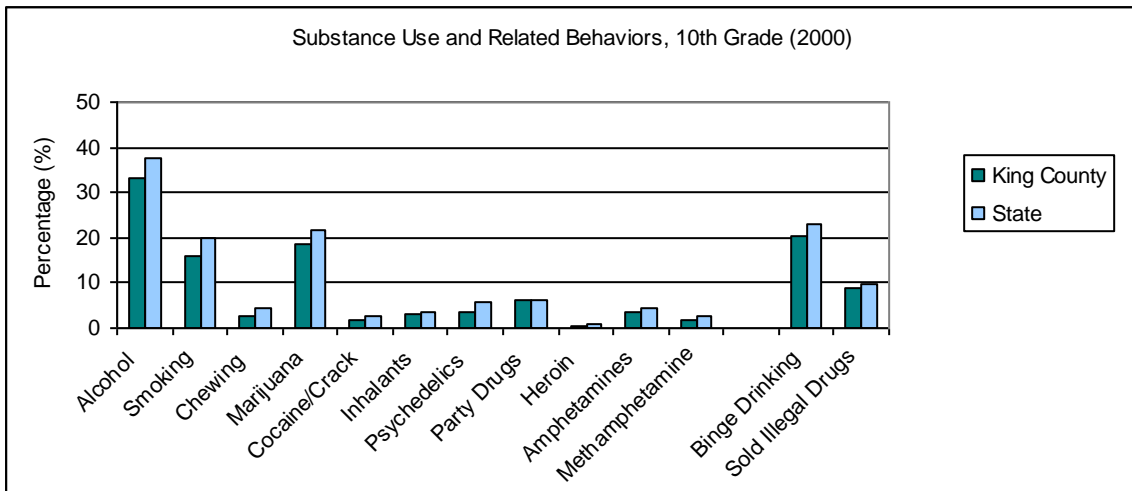
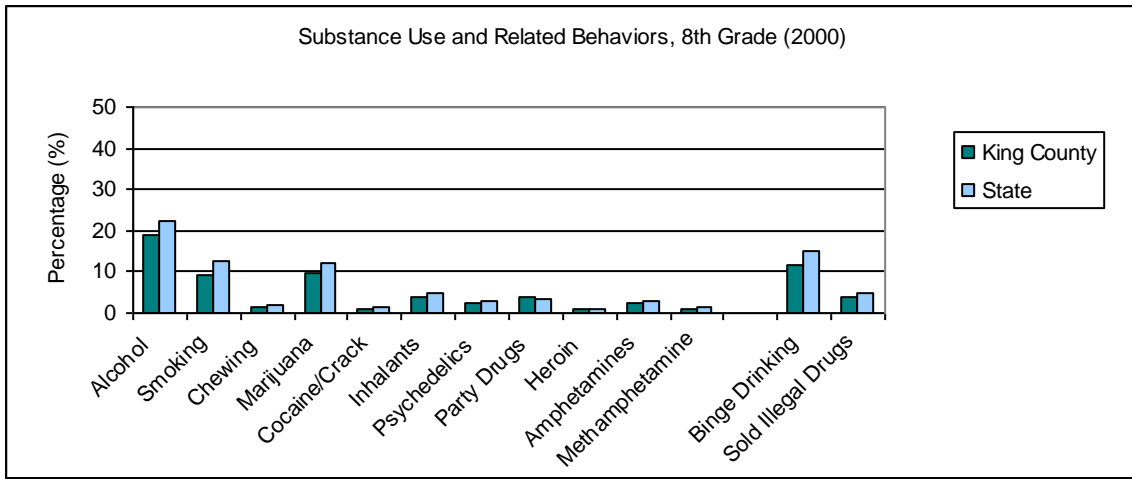
ALCOHOL AND OTHER DRUG USE - YOUTH

