Drug Abuse Trends in the Seattle/King County Area: 2010

Caleb Banta-Green[1], T. Ron Jackson[2], Steve Freng[3], Michael Hanrahan[4], Geoff Miller[8], Steve Reid[5], John Ohta[6], Mary Taylor[7], Richard Harruff[8], and David Albert[9]

Abstract

Cocaine continues to be a major drug of abuse and contributor to deaths. Treatment admissions and deaths both declined somewhat in 2010. Levamisole (a potentially life threatening contaminant) was present in two-thirds of cocaine seized by police in King County in 2010 and was present in both crack and powder cocaine. Fatal **heroin** overdoses remained low at 50 in 2010, the same number as in 2009 and substantially lower than the 144 heroin involved overdoses in 1998. The number of people dying in King County from **prescription-type opiate** overdoses declined for the first time in a decade. In 2010 in King County, 130 fatal overdoses involved prescription type opiates (most commonly methadone and oxycodone), a decline from 161 deaths in 2009 and the first decline since 1999. Newly available prescription sales data for Washington State through 2010 indicate that sales began leveling off over the last three to four years for several common, potent pain medicines including morphine, methadone, and oxycodone after steady increases in sales since 1997. These same data indicate a seven-fold increase in prescribing of **buprenorphine** by King County providers (mostly for the treatment of opiate addiction) with an estimate of at least 2,353 annual addictioin treatment spaces used in 2010. While the decline in prescription-type opiate deaths is positive, there are reasons for concern. Treatment admissions for those addicted to prescription type opiates continue to increase and the majority are young adults ages 18 to 29. The number of young adults in treatment programs for heroin is up 74% from 1999 to 2010. Heroin purity is low right now, which may be contributing to the lower level of fatal heroin overdoses. Increased education and vigilance on the part of the public will be important to prevent future addiction and overdoses. Information on opiate medication and heroin safety and overdose prevention is available at www.stopoverdose.org and http://www.doh.wa.gov/hsqa/takeasdirected/default.htm . **Methamphetamine** treatment admissions and deaths have held steady since 2005. While most methamphetamine appears to originate in Mexico, local, small scale production continues. **Marijuana** remains the most common drug among youth admitted to treatment. Adult treatment admissions declined slightly in 2010 though they have tripled since 1999, with increases mostly among males, African Americans and Hispanics. **"Bath salts"**, usually MDPV/Mephedrone, are present at apparently low levels and serious adverse consequences have been reported locally. **Synthetic cannabinoid agonists** (e.g. Spice/K2) are being used locally, mostly in an exploratory way by youth or by those who are required to get regular drug testing due to court or treatment involvement, it is reportedly less desirable than marijuana. MDMA use and availability persists and there was a substantial decrease in the adulterant BZP in 2010. New HIV infections remain fairly low among injection drug users with 4% of new infections in this exposure group from 2008 to 2010 and 7% of new infections among those with the dual exposure of IDU and being men who have sex with men. More than four million clean syringes were distributed to injection drug users in King County in 2010.

[1]The author is affiliated with the Alcohol and Drug Abuse Institute, University of Washington.
[2] The author is affiliated with Evergreen Treatment Services.
[3]The author is affiliated with the Northwest High Intensity Drug Trafficking Area.
[4]The author is affiliated HIV/AIDS Epidemiology, Public Health – Seattle and King County.
[5]The author is affiliated with the Washington State Patrol Crime Laboratory.
[6]The author is affiliated with the Ryther Child Center and the University District Youth Center.
[7]The author is affiliated with the King County Drug Courts.
[8]The author is affiliated with the Seattle and King County Medical Examiner's Office, Public Health.
[9]The author is affiliated with the Division of Behavioral Health and Recovery, Washington State Department of Social and Health Services.

INTRODUCTION

Data Sources

The primary sources of information used in this report are listed below:

- **Drug trafficking data** were obtained from the Drug Enforcement Administration (DEA). Seattle Field Division Quarterly Trends in the Traffic Reports. Domestic Monitoring Program (DMP) heroin purchase data (edited versions) were also utilized, and data specific to Seattle were extracted and analyzed. Data were also obtained from the Threat Assessment Report produced by the Northwest High Intensity Drug Trafficking Area (NW HIDTA) program, which included survey data from local law enforcement throughout the State of Washington.
- **Opioid sales data, DEA ARCOS,** were obtained directly from national DEA through 2010. Sales data are in grams of active ingredient. For buprenorphine a conversion to estimated dosage units was made based upon an average dose of 16mg/day among Medicaid patients (nothing about prescribing among private/self-pay is known and these are likely to represent 90% of buprenorphine treatment). Note that buprenorphine is occasionally prescribed for pain management, but the predominate indication is medication assisted drug treatment for opioid addicts. An additional estimate was made of "annual treatment" slots, that simply divided the total number of estimated dosage units by 365 to provide an estimate (and sense of scale) of how many patients could be receiving buprenorphine treatment if they received it on every day in the calendar year. King County data were approximated by combining data from the 3 digit zip code regions beginning with 980 and 981. (Exhibit 1)
- **Fatal drug overdose data** were obtained from the King County Medical Examiner (KCME), Public Health – Seattle & King County (PHSKC). The other opiates category indicates pharmaceutical opioids, including pharmaceutical morphine where noted (oxycodone, hydrocodone, methadone, and other opioids); however, codeine is excluded. The heroin/opiate category includes heroin, morphine (unless noted to be pharmaceutical), and cases where there was an indication that the death was "heroin related" in the KCME database. (Exhibit 2)
- **Data on seized drug samples submitted for analysis** were obtained from the National Forensic Laboratory Information System (NFLIS), DEA. Drug testing results for local, State and Federal law enforcement seizures in King County were reported. A Washington State Patrol Crime Laboratory chemist attended the local CEWG meeting and provided qualitative impressions of drug seizure evidence they tested. These analytical tests are the basis of NFLIS data. The laboratory also created a dataset for cocaine in the Fall of 2010 to document the details of levamisole involved cocaine cases. (Exhibit 3)
- **Drug treatment data** were provided by Washington State Department of Social and Health Services (DSHS), Division of Behavioral Health and Recovery, Treatment Report and Generation Tool (TARGET), from 1999 through 2010. Treatment modalities included outpatient, intensive inpatient, recovery house, long-term residential, and opiate substitution admissions. Department of Corrections

and private-pay admissions for opiate substitution were included. Opioid sales data for buprenorphine, described above, are also a proxy for opioid addiction treatment. (Exhibit 4)

