NDEWS National Drug Early Warning System

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National Drug Early Warning System (NDEWS) Sentinel Community Site Profile 2015: San Francisco

August 2015

NDEWS Coordinating Center

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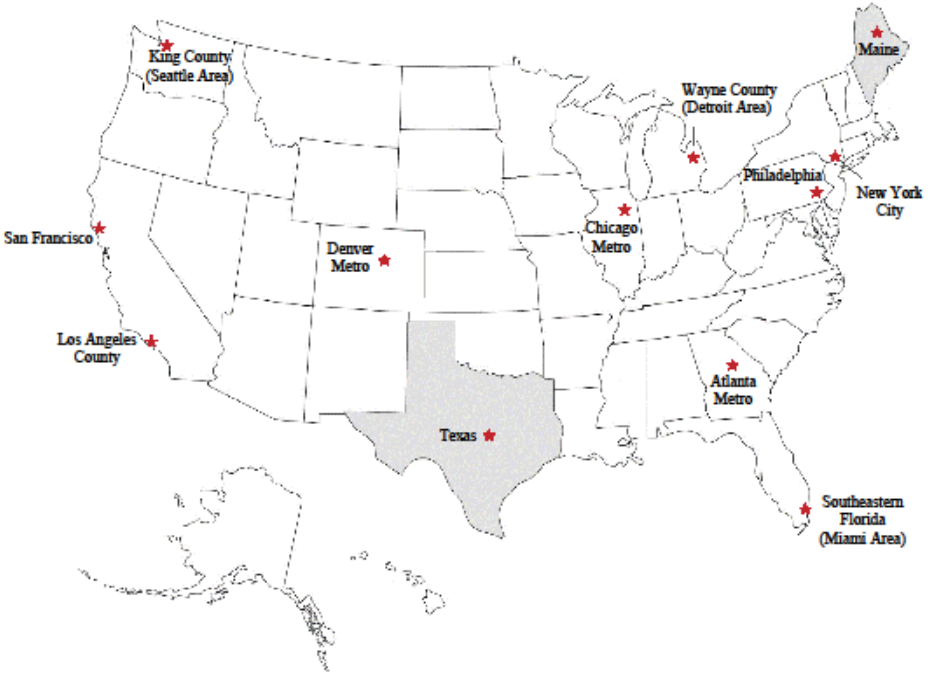
Sentinel Community Site (SCS) Locations



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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.

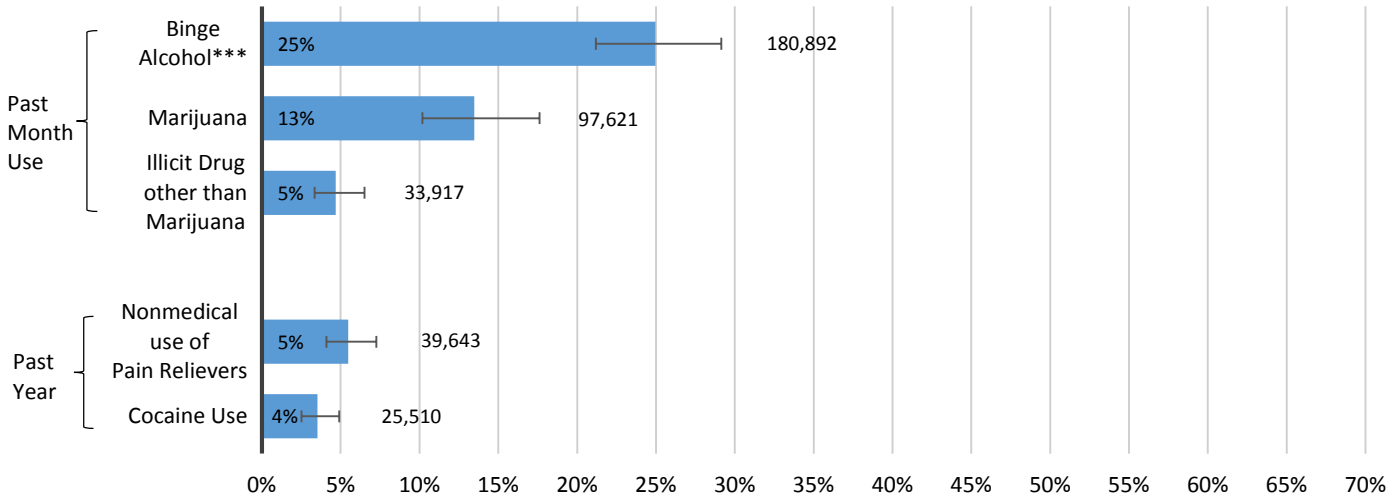
National Drug Early Warning System (NDEWS)
San Francisco Sentinel Community Site
Profile Snapshot, 2015