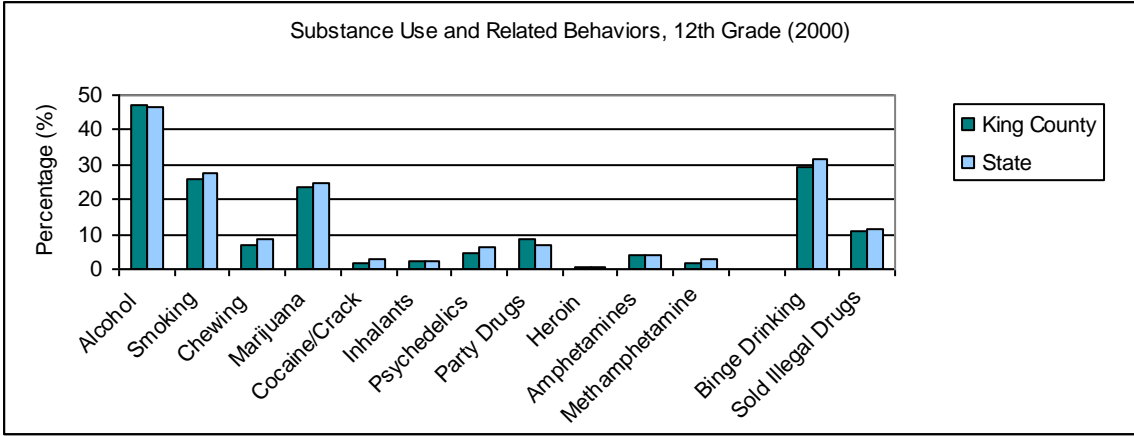
Most data on youth alcohol and drug use comes from treatment data, presented later, and school surveys presented below. The most common drugs are alcohol and marijuana, though school surveys reveal other drug use that is not usually reflected in treatment data such as

the use of psychedelics, inhalants and 'party drugs' like MDMA. The County youth drug court reports that alcohol and marijuana are the most common drugs used. When drug court started three years ago the use of 'shermans', marijuana and PCP, was seen, though it has been infrequent in 2002. Drug court participants from the south part of the County are more likely to be using methamphetamine.

School Surveys

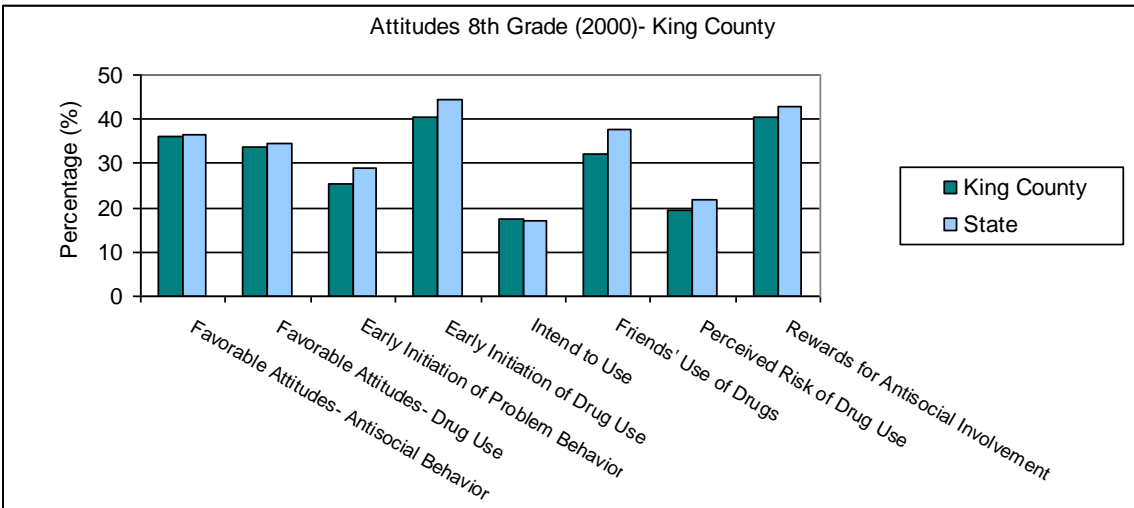
Alcohol, marijuana and tobacco are the most common substances used by 8th, 10th and 12th graders in the County (2000). By 12th grade, 47% report alcohol use within the last 30 days, 25.6% cigarette use, 23.3% marijuana use, and 9% 'party drugs' e.g. MDMA. Binge drinking is reported by 29% of 12th graders, slightly below the State average. Selling illegal drugs in the past year was reported by 3.7% of 8th graders, 8.9% of 10th graders and 10.7% of 12th graders all slightly lower than State averages.

