Drug Abuse Trends in the Seattle/King County Area: 2013

Caleb Banta-Green[1], T. Ron Jackson[2], Steve Freng[3], Michael Hanrahan[4], Cynthia Graff [5], John Ohta[6], Mary Taylor [7], Richard Harruff [8,] Robyn Smith[9],Laurie Sylla[10], Geoff Miller[10,] Fiona Couper[11]

ABSTRACT

Two key findings include continued increases in heroin morbidity and mortality as well as increases in methamphetamine availability and consequences. Cocaine use and harms persist in King County according to law enforcement, health and social service personnel, though indicator data were mixed. Heroin use continues to increase in King County and statewide, with young adults a major population of concern. Methamphetamine positives in police evidence continued to increase for the third year in a row though they were well below the level of 2001. Approximately one-third of those who reported any use of methamphetamine at admission also mentioned heroin use, a substantial proportional and numerical increase since 2005. Poison Center data indicate that oxycodone and hydrocodone are the most prevalent pharmaceutical opioids specifically mentioned, oxycodone stands out as the most common in police evidence and methadone and oxycodone were present in similar numbers of deaths in 2013. Treatment admissions with pharmaceutical opioids indicated as the primary problem declined somewhat in 2013. Deaths in which a pharmaceutical opioid was identified increased slightly in 2013, those the number remains 25% lower than the peak in 2009. Marijuana use is common and public consumption appears to have increased following the passage of I-502 in November 2012. The Washington State Patrol reports that THC positive DUI's increased approximately 30% in 2013, it is unclear if any changes in enforcement or driver behaviors are responsible for this change or whether it is a true increase in prevalence. A greater number of pieces of police evidence were positive for methylone than MDMA in 2013 for the first time, with methylone first appearing in substantial numbers in 2011. Media reports and concerns about "Molly" are prevalent with users believing it is pure MDMA, however when evidence has been tested it is often methamphetamine or methylone. Overdose prevention education and take-home naloxone distribution are slowly increasing across Washington via syringe exchanges, clinician prescribing, pharmacies and jails. The HIV exposure categories for people diagnosed between 2011 and 2013 included 5% IDU and 9% IDU-men who have sex with men.

[1]Alcohol and Drug Abuse Institute, University of Washington.
[2]Evergreen Treatment Services.
[3]Northwest High Intensity Drug Trafficking Area.
[4]HIV/AIDS Epidemiology, Public Health – Seattle & King County.
[5]Washington State Patrol Crime Laboratory.
[6]Ryther Child Center and the University District Youth Center.
[7]King County Drug Courts.
[8]Medical Examiner's Office, Public Health- Seattle & King County
[9] Washington Recovery Help Line.
[10]King County Mental Health Chemical Abuse and Dependency Services.
[11]Washington State Patrol Forensic Laboratory Services Bureau

INTRODUCTION

Data Sources

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

- **Washington State Patrol Crime Lab evidence testing**- Data received at the lab between 2001 and 2013 from law enforcement in King County are presented in Figure 1. Data are based on cases tested through April 2014 and are presented by the year the evidence was received at the lab. Statewide data are not shown, but are referenced in text.
- **Recovery Help Line** data for King County callers from 2012 and 2013 are presented in Figure 2.
- **Treatment admissions** for King County residents to publicly funded treatment are included for admissions from 1999 to 2013 in Figures 3-5. Data are duplicated and are for all modalities of care and provide by were provided by the Washington State Department of Social and Health Services (DSHS), Division of Behavioral Health and Recovery, Treatment Report and Generation Tool (TARGET),
- **King County Medical Examiner** data on drug caused deaths from 1997 through 2013 are presented in Figure 6. The majority of deaths involved include multiple drugs, so discussion of drug specific deaths should be interpreted in the context of understanding that most also involved other drugs or alcohol.
- **Syringe exchange volume, Syringe exchange client survey and HIV/AIDS data** were provided by Public Health-Seattle & King County and are presented in Figures 7 and 8. HIV cases diagnosed through Dec 2013 and reported through 5/5/2014 are included. Analyses of the 2013 syringe exchange survey data were conducted by Emily Cederbaum and student in the Schools of Medicine and Public Health at the University of Washington.
- **NW HIDTA's 2013 Threat Assessment** survey ncluded responses from 28 jurisdictions in Washington to questions on Initiative 502, marijuana legalization, and overdose awareness and prevention programs.

DRUG ABUSE PATTERNS AND TRENDS

Cocaine

Cocaine use and harms persist in King County according to law enforcement, health and social service personnel, though indicator data were mixed. Police evidence positive for cocaine continued to decline substantially in King County and across the State. In King County cocaine is the third most common illicit drug detected in police evidence whereas it was the most common drug from 2001 through 2008. Helpline calls were similar for 2012 and 2013 and cocaine remained the fifth most common illegal drug mentioned.

Treatment admissions with cocaine as the primary drug declined for the fifth straight year. Those entering treatment with cocaine as their primary drug have gotten substantially older over the past 15 years. Comparing 1999 to 2013, the proportion aged 18-29 at admission declined from 16% to 10%, ages 30-44 declined from 69% to 35%, while those aged 45 and older increased from 12% to 54% (data not shown). A relatively small proportion of cocaine admissions were among females, 35%, in 2013.