- **Washington State Poison Center** call data for exposure calls from 2004 to 2010 for calls originating in King County were provided. (Exhibit 5)
- **Washington State Healthy Youth Survey** data from 2010 for a random sample of King County schools are reported. The total number of surveys included in analyses was 4,015.
- **Data on infectious diseases related to drug use and injection drug use**, including the human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS), were provided by PHSKC. Data on HIV cases (including exposure related to injection drug use) in Seattle/King County (1982 through 2010) were obtained from the "HIV/AIDS Epidemiology Report." Data for the number of syringes exchanged/distributed were also provided by PHSKC. (Exhibits 6 and 7)

DRUG ABUSE PATTERNS AND TRENDS

Cocaine

NFLIS tests positive for cocaine decreased for the fourth year in a row. According to law enforcement and prosecutors this is mostly due to policy changes regarding obtaining evidence and the amount of cocaine needed for certain types of prosecutions. Local police report cocaine is readily available in Seattle.

Growing concerns about levamisole (an adulterant that can lead to serious immune reactions) nationally led to questions about the presence of levamisole locally. In the Fall of 2010, information about levamisole in cocaine seized by law enforcement in King County was systematically documented. In the past, levamisole has been observed in cocaine samples, but not documented as the State crime lab only records illegal and controlled drugs. Of 47 cocaine samples, 65% tested positive for levamisole. Approximately three-quarters of the samples weighed less than 3 grams indicating relatively small samples that were likely for personal use. The presence of levamisole was consistent across forms (salt and base) and appearance (powder and chunky). Levamisole was also identified in residue from pipes indicating the hardiness of the compound.

Cocaine treatment admissions have declined for the second year in a row to 1,477 from a peak of 2,425 in 2008. This is a substantial decline and comes close to the 1,244 in 1999. Compared to 1999, in 2010 those admitted to treatment were increasingly male, non-white, 40 or older and on probation/parole. Youth treatment admissions for a primary problem with cocaine remain rare.

Cocaine involved overdose deaths totaled 45 in 2010, the lowest number in a continual decline from the 111 in 2006. Approximately a quarter of decedents with cocaine were

female as has been the case for at least the past decade. The median age of decedents was 48 in 2010 up from approximately 40 a decade ago. About a quarter of cocaine deaths also involved alcohol while the most common substances were heroin-probable (33%) and/or prescription-type opiates (35%). While the majority of deaths involving cocaine are white, African Americans continue to be disproportionately over represented in cocaine-involved deaths.

Heroin

Heroin positive tests in NFLIS have been quite constant at about 200 per year, this is particularly notable as the numbers for other illicit drugs decreased substantially in recent years. Statewide data indicate substantial increases in heroin positive police evidence over the past decade. According to the Northwest HIDTA there have been approximately 180 kilograms of heroin seized in 2010 across the state, an enormous increase since 2008.

Heroin purity is very low, approximately 3% per DEA DMP street purchases in Seattle in early 2010, down from 13% in 2004. Other opiates are also present in heroin, e.g. morphine, however quantification of these other opiates is not made public, so it is not possible to determine the total "opiate impact" in heroin from the different constituents of opium that may be present. The DEA reports that virtually all heroin available for purchase in the Seattle heroin is from Mexico and is either black tar heroin or has the appearance of brown powder, though chemical analyses indicate it is the same chemically as black tar.

Heroin treatment admissions totaled 1,683 in 2010, down a bit from 1999. The major demographic change over the past decade has been the increase in admissions for heroin among those aged 18-29, which increased 74% in absolute numbers to 566 in 2010, compared to 1999. The average annual caseload for opiate substitution treatment in King County, per the State's TARGET data system, increased from 2,526 in 2005 to 3,003 in 2010 (public and private pay), this includes heroin and prescription-type opiates. Sales of buprenorphine (which is used mostly for physician office based opiate substitution treatment) increased dramatically in the King County area. We estimated there were at least 322 annual treatment slots in 2005 and 2,353 in 2010; the annual estimate was created by dividing the total amount of buprenorphine sold in grams by 16mg (the average daily dose for those on Medicaid in the state) and 365 days. The proportion of buprenorphine users who used heroin (with or without pharmaceutical opioids) is unknown.

Heroin-probable deaths totaled 50 in 2010, the same as 2009, down somewhat from recent years and down substantially from 1998 when there were 144. In 2010, heroin-probable deaths were mostly White and male, as in past years. The median age at the time of death was 43.5, generally similar to recent years. Though 74% were aged 30 or over at the time of death, there is consistently a group of decedents under age 30 as well. The proportion of heroin-probable deaths with no other detectable drugs was 30% in 2010 higher than in previous years. The most common other drugs detected in heroin-probable deaths were cocaine in 30% of cases and alcohol in 28%.

Prescription-type opiates

Prescription opiate sales in the King County area show a continuous increase for hydrocodone (e.g. Vicodin) until 2009 when it leveled off at almost 10 millions doses sold an almost three-fold increase since 1997. Methadone sales data, for chronic pain management and addiction treatment, are only available from 2006 to 2010 and show slight increases in the past few years. Buprenorphine increased seven fold from 2005 to 10 and is described in detail above in the heroin section. Oxycodone also increased dramatically over this time period though it slowed down for three years beginning in 2003 (coincident with it being removed from the state Medicaid formulary) then increased from 2006 onward. OxyContin, which is the sustained release formulation of oxycodone is consistently reported as the preferred drug among those seeking a high, though this may be changing. Prescription-type opiates that are abused may be prescribed to the user, diverted from local prescriptions, and/or obtained via a black market that has many sources including Canada (particularly for the traditional form of OxyContin that is more easily crushed as the new formulation released in 2010 is reportedly much harder to crush and less desirable to those seeking to abuse it). Concerns about users turning to other types of prescription opiates and/or heroin are being expressed in the community.