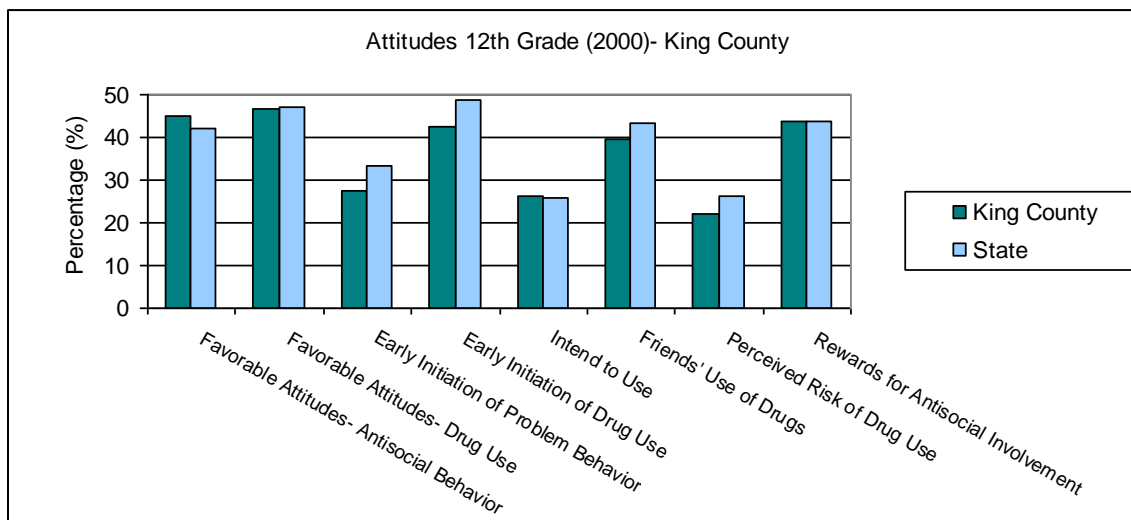
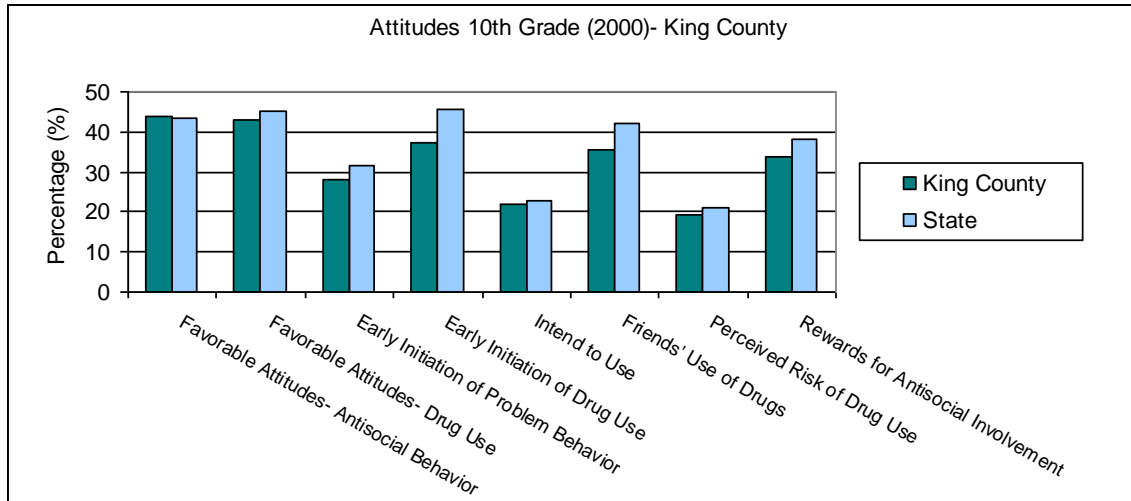




Attitudes Towards Drug Use and Antisocial Behavior

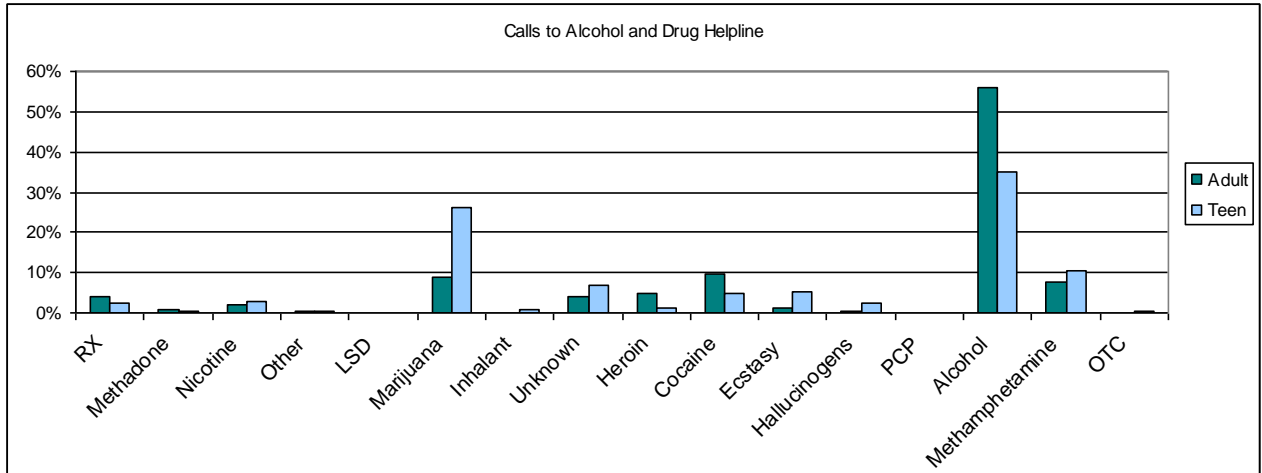
County-wide school surveys point to minimal differences between King County and the rest of the State. (State averages are heavily influenced by King County's large population.) Relatively high levels of risk factors are present by 8th grade. Intention to use drugs increased with age, with over a quarter of 12th graders indicating that they intended to use drugs. Across all grade levels youth in King County reported lower levels of risk factors except for 'favorable attitudes towards antisocial behavior' which was slightly higher in the County at 45% versus 42% statewide.





