NDEWS National Drug Early Warning System

Funded at the Center for Substance Abuse Research by the National Institute on Drug Abuse

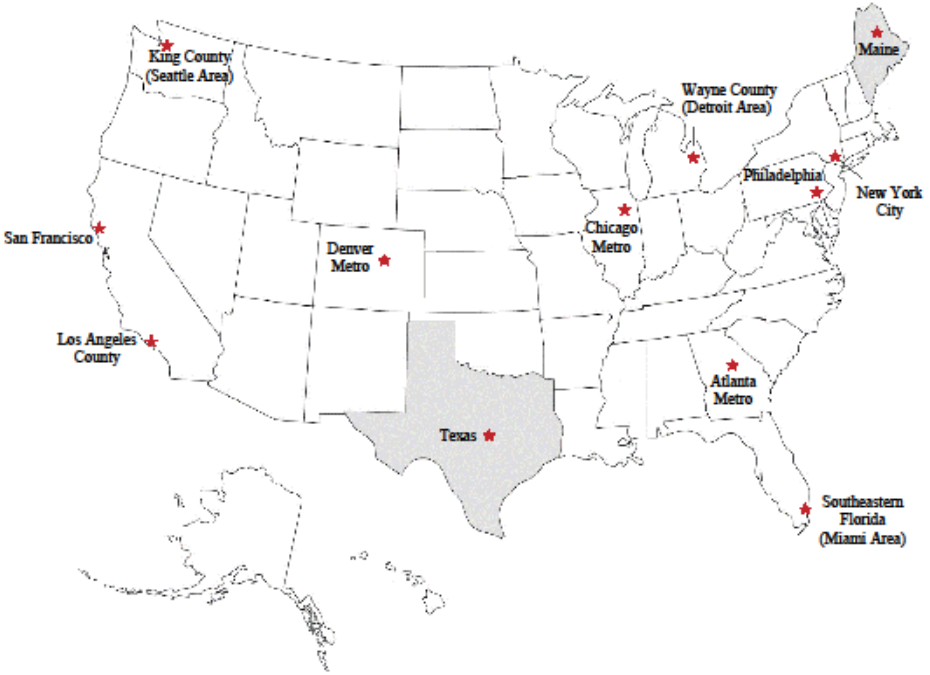
National Drug Early Warning System (NDEWS) Sentinel Community Site Profile 2015: King County (Seattle Area)

August 2015

NDEWS Coordinating Center

NDEWS is funded under NIDA Cooperative Agreement DA038360 awarded to the Center for Substance Abuse Research (CESAR) at the University of Maryland, College Park. Opinions expressed in this report may not represent those of NIH or NIDA.

Sentinel Community Site (SCS) Locations



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National Drug Early Warning System (NDEWS)
Sentinel Community Site Profile Overview

The National Drug Early Warning System (NDEWS) was launched in 2014 with the support of the National Institute on Drug Abuse. The Center for Substance Abuse Research (CESAR) at the University of Maryland manages the NDEWS Coordinating Center and has recruited a team of nationally recognized experts to collaborate on building NDEWS. During 2015, 12 Sentinel Community Sites (SCS) were established, each with an expert Sentinel Community Epidemiologist (SCE). This inaugural Sentinel Community Site Profile contains three sections:

- The *Profile Snapshot* presents selected indicators of substance use, consequences, and availability;
- The *Drug Use Patterns and Trends* contains the SCE's review of important findings and trends; and
- The *Appendix Data Tables* contains a set of data tables prepared by Coordinating Center staff and disseminated to each SCE for review in preparing their profiles.

This entire Profile necessarily relies on using a variety of data sources produced by governmental and local agencies and these sources often measure geographic areas that differ from the intended catchment area of a Sentinel Site. For example, some surveys measure statewide patterns while others provide county level estimates. Wherever appropriate, a note is provided specifying the area covered by the findings presented.

The Annual Profiles for the 12 Sentinel Community Sites and detailed information about NDEWS can be found on the NDEWS website at www.ndews.org.

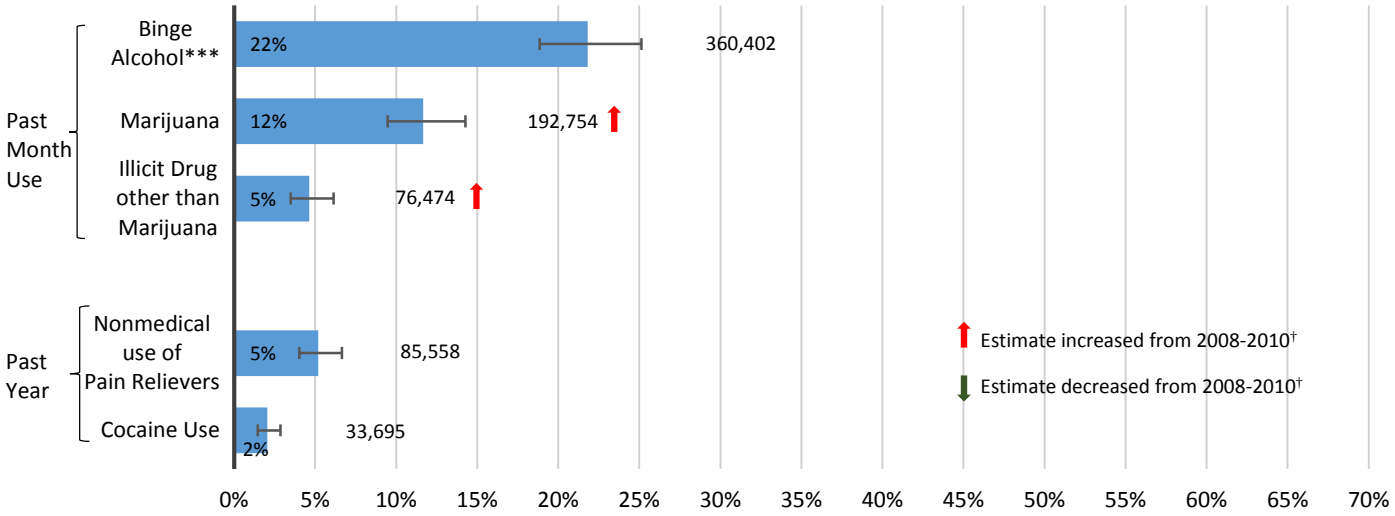
National Drug Early Warning System (NDEWS)
King County (Seattle Area) Sentinel Community Site Profile Snapshot, 2015

Substance Use

*National Survey on Drug Use and Health (NSDUH): Survey of U.S. Population**

Persons 12+ Years Reporting Selected Substance Use, King County Region^, 2010-2012

Estimated Percent, 95% Confidence Interval, and Estimated Number of Persons**

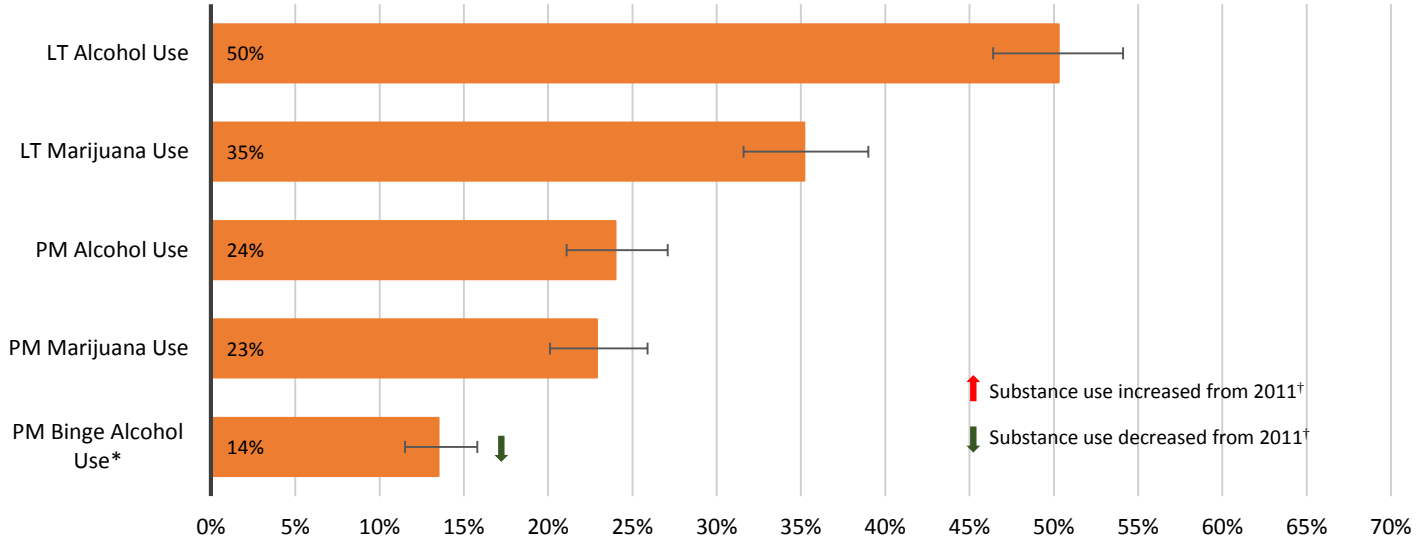


*U.S. Population: U.S. civilian non-institutionalized population. ^King County Region: NSDUH Region 2 - North 2 (King County). **Estimated Number: Calculated by multiplying the prevalence rate and the population estimate of persons 12+ years (1,651,706) from Table C1 of the NSDUH Report.
***Binge Alcohol: Defined as drinking five or more drinks on the same occasion. †Statistically significant change: p<0.05.
Source: Adapted by the NDEWS Coordinating Center from data provided by SAMHSA, NSDUH. Annual averages based on 2010, 2011, and 2012 NSDUHs.

Youth Risk Behavior Survey (YRBS): Survey of Student Population

Public High School Students Reporting Lifetime (LT) or Past Month (PM) Use of Selected Substances, Seattle, 2013

Estimated Percent and 95% Confidence Interval



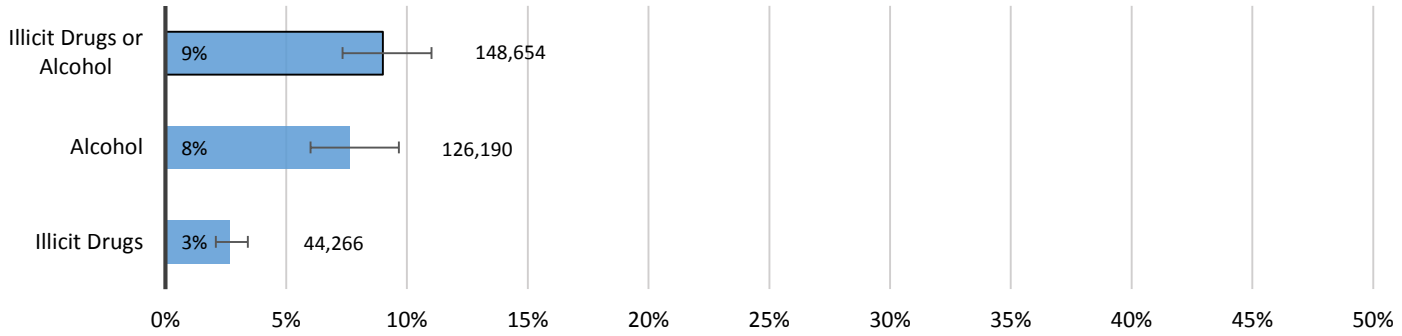
*PM Binge Alcohol Use: Defined as had five or more drinks of alcohol in a row within a couple of hours.
†Statistically significant change: p<0.05 by t-test.
Source: Adapted by the NDEWS Coordinating Center from data provided by CDC, 2001-2013 high school YRBS data.