Prescription type opiate use "to get high" in the past month was reported by 8% of 10th graders in 2010, similar to the proportions for 2006 and 2008. Analyses of statewide data indicate that use of alcohol, tobacco, marijuana, and other illegal drugs were each strongly and independently associated with past month use of prescription type opiates "to get high". Common sources were reported to be friends, student's own prescriptions and taking from their home or another's without permission. Similar findings are reported for the state as a whole.

The number of calls to the poison center about exposures to pharmaceutical opioids in King County remained constant from 2004 to 2010 even as the total number of calls for all substances declined substantially. In 2004 the most common type of opioid specifically identified was hydrocodone, which declined by 2010 to 222 calls. Over the same time frame oxycodone increased and was the most common opioid in 2010 when there 294 calls. While methadone increased somewhat it was much less likely to be identified (86 calls in 2010). Buprenorphine calls were nonexistent in 2004 and there were 5 in 2010, 3 of which were exposures among those under age 6. Those over 19 remained the most common age group for calls in which any pharmaceutical opioid was involved in 2010 and there was a modest increase in the number that were intentional exposures and a slight decrease in those reported to be unintentional.

Prescription-type opiates as the primary drug of abuse at the time of treatment admission have increased continually and substantially since 1999 to a total of 812 in 2010. The largest group in treatment, 60%, are those aged 18-29, a much larger proportion of young adults than for all treatment admissions (30%). Whites are the majority of admissions, followed by Native Americans who represented 7% of those admitted in 2010. Note, these treatment admissions data include little of the opiate substitution treatment using Suboxone and are a very conservative estimate of the amount of

treatment utilization resulting from the abuse of prescription-type opiates (See heroin section for buprenorphine/suboxone data).

Prescription-type opiate involved deaths declined for the first time in more than a decade from 161 in 2009 to 130 in 2010. The number of cases with methadone declined from 85 to 65 while oxycodone declined from 58 to 33 in 2010. Females represent a larger proportion of decedents than for other psychoactive drugs, 43% in 2010. While the median age of prescription-type opiate involved deaths remained unchanged at 47.0 from 2009 to 2010 and was fairly constant over the past decade, the decline in deaths from 2009 to 2010 was entirely among those aged 31 and older. In 2010 there were 25 deaths among those aged 30 and younger involving prescription-type opiates.

Methamphetamine

Most methamphetamine consumed in Washington appears to originate from Mexico, though small scale manufacturing persists. The number of lab incidents totaled 92 in 2010 per the state Department of Ecology, down from 1,890 Statewide in 2001.

Methamphetamine treatment admissions for adults totaled 1,218 in 2010, a similar number as the prior 5 years and an increase from 361 in 1999. Youth treatment admissions peaked at 75 in 2004 and declined to 31 in 2010. Although methamphetamine admissions remain mostly white, there have been increases among non-whites, most notably Hispanics.

Methamphetamine involved deaths totaled 15 in 2010 similar to the prior 4 years and down from the peak of 24 in 2005. Among illegal drugs, methamphetamine deaths were the most likely to involve no other drug, 40% were methamphetamine only, similar to prior years. Most, 13 of 15, were White and the majority were male. The median age at the time of death was 46 similar to recent years and older than when methamphetamine deaths first began increasing in 1999.

Marijuana

NFLIS data for marijuana decreased four-fold in 2010 compared to the prior 3 years when there were approximately 800 pieces of law enforcement evidence positive annually. Local law enforcement and prosecutors do not point to any single reason for this decline, though the ambiguous and conflicting laws and policies on marijuana at various jurisdictional levels have led to a very complicated legal landscape. According to federal law enforcement, indoor grow operations are pervasive in Western Washington and outdoor grow operations are pervasive in Eastern Washington. In 2010 a total 293,442 marijuana plants were seized in Washington, down from 572,485 in 2009, but up substantially compared to a decade ago. In King County in 2010 there were 12,263 plants seized from indoor grows compared with 93,873 seized in outdoor grows in Klickitat county in Eastern Washington.

Past month use of marijuana was reported by 18% of King County 10th graders in 2010, a similar proportion as reported biennially since 2004. The majority of all students (60%) reported that marijuana was "easy to get".

Youth treatment admissions for marijuana as the primary drug totaled 985 in 2010, very similar to 1999, however in 1999 youth represented 63% of treatment admissions while in 2010 they represented 39%. The increase in adults was seen across the age span from young adults to those over 60. The number of whites decreased slightly from 1999 to 2010 while there were substantial increases among African Americans, Hispanics and those identifying multiple races. Increases were similar regardless of current probation/parole status, suggesting this was not a major reason for the overall increase in adult admissions from 620 to 1,512 during this timeframe.

Other drugs of abuse

Treatment admissions for hallucinogens as the primary drug are uncommon, though they increased from 16 to 60 from 1999 to 2010. In 1999 most admissions were those 21 and younger, while in 2010 half were 30 or older. MDMA persists in Washington State and in 2010 BZP decreased dramatically as a component detected in drugs purported to be or that had the appearance of MDMA. Poison center calls for hallucinogenic amphetamines (a category that includes MDMA) remained fairly low in 2010 with 21 calls from King County. MDMA continues to be seized at the northern border coming in from Canada where it is manufactured.

In 1999 there were just 3 admissions for which PCP was noted as the primary drug of abuse. In 2010 there were 54 admissions for PCP, 30 were African American, and 33 were aged 18-29. Exposure to PCP was reported by 5 callers to the poison center in 2010.

Benzodiazepines are commonly used with heroin and prescription-type opiates and the combination can increase the risk of overdose and death. Benzodiazepines are also commonly prescribed as an anti-anxiety medication for those with chronic pain conditions who may also be prescribed potent opioid medicines such as morphine, methadone and oxycodone.