ALCOHOL AND DRUG HELPLINE

In 2001 there were 12,947 calls to the 24 Hour Alcohol and Drug Helpline, 14.5% were made by a teenager or someone concerned about a teenager. A higher percentage of teenagers called about methamphetamine, and a much higher proportion called about ecstasy and marijuana compared with adults. Adults more often mentioned alcohol, heroin, and cocaine during their calls. Note that the number and types of calls vary greatly statewide and are impacted substantially by local referrals, education, prevention and intervention efforts.



POISON CENTER

The Washington Poison Center receives calls from throughout Washington State made to its toll free number. In 2001 there were 3,955 calls from King County residents related to commonly abused illegal, prescription and over-the counter drugs to the Poison Center¹. (See the end of this document for important details about this data source.) The majority of these were for over-the-counter and prescription medicines.

Calls regarding street drugs and stimulants were dominated by substances lumped into the category of amphetamines, 316 of 535 calls. Poison center staff report that this is used as a 'catch all' term for stimulants, including methamphetamine, that are not identified more specifically and does not necessarily refer to amphetamines as commonly referred to by those in the substance abuse field (N. Hasting, August 19, 2002, personal communication). Marijuana and cocaine were the next most common drugs mentioned.

Drug Category	Drug Name	Total # of Exposures
Prescription(Rx) and Over the Counter Drugs(OTC)		3,420
	Antihistamines- (Rx & OTC)	812
	Opiates (Rx)	993
	Dextromethorphan- cold & cough preparations	757
	Benzodiazepine	566
	Other depressants/sedatives	292
Street Drugs		535
	Amphetamine	316
	Marijuana	61
	Cocaine	54
	Mushrooms: hallucinogenic	21
	Heroin	19
	PCP	18
	LSD	7
	Nitrous oxide	14
	Methylphenidate	7
	GHB & analog/precursor	7
	Mescaline/peyote	3
	Ketamine and analogs	2

	Hallucinogenic amphetamine	3
	Methamphetamine	3
Sub-total- Street, Rx and OTC Drugs (Summed from above)		3,955
Alcoholic Beverages		406

NEED FOR TREATMENT AND THE TREATMENT GAP

King County has an extensive alcohol and drug treatment system with a full range of treatment modalities. Services specific to the needs of many populations, including people of various ethnic/racial backgrounds and sexual orientations, are available. Overall there are 146 State certified treatment facilities. Several non-profit and for-profit opiate substitution programs are available. Medically monitored detoxification is available in the County. The city of Seattle has a program that provides services for chronic public inebriates, including a sobering center which has a daily capacity of 60 people and can serve approximately 1,000 people a year. Adult and youth drug courts are available.

Treatment gap

The estimated gap in King County between needed treatment and actual treatment utilization is 78.2% for those under 200% of the Federal Poverty Level, slightly above the State's (see the table below)¹. This means that only 21.8% of people who are in need of alcohol or other drug treatment services receive such services.