Substance Use Disorders and Treatment

*National Survey on Drug Use and Health (NSDUH): Survey of U.S. Population**

Dependence or Abuse in Past Year Among Persons 12+ Years, King County Region^, 2010-2012**

Estimated Percent, 95% Confidence Interval, and Estimated Number of Persons***



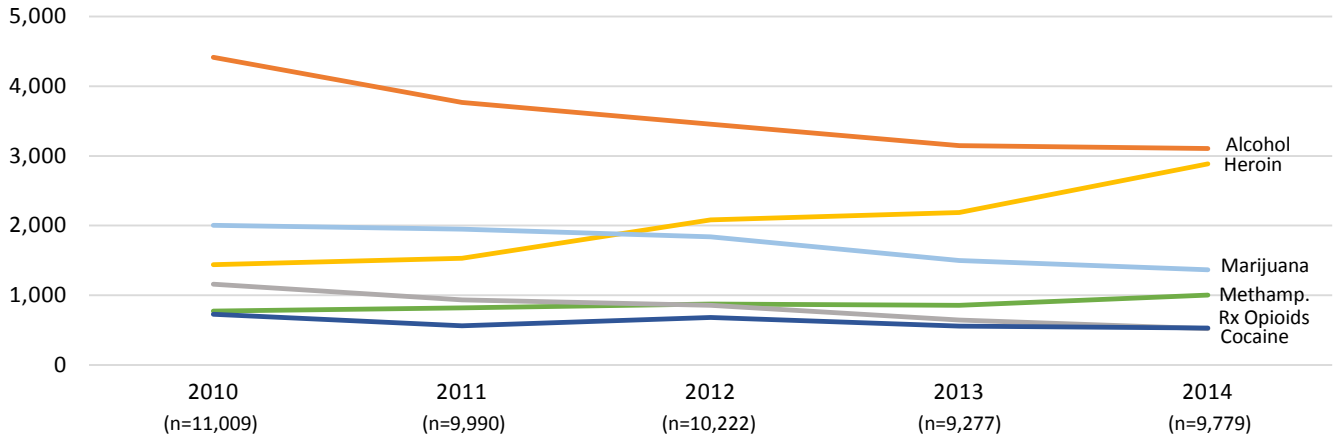
*U.S. Population: U.S. civilian non-institutionalized population. **Dependence or Abuse: Based on definitions found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*. ^King County Region: NSDUH Region 2 - North 2 (King County). ***Estimated Number: Calculated by multiplying the prevalence rate and the population estimate of persons 12+ years (1,651,706) from Table C1 of the NSDUH Report.

Source: Adapted by the NDEWS Coordinating Center from data provided by SAMHSA, NSDUH. Annual averages based on 2010, 2011, and 2012 NSDUHs.

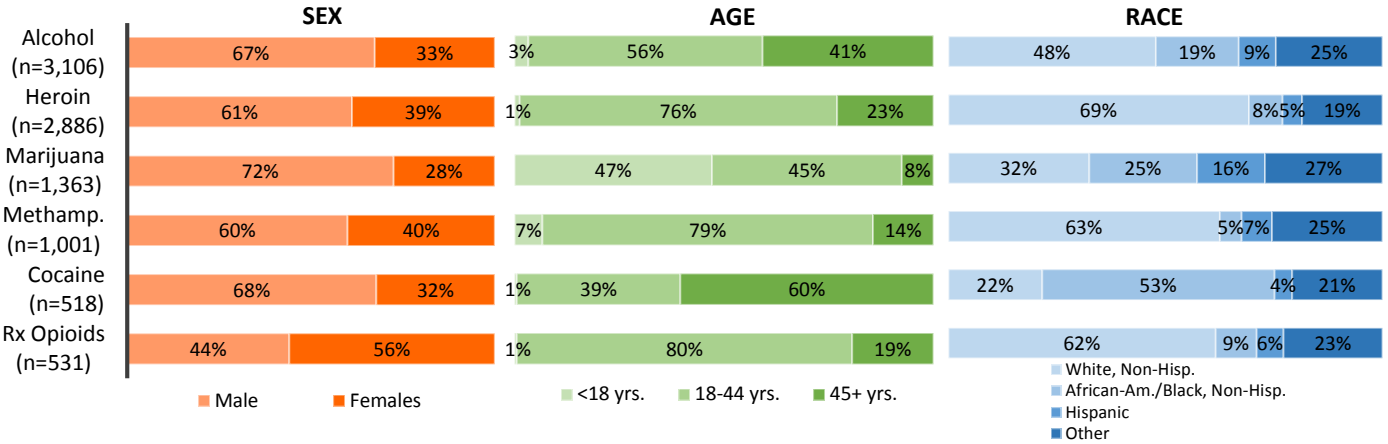
Treatment Admissions Data from Local Sources

Trends in Treatment Admissions*, by Primary Substance of Abuse, King County (Seattle Area), 2010-2014

(n = Number of Treatment Admissions)



Demographic Characteristics of Treatment Admissions*, King County (Seattle Area), 2014



*Treatment Admissions: Includes admissions by King County residents to all modalities of care in publicly-funded programs. Percentages may not sum to 100 due to rounding.

Source: Data provided by the King County (Seattle Area) NDEWS SCE and the Washington State Department of Social and Health Services (DSHS), Division Behavioral Health and Recovery, Treatment Report and Generation Tool (TARGET).

Law Enforcement Drug Seizures

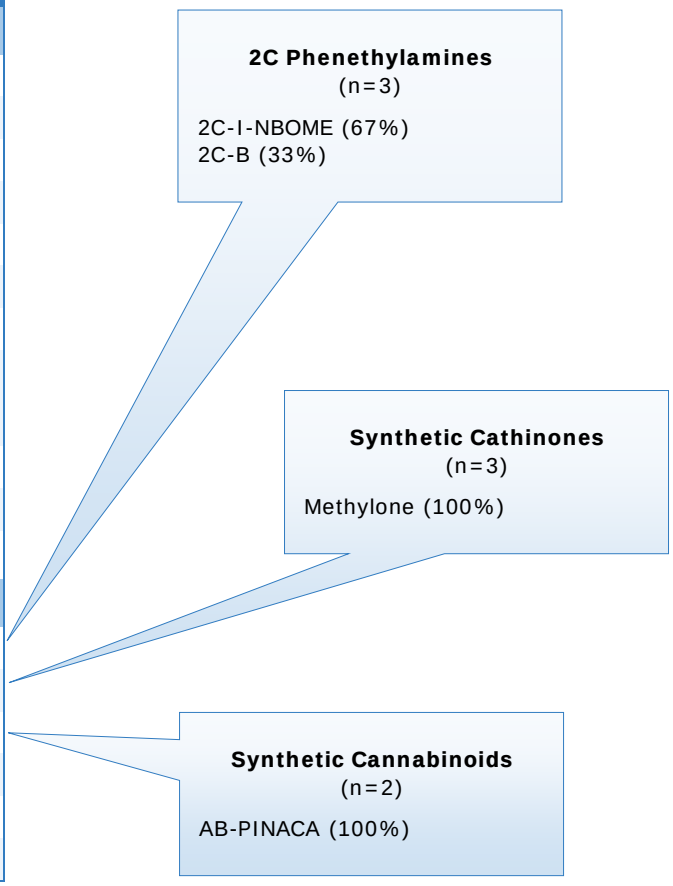
National Forensic Laboratory Information System (NFLIS)

Drug Reports* for Items Seized by Law Enforcement in King County (Seattle Area) in 2014
National Forensic Laboratory Information System (NFLIS)

Top 10 Drug Reports and Selected Drug Categories

Drug Identified	Number (#)	Percent of Total Drug Reports (%)
TOTAL Drug Reports	**1,407**	**100%**
Top 10 Drug Reports		
Methamphetamine	415	29.5%
Heroin	382	27.1%
Cocaine	228	16.2%
Cannabis	98	7.0%
Unknown	96	6.8%
Oxycodone	19	1.4%
Alprazolam	13	0.9%
3,4-methylenedioxymethamphetamine (MDMA)	12	0.9%
Methadone	12	0.9%
Morphine	11	0.8%
Top 10 Total	**1,286**	**91.4%**
Selected Drug Categories		
2C Phenethylamines	3	0.2%
Synthetic Cathinones	3	0.2%
Fentanyl & Fentanyl Analogs	2	0.1%
Synthetic Cannabinoids	2	0.1%
Piperazines	1	0.1%
Tryptamines	0	0.0%

Top 5 Drugs, by Selected Drug Category
(% of Category)**



*Drug Reports: Drug that is identified in law enforcement items, submitted to and analyzed by federal, state, or local forensic labs, and included in the NFLIS database. The NFLIS database allows for the reporting of up to three drugs per item submitted for analysis. The data presented are a total count of first, second, and third listed reports for each selected drug item seized and analyzed.

**Percentages may not sum to 100 due to rounding.

Source: Adapted by the NDEWS Coordinating Center from data provided by the U.S. Drug Enforcement Administration (DEA), Office of Diversion Control, Drug and Chemical Evaluation Section, Data Analysis Unit, May 2015.

National Drug Early Warning System (NDEWS)
King County (Seattle Area) Sentinel Community Site
Drug Use Patterns and Trends, 2015

Caleb Banta-Green, Ph.D.

SCS Highlights

- Drug-caused deaths involving heroin and/or methamphetamine peaked in 2014.
- Prescription opioid-involved deaths are at their lowest point in a decade.
- The number of treatment admissions with heroin as the primary drug doubled from 2010 to 2014 and are higher than any drug since 1999.

Area Description

Seattle is the largest city in King County, Washington. The county had an estimated population of 1,974,567 during the period from 1999-2013. During this period, the racial composition was 64.2% White, 6.0% African American, 9.0% Hispanic/Latino, 0.6% American Indian/Alaska native, 14.7% Asian and 0.7% Native Hawaiian/Pacific Islander. Among those 25 and older, 92% had a high school degree and 47% had at least a bachelor's degree. The unemployment rate was 5.4%, the median household income was $71,811, and the proportion of the population whose income was below the poverty level was 11.5%.