Substance Use

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

Persons 12+ Years Reporting Selected Substance Use, San Francisco Region^, 2010-2012

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



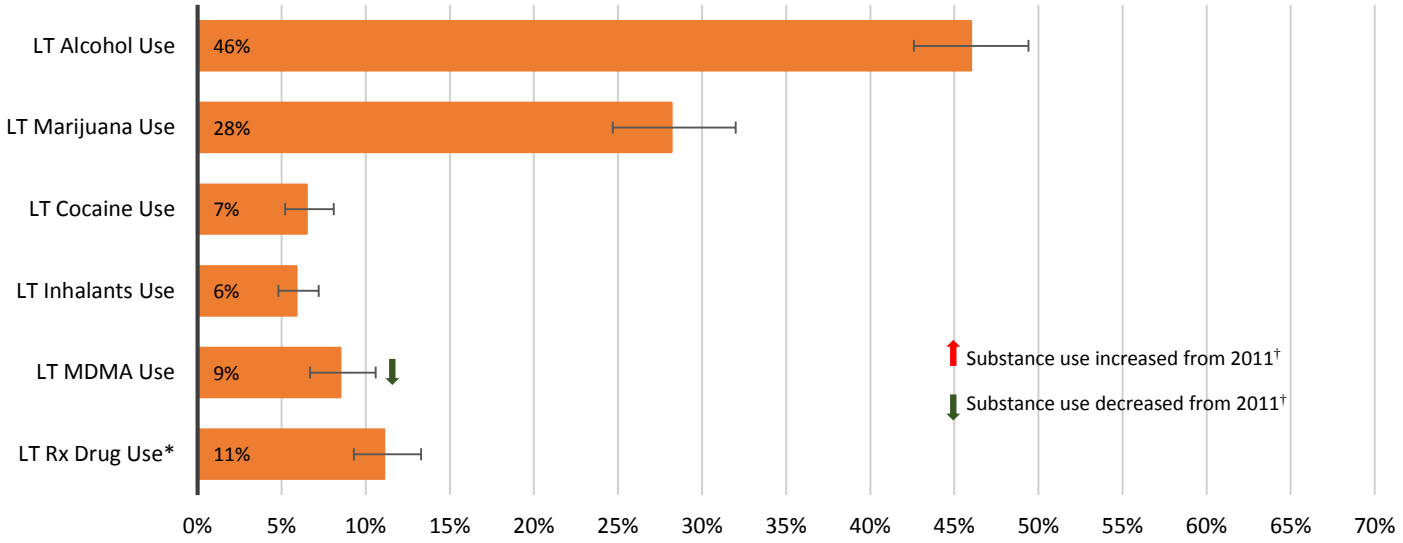
*U.S. Population: U.S. civilian non-institutionalized population. ^San Francisco Region: NSDUH Region 5R (San Francisco County). **Estimated Number: Calculated by multiplying the prevalence rate and the population estimate of persons 12+ years (724,726) from Table C1 of the NSDUH Report. ***Binge Alcohol: Defined as drinking five or more drinks on the same occasion.

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) Use of Selected Substances, San Francisco, 2013

Estimated Percent and 95% Confidence Interval



*LT Rx Drug Use: Defined as ever took prescription drugs without a doctor's prescription.

†Statistically significant change: $p<0.05$ by t-test.