Region	Number of adults <200% FPL and eligible for DASA services	% of adults <200% FPL and in need of Treatment	Number of adults <200% FPL Receiving Treatment	Number of Adults not Receiving Treatment	Treatment Gap
King	193,820	11.6%	4,893	17,590	78.2%
State Total	868,734	11.1%	25,395	71,207	73.7%

*Federal Poverty Level, 200% FPL = \$36,200 for a family of four in WA (2002)

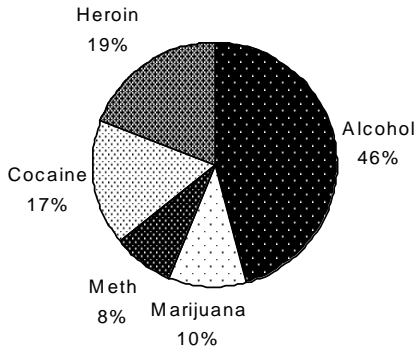
This estimate of treatment gap is based upon the Washington Needs Assessment Household Survey of substance use and treatment need done in 1993-94 and adjusts for new population numbers. There are some limitations to this data because patterns of drug utilization have changed since this survey, e.g. the rise in methamphetamine use. However, this is the best available data on estimating the need for treatment services in the state.

ALCOHOL AND DRUG TREATMENT ADMISSIONS

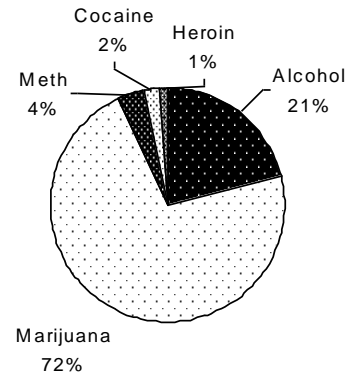
Admission to treatment reflects many factors including treatment demand (self referral and professional/court referrals), treatment availability (locally and regionally), funding, outreach and intervention programs, and changes in local and state policies. It is very important to note that available data is only for publicly funded treatment, it is likely that those receiving privately funded treatment differ in terms of demographics and the types of substances abused. Data on those receiving privately funded treatment are unavailable.

Overall, alcohol is the drug for which treatment admissions most often occur in the County, followed by marijuana, heroin, cocaine and methamphetamine¹. The rates of alcohol, marijuana, and methamphetamine treatment admission were lower than the State averages with cocaine and heroin treatment admissions exceeding the State rate.

Adult Publicly Funded Treatment Admissions 2001

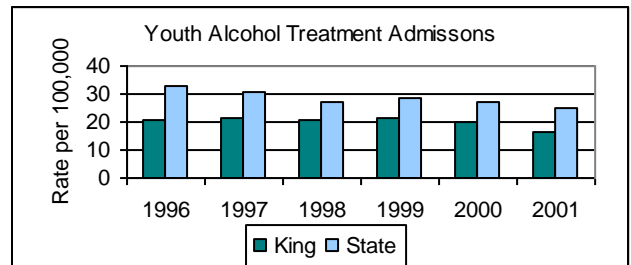
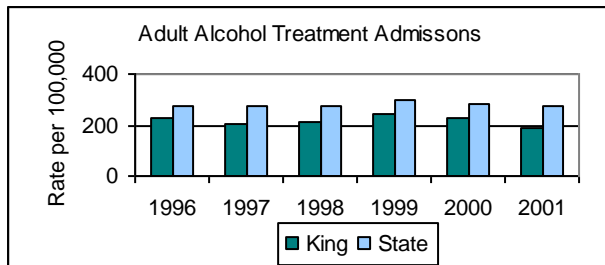


Youth Publicly Funded Treatment Admissions 2001



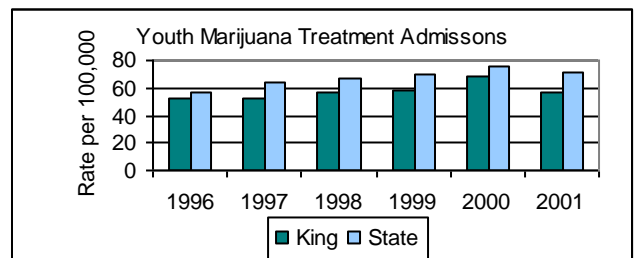
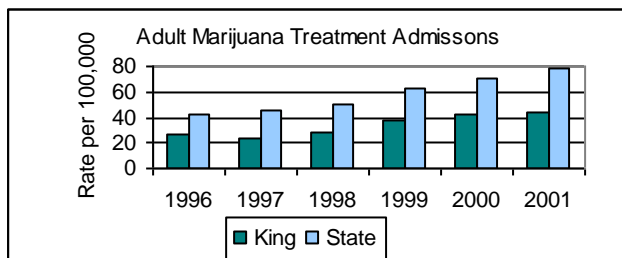
Alcohol

Treatment admissions for problematic alcohol use were relatively steady for adults in the County and statewide, with the County's rate consistently lower than the State's. For youth the State rate was also higher, though it declined in recent years. The County rate has remained fairly even, with a slight drop in 2001, similar to the decreased rate for adults.