Cocaine involved deaths increased substantially in 2013 to 74 after several years of lower numbers of death, more than a third of cocaine involved deaths also involved heroin. Overall drug caused deaths involving alcohol or a controlled substance totaled 302 in 2013 (14.8 per 10,000 population) the highest number of drug caused deaths in King County since at least 1997, the 2013 rate was slightly lower than the highest rate recorded, which was 15.6 per 100,000 in 2006.

Heroin

Heroin use continues to increase in King County and across Washington State, with young adults a major population of concern. Washington State police evidence positive for heroin continued to increase in 2013, ranking second only to methamphetamine. In 2013 heroin and methamphetamine were each identified in 356 pieces of evidence in King County, this is the highest number for heroin since at least 2001.

Heroin related Help Line calls increased somewhat in 2013 compared to 2012 and it remained the most common drug mentioned. Though earlier Help Line data cannot be directly compared, from 2001 through 2009 heroin was typically the fourth or fifth most common drug mentioned by helpline callers.

Heroin treatment admissions continued to increase in 2013 and are second only to alcohol in terms of primary drug indicated at admission. Young adults aged 18-29 are the largest age group among those entering treatment for heroin. Among those mentioning heroin as one of their top three drugs the number and proportion aged 18-29 at admission increased from 325 and 16% in 1999 to 1,006 and 35% of admissions in 2013 (data not shown).

Heroin involved deaths continue to steadily increase to 99 in 2013 up from 49 in 2009, though below the peak of 144 in 1998. The number and proportion of heroin involved deaths among those under 30 has increased from 7 deaths (14%) in 2009 to 34 deaths (34%) in 2013.

Methamphetamine

Methamphetamine in police evidence continued to increase for the fourth year in a row to 356, though this is below the 995 piece of evidence positive in 2001. Statewide the 5,780 pieces of evidence are the most since 2007 positive for methamphetamine. Helpline calls increased substantially as a number and a proportion in 2013 compared to 2012, with methamphetamine rising to the second most common drug mentioned in 2013 up from fourth in 2012.

Methamphetamine treatment admissions have stayed quite consistent at about 800-1,000 per year since 2004. Over this time period the age distribution has also remained quite steady with the largest group aged 30-44 with those ages 18-29 making up a slightly smaller proportion. Approximately one-third of those who reported any use of methamphetamine at admission (not necessarily primary) also mentioned heroin use in 2013, a substantial proportional and numerical increase since 2005. In 2013 half of those reporting using both heroin and methamphetamine in the prior month (not necessarily concomitant use) were ages 18-29, the age group that largely drove the increase in past month use of heroin and methamphetamine. Among illicit drugs, methamphetamine had the highest proportion who were female, 43%.

Methamphetamine involved deaths increased slightly in 2013 after a substantial (doubling) of deaths in 2012, concomitant with this increase in methamphetamine involved deaths the past

two years is a much greater number and proportion of deaths with methamphetamine and heroin present. Note that these heroin-methamphetamine combination deaths tend to be among those in their 40's, in contrast to the rise of heroin-methamphetamine treatment admission increases over the past two years which were largely among those in their 20's and 30's.

Pharmaceutical opioids

Police evidence positive for pharmaceutical opioids totaled 102 in 2013, down from a peak of 292 in 2007. Statewide evidence positive for pharmaceutical opioids is also down substantially. Help Line callers mentioning pharmaceutical opioids declined somewhat in 2013 when it ranked third among drugs.

Poison Center data indicate that oxycodone and hydrocodone are the most prevalent pharmaceutical opioids specifically mentioned, while oxycodone is the most common in police evidence and methadone and oxycodone were present in similar numbers of deaths in 2013. Treatment admissions with pharmaceutical opioids indicated as the primary problem declined somewhat in 2013 and were at a level well below alcohol and illicit drugs. A majority, 60%, of admissions were female, a much larger proportion than for any other substance.

Deaths in which a pharmaceutical opioid was identified increased slightly in 2013, though the number remains 25% lower than the peak in 2009. Methadone is the most common opioid identified and it has been level the past three years with 53 deaths in involving methadone in 2013 compared to the peak of 94 in 2006. Oxycodone involved deaths peaked at 58 in 2009, declined the following three years and increased to 48 in 2013.

Marijuana

Marijuana use is common and public consumption appears to have increased following the passage of I-502 in November 2012 which legalized marijuana for those 21 and older. Public consumption remains illegal and some municipalities have authorized small fines for public consumption offenses. Police evidence for cannabis has decreased to just 120 pieces of evidence from a high of 868 in 2009 in the County, statewide numbers are also down substantially. These declines in police evidence are believed to be due to a number of factors including declines in arrests and prosecutions as a result of policy and practice changes. Among the 28 narcotics task forces in Washington surveyed in the NW HIDTA's 2013 Threat Assessment, there was an approximate 50:50 split as to whether their agency had made policy and/or enforcement changes since the passages of I-502 (data not shown).

The Washington State Patrol Forensic Laboratory Services Bureau reports that THC (a psychoactive and impairing component of cannabis) positive DUI's increased approximately 30% in 2013 Statewide. It is unclear if changes in police enforcement and/or driver behaviors, such as increases in self-reporting use, are responsible for this change or whether it is a true increase in prevalence.