Changes in Legislation

In 1998 Washington State became one of the first states to pass legislation allowing the use of marijuana for medical purposes. In November 2012, Washington State passed a law legalizing recreational marijuana, and stores selling marijuana for recreational purposes began slowly opening in the summer of 2014. Meanwhile medical marijuana dispensaries are common throughout the region.

Washington State implemented pilot educational guidelines for pain management and opioid prescribing in 2007, and these rules were formalized into law taking effect in January 2012. To date, these pain guidelines have been focused on the use of opioids for chronic pain with a recommended opioid dose at which a specialty consultation be sought. Washington State's controlled substance prescription drug monitoring program (PDMP) became fully operational in January 2012. Currently a minority of prescribers with a DEA license are registered with the PDMP.

In 2010, Washington State became the second state to address opioid overdoses by passing a law to expand bystander access to naloxone, an opioid overdose antidote, and promote calling 911 by providing limited immunity to people seeking aid during an overdose. Access points for naloxone began increasing substantially in 2013, continuing into 2015.A directory of access points is available at www.stopoverdose.org.

Drug Use Patterns and Trends

OVERVIEW

In 2014, methamphetamine was for the first time the drug most commonly detected in police evidence testing, slightly surpassing heroin, both of which have been increasing since 2011. Treatment admissions

for heroin increased in 2014, substantially exceeding other drugs and nearly equaling alcohol admissions. Among primary heroin users, methamphetamine was the most common secondary drug of abuse, reported by 24%, compared to 16% for cocaine, a substantial shift compared to past years. Drug-caused deaths totaled 314 in 2014, the greatest number since at least 1997. Heroin was involved in 156 deaths in 2014, up from 99 the year before, and 49 in 2009. Prescription-type opioid-involved deaths totaled 98 in 2014, the fifth year of continuous declines. Methamphetamine-involved deaths were up substantially to 70 in 2014 compared to 44 the year before and 15 in 2010.

According to data from the National Survey on Drug Use and Health (NSDUH) for 2010-2012 for King County, 12% of the population 12 and older used marijuana in the past month and 5% used pain relievers non-medically in the prior year. The overall level of dependence or abuse on alcohol or illicit drugs was 9%. NSDUH data for Seattle for 18-25 year olds indicated: 42% reported binge drinking in the prior month; 31% reported using marijuana in the prior month; past year use of pain relievers non-medically was 11% and past year dependence or abuse on alcohol or illicit drugs was reported by 22%. Self-reported past month marijuana use by high school students was 23% in 2013, significantly different from 2011. Use of marijuana in public, while technically illegal, is widespread (Banta-Green 2014, http://www.npr.org/2014/08/05/338099710/legal-sure-but-polite-washington-weighs-weed-etiquette)

COCAINE

Cocaine was the drug most commonly detected in police evidence from 2002 (n=882) through 2007 (n=1,142). In 2014, it was the third most commonly detected drug (n=186). Treatment admissions for cocaine are down 50% as a proportion and 55% in terms of absolute numbers from 2010-2014. In 2014, cocaine was the least common of the major drugs of abuse in treatment admissions. Two-thirds of those entering treatment for cocaine were male and 60% were aged 45 or older, a much older group compared to alcohol or any of the other drugs. Over half of those admitted to treatment for cocaine were African American compared with the county's population which is 6% African American. Over 80% of those entering treatment for cocaine reported smoking the drug. The secondary drug of choice was alcohol for half of those whose primary drug was cocaine. Conversely, cocaine was the secondary drug of choice for 13% of those whose primary drug was alcohol and 16% for those whose drug of choice was heroin. Cocaine-involved deaths totaled 78 in 2014, up slightly from 74 the year before and 46 in 2010, the year with the lowest recorded number. From 2003 to 2013, a minority of cocaine deaths also involved heroin. In 2014, a majority (60%), of cocaine-involved deaths also involved heroin.

HEROIN

Heroin increased steadily in police evidence from 2010 (n=141) to 2014 (n=328) while prescription-type opioids declined steadily. The number of treatment admissions for heroin has doubled since 2010 and increased 32% from 2013 to 2014 when there were 2,886 admissions to treatment where heroin was reported as the primary substance. In fact, treatment admissions for heroin as a primary drug are higher than any drug since at least 1999. Medication-assisted treatment programs in King County have been working to expand capacity and the number of admissions to these programs increased from 696 in 2011 to 1,486 in 2014. Most (60%) of those entering treatment for heroin are male and 39% are ages 18-29, a substantially younger population than in years past. Most (70%) are White, and most (75%) inject while 21% reported smoking heroin. The most common secondary drug among heroin users was

methamphetamine followed by cocaine. The number of unique people served in publicly funded medication-assisted treatment programs increased 11% from 2013 to 4,469 people in 2014. Many people are on medication-assisted treatment for more than one year, hence these numbers exceed new admissions. Heroin-involved deaths totaled 156 in 2014, their highest number since at least 1997 and a substantial increase since the lowest number recorded, 49, in 2009. Increases in heroin deaths from 2013 to 2014 were seen in all four regions of the county, with a total increase from 99 to 156. Increases from 2013 to 2014 were seen for men and women while almost all of the increase, 50 deaths, were White. Increases were seen across the age ranges with the biggest increase among those older than 50, from 20 to 45 deaths, the greatest number in any age category in 2014. The increases in heroin deaths occurred in combination with all of the major drugs and alcohol. No single co-ingestant stood out; almost all of the increase in 2014 was among poly-drug deaths.

MARIJUANA

Marijuana indicator data from police evidence and treatment admissions have trended downwards in recent years, even as high school survey data from the Youth Risk Behavior Survey indicate a stable level of use from 2011 to 2013, when 22.9% (95% CI 20.1%-25.9%) reported past month use. In 2009, marijuana was the drug most commonly identified in police evidence (n=704). Since then, law enforcement policies and priorities de-emphasized arrests for marijuana consumption and total cases for marijuana were just 78 in 2014. Treatment admissions for marijuana as the primary drug have declined in absolute numbers (down 32%) and as a percentage of all admissions (down 23%) since 2010. In 2014, more than 70% of treatment admissions for marijuana were for males and almost half were under 18, the highest proportions for all drugs. Conversely, treatment admissions were made up of just one-third Whites, the lowest proportion with the exception of cocaine, with large proportions of admissions among African Americans (25%) and Hispanics (16%) disproportionate relative to their representation in the county population (6% and 9%, respectively). Almost all marijuana admissions were for those who reported smoking. The majority (55%) of those who reported marijuana as primary at treatment entry reported their second drug as alcohol. Marijuana was reported as the second drug of abuse by 33% of alcohol treatment clients and 28% of methamphetamine clients.

METHAMPHETAMINE

Methamphetamine was the most commonly detected drug in police evidence in 2014 (n=337), slightly exceeding heroin, and continuing a rebound that began in 2011. Treatment admissions for methamphetamine totaled 1,001 in 2014, up compared to recent years and very similar to the numbers seen from 2005-2008. Females made up 40% of methamphetamine treatment admissions in 2014. The largest proportion of methamphetamine admissions were among those ages 30-44 while 7% were under 18, the largest proportion under 18 for all drugs except marijuana. Most (65%) reported smoking methamphetamine, and injection was the next most common route of ingestion (27%). The most common secondary drug was marijuana, followed by alcohol and heroin. Of note, among primary heroin users, methamphetamine was the most common secondary drug of abuse, reported by 24% compared to 16% for cocaine, a substantial shift compared to past years. Methamphetamine-involved deaths were up substantially to 70 in 2014 compared to 44 the year before and 15 in 2010. The increase in methamphetamine-involved deaths from 2013 to 2014 was greatest in Seattle (18 to 27) and the southern part of King County (17 to 28). From 2013 to 2014, the increase in deaths was almost entirely

among men, increasing from 32 to 58 deaths, and Whites, from 29 to 59 deaths. Methamphetamine-involved deaths increased most among those under 31(from 6 to 18 deaths), and for those older than 50 (from 12 to 23 deaths). Heroin was the drug most strongly correlated with the increase in methamphetamine-involved deaths, with an increase from 14 methamphetamine and heroin (and possibly other drugs) deaths in 2013 to 37 in 2014. Almost all of the increase in methamphetamine-involved deaths involved other drugs and in 2014; 53 of the 70 methamphetamine deaths also involved other drugs.

PRESCRIPTION OPIOIDS

Prescription opioids have declined in police evidence from 2010 (n=140) to 2014 (n=50). Oxycodone was the most commonly detected prescription-type opioid from 2002 through 2014. In 2014, hydrocodone, methadone, buprenorphine, morphine, and fentanyl were all at similar, low levels in police evidence, slightly below oxycodone (n=14). Prescription-type opioid primary treatment admissions declined 27% in absolute number from 2010 to 2014 and were the only drug with a majority of females admitted in 2014. Prescription-type opioid users entering treatment had virtually the same age distribution as heroin users, with 39% under age 30. Most, (63%), reported oral use, 21% smoked, 12% inhaled/snorted, and 5% injected. A quarter reported their secondary drug was heroin, followed by marijuana and alcohol. Prescription-type opioid involved deaths were at their lowest level since 2003 following a peak in 2009 (n=164) and dropped below heroin in 2014 to 98 deaths.

NEW AND NOTABLE

For the first time, a synthetic opioid, MT-45, was identified in a death in 2014 in combination with methamphetamine, cocaine, and a benzodiazepine. Evidence from the scene indicated the MT-45 was in a plastic bag labeled with the chemical name, and MT-45 was detected in the blood of the decedent. MT-45 is not a pharmaceutical product legally available in the United States. The European Monitoring Program on Drugs and Drug Abuse issued a report on the compound in 2014 http://www.emcdda.europa.eu/publications/risk-assessment/mt-45 and 28 deaths were reported in which the drug was involved in Sweden in 2013 and 2014. No additional information about the source of the drug in the local case is available.

Cannabimimetics were first identified in police evidence in King County in 2011 when there were 9 cases. They declined in subsequent years to just 1 case in 2014. Cathinones peaked at 13 in 2013 and declined to 1 in 2014. There were 10 cases with tryptamines in 2011, 2 in 2012, and none in 2013 or 2014.