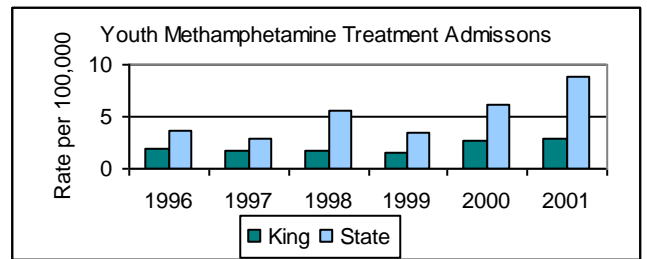
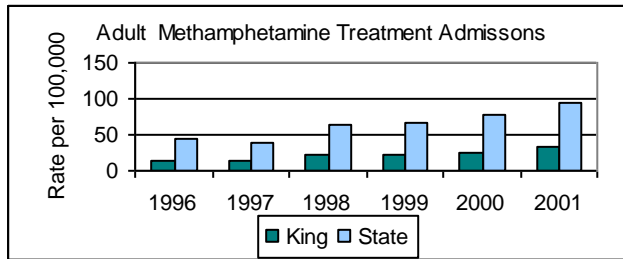
Marijuana

Marijuana treatment admissions increased across the State and in the County for adults. The rate for adults is 43 per 100,000 in the County, compared with 78 per 100,000 statewide. The lower rate for adult treatment admissions probably has less to do with how prevalent the drug is and more to do with the higher levels of other drug use, including heroin and cocaine, which often demand more treatment referrals and resources. Youth treatment admissions maintained a fairly high rate, staying above the rate for adults. A slight decline was seen in 2001.



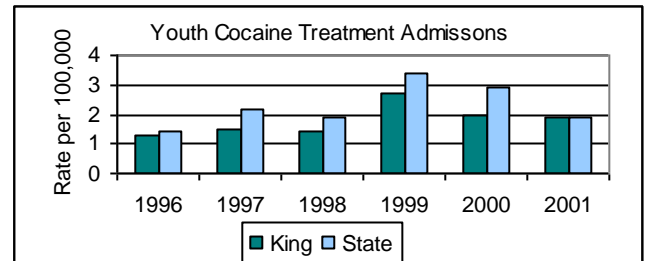
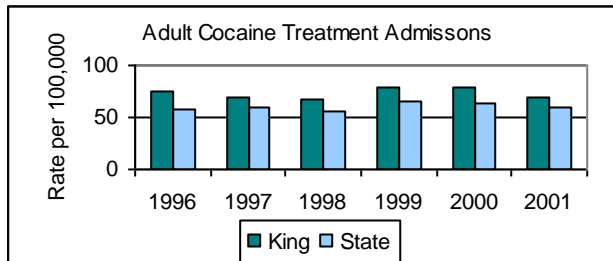
Methamphetamine

Methamphetamine treatment admissions for adults doubled in the County, but were two-thirds lower than the State rate in 2001. Youth treatment admissions remained low and fairly steady, while, statewide, admissions increased.



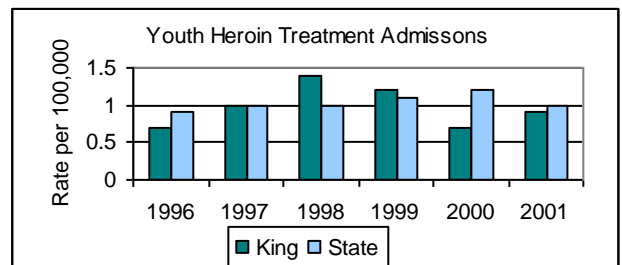
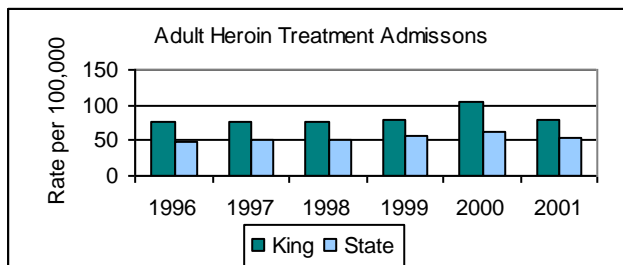
Cocaine

County admissions to treatment have held fairly steady at a rate higher than the State's. In 2001, 1,223 adults were admitted to treatment with cocaine as their primary drug. Cocaine is rarely the primary drug for youth entering treatment. In 2001, 33 of the 113 youth admissions statewide were from King County.