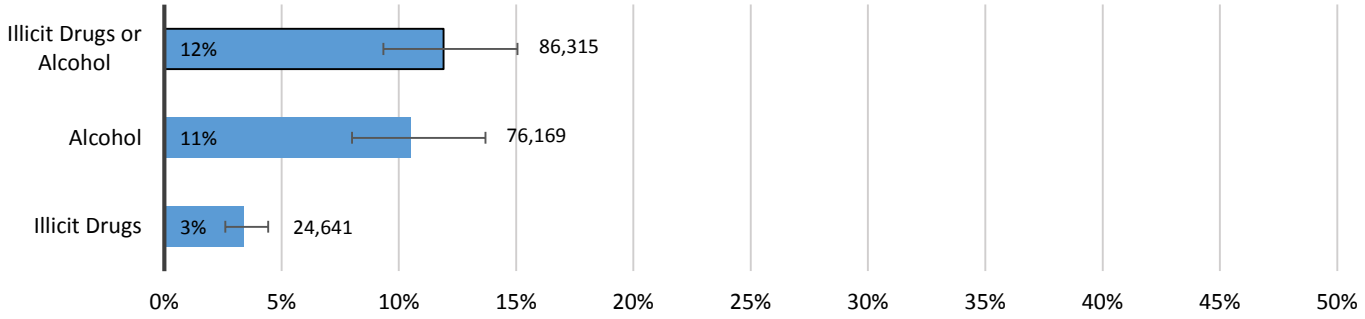
Source: Adapted by the NDEWS Coordinating Center from data provided by CDC, 2001-2013 high school YRBS data.

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, San Francisco Region^, 2010-2012**

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



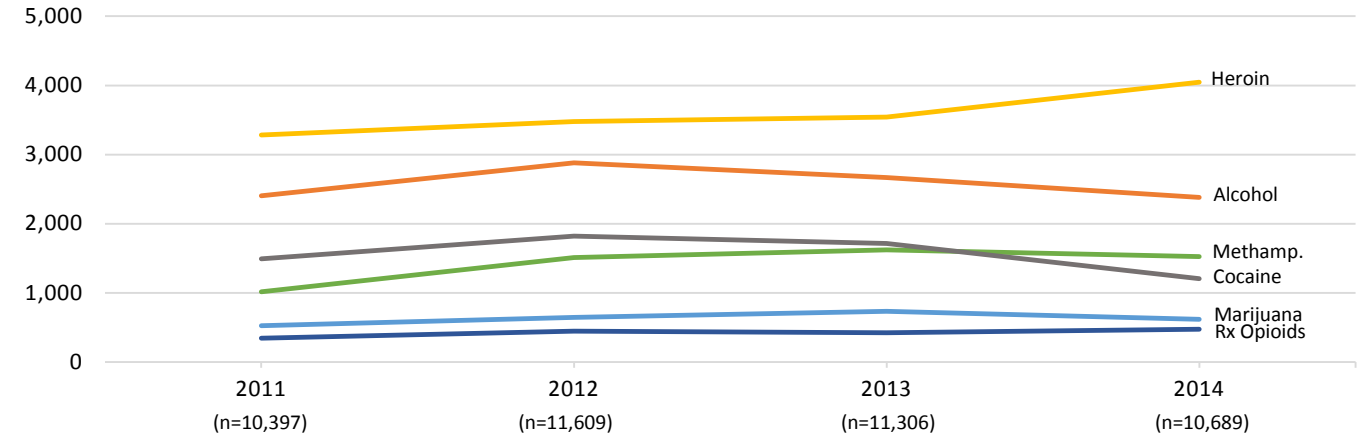
*U.S. Population: U.S. civilian non-institutionalized population. **Dependence or Abuse: Based on definitions found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*. ^San Francisco Region: NSDUH Region 5R (San Francisco County). ***Estimated Number: Calculated by multiplying the prevalence rate and the population estimate of persons 12+ years (724,726) 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.