Concerns at the national level about "Bath Salts", MDPV or mephedrone, and Spice/K2, any of a large number of synthetic cannabinoid agonists, led to inquiries locally about use and impacts in early 2011. In the first quarter of 2011 for Washington state there were 17 exposure calls to the WA State poison center for "bath salts" and 4 MDPV positive tests in urinalysis conducted by Sterling Reference Labs. A high profile murder suicide in 2011 in Western Washington was found to involve MDPV. Treatment providers report very little use of bath salts. Overall, it appears that bath salts are used at quite low levels and can have substantial adverse impacts.

Synthetic cannabinoid agonists have been detected by the Washington State Patrol crime laboratory in law enforcement evidence. Use of these compounds seems fairly limited to exploratory use among adolescents and use by those who are in programs

(treatment orcourt involved) that require regular drug testing. Most users apparently much prefer the effects of marijuana which is cheaper and widely available. Synthetic cannabinoid agonists can be very potent, of unknown potency and can have a rapid rate of onset a quite different profile than marijuana.

INFECTIOUS DISEASES RELATED TO DRUG USE

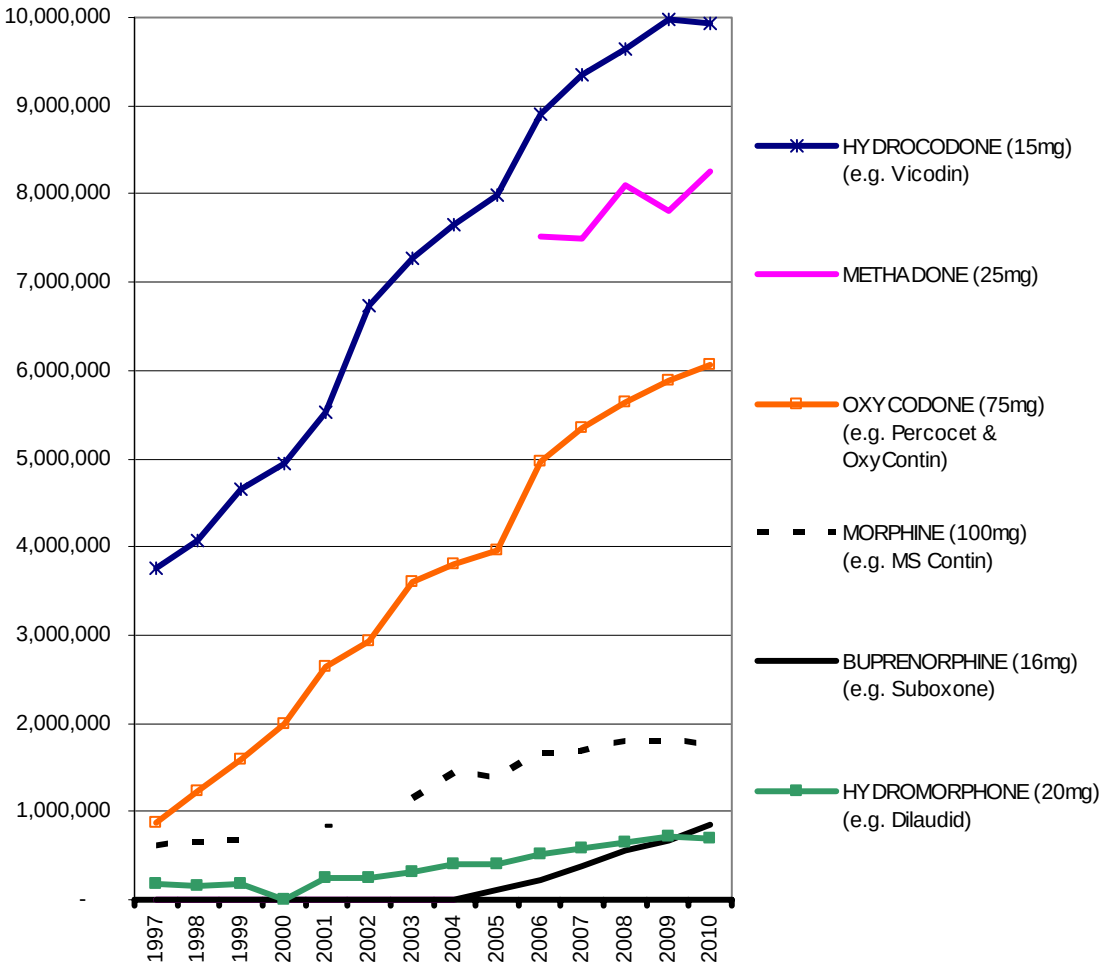
HIV

The most common exposure category for HIV infections in King County remains men who have sex with men (MSM) who constituted three-quarters of new infections from 2008-2010. MSM who also injected drugs represented 7% of new infection in 2008 to 2010, similar to prior years. Those who reported only injection drug use as a risk category made up 4% of new infections in 2008 to 2010 a slight decrease in the proportion compared to 2002-2004.

Public Health-Seattle & King County has a long history of operating and supporting syringe exchange programs. In 2010 more than 4 million syringes were exchanged, double the volume in 2007.