Marijuana was the fourth most common drug mentioned by callers to the Help Line, similar to the prior year. Treatment admissions for which marijuana was the primary drug declined for the fourth straight year to 1,495 in 2013. Males constituted 74% of admissions for marijuana in 2013 and half were under the age of 18, these proportions are much higher than for any other substance.

Synthetics- Cannabimimetics, Stimulants and Hallucinogens

Cannabimimetics are synthetic chemicals that bind to cannabinoid receptors, though they have different chemical structures than natural cannabinoids and widely varying effects and potency. Police evidence testing at the state crime lab shows fairly small numbers for these compounds with a peak in 2012 for King County with 32 and statewide 199, declining to 6 and 67 respectively in 2013. These numbers are for 19 different compounds that the laboratory specifically reported and do not include non-scheduled, but related, drugs nor compounds for which a chemical standard was unavailable. Calls to the Help Line for synthetic marijuana increased slightly from 18 to 27 from 2012 to 2013.

Statewide, a greater number of pieces of police evidence (n=66) were positive for methylone (3,4-methylenedioxy-N- Methylcathinone) than MDMA, n=55, (3,4-Methylenedioxymethamphetamine) in 2013 for the first time. Methylone first appeared in substantial numbers in 2011. MDMA is down seven fold from the peak in 2006 and 2007. MDPV arrived and peaked in 2011 with 25 pieces of evidence and declined in 2012 and declined again in 2013 to just one piece of evidence positive statewide. In King County, MDMA positive evidence totaled 16 in 2013, down from 158 in 2007, while methylone totaled 14 in 2013 up from 0 in 2010. Media reports and concerns about “Molly” are prevalent with users believing it is pure MDMA, however when evidence has been tested it is often methamphetamine or methylone. Calls to the Help Line for synthetic stimulants, thought to include these classes of drugs, increased slightly in 2013 though the overall number was quite small with 78 calls among 4,622 calls for all drugs.

Reducing drug related harms- Infectious disease and Opiate overdose prevention

HIV diagnoses by exposure category during 2011 through 2013 indicates that 5% were injection drug users (IDU) and another 9% were both injection drug users and men who have sex with men. The overall proportions reporting IDU has remained fairly steady over time.

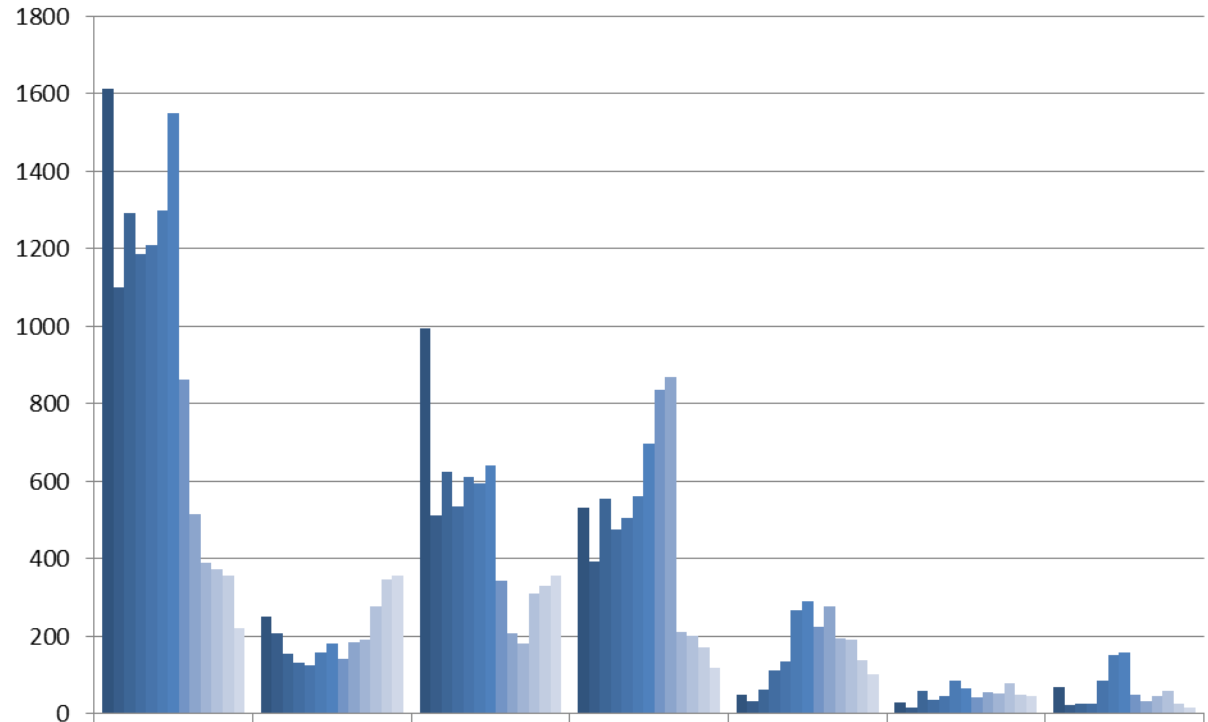
Overdose prevention education and take-home naloxone distribution are increasing across Washington via syringe exchanges, clinician prescribing, pharmacies and jails. Overdose education is conducted in-person and via the www.stopoverdose.org website. Awareness of Washington’s 2010 Good Samaritan Overdose and Take-Home Naloxone law is still only modest; among the 28 narcotics task forces surveyed for the 2013 Northwest HIDTA Threat Assessment, only three indicated that officers received training on the law or that they knew of programs providing naloxone to opioid users in their communities. Among heroin injectors responding to the 2013 Public Health- Seattle & King County (PHSKC) syringe exchange survey 28% had take-home-naloxone in their possession in the prior three months.