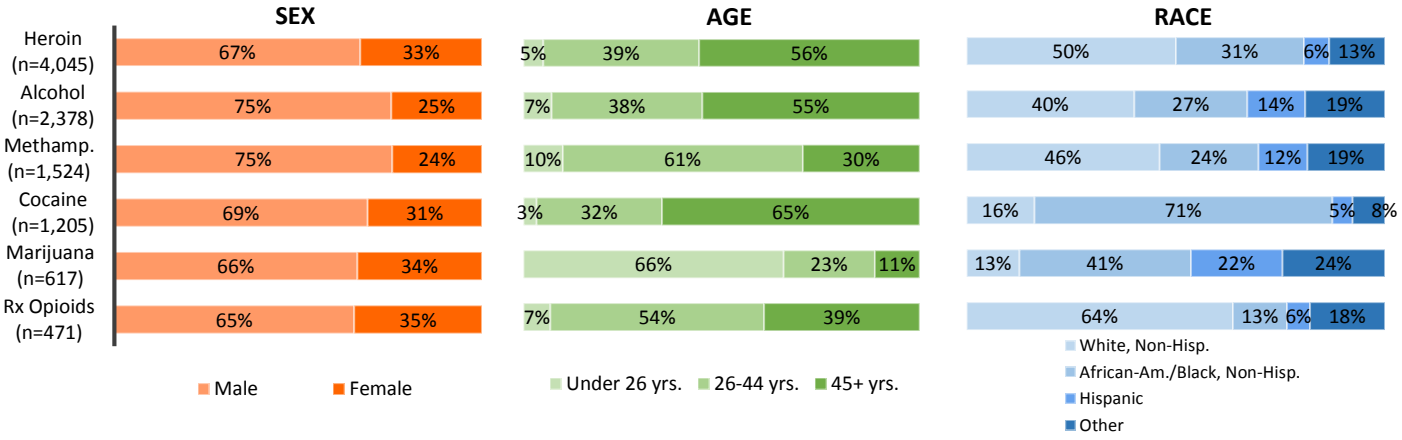
Treatment Admissions Data from Local Sources

Trends in Treatment Admissions, by Primary Substance of Abuse, San Francisco County, 2011-2014

(n = Number of Treatment Admissions)



Demographic Characteristics of Treatment Admissions, San Francisco County, 2014



Percentages may not sum to 100 due to rounding.

Source: Data provided by the San Francisco NDEWS SCE and the San Francisco Department of Public Health, Community Behavioral Health Services Division.

Law Enforcement Drug Seizures

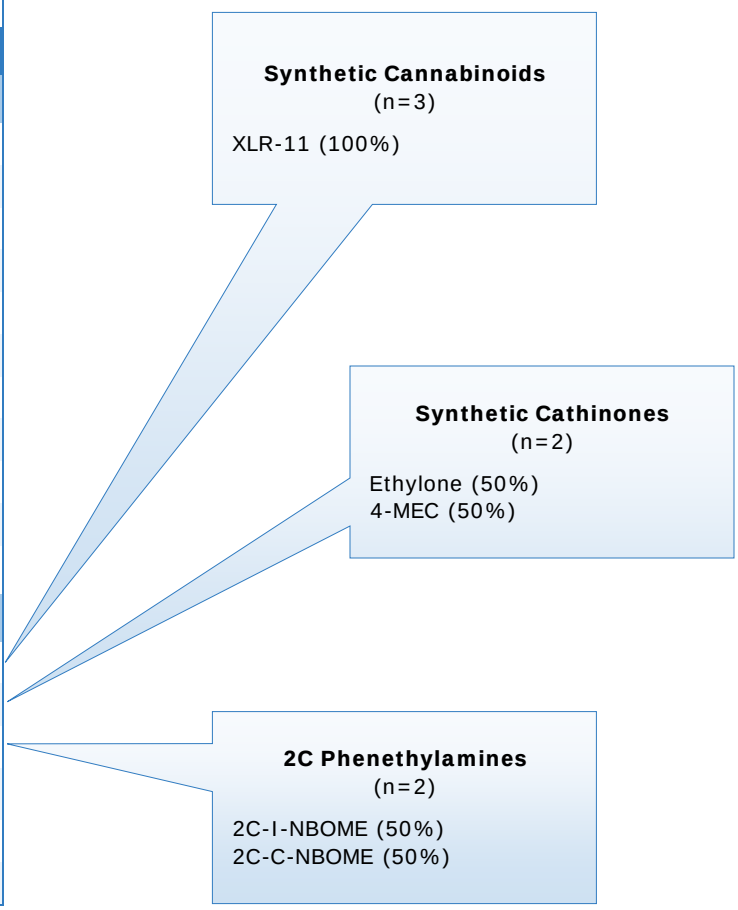
National Forensic Laboratory Information System (NFLIS)