Additional Information on Drug Use Trends

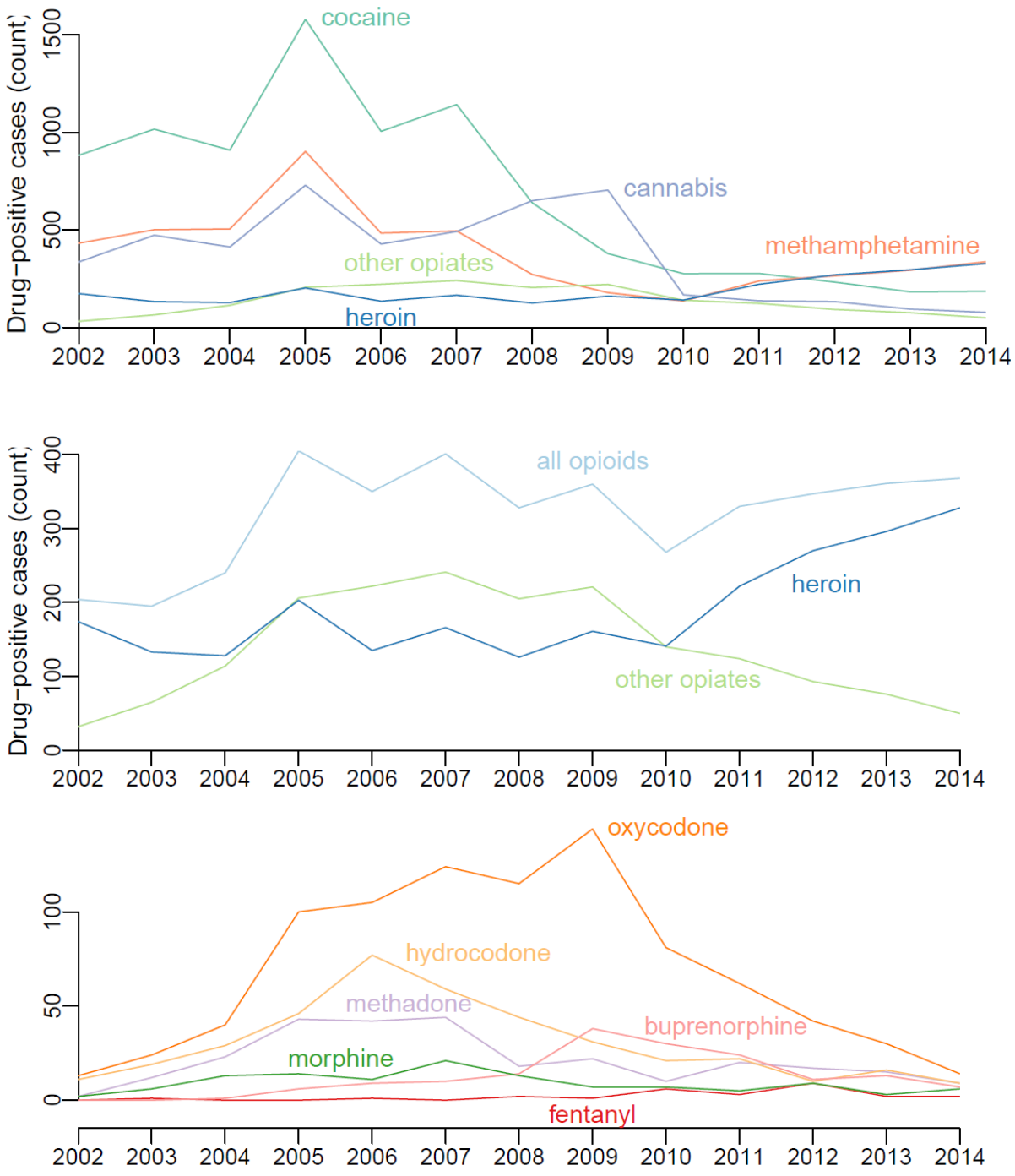
INFECTIOUS DISEASES RELATED TO SUBSTANCE USE

In 2014, there were 281 new diagnoses of HIV in King County, of which 8 (3%) were considered to be due to injection drug use and another 17 (6%) were among those with injection drug use and male-to-male sexual contact as transmission categories. For hepatitis B, there were 9 acute cases and 615

chronic cases identified in 2014, and for hepatitis C, 20 acute cases and 1,167 chronic cases. In 2014, 5,940,908 syringes were distributed by syringe exchanges based in King County, slightly up from the total volume in 2012 and 2013.

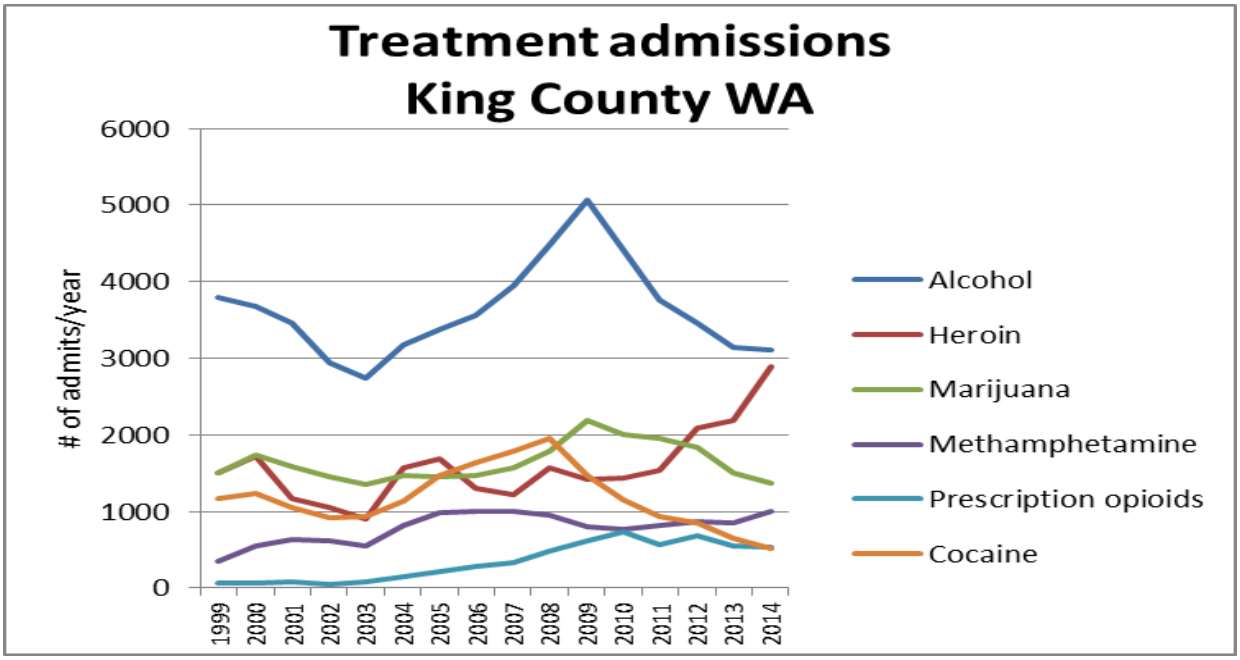
Exhibits

Exhibit 1. Police Evidence



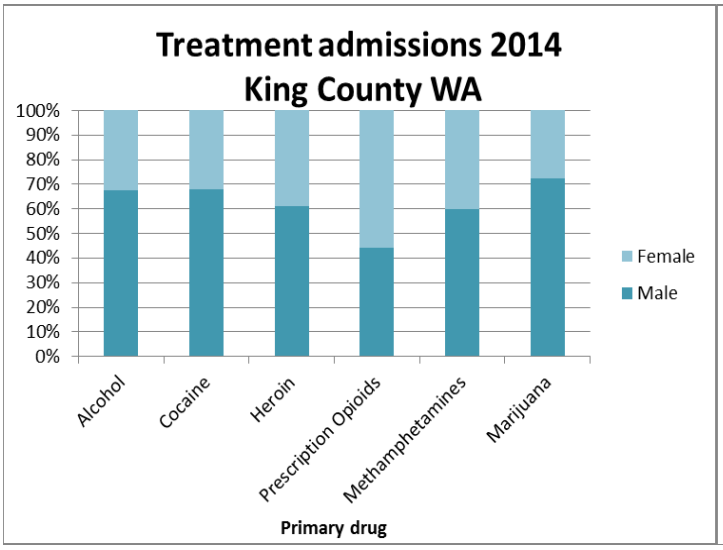
SOURCE: Washington State Patrol Forensic Services Lab

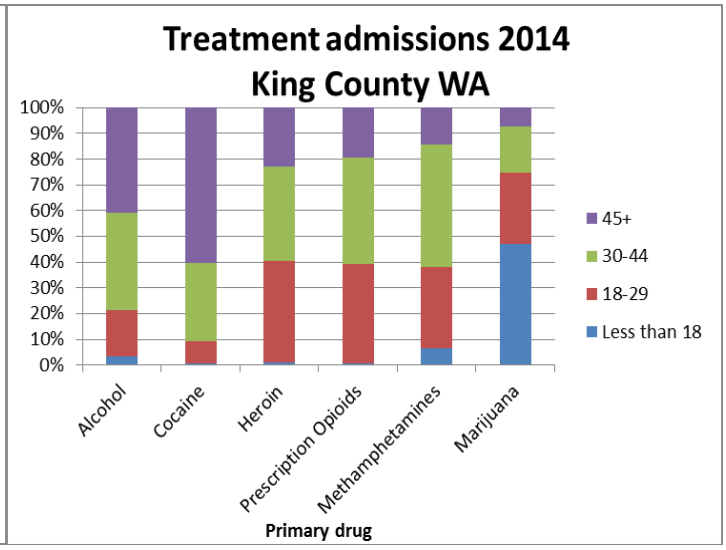
Exhibit 2. Treatment Admissions, King County, 1999-2014