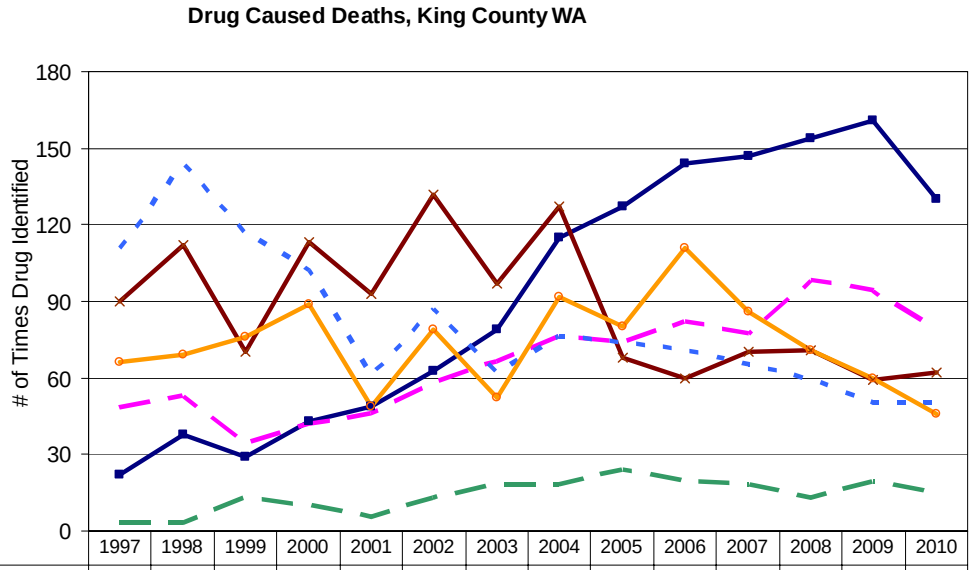
For inquiries concerning this report, contact Caleb Banta-Green, M.S.W., M.P.H, Ph.D., Alcohol and Drug Abuse Institute, University of Washington, 1107 N.E. 45th Street, Suite 120, Seattle, WA 98105, Phone: 206–685–3919, Fax: 206–543–5473, E-mail: calebbg@u.washington.edu

Exhibit 1: Estimated doses sold per year to hospitals and pharmacies in the King County Area: Zip Codes 980xx and 981xx



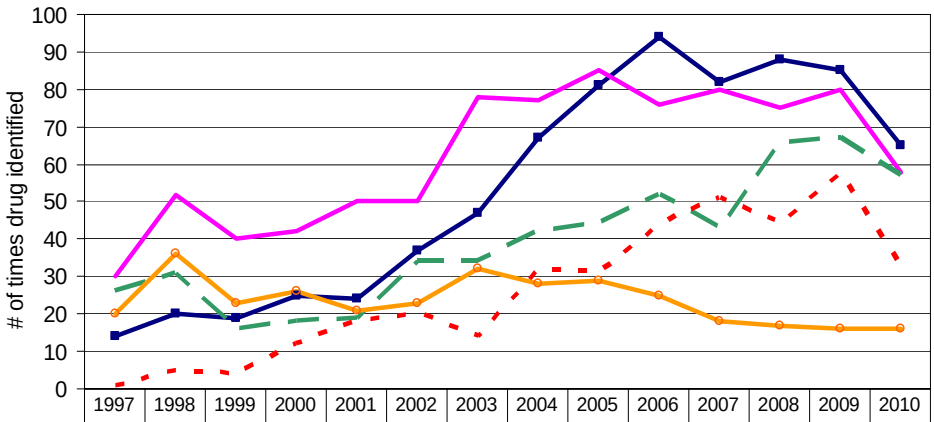
Source: DEA ARCOS
Defined daily doses obtained from http://www.whocc.no/atc_ddd_index/
Note: Historical methadone data available online though 2006 were not utilized as they have been reported by DEA to be problematic and are inconsistent with data extracted in 2011. Morphine data were unavailable for 2 years.

Exhibit 2: Drug caused deaths in King County, WA



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Other Opiate	22	38	29	43	49	63	79	115	127	144	147	154	161	130
Rx Sedatives*	48	53	34	42	46	58	66	76	74	82	77	98	94	79
Alcohol	90	112	70	113	93	132	97	127	68	60	70	71	59	62
Heroin_mophine_opiate	111	144	117	102	61	87	62	76	74	71	65	59	50	50
Cocaine	66	69	76	89	49	79	52	92	80	111	86	71	60	46
Methamphetamine	3	3	13	10	5	13	18	18	24	19	18	13	19	15
TOTAL DEATHS	178	221	197	215	150	195	186	252	240	286	272	257	254	240

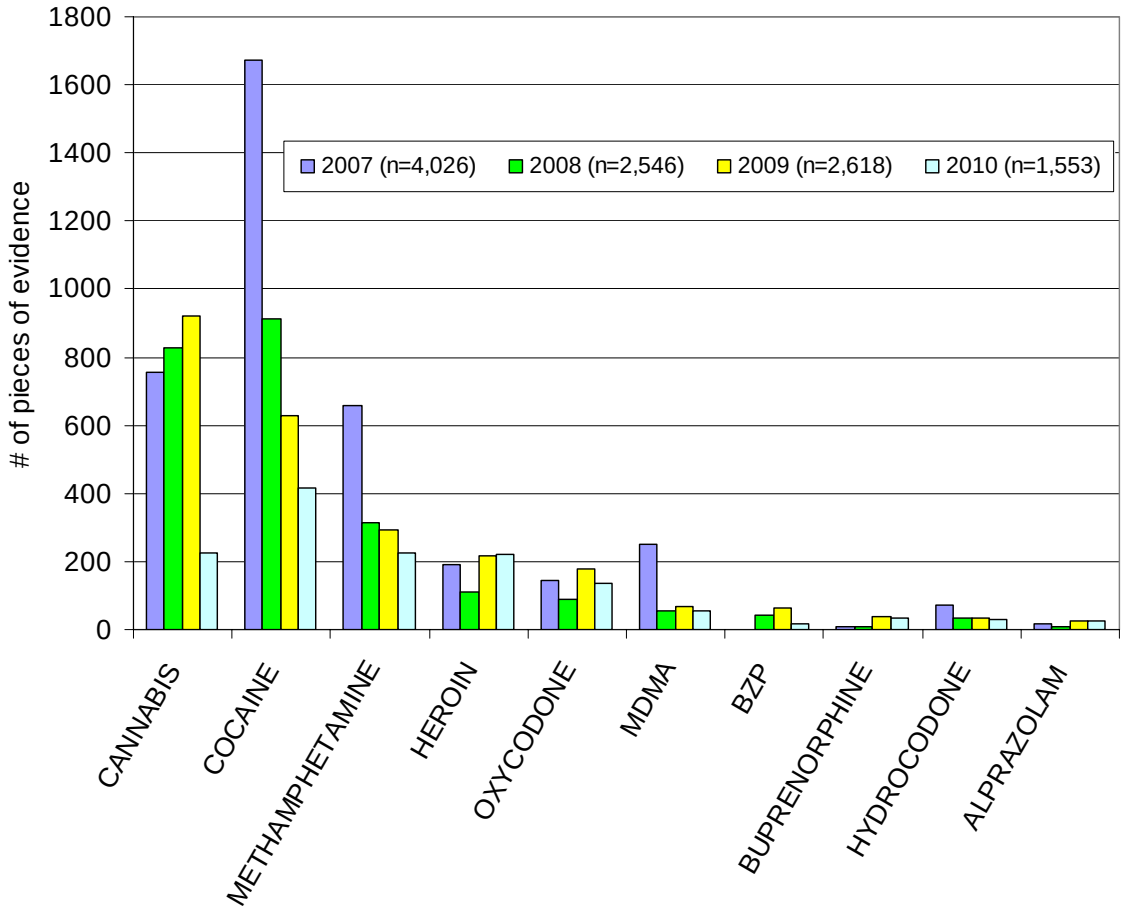
*Benzodiazepines, Barbiturates, Tricyclic antidepressants, muscle relaxants, GHB