Drug Reports* for Items Seized by Law Enforcement in the San Francisco County 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	**309**	**100%**
Top 10 Drug Reports		
Cannabis	35	11.3%
Methamphetamine	33	10.7%
Heroin	28	9.1%
Oxycodone	25	8.1%
Hydrocodone	13	4.2%
Alprazolam	10	3.2%
Morphine	10	3.2%
Amphetamine	8	2.6%
Clonazepam	8	2.6%
Cocaine	8	2.6%
Top 10 Total	**178**	**57.6%**
Selected Drugs/Drug Categories		
Synthetic Cannabinoids	3	1.0%
Synthetic Cathinones	2	0.6%
2C Phenethylamines	2	0.6%
Fentanyl & Fentanyl Analogs	0	0.0%
Piperazines	0	0.0%
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)
San Francisco Sentinel Community Site
Drug Use Patterns and Trends, 2015

Phillip Coffin, M.D., M.I.A.

SCS Highlights

- Alcohol and illicit substance use in general remains relatively stable in the City and County of San Francisco (CCSF), with the exception of reduced lifetime use of heroin and MDMA reported by public high school students from 2011 to 2013.
- Among adults, there has been a sustained increase in treatment admissions for heroin each year since 2010. This increase is also noted in lay naloxone overdose rescue events, which have increased fourfold since 2010, although there has not been a coinciding increase in heroin-related mortality. Over 90% of naloxone overdose reversals are for heroin-related overdose events and naloxone recipients most likely to use naloxone to reverse an overdose are community members who have previously witnessed an overdose and those who use heroin or methamphetamine.
- Use of prescription opioids is stable according to admissions to substance use disorder treatment, although local providers have undergone significant reforms in prescribing, leading to a dramatic reduction in the availability of prescription opioids in illicit markets.
- Use of stimulants overall remains stable, with slight increases in methamphetamine use indicators and decreases in cocaine use indicators among the general population and persons who inject drugs (PWIDs). In contrast, men who have sex with men (MSM) report increased cocaine use and decreased methamphetamine use.
- Cathinone and synthetic cannabinoid reports are rare in seizure tests and admissions for substance use disorder treatment.
- PWID report improved access to syringes from reliable sources and increasing rates of safe syringe use.
- New HIV infections are uncommon among PWID in CCSF. Nonetheless, PWID report declining rates of HIV testing. Overall HIV prevalence among PWID is 19.6% and a substantial proportion of HIV infections among PWID are unrecognized.
- Hepatitis C virus (HCV) infection remains common among PWID in CCSF, with an estimated prevalence of 53.5%. PWID report increased rates of HCV testing.

Area Description

The City and County of San Francisco (CCSF) ranks as the 4th largest California city and ranks 14th largest in the United States, with an estimated population of 852,469 as of July 1, 2014 (U.S. Census, 2015). The population size of CCSF has grown by 5.9% since 2010. CCSF is largely an adult population (83.7% over age 21) with a relatively small population of older adults (13.8% over age 64); see Appendix Table 1. Non-Hispanic Whites (41.7%) and Asians (33.1%) make up most of the population, with 15.2% Latino and 5.6% African American residents. The population is evenly split between men (50.8%) and women (49.2%) and relatively well-educated (86.3% with at least a high school degree and 52.4% with at least a bachelor's degree). Only 5.7% were unemployed as of 2013 and the median household income was $75,604; 13.5% of CCSF residents in 2013 had incomes below the poverty level.