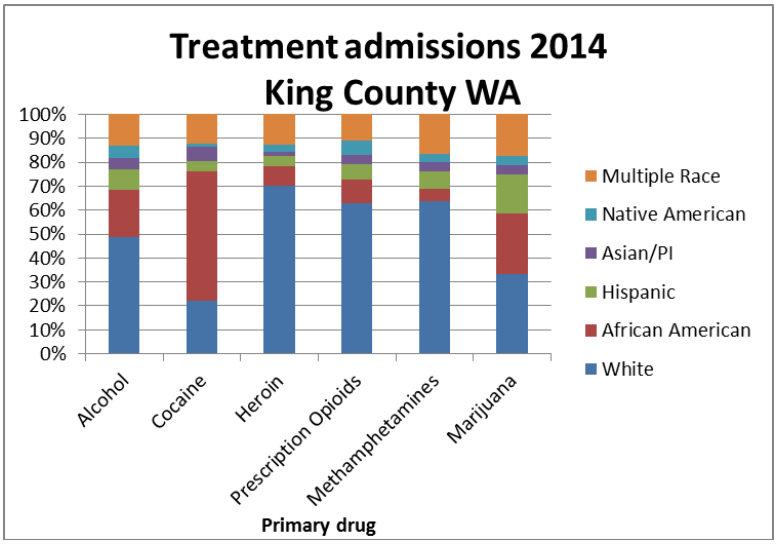


SOURCE: WA Division of Behavioral Health and Recovery TARGET

Exhibit 3. Treatment Admissions, King County, by Drug and Demographic, 2014

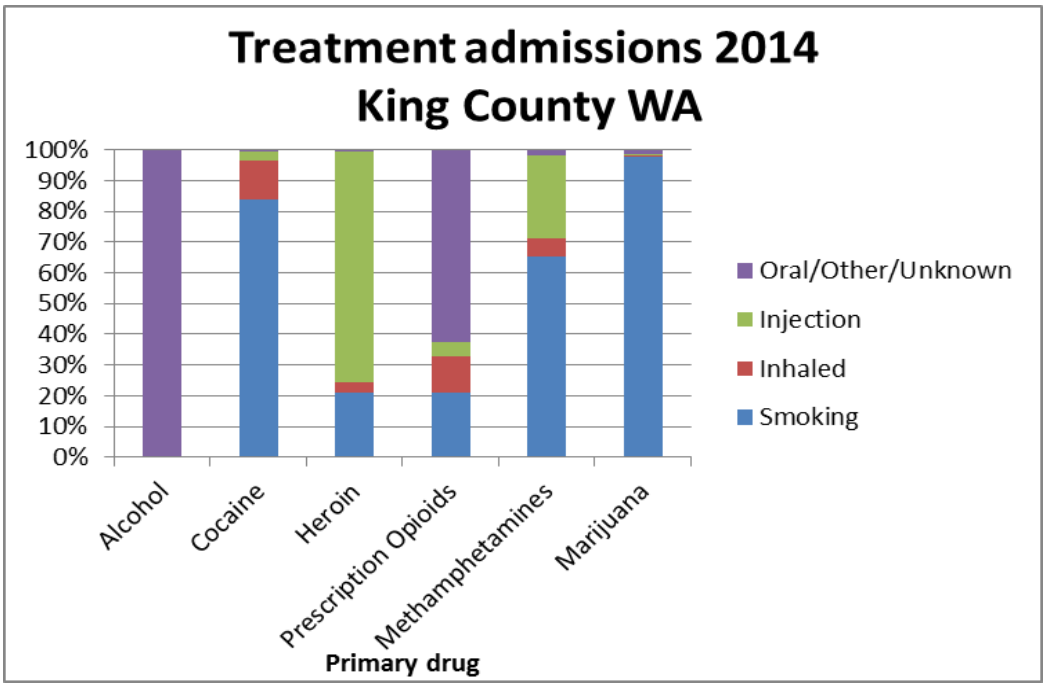






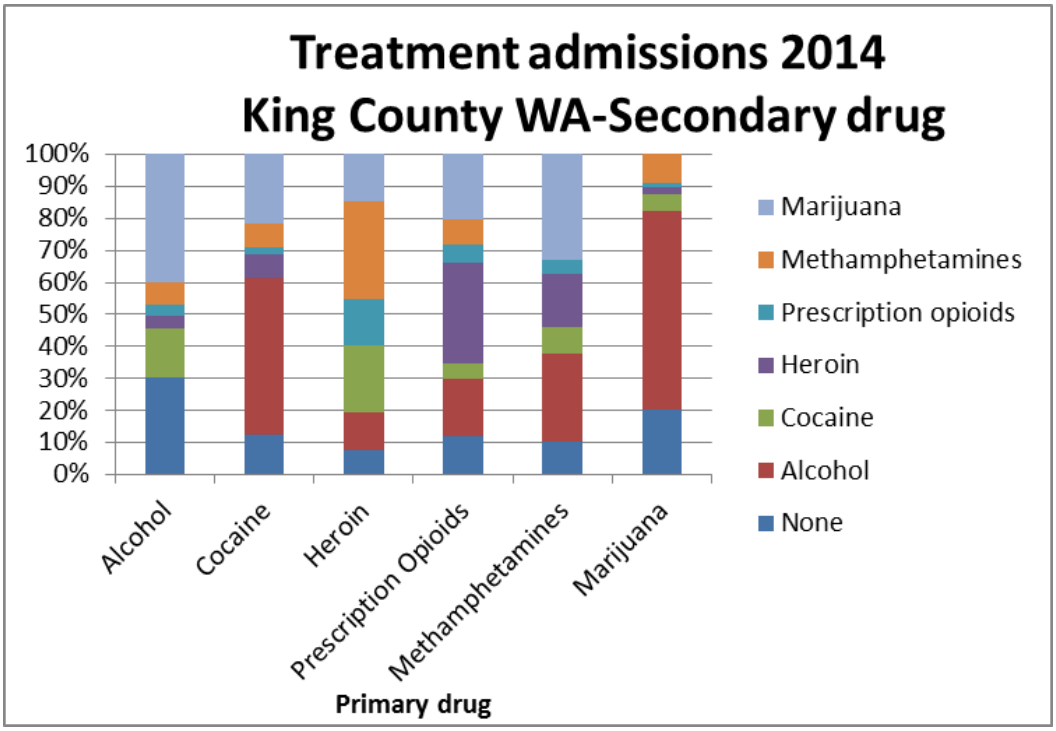
SOURCE: WA Division of Behavioral Health and Recovery TARGET

Exhibit 4. Treatment Admissions, King County, by Mode of Ingestion, 2014



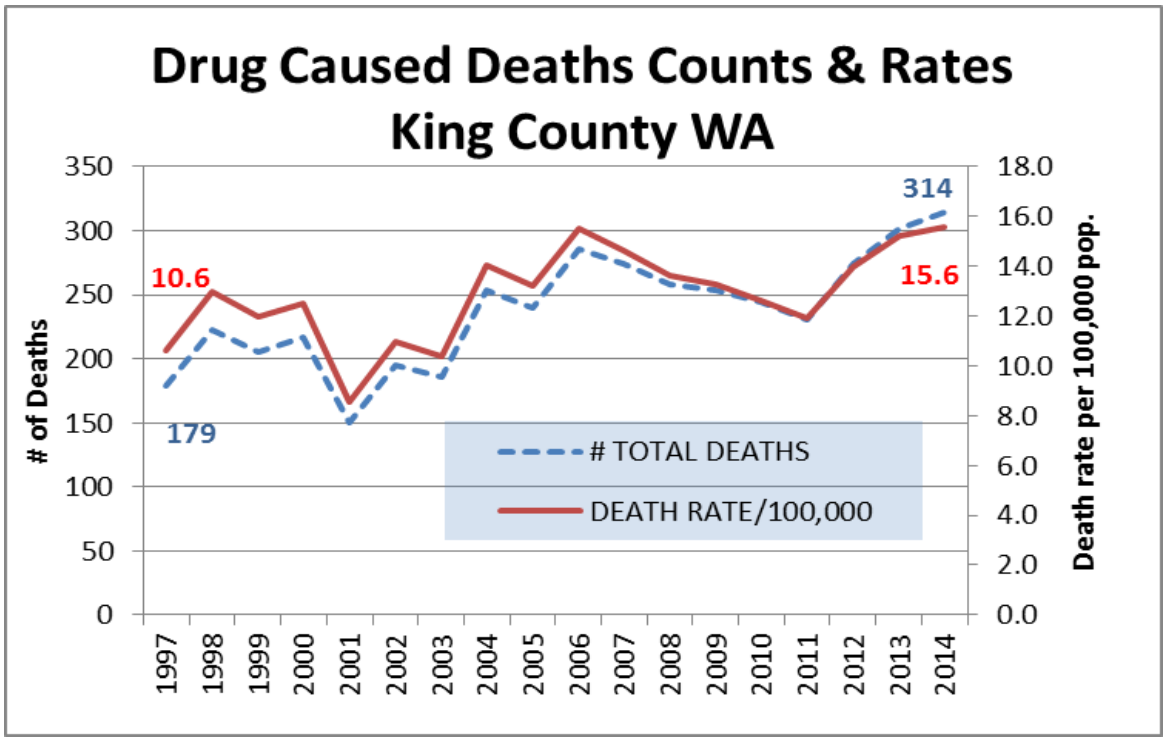
SOURCE: WA Division of Behavioral Health and Recovery TARGET

Exhibit 5. Treatment Admissions, King County, by Secondary Drug of Abuse, 2014



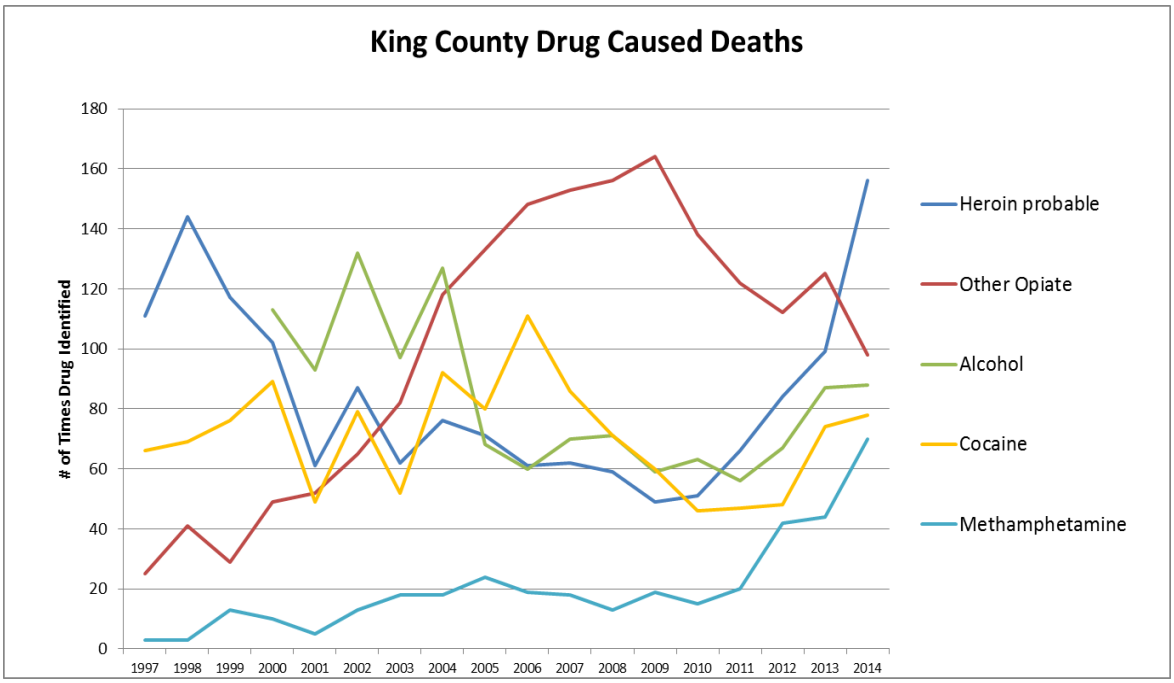
SOURCE: WA Division of Behavioral Health and Recovery TARGET