Infectious disease and overdose risk were examined among heroin users responding to the 2013 PHSKC syringe exchange survey. Sharing of syringes was reported by significantly more people under the age of 30 (37%) compared to older respondents (20%) ($p<0.05$). While the overdose risk was similar across age groups, with a quarter having had an overdose in the past year, young adults were significantly more likely to have witnessed as overdose, 68% v 55% and to have had take-home naloxone in the prior 3 months, 37% v 24% ($p<0.05$). Compared to 2009, the proportion of those using methamphetamine by itself doubled to 51% and the proportion using methamphetamine and heroin together increased from 11% to 33%.

In 2013 5.7 million clean syringes were distribute by PHSKC and the People's Harm Reduction Alliance (PHRA) syringe distribution programs, a similar number to the prior year. PHRA distributed 52% of the syringes and had 24% of encounters with clients.

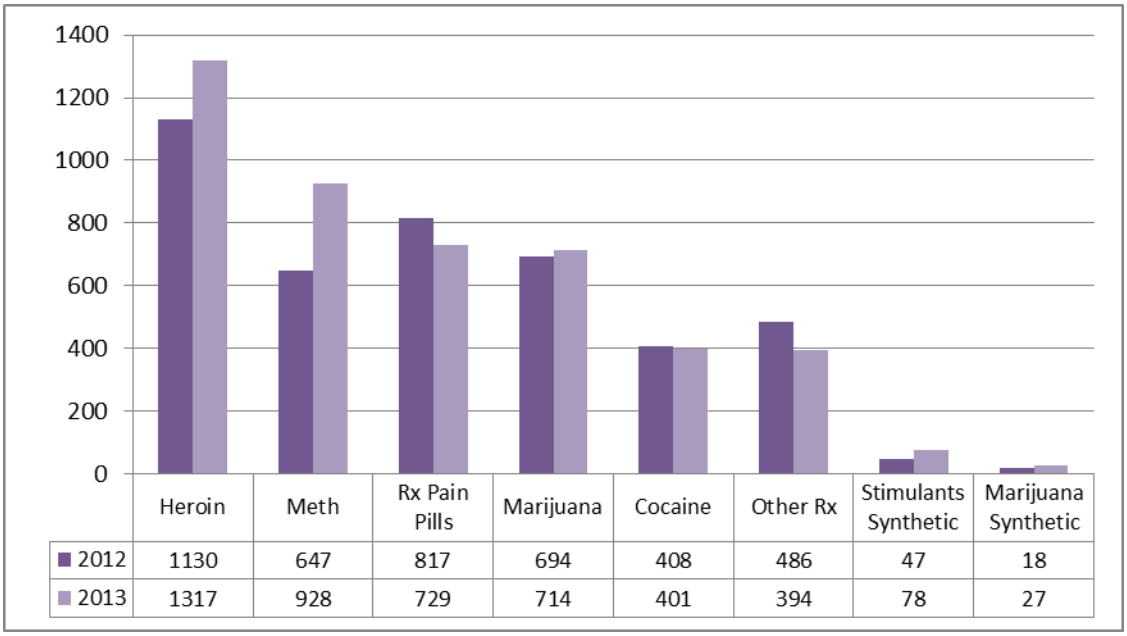
For inquiries concerning this report, contact Caleb Banta-Green, M.S.W., M.P.H, Ph.D., Alcohol and Drug Abuse Institute, University of Washington, 1107 N.E. 45th Street, Suite 120, Seattle, WA 98105, Phone: 206–685–3919, Fax: 206–543–5473, E-mail: calebbg@u.washington.edu.
URL: http://adai.washington.edu/pubs/cewg/CEWG_Seattle_June2014.pdf