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Methadone	14	20	19	25	24	37	47	67	81	94	82	88	85	65
Antidepressant	30	52	40	42	50	50	78	77	85	76	80	75	80	58
Benzodiazepine	26	31	16	18	19	34	34	42	44	52	43	66	67	57
Oxycodone	1	5	4	12	18	20	14	32	31	44	51	44	58	33
Tri-cyclic anti-depressant	20	36	23	26	21	23	32	28	29	25	18	17	16	16

Source: Public Health- Seattle & King County, King County Medical Examiner

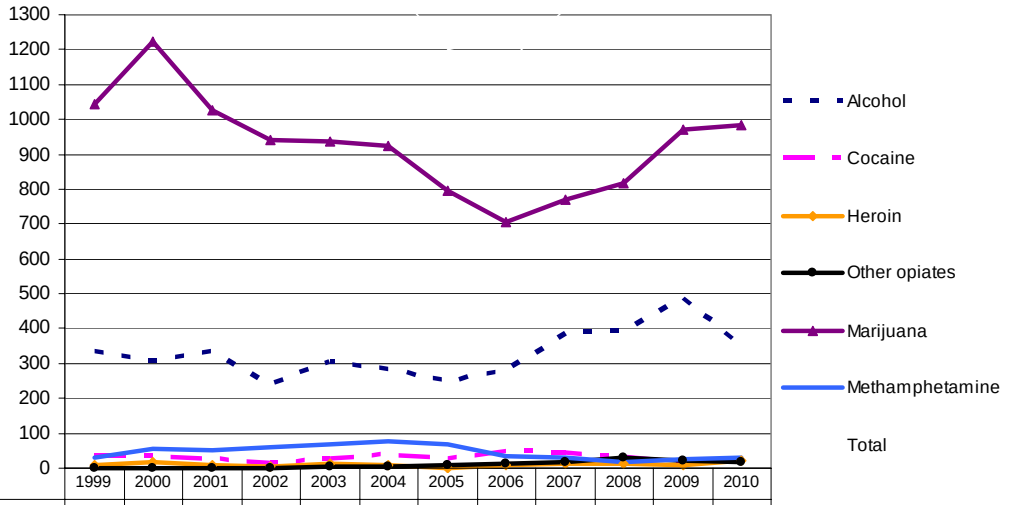
Exhibit 3: Law enforcement evidence seized in King County, WA Results of chemical analysis



Source: DEA National Forensic Laboratory Information System

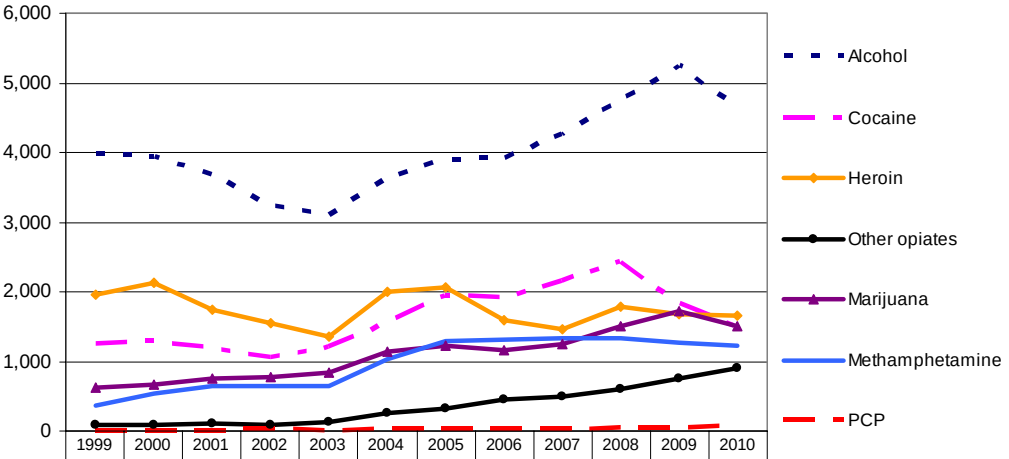
Exhibit 4: Drug treatment admissions, King County WA

Youth Treatment Admits, King County WA



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Alcohol	333	306	333	240	304	284	246	278	383	394	489	349
Cocaine	35	35	24	14	25	40	27	45	42	32	19	16
Heroin	10	15	9	6	11	9	2	9	14	11	10	23
Other opiates	0	2	2	2	5	4	10	12	18	30	23	19
Marijuana	1,045	1,221	1,027	941	938	924	797	707	770	817	970	985
Methamphetamine	29	55	52	61	70	75	68	36	31	18	24	31
Total	1,510	1,699	1,512	1,333	1,396	1,393	1,202	1,157	1,315	1,357	1,576	1,483