Exhibit 6. Drug Caused Deaths, Counts and Rates, King County, 1997-2014



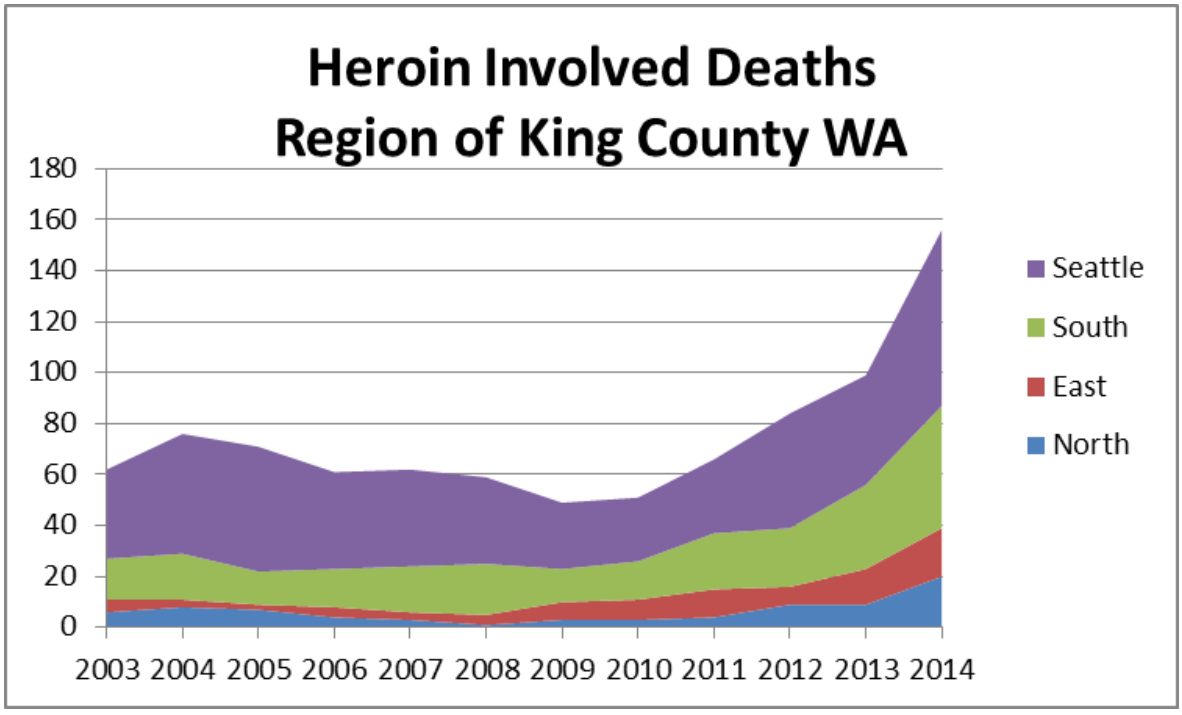
SOURCE: King County Medical Examiner

Exhibit 7. Drug Caused Deaths, King County, by Drug, 1997-2014



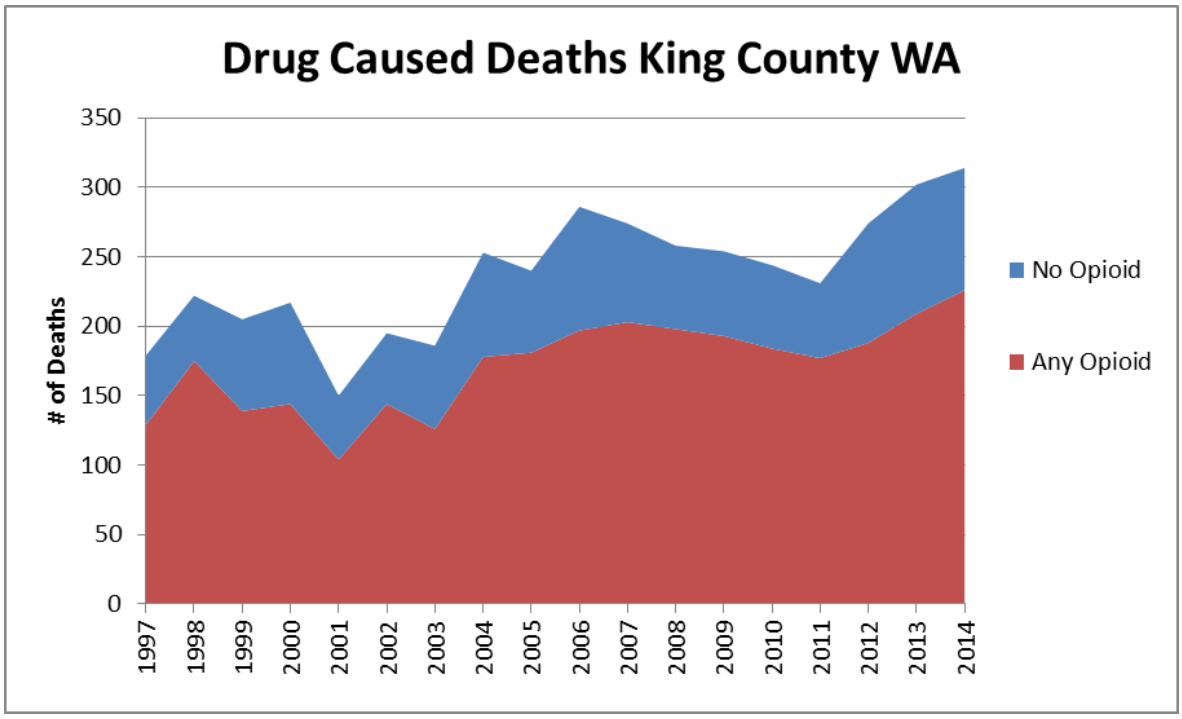
SOURCE: King County Medical Examiner

Exhibit 8. Heroin-Involved Deaths, by Region of King County, 2003-2014



SOURCE: King County Medical Examiner

Exhibit 9. Drug Caused Deaths, King County, by No Opioid and Any Opioid, 1997-2014



SOURCE: King County Medical Examiner

Data Sources

Data for this report were drawn from the Appendix tables and the following sources:

Washington State Patrol Crime Laboratory evidence testing data received at the laboratory between 2002 and 2014 from law enforcement in King County are presented in Exhibit 1. Data are based on cases tested through April 2015 and are presented by the year the evidence was received at the laboratory.

Treatment admissions data for King County residents to publicly funded treatment are included for admissions from 1999 to 2014 in Exhibits 2–5. Data are duplicated and are for all modalities of care and were provided by the Washington State Department of Social and Health Services (DSHS), Division of Behavioral Health and Recovery, Treatment Report and Generation Tool.

King County Medical Examiner data on drug-caused deaths from 1997 through 2014 are presented in Exhibits 6-9. The majority of deaths involved 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 (human immunodeficiency virus/acquired immunodeficiency syndrome) data were provided by Public Health – Seattle & King County (PHSKC). HIV cases diagnosed through December 2013 and reported through May 5, 2014, are included. Analyses of the 2013 syringe exchange survey data were conducted by Emily Cederbaum and students in the Schools of Medicine and Public Health at the University of Washington.

Contact Information: For additional information about the drugs and drug use patterns discussed in this report, please 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.

National Drug Early Warning System (NDEWS) King County (Seattle Area) Sentinel Community Site Appendix Data Tables, 2015

NDEWS Coordinating Center

- Table 1: Demographic and Socio-Economic Characteristics, 2009-2013, ACS
- Table 2a: Self-Reported Substance Abuse Behaviors Among Persons 12+ Years, 2010-2012, NSDUH
- Table 2b: Self-Reported Substance Abuse Behaviors, By Age Group, 2010-2012, NSDUH
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Table 1: Demographic and Socio-Economic Characteristics
King County (Seattle Area), Washington
2009-2013 ACS Five-Year Estimates

	Estimate	Margin of Error
Total Population (#)	**1,974,567**	**
Age (%)		
18 years and over	78.7%	**
21 years and over	75.1%	+/-0.1
65 years and over	11.3%	**
Median Age	37.1	
Race (%)		
White, Not Hisp.	64.2%	+/-0.1
Black/African American, Not Hisp.	6.0%	+/-0.1
Hispanic/Latino	9.0%	**
American Indian/Alaska Native	0.6%	+/-0.1
Asian	14.7%	+/-0.1
Native Hawaiian/Pacific Islander	0.7%	+/-0.1
Some Other Race	0.2%	+/-0.1
Two or More Races	4.5%	+/-0.1
Sex (%)		
Male	49.9%	**
Female	50.1%	**
Educational Attainment (*Among Population Aged 25+ Years*) (%)		
High School Graduate or Higher	92.1%	+/-0.2
Bachelor's Degree or Higher	46.6%	+/-0.3
Unemployment (*Among Civilian Labor Force Pop Aged 16+ Years*) (%)		
Percent Unemployed	5.4%	+/-0.1
Income		
Median Household Income (in 2013 inflation-adjusted dollars)	$71,811	+/-495
Poverty (%)		
People Whose Income in Past Year is Below Poverty Level	11.5%	+/-0.3

NOTES:
Margin of Error: can be interpreted roughly as providing a 90% probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value.
****The estimate is controlled; a statistical test for sampling variability is not appropriate.

SOURCES: Adapted by the NDEWS Coordinating Center from data provided by the U.S. Census Bureau, 2009-2013 5-Year American Community Survey (ACS).

Table 2a: Self-Reported Substance Use Behaviors
Among Persons 12+ Years in *King County (Seattle Area)* ^, 2010-2012
Estimated Percent, 95% Confidence Interval, and Estimated Number
Annual Averages Based on 2010, 2011, 2012 NSDUHs

	Substate Region: King County^	
Substance Use Behaviors	Estimated % (95% CI)	Estimated #*
Used in Past Month		
Alcohol	60.30 (56.22 - 64.23)	995,979
Binge Alcohol**	21.82 (18.85 - 25.12)	360,402
Marijuana	11.67 (9.48 - 14.28)	192,754
Use of Illicit Drug Other Than Marijuana	4.63 (3.49 - 6.13)	76,474
Used in Past Year		
Cocaine	2.04 (1.45 - 2.86)	33,695
Nonmedical Use of Pain Relievers	5.18 (4.03 - 6.65)	85,558
Dependence or Abuse in Past Year* **		
Illicit Drugs or Alcohol	**9.00 (7.33 - 11.01)**	**148,654**
Alcohol	7.64 (6.01 - 9.66)	126,190
Illicit Drugs	2.68 (2.09 - 3.41)	44,266

NOTES:
95% Confidence Interval (CI): provides a measure of the accuracy of the estimate. It defines the range within which the true value can be expected to fall 95 percent of the time.
^King County: NSDUH Substate Region 2 North 2 which comprises King County.
***Estimated #**: the estimated number of persons aged 12 or older who used the specified drug or are dependent/abuse a substance was calculated by multiplying the prevalence rate and the population estimate from Table C1 of the NSDUH report. The population estimate is the simple average of the 2010, 2011, and 2012 population counts for persons aged 12 or older
****Binge Alcohol:** defined as drinking 5 or more drinks on the same occasion on at least 1 day in the past 30 days.
*****Dependence or Abuse in Past Year:** based on definitions found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)* .