Figure 1. King County Police Jurisdictions' Evidence Testing



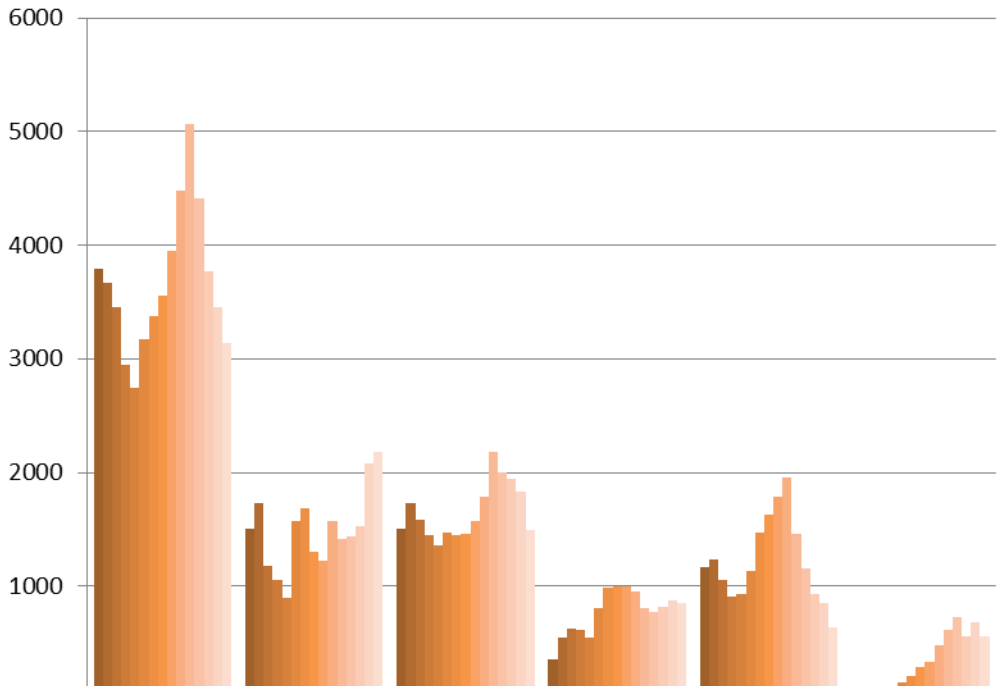
	Cocaine	Heroin	Methamphetamine	Cannabis	Rx Opiate	Rx Depressant	MDMA
2001	1612	250	995	532	48	28	68
2002	1100	208	511	394	32	18	22
2003	1291	155	625	555	64	59	27
2004	1186	131	536	476	113	37	25
2005	1208	126	612	506	134	45	87
2006	1298	160	594	563	267	86	152
2007	1549	180	640	698	292	65	158
2008	862	143	344	835	224	44	48
2009	516	186	207	868	278	57	32
2010	391	193	182	211	194	52	47
2011	374	277	310	200	193	78	58
2012	358	346	329	173	138	49	27
2013	220	356	356	120	102	47	16

Figure 2. Helpline Calls originating from King County



	Heroin	Meth	Rx Pain Pills	Marijuana	Cocaine	Other Rx	Stimulants Synthetic	Marijuana Synthetic
2012	1130	647	817	694	408	486	47	18
2013	1317	928	729	714	401	394	78	27