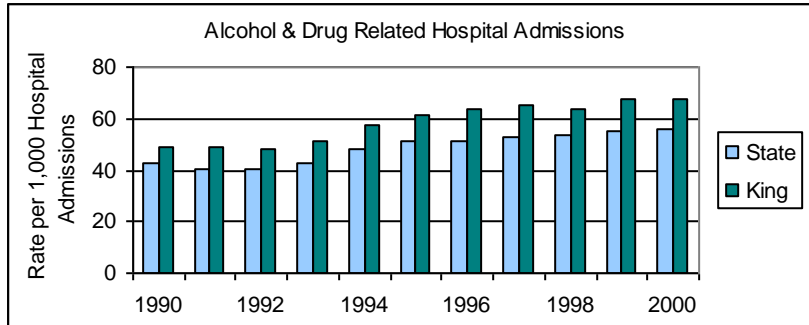
Heroin

Heroin treatment admissions for adults were relatively steady from 1996 to 2001, with a short term increase in 2000 due to temporary increased funding for low income clients. Heroin is the second most common drug for adults seeking treatment with a total of 1,406 adult treatment admissions. Out of all primary treatment admissions statewide, King County residents represented 44%. Youth treatment admissions where heroin is primary are infrequent, with 98 admissions from 1996 to 2001.



HOSPITAL ADMISSIONS FOR ALCOHOL AND OTHER DRUGS

The proportion of alcohol and other drug related hospital admissions has risen steadily, with a rate of 67 per 1,000 hospital admissions in 2000. This is the highest level since 1990, and is well above the State rate, which increased almost continuously through most of the 1990's and was 56 per 1,000 hospital admissions in 2000.



DRUG TRAFFICKING AND PRODUCTION

Trafficking

Mexican nationals are involved in the trafficking of multiple types of drugs including heroin, cocaine, marijuana and methamphetamine. In addition, marijuana is grown locally and is also available from sources up and down the west coast including Northern California, Oregon and British Columbia, Canada. Approximately one third of methamphetamine used is produced in the State.

Law enforcement reported 42 known drug trafficking organizations in 2001¹.

Notable law enforcement activity during January-June 2002 includes¹:

- January 2002, 64 arrested in a poly-drug investigation involving MDMA (over 60,000 pills), marijuana, cocaine and methamphetamine in Seattle.
- April 2002, 1,900 pounds of marijuana and over \$100,000 in cash were seized from a hotel in Tukwila.

DEA provided the following information on drug trafficking, prices and availability in Pierce County January-June 2002:

- Mexican black tar heroin is readily available in Seattle. Street level purity is generally low, about 12% to 15%.
- Powder cocaine is readily available in King County in up to kilogram quantities. Powder cocaine is brought north from Mexico and the Southwest, usually in vehicles along the same routes as black tar heroin. The northwest is a major staging point for smuggling cocaine into Canada.
- Crack cocaine, is also available in King County. A buy in the first half of 2002 found purity of a three ounce purchase to be 76%.
- Marijuana is widely and available from three main sources: locally grown, Mexico and British Columbia. 'B.C. bud' has a much higher THC content than Mexican marijuana.
- Methamphetamine is also widely available from two sources: Mexican, with lower purity and locally manufactured, usually with higher purity. Crystal methamphetamine, a refined, high purity methamphetamine has also been available for over a decade.
- MDMA is available throughout the Seattle area, often in large quantities.
- GHB is available in King County, used primarily among teenagers and young adults, though DEA notes no specific activity in the first half of 2002.
- Diverted pharmaceuticals are common including hydrocodone (e.g. Vicodin), codeine products, benzodiazepines (e.g. Valium and Xanax) and oxycodone (e.g. Percocet and OxyContin). OxyContin, a synthetic opiate, has limited availability on the street in King County due to its relatively high cost, at least \$20 a tablet. Benzodiazepines are much cheaper and more widely available.

Prices per NW HIDTA 2002 Threat Assessment

Drug	Unit	Price
Heroin	.10 gram	\$20-\$50
	Gram	\$50-\$100
	Piece Black Tar	\$400-\$800