SOURCE: Adapted by the NDEWS Coordinating Center from data provided by the Substance Abuse and Mental Health Services Administration (SAMHSA), Substate Estimates of Substance Use and Mental Disorders from the 2010-2012 National Surveys on Drug Use and Health: Results and Detailed Tables.Rockville, MD. 2014. Available at: http://www.samhsa.gov/data/NSDUH/substate2k12/toc.aspx.

Table 2b: Self-Reported Substance Use Behaviors Among Persons in *King County (Seattle Area)* ^, by Age Group, 2010-2012

Estimated Percent and 95% Confidence Interval (CI)

Annual Averages Based on 2010, 2011, 2012 NSDUHs

Substance Use Behaviors	Substate Region: Seattle^		
	12-17	18-25	26+
	Estimated Percent (95% CI)	Estimated Percent (95% CI)	Estimated Percent (95% CI)
Used in Past Month			
Binge Alcohol*	7.7 (5.8 - 10.1)	42.1 (36.9 - 47.6)	20.2 (16.8 - 24.1)
Marijuana	9.8 (7.4 - 12.8)	31.3 (26.4 - 36.7)	8.9 (6.6 - 11.8)
Use of Illicit Drug Other Than Marijuana	4.7 (3.3 - 6.7)	10.8 (8.2 - 14.2)	3.7 (2.5 - 5.4)
Used in Past Year			
Marijuana	16.7 (13.5 - 20.5)	43.4 (38.1 - 48.8)	13.5 (10.8 - 16.8)
Cocaine	0.8 (0.4 - 1.3)	6.4 (4.4 - 9.2)	1.5 (0.9 - 2.4)
Nonmedical Use of Pain Relievers	7.2 (5.3 - 9.7)	11.2 (8.7 - 14.4)	4.1 (2.9 - 5.7)
Dependence or Abuse in Past Year**			
Illicit Drugs or Alcohol	6.7 (4.9 - 9.1)	21.7 (17.9 - 25.9)	7.3 (5.5 - 9.6)
Alcohol	4.2 (3.0 - 5.9)	17.1 (13.9 - 20.9)	6.6 (4.8 - 8.9)
Illicit Drugs	4.6 (3.2 - 6.6)	8.5 (6.2 - 11.4)	1.6 (1.1 - 2.4)

NOTES:

95% Confidence Interval (CI): provides a measure of the accuracy of the estimate. It defines the range within which the true value can be expected to fall 95 percent of the time.

^King County: NSDUH Substate Region 2 North 2 which comprises King County.

***Binge Alcohol:** defined as drinking 5 or more drinks on the same occasion on at least 1 day in the past 30 days.

****Dependence or Abuse in Past Year:** based on definitions found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

SOURCE: Adapted by the NDEWS Coordinating Center from data provided by the Substance Abuse and Mental Health Services Administration (SAMHSA), Substate Estimates of Substance Use and Mental Disorders from the 2010-2012 National Surveys on Drug Use and Health: Results and Detailed Tables. Rockville, MD. 2014. Available at: http://www.samhsa.gov/data/NSDUH/substate2k12/toc.aspx.

Table 3: Self-Reported Substance Use-Related Behaviors Among *Seattle* ^ Public High School Students, 2013
Estimated Percent and 95% Confidence Interval (CI)
2011 and 2013 YRBS*

Substance Use Behaviors	2013 vs 2011			2013 by Sex			2013 by Race		
	2013	2011	p-value	Male	Female	p-value	White	Black	Hispanic
	Percent			Percent			Percent		
	Estimate (95% CI)	Estimate (95% CI)		Estimate (95% CI)	Estimate (95% CI)		Estimate (95% CI)	Estimate (95% CI)	Estimate (95% CI)
Used in Past Month									
Alcohol	24.0 (21.1 - 27.1)	27.2 (24.1 - 30.6)	0.14	23.2 (19.7 - 27.2)	24.6 (21.3 - 28.3)	0.51	33.2 (27.6 - 39.4)	16.7 (11.6 - 23.4)	30.1 (23.2 - 37.9)
Binge Alcohol**	13.5 (11.5 - 15.8)	17.4 (15.0 - 20.2)	**0.02**	13.3 (10.6 - 16.4)	13.9 (11.5 - 16.6)	0.70	19.5 (15.3 - 24.5)	6.9 (4.3 - 11.0)	19.5 (14.2 - 26.2)
Marijuana	22.9 (20.1 - 25.9)	20.8 (18.2 - 23.7)	0.31	24.4 (21.0 - 28.3)	21.2 (17.8 - 25.0)	0.13	27.1 (22.2 - 32.5)	22.4 (16.5 - 29.6)	32.1 (25.9 - 39.1)
Ever Used in Lifetime									
Alcohol	50.3 (46.4 - 54.1)	—	~	48.2 (43.5 - 53.0)	52.0 (47.3 - 56.6)	0.18	61.3 (54.9 - 67.3)	35.3 (27.6 - 43.9)	60.5 (51.7 - 68.7)
Marijuana	35.2 (31.6 - 39.0)	—	~	36.5 (31.9 - 41.3)	33.3 (28.9 - 38.1)	0.26	40.1 (33.6 - 46.9)	33.2 (25.5 - 41.8)	49.5 (41.7 - 57.4)
Cocaine	—	—	~	—	—	~	—	—	—
Hallucinogenic Drugs	—	—	~	—	—	~	—	—	—
Inhalants	—	8.1 (6.8 - 9.6)	~	—	—	~	—	—	—
Ecstasy also called "MDMA"	—	—	~	—	—	~	—	—	—
Heroin	—	—	~	—	—	~	—	—	—
Methamphetamine	—	5.2 (4.0 - 6.6)	~	—	—	~	—	—	—
Rx Drugs without a Doctors Prescription	—	—	~	—	—	~	—	—	—
Injected Any Illegal Drug	2.7 (1.8 - 4.2)	3.5 (2.7 - 4.7)	0.30	3.1 (1.7 - 5.4)	2.1 (1.1 - 4.0)	0.36	1.7 (1.0 - 3.0)	4.4 (1.6 - 11.6)	2.6 (1.1 - 6.3)

NOTES:
'—' = Data not available; **~ =** P-value not available; **N/A =** < 100 respondents for the subgroup.
^Seattle: weighted data were available for Seattle in 2011 and 2013; Weighted results mean that the overall response rate was at least 60%. The overall response rate is calculated by multiplying the school response rate times the student response rate. Weighted results are representative of all students in grades 9–12 attending public schools in each jurisdiction.
***Sample Frame for the 2011 and 2013 YRBS:** sampling frame consisted of public schools with students in at least one of grades 9-12. The sample size for 2011 was 1,896 with an overall response reate of 84%; the 2013 sample size was 1,773 with a 83% overall response rate.
****Binge Alcohol:** defined as had five or more drinks of alcohol in a row within a couple of hours on at least 1 day during the 30 days before the survey.

Source: Adapted by the NDEWS Coordinating Center from data provided by the Centers for Disease Control and Prevention (CDC), 1991-2013 High School Youth Risk Behavior Survey Data. Available at http://nccd.cdc.gov/youthonline/. Accessed on [3/12/2015].

Table 4a: Trends in Admissions* to Substance Abuse Treatment Programs,
***King County (Seattle Area)* Residents, 2010-2014**
Number of Admissions and Percent of Admissions with Selected Substances
Cited as Primary Substance of Abuse at Admission, by Year and Substance

	Calendar Year									
	2010		2011		2012		2013		2014	
	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)
Total Admissions (#)	**11,009**	n/a	**9,990**	n/a	**10,222**	n/a	**9,277**	n/a	**9,779**	n/a
Primary Substance of Abuse (%)										
Alcohol	4417	40.1%	3768	37.7%	3456	33.8%	3145	33.9%	3106	31.8%
Cocaine/Crack	1158	10.5%	934	9.3%	855	8.4%	642	6.9%	518	5.3%
Heroin	1439	13.1%	1531	15.3%	2083	20.4%	2187	23.6%	2886	29.5%
Prescription Opioids**	725	6.6%	562	5.6%	681	6.7%	557	6.0%	531	5.4%
Methamphetamine	772	7.0%	817	8.2%	874	8.6%	855	9.2%	1001	10.2%
Marijuana	2004	18.2%	1947	19.5%	1838	18.0%	1498	16.1%	1363	13.9%
Benzodiazepines	30	<1%	32	<1%	16	<1%	16	<1%	19	<1%
MDMA	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Synthetic Stimulants	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Synthetic Cannabinoids	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Other Drugs/Unknown	464	4.2%	399	4.0%	419	4.1%	377	4.1%	355	3.6%

NOTES:
***Admissions:** includes admissions to all modalities of care in publicly-funded programs. Each admission does not necessarily represent a unique individual, since some individuals are admitted to treatment more than once in a given period.
****Prescription Opioids:** includes oxycodone/hydrocodone, non-prescription methadone, and other opiates.

SOURCE: Data provided by the King County (Seattle Area) NDEWS SCE and the Washington State Department of Social and Health Services (DSHS), Division Behavioral Health and Recovery, Treatment Report and Generation Tool (TARGET).