Figure 3. Treatment admissions for King County Residents, Primary Drug

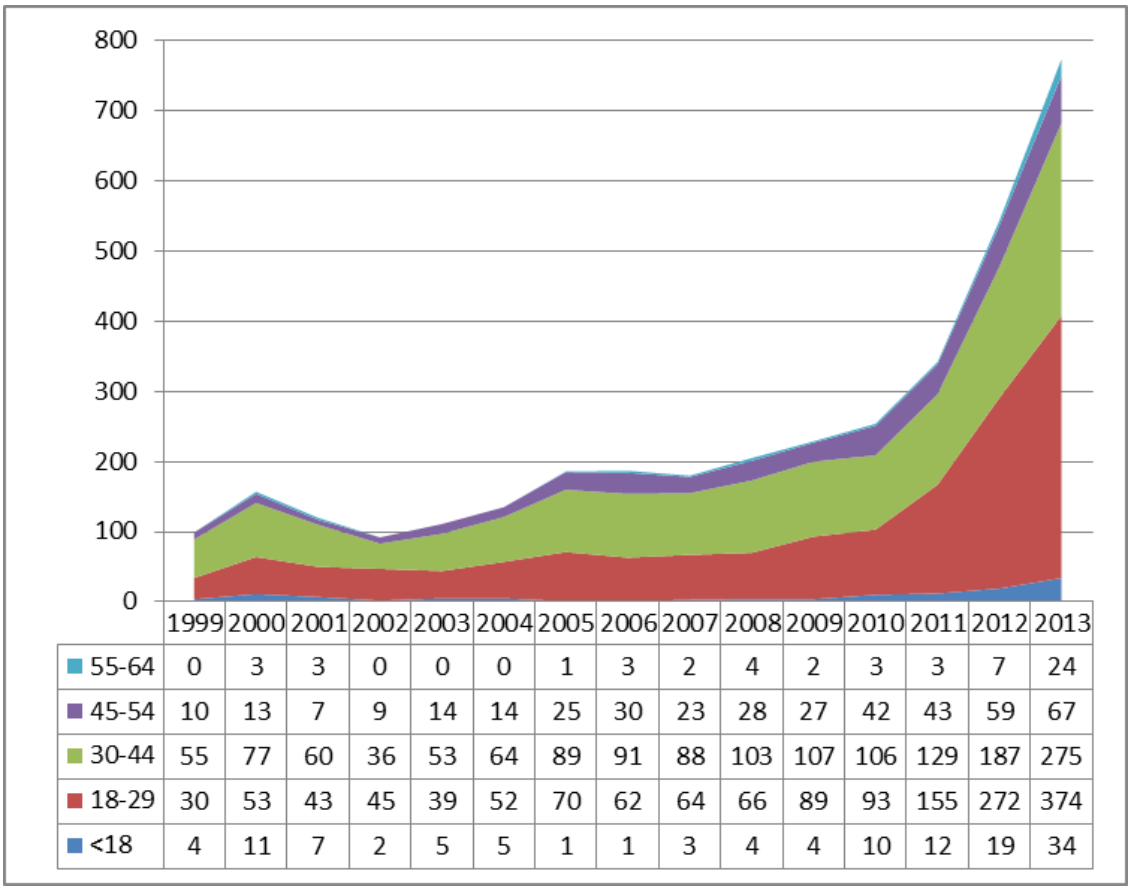


	Alcohol	Heroin	Marijuana	Methamphetamine	Cocaine	Rx Opiates
1999	3790	1510	1507	355	1170	68
2000	3668	1727	1733	550	1238	55
2001	3457	1174	1586	625	1052	80
2002	2946	1056	1455	613	911	52
2003	2744	895	1359	550	931	81
2004	3169	1571	1473	810	1133	151
2005	3381	1687	1454	991	1471	209
2006	3562	1302	1463	994	1631	286
2007	3950	1223	1574	995	1790	337
2008	4478	1576	1789	957	1958	484
2009	5065	1416	2183	806	1461	621
2010	4417	1441	2005	773	1158	725
2011	3768	1531	1946	818	934	562
2012	3451	2083	1838	873	854	681
2013	3141	2182	1495	854	639	557

Figure 4. Treatment admission demographics, King County 2013

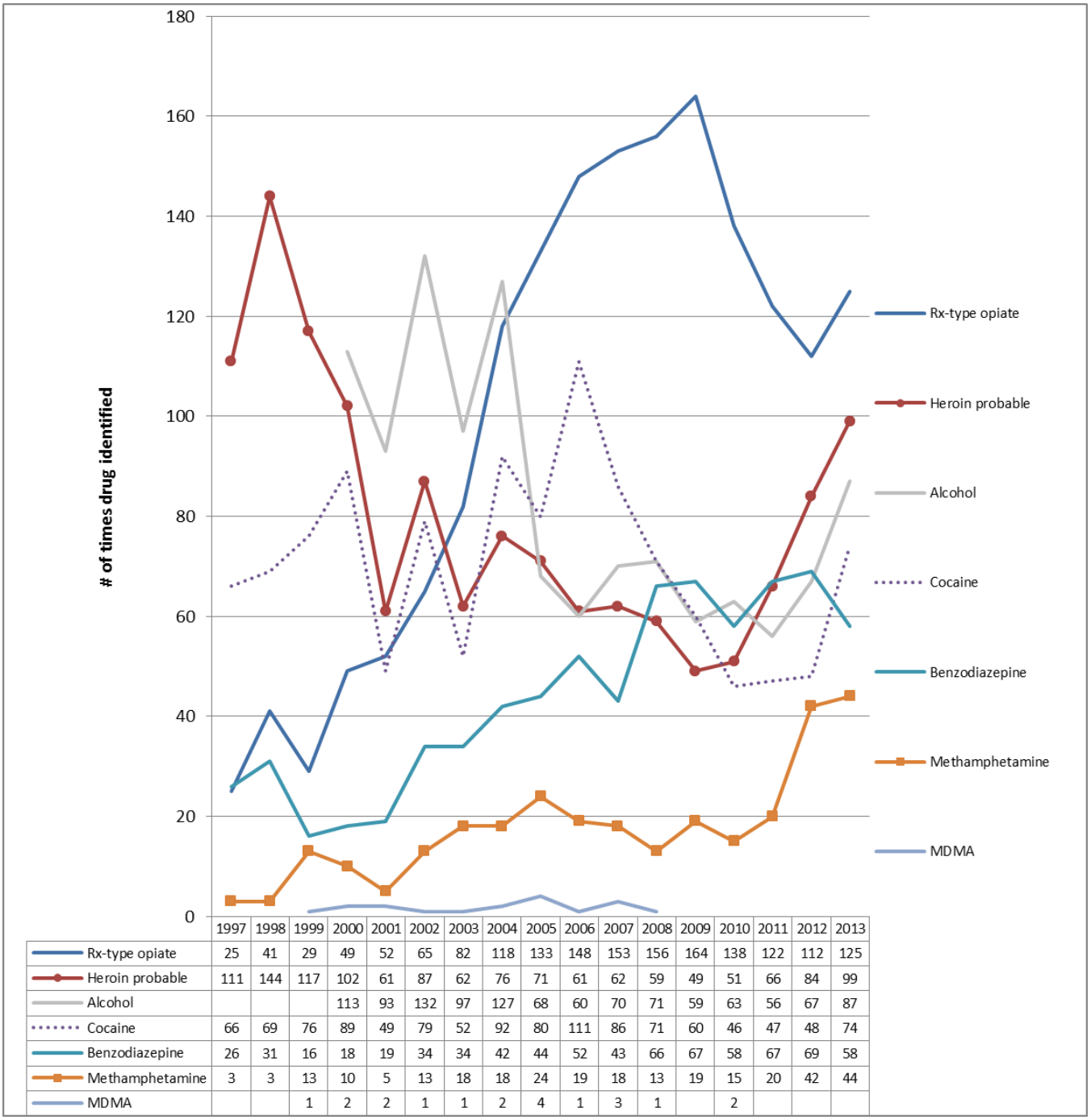
	Alcohol	Cocaine	Heroin	Other Opiates	Marijuana	Metham-phetamine	Amphet-amine	All other	Total
<18	118	2	37	2	747	66	11	25	1,008
18-25	308	39	450	123	320	147	20	43	1,450
26-29	289	28	364	94	103	130	9	39	1,056
30-39	764	113	533	188	188	314	24	76	2,200
40-49	852	254	418	94	79	148	9	65	1,919
50+	810	203	381	55	57	48	6	64	1,624
Male	2,209	416	1,260	224	1,104	484	45	143	5,885
Female	932	223	923	332	390	369	34	169	3,372
Total	**3,141**	**639**	**2,183**	**556**	**1,494**	**853**	**79**	**312**	**9,257**