Adult Treatment Admits, King County WA



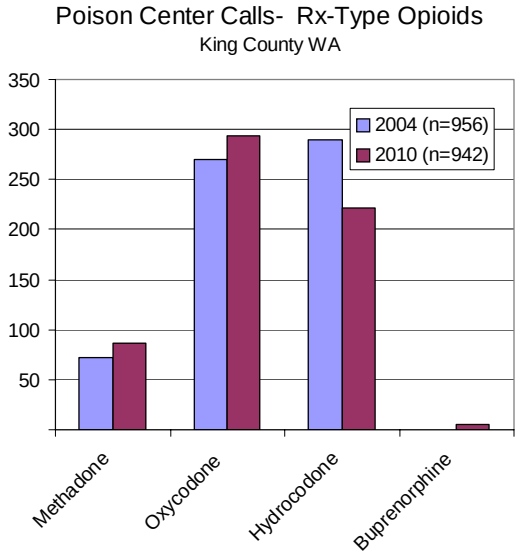
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Alcohol	3,974	3,928	3,671	3,226	3,104	3,637	3,884	3,922	4,265	4,729	5,238	4,637
Cocaine	1,244	1,296	1,187	1,055	1,206	1,557	1,933	1,911	2,146	2,425	1,829	1,477
Heroin	1,952	2,138	1,746	1,548	1,364	1,995	2,057	1,590	1,468	1,785	1,683	1,660
Other opiates	87	77	104	93	139	261	327	453	492	596	750	900
Marijuana	620	662	760	782	845	1,141	1,222	1,153	1,257	1,512	1,716	1,512
Methamphetamine	361	546	639	637	647	1,034	1,282	1,309	1,342	1,339	1,266	1,218
PCP	2	3	8	11	10	18	23	23	25	38	51	54
Total	8,334	8,776	8,242	7,531	7,470	9,875	11,009	10,732	11,359	12,877	13,001	11,920

Source: WA State Division of Behavioral Health and Recovery

Exhibit 5: Washington State Poison Center Exposure calls originating from King County, WA

Psychoactive drug exposure calls originating from King County, WA 2010

Substance	Exposures
Ethanol: beverage	**388**
All rx-type opioids	**942**
Benzodiazepine	**541**
DXM Total	**396**
Muscle relaxants	**206**
Amphetamine	**106**
Methylphenidate	**81**
Barbiturates total	**24**
Ketamine and analogs	**5**
Marijuana/THC	**56**
Cocaine	**39**
Methamphetamine	**24**
Hallucinogenic amphetamine	**21**
Heroin	**20**
Mushrooms Hallucinogenic	**11**
GHB and analog/precursor	**9**
Nitrous oxide	**6**
Phencyclidine	**5**
Amyl/butyl nitrite	**1**
LSD	**1**
Mescaline/peyote	**1**
TOTAL CALLS	**24,111**



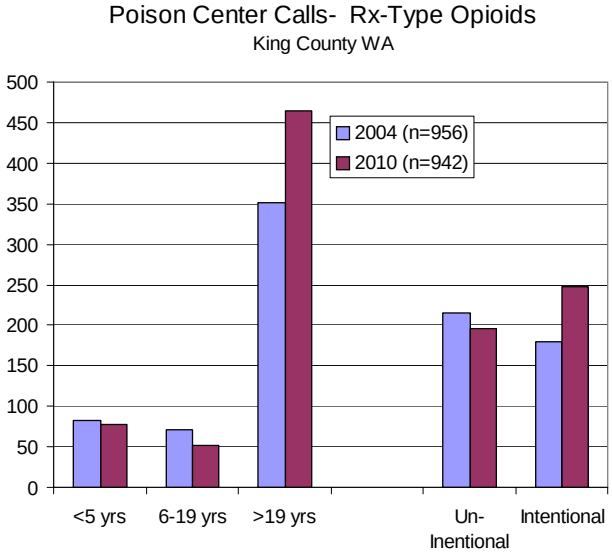


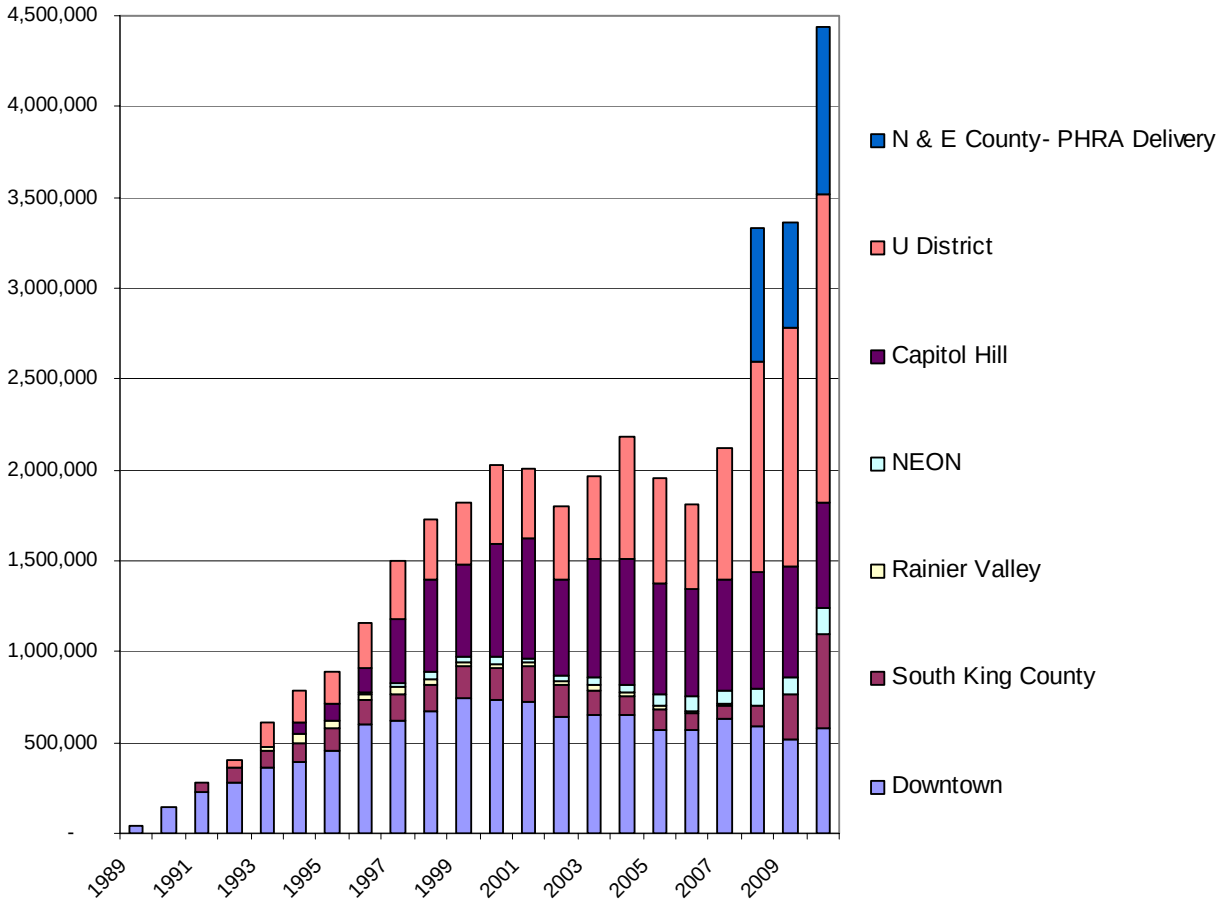
Exhibit 6: Demographic characteristics of King County residents diagnosed 1982-2010 and reported through 12/31/2010, by date of HIV diagnosis