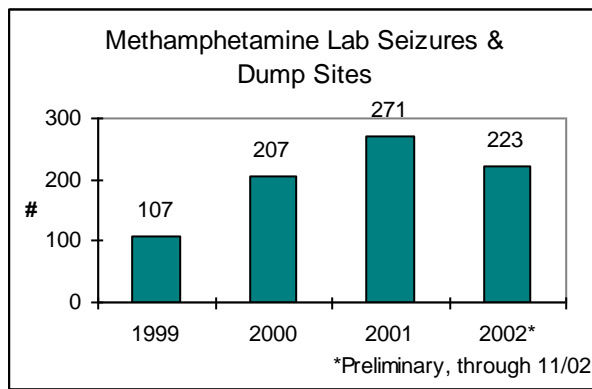
	Kilogram	\$35,000-\$45,000
Cocaine	Ounce	\$500-\$900
	Gram	\$30
	Kilogram	\$14,000-\$24,000
Methamphetamine	Gram	\$20- \$60
	Ounce	\$350-\$650
	Pound	\$4,250-\$6,000
Marijuana	Pound Mexican	\$500-\$700
	Pound Domestic	\$2,400-3,200
	Pound BC Bud	\$2,800-\$3,000

Marijuana Cultivation Seizures

In 2001, 12 seizures of marijuana were reported, a decrease from 24 in 2000. These number represent only a small fraction of the marijuana grown in King County in both small and large grow operations.

Methamphetamine Laboratories

King County has a disproportionately low level of methamphetamine lab seizures compared to the size of its population. Law enforcement believe this is because of the extensive urban environment in which laboratories can be more easily detected, compared to more rural areas of the State. While the total number of laboratories and dumpsites has continued to increase over the last several years, 2002 looks to be the first year in which the number has leveled off.



SUMMARY

Alcohol is the most common reason for treatment admission and is involved in many deaths and emergency department visits. Cocaine and heroin both represent sizeable proportions of deaths and emergency department mentions. Long term trends point to high levels of deaths and emergency department visits for cocaine. For heroin, deaths are elevated, though lower than the very high levels in the mid-1990's, emergency department visits were lower in 2001, but still at high levels. Treatment admissions for cocaine and heroin are well above the State average. Use of needle exchanges points to a relatively large number of injection drug users, with over 2,000,000 syringes exchanged in 2001. Use of other opiates continues to increase. The overall level of use of marijuana remains high, though treatment indicators are lower than most of the State. Emergency department visits for marijuana have been rising.

Methamphetamine use has increased in recent years, though 2002 points to a leveling off of most indicators. Low levels of club drug use continue, with higher levels of use among certain sub-populations. Most drugs are readily available. According to surveys of 12th graders 47% report alcohol use within the last 30 days, 23% marijuana use, and 9% 'party drugs'.

Sources and Data Notes

- ¹ Washington State Department of Social and Health Services Research and Data Analysis, CORE-GIS Data System, May 2001
- ² Kabel, J. and Phillips, D. (2000). *King County ADAM update*. Olympia, WA: Northwest Crime and Social Research, Inc..
[www.nwcsr.com]
- ³ Washington Poison Center. *American Association of Poison Control Centers, Toxic Exposure Surveillance System, Annual Report 2001, Washington Poison Center*. Seattle, WA: Author.
Data note: The majority of calls to the Poison Center are made from private residences regarding poisonings that occur in the home, health care facilities represent the second largest group calling the poison center. Calls related to symptomatic exposure or intoxication from drugs of abuse are more likely to be placed by health care facilities compared to information only calls which are more likely to be placed from residences (information only calls are not included in the data presented). Most calls from health care facilities are regarding serious cases or unusual presentations in which substance specific medical advice or consultation is desired. Not every poisoning or exposure is reported to the Poison Center and the total numbers reported do not equal the total number of poisonings that actually occurred statewide. Therefore data do not indicate the prevalence of symptomatic exposures to substances used, but rather point to serious or unusual situations involving substances. Multiple substances may be recorded for each call. Information requests related to pill identification are referred to the FDA.
- ⁴ Washington State Department of Social and Health Services Division of Alcohol and Substance Abuse, Tobacco, Alcohol and Other Drug Abuse Trends in Washington State 2002 Report.
Data note: These data excludes Detoxification, Transitional Housing and Group Care Enhancement, private pay admissions. Includes total admissions – counts may be duplicated for an individual based on multiple admissions or multiple modalities of care.
- ⁵ Northwest High Intensity Drug Trafficking Area Threat Assessment 2002.
- ⁶ Drug Enforcement Administration (2002). *Memo: trends in the Traffic- Washington State and Portland, Oregon Metropolitan Area, January-June 2002*.

King County – Drug Use Epidemiology, February, 2004. (ADAI Research Brief 04-03). Prepared by Caleb Banta-Green, MPH, MSW. Seattle: Alcohol & Drug Abuse Institute, University of Washington. Preparation of this report was funded in part by the Washington State Department of Social & Health Services' Division of Alcohol & Substance Abuse. URL: http://depts.washington.edu/adai/pubs/arb/arb04_03.pdf