Table 4b: Demographic and Drug Use Characteristics of Primary Treatment Admissions* for Select Substances of Abuse, *King County (Seattle Area)* Residents, 2014

Number of Admissions, by Primary Substance of Abuse and
Percent of Admissions with Selected Demographic and Drug Use Characteristics

	Primary Substance of Abuse								
	Alcohol	Cocaine/ Crack	Heroin	Prescription Opioids	Meth-amphetamine	Marijuana	Benzo-diazepines	Synthetic Stimulants	Synthetic Cannabinoids
Number of Admissions (#)	3,106	518	2,886	531	1,001	1,363	19	unavail	unavail
Sex (%)									
Male	67.4%	67.8%	61.1%	44.1%	59.9%	72.4%	57.9%	unavail	unavail
Female	32.6%	32.2%	38.9%	55.9%	40.1%	27.6%	42.1%	unavail	unavail
Race/Ethnicity (%)									
White, Non-Hisp.	47.8%	21.6%	69.2%	61.6%	62.5%	32.4%	73.7%	unavail	unavail
African-Am/Black, Non-Hisp	19.0%	53.5%	7.8%	9.4%	5.0%	24.9%	21.1%	unavail	unavail
Hispanic/Latino	8.6%	4.1%	4.5%	6.2%	7.0%	15.6%	5.3%	unavail	unavail
Asian	4.6%	6.0%	1.4%	4.0%	3.8%	4.0%	0.0%	unavail	unavail
Other	20.0%	14.9%	17.1%	18.8%	21.7%	23.1%	0.0%	unavail	unavail
Age Group (%)									
Under 18	3.3%	<1%	1.2%	<1%	6.7%	47.2%	5.3%	unavail	unavail
18-25	55.9%	39.0%	75.8%	80.0%	78.9%	45.3%	57.9%	unavail	unavail
26-44								unavail	unavail
45+	40.8%	60.4%	23.0%	19.4%	14.4%	7.5%	36.8%	unavail	unavail
Route of Administration (%)									
Smoked	<1%	84.0%	21.1%	21.1%	65.2%	97.9%	10.5%	unavail	unavail
Inhaled	<1%	12.4%	3.5%	11.9%	5.8%	<1%	0.0%	unavail	unavail
Injected	<1%	3.1%	74.8%	4.5%	27.3%	<1%	0.0%	unavail	unavail
Oral/Other/Unknown	99.6%	<1%	<1%	62.5%	1.7%	1.6%	89.5%	unavail	unavail
Secondary Substance (%)									
None	24.8%	10.4%	6.1%	9.6%	8.7%	17.7%	15.8%	unavail	unavail
Alcohol	0.0%	41.9%	9.5%	14.3%	23.9%	54.7%	15.8%	unavail	unavail
Cocaine/Crack	12.7%	0.0%	16.5%	3.8%	7.2%	4.5%	5.3%	unavail	unavail
Heroin	3.1%	6.4%	0.0%	25.2%	14.3%	1.9%	15.8%	unavail	unavail
Prescription Opioids**	3.0%	2.1%	11.6%	4.5%	3.9%	1.3%	10.5%	unavail	unavail
Methamphetamine	5.7%	6.2%	24.2%	6.2%	0.0%	7.8%	0.0%	unavail	unavail
Marijuana	32.7%	18.5%	11.6%	16.2%	28.5%	0.0%	21.1%	unavail	unavail

NOTES:

***Admissions:** includes admissions to all modalities of care in publicly-funded programs. Each admission does not necessarily represent a unique individual, since some individuals are admitted to treatment more than once in a given period.

****Prescription Opioids:** includes oxycodone/hydrocodone, non-prescription methadone, and other opiates.

unavail: data not available; **percentages** may not sum to 100 due to either rounding and/or because not all possible categories are presented in the table.

SOURCE: Data provided by the King County (Seattle Area) NDEWS SCE and the Washington State Department of Social and Health Services (DSHS), Division Behavioral Health and Recovery, Treatment Report and Generation Tool (TARGET).

Table 5: Drug Poisoning Deaths*, by Demographic Characteristics, *King County (Seattle Area),* 2009-2012

Rate per 100,000 of deaths with underlying causes of drug related poisonings and 95% Confidence Interval (CI), 2009-2011 and 2010-2012

	2009-2011 Rate (95% CI)	2010-2012 Rate (95% CI)
Total (Age-Adjusted**)	11.4 (10.6 - 12.2)	11.6 (10.7 - 12.4)
Sex (Age-Adjusted**)		
Male	13.6 (12.3 - 14.9)	14.2 (12.9 - 15.5)
Female	9.1 (8.1 - 10.2)	8.9 (7.9 - 10.0)
Race/Ethnicity (Age-Adjusted**)		
White, Non-Hisp.	13.3 (12.1 - 14.4)	13.8 (12.7 - 15.0)
African-American/Black, Non-Hisp.	21.3 (17.0 - 26.4)	18.2 (14.3 - 22.8)
Hispanic	DSU	5.3 (3.4 - 8.0)
Asian	2.4 (1.5 - 3.5)	2.4 (1.5 - 3.5)
American Indian/Alaska Native	DSU	DSU
Age Group		
<18	DSU	DSU
18-44	13.2 (11.8 - 14.7)	13.6 (12.1 - 15.0)
45-64	23.5 (21.1 - 25.9)	23.7 (21.3 - 26.1)
65+	5.0 (3.4 - 7.1)	5.4 (3.8 - 7.5)

NOTES:

***Deaths due to drug poisoning,** ICD-10 codes X40-44, X60-64, X85, Y10-14. Please see the *Overview & Limitations* section (pgs. 8-9) for the ICD-10 definitions.

****Age Adjusted Rate:** the rate is adjusted based on the age distribution of a standard population allowing for comparison of rates across different sites.
Unless noted otherwise, any age-adjusted data are adjusted using the year 2000 standard population.

unavail: data not available for geographic area; **DSU:** data statistically unreliable.

SOURCE: Adapted by the NDEWS Coordinating Center from National Vital Statistics System-Mortality (NVSS-M) data provided by the Centers for Disease Control and Prevention, National Center for Health Statistics. Accessed from Health Indicators Warehouse.

Table 6: HIV/AIDS and Viral Hepatitis Cases,
King County (Seattle Area)* and *State of Washington
Number of Cases and Rate per 100,000 Population, Various Years

Type of Disease	King County		Washington	
	#	Rate per 100,000	#	Rate per 100,000
HIV				
Diagnosis of HIV Infection, 2012[a]	292	17.2	516	9.0
Persons Living with Diagnosed HIV Infection (Prevalence), Year-End 2011[a]	6,691	401.4	10,788	189.7
Hepatitis B, 2012[b]				
Acute Cases (reported new cases)	unavail		34	0.5
Chronic Cases (estimated #)	unavail		unavail	
Hepatitis C, 2012[b]				
Acute Cases (reported new cases)	unavail		54	0.8
Chronic Cases (estimated #)	unavail		unavail	

NOTES:
unavail: data not available.

Sources: Adapted by the NDEWS Coordinating Center from data provided by:
[a]Centers for Disease Control and Prevention (CDC). NCHHSTP Atlas. Accessed on [3/20/15]. Available at: http://www.cdc.gov/nchhstp/atlas/.
[b]Centers for Disease Control and Prevention (CDC), National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Division of Viral Hepatitis, *Surveillance for Viral Hepatitis — United States, 2012.*

Table 7a: Drug Reports for Items Seized by Law Enforcement in *King County (Seattle Area)* in 2014
National Forensic Laboratory Information System (NFLIS)
Top 10 Drug Reports* and Select Drugs/Drug Categories of Interest,
Number of Drug-Specific Reports and Percent of Total Analyzed Drug Reports

Drug Identified	Number (#)	Percent of Total Drug Reports (%)
TOTAL Drug Reports*	**1,407**	**100%**
Top 10 Drug Reports		
Methamphetamine	415	29.5%
Heroin	382	27.1%
Cocaine	228	16.2%
Cannabis	98	7.0%
Unknown	96	6.8%
Oxycodone	19	1.4%
Alprazolam	13	0.9%
3,4-methylenedioxymethamphetamine (MDMA)	12	0.9%
Methadone	12	0.9%
Morphine	11	0.8%
Top 10 Total	**1,286**	**91.4%**
Selected Drugs/Drug Categories**		
Fentanyl & Fentanyl Analogs	2	0.1%
Synthetic Cannabinoids	2	0.1%
Synthetic Cathinones	3	0.2%
2C Phenethylamines	3	0.2%
Piperazines	1	0.1%
Tryptamines	0	0.0%

NOTES:
***Drug Report:** drug that is identified in law enforcement items, submitted to and analyzed by federal, state, or local forensic labs, and included in the NFLIS database.
****Selected Drugs/Drug Categories:** Fentanyl & Fentanyl Analogs and Synthetic Cannabinoids, Synthetic Cathinones, 2C Phenethylamines, Piperazines, and Tryptamines are drug categories of current interest to the NDEWS Project because of the recent increase in their numbers, types, and availability. Please see the Overview & Limitations section (pgs. 12-17) for a complete list of drugs included in each category that were reported to NFLIS during the January to December 2014 timeframe.

The NFLIS database allows for the reporting of up to three drugs per item submitted for analysis. The data presented are a total count of first, second, and third listed reports for each selected drug item seized and analyzed.

Source: Adapted by the NDEWS Coordinating Center from data provided by the U.S. Drug Enforcement Administration (DEA), Office of Diversion Control, Drug and Chemical Evaluation Section, Data Analysis Unit. Data were retrieved from the NFLIS Data Query System (DQS) on May 5, 2015.

Table 7b: Drug Reports* for Selected Categories of New Psychoactive Substances (NPS) among Items Seized by Law Enforcement in *King County (Seattle Area)* in 2014, National Forensic Laboratory Information System (NFLIS),
Number of NPS Drug-Specific Reports and Percent of NPS Category

NPS Category Drug Identified	Number (#)	Percent of NPS Category (%)
Top 5 *Synthetic Cannabinoid* Drug Reports**		
AB-PINACA	2	100.0%
Total *Synthetic Cannabinoid* Reports	**2**	**100.0%**
Top 5 *Synthetic Cathinone* Drug Reports**		
N-METHYL-3,4-METHYLENEDIOXYCATHINONE (METHYLONE)	3	100.0%
Total *Synthetic Cathinone* Reports	**3**	**100.0%**
Top 5 *2C Phenethylamine* Drug Reports**		
2-(4-IODO-2,5-DIMETHOXYPHENYL)-N-(2-METHOXYBENZYL)ETHANAMINE (2C-I-NBOME)	2	66.7%
4-BROMO-2,5-DIMETHOXYPHENETHYLAMINE (2C-B)	1	33.3%
Total *2C Phenethylamine* Reports	**3**	**100.0%**
Top 5 *Piperazine* Drug Reports**		
N-BENZYLPIPERAZINE (BZP)	1	100.0%
Total *Piperazine* Reports	**1**	**100.0%**
Top 5 *Tryptamine* Drug Reports**		
Total *Tryptamine* Reports	**0**	**0.0%**

NOTES:
***Drug Report:** drug that is identified in law enforcement items, submitted to and analyzed by federal, state, or local forensic labs, and included in the NFLIS database.
****Top 5 NPS Category Drug Reports:** fewer than 5 drug types for a specific NPS category may have been seized in the catchment area during the reporting period. Please see the Overview & Limitations section (pgs. 12-17) for a complete list of drugs included in each NPS category that were reported to NFLIS during the January to December 2014 timeframe.

NFLIS database allows for the reporting of up to three drugs per item submitted for analysis. The data presented are a total count of first, second, and third listed reports for each selected drug item seized and analyzed.

Source: Adapted by the NDEWS Coordinating Center from data provided by the U.S. Drug Enforcement Administration (DEA), Office of Diversion Control, Drug and Chemical Evaluation Section, Data Analysis Unit. Data were retrieved from the NFLIS Data Query System (DQS) on May 5, 2015.