Figure 5. Treatment admissions among those who reported using heroin and methamphetamine in the prior month, by age group



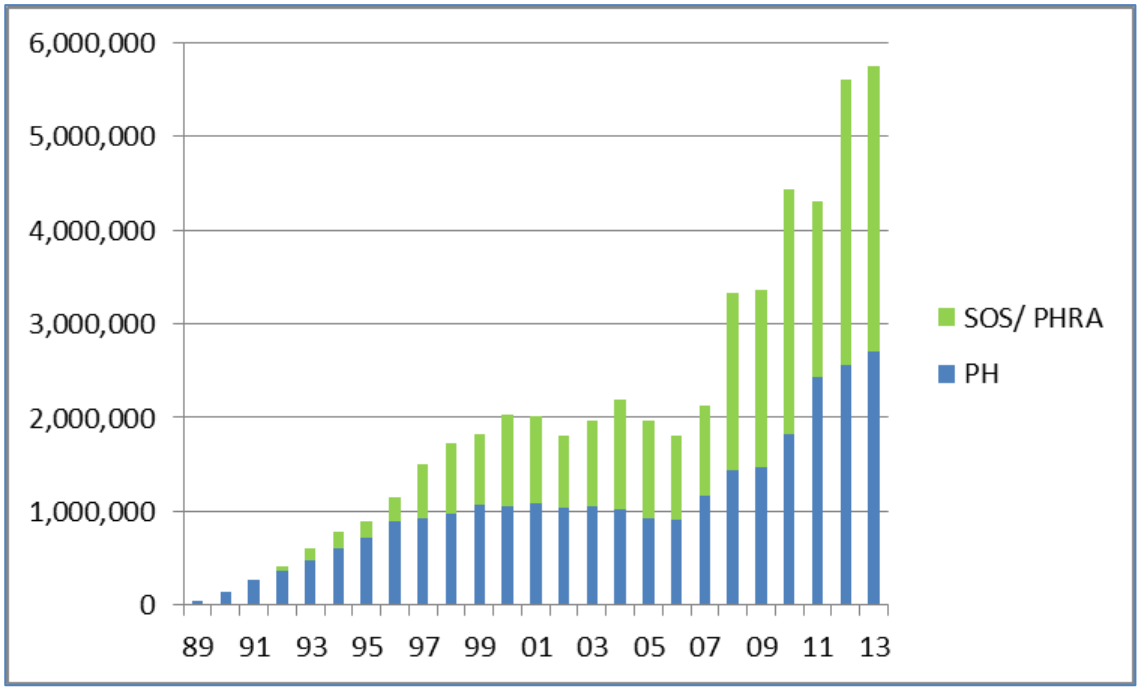
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
55-64	0	3	3	0	0	0	1	3	2	4	2	3	3	7	24
45-54	10	13	7	9	14	14	25	30	23	28	27	42	43	59	67
30-44	55	77	60	36	53	64	89	91	88	103	107	106	129	187	275
18-29	30	53	43	45	39	52	70	62	64	66	89	93	155	272	374
<18	4	11	7	2	5	5	1	1	3	4	4	10	12	19	34

Figure 6. Drug Caused Deaths, King County

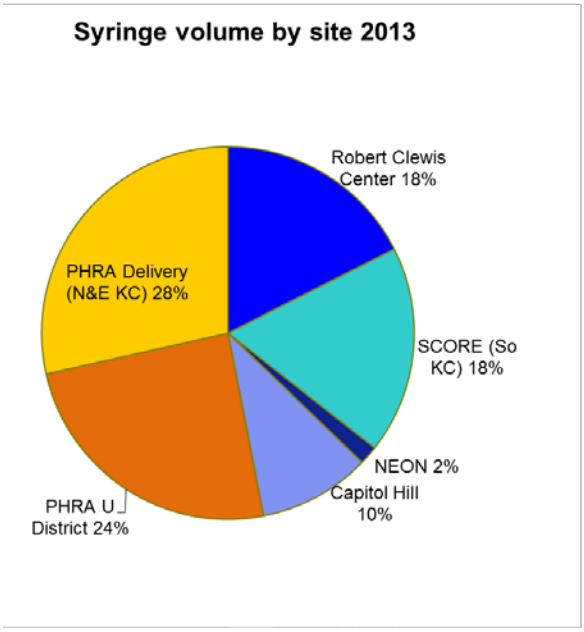


	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Rx-type opiate	25	41	29	49	52	65	82	118	133	148	153	156	164	138	122	112	125
Heroin probable	111	144	117	102	61	87	62	76	71	61	62	59	49	51	66	84	99
Alcohol				113	93	132	97	127	68	60	70	71	59	63	56	67	87
Cocaine	66	69	76	89	49	79	52	92	80	111	86	71	60	46	47	48	74
Benzodiazepine	26	31	16	18	19	34	34	42	44	52	43	66	67	58	67	69	58
Methamphetamine	3	3	13	10	5	13	18	18	24	19	18	13	19	15	20	42	44
MDMA			1	2	2	1	1	2	4	1	3	1		2			