	1982-2001		2002-2004		2005-2007		2008-2010[1]		Trend[2]
	No.	%	No.	%	No.	%	No.	%	2002-2010
TOTAL	**8,427**	**100%**	**1,055**	**100%**	**957**	**100%**	**917**	**100%**	
HIV Exposure Category									
Men who have sex with men (MSM)	6,225	76%	679	70%	588	71%	597	76%	up
Injection drug user (IDU)	482	6%	67	7%	40	5%	32	4%	down
MSM-IDU	860	11%	87	9%	87	11%	53	7%	
Heterosexual contact[3]	473	6%	142	15%	107	13%	97	12%	
Blood product exposure	96	1%	1	0%	1	0%	1	0%	
Perinatal exposure	27	0%	0	0%	1	0%	6	1%	
SUBTOTAL- known risk	*8,163*		*976*		*824*		*786*		
Undetermined/other[4]	264	3%	79	7%	133	14%	131	14%	N/A
Sex & Race/Ethnicity[5]									
Male	*7,861*	*93%*	*935*	*89%*	*843*	*88%*	*797*	*87%*	
White Male	6,250	74%	597	57%	520	54%	501	55%	
Black Male	782	9%	160	15%	133	14%	97	11%	down
Hispanic Male	527	6%	110	10%	119	12%	124	14%	up
Other Male	302	4%	68	6%	71	7%	75	8%	up
Female	*566*	*7%*	*120*	*11%*	*114*	*12%*	*120*	*13%*	
White Female	261	3%	31	3%	31	3%	34	4%	
Black Female	211	3%	68	6%	63	7%	66	7%	
Hispanic Female	40	0%	8	1%	6	1%	14	2%	
Other Female	54	1%	13	1%	14	1%	6	1%	
Race/Ethnicity[5]									
White	6,511	77%	628	60%	551	58%	535	58%	
Black	993	12%	228	22%	196	20%	163	18%	down
Hispanic	567	7%	118	11%	125	13%	138	15%	up
Asian & Pacific Islander	153	2%	34	3%	56	6%	54	6%	up
Native American or Alaskan Native	102	1%	21	2%	8	1%	5	1%	down
Multiple Race	100	1%	26	2%	21	2%	22	2%	
SUBTOTAL- known race & ethnicity	*8,426*	*100%*	*1,055*	*100%*	*957*	*100%*	*917*	*100%*	
Unknown Race	1	0%	0	0%	0	0%	0	0%	N/A
Place of Birth									
Born in U.S. or Territories	7,538	(92)	818	(79)	686	(76)	648	(74)	down
Born outside U.S.	670	(8)	222	(21)	215	(24)	226	(26)	up
SUBTOTAL- known birthplace	8,208	(100)	1,040	(100)	901	(100)	874	(100)	
Birthplace unknown	219	3%	15	1%	56	6%	43	5%	N/A
Age at diagnosis of HIV									
0-19 years	144	2%	9	1%	11	1%	33	4%	up
20-29 years	2,203	26%	220	21%	242	25%	253	28%	up
30-39 years	3,785	45%	457	43%	348	36%	276	30%	down
40-49 years	1,730	21%	278	26%	247	26%	220	24%	
50-59 years	463	5%	76	7%	80	8%	112	12%	up
60+ years	102	1%	15	1%	29	3%	23	3%	
Residence									
Seattle residence	7,226	86%	801	76%	698	73%	639	70%	down
King Co. residence outside Seattle	1,201	14%	254	24%	259	27%	278	30%	up

Source: Public Health– Seattle & King County

1. Due to delays in reporting, data from recent years are incomplete.
2. Chi-square statistical trends in proportions ($p < .05$) were calculated for cases with known characteristics for the periods 2002-04, 2005-07, and 2008-10.
3. Includes presumed heterosexual cases (females who deny injection drug use but have sex with men not known to be HIV-infected).
4. Includes persons for whom exposure information is incomplete (due to death, refusal to be interviewed, or loss to follow-up), persons exposed to HIV through their occupation, and patients whose mode of exposure remains undetermined.
5. All race and ethnicity categories are mutually exclusive; Asian, Native Hawaiian, & other Pacific Islanders were grouped due to small cell sizes.

Exhibit 7: Syringes distributed in King County by location



Source: Public Health- Seattle & King County