Figure 7. Syringe Exchange Volume



PH: Public Health- Seattle & King County
SOS/PHRA: People's Harm Reduction Alliance in recent years, previously Street Outreach Services



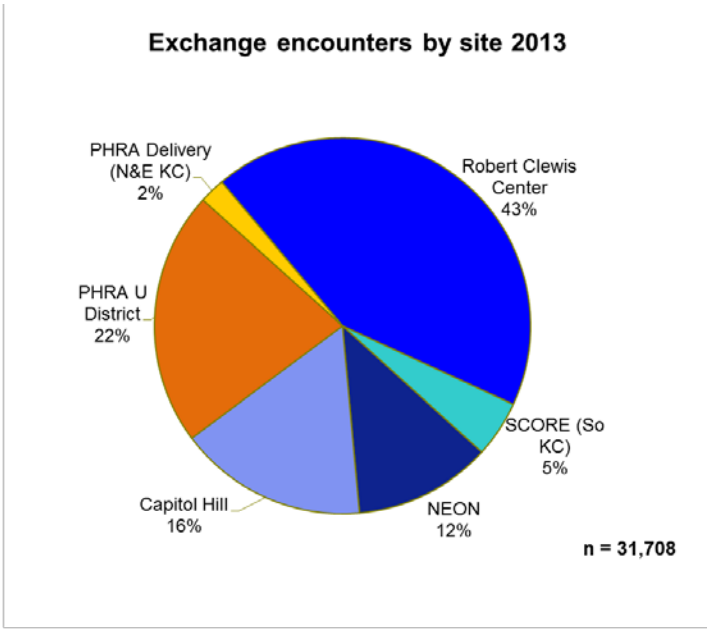


Figure 8. Demographic characteristics of King County residents diagnosed 1982-2013 and reported through 05/05/2014, by date of HIV diagnosis

	1982-2004		2005-2007		2008-2010		2011-2013[1]	
	N	%	N	%	N	%	N	%
TOTAL	**6,861**	**100%**	**938**	**100%**	**939**	**100%**	**825**	**100%**
HIV Exposure Category[2]								
Men who have sex with men (MSM)	5,093	74%	625	67%	682	73%	556	67%
Injection drug user (IDU)	402	6%	52	6%	50	5%	41	5%
MSM-IDU	698	10%	103	11%	61	6%	75	9%
Heterosexual contact	582	8%	153	16%	138	15%	139	17%
Blood product exposure	62	1%	1	<1%	1	<1%	0	<1%
Perinatal exposure	24	<1%	4	<1%	7	1%	13	2%
SUBTOTAL- known & estimated risk	*6,861*		*938*		*939*		*824*	
Sex & Race/Ethnicity[3]								
Male	*6,331*	*92%*	*827*	*88%*	*824*	*88%*	*701*	*85%*
White Male	4,851	71%	512	55%	513	55%	430	52%
Black Male	694	10%	126	13%	97	10%	101	12%
Hispanic Male	486	7%	124	13%	134	14%	102	12%
Other Male	300	4%	65	7%	80	9%	68	8%
Female	*530*	*8%*	*111*	*12%*	*115*	*12%*	*124*	*15%*
White Female	217	3%	29	3%	31	3%	23	3%
Black Female	219	3%	61	7%	65	7%	72	9%
Hispanic Female	45	1%	7	1%	13	1%	12	1%
Other Female	49	1%	14	1%	6	1%	17	2%
Race/Ethnicity[3]								
White	5,068	74%	541	58%	544	58%	453	55%
Black	913	13%	187	20%	162	17%	173	21%
Hispanic	531	8%	131	14%	147	16%	114	14%
Asian & Pacific Islander	151	2%	49	5%	51	5%	58	7%
Native American or Alaskan Native	78	1%	8	1%	6	1%	3	<1%
Multiple Race	119	2%	22	2%	29	3%	22	3%
SUBTOTAL- known race & ethnicity	*6,860*	*100%*	*938*	*100%*	*939*	*100%*	*823*	*100%*
Unknown Race	1	<1%	0	0%	0	0%	2	<1%
Place of Birth								
Born in U.S. or Territories	5,958	89%	664	75%	675	74%	515	67%
Born outside U.S.	759	11%	219	25%	240	26%	248	33%
SUBTOTAL- known birthplace	6,717	*100%*	883	*100%*	915	*100%*	763	*100%*
Birthplace unknown	144	2%	55	6%	24	3%	62	8%
Age at diagnosis of HIV								
0-19 years	96	1%	10	1%	33	4%	22	3%
20-29 years	1,610	23%	233	25%	253	27%	224	27%
30-39 years	3,086	45%	342	36%	284	30%	263	32%
40-49 years	1,535	22%	244	26%	228	24%	186	23%
50-59 years	439	6%	79	8%	114	12%	103	12%
60+ years	95	1%	30	3%	27	3%	27	3%
Residence								
Seattle residence	5,826	85%	690	74%	655	70%	566	69%
King Co. residence outside Seattle	565	8%	248	26%	284	30%	259	31%

1. Due to delays in reporting, data from recent years are incomplete.

2. Cases with unknown risk categories are distributed in to known categories with a multiple imputation process. Previously about one quarter of cases were redistributed in a presumed heterosexual category.

3. All race and ethnicity categories are mutually exclusive; Asian, Native Hawaiian, & other Pacific Islanders were grouped due to small cell sizes.