In general, California's economy has improved dramatically over the past 4 years, with California Governor Jerry Brown announcing budget surpluses in 2013 and 2014. San Francisco's current "boom" economy also resulted in positive local budget projections and is largely driven by the growth in technology business in the city and by technology workers who reside there but commute to work in areas south of San Francisco. The corresponding growth in the real estate market has resulted in nonprofit organizations and poor residents losing long-term leases, forcing many to leave the city and others to relocate or become exclusively mobile in search of affordable rent. The gap between rich and poor has continued to increase dramatically, with the growth in the disparity between wealthy and poor San Francisco household incomes ranked number one in the United States, according to a Brookings Institution study (*San Francisco Chronicle,* March 2, 2014).

Changes in Legislation

Several policies have been put into place to improve the health of substance users over the past decade, with the most recent changes being two laws expanding access to naloxone through standing orders and, as of April 2015, non-prescription furnishing of naloxone by pharmacists and an expansion of pharmacy syringe sales that did away with the previous limit of 30 syringes per transaction (see Coffin, et al., *Drug and Alcohol Dependence*, 2015). In addition, CCSF implemented Healthy San Francisco—a universal healthcare coverage plan—in 2007, universal anti-retroviral treatment for all persons with HIV in 2010, hepatitis C viral load testing in the safety net clinics in 2010, and two expanded HIV testing initiatives in 2010 and 2012.

Drug Use Patterns and Trends

OVERVIEW

Overall, per NSDUH data from 2010-2012, 61% of CCSF residents reported past month use of alcohol, 25% reported binge alcohol use, 13% reported past month use of marijuana, and 5% reported past month use of any other illicit drug. Four percent reported past year cocaine use and 5% reported past year non-medical use of prescription pain relievers. Twelve percent of residents reported dependence or abuse of alcohol (11%) or illicit drugs (3%). No estimates are available for use among 12-17 year olds due to low precision. Those aged 18-25 had the highest prevalence for all available measures of substance use, including past month binge alcohol use and use of illicit drugs other than marijuana; past year cocaine and nonmedical prescription pain reliever use; and past year dependence or abuse of alcohol or illicit drugs.

Among public high school students, there were no statistically significant changes in substance use from 2011 to 2013, except for a significant reduction in lifetime use of heroin and MDMA. There were no significant differences in use in 2013 by sex. White high school students were more likely than Latino high school students to report past month alcohol and binge alcohol use. Latino high school students were more likely than White high school students to report lifetime use of inhalants and heroin.

Drug poisoning deaths were stable through 2012; data for 2013-2015 are expected at year-end 2015. The rate of drug-related deaths was approximately 18 per 100,000, with a higher rate among men (24.1) compared to women (10.9), African American persons (62.1) compared to White persons (25.2), Latino persons (10.3), and Asian persons (3.2). Persons aged 45-64 had by far the highest rate of drug-related deaths (46.4).

Opioids, methamphetamine, cocaine, and alcohol use remain the predominant substances resulting in health problems in CCSF. Heroin use continued to climb since 2011, as tracked by treatment episodes, NFLIS drug reports among items seized and analyzed by law enforcement, lay overdose reversals with naloxone, and anecdotal reports among clinicians and street outreach workers. Twenty-nine percent of all 2014 NFLIS reports were for opioids and one-third of those reports were for heroin. However, heroin use among high school students declined significantly from 2011 to 2013, as reported by YRBS. Opioid prescribing in CCSF has substantially declined due to changing policies on opioid prescribing in the safety net clinical care system, although oxycodone and hydrocodone remain among the top drug reports in NFLIS data for 2014. Anecdotally, clinicians and street outreach workers believe that this reduction in prescription opioid availability has increased heroin use. There was no change in non-medical use of prescription pain relievers among high school students from 2011 to 2013.

Methamphetamine is the second most detected drug in NFLIS drug items, following cannabis, with a stable number of treatment episodes since the preceding year. Cocaine is the tenth most frequent drug detected in NFLIS data and there has been a 4% decline in cocaine treatment episodes from 2013 to 2014. These data are somewhat in contrast to data reported in the men who have sex with men (MSM) phase of the National HIV Behavioral Surveillance (NHBS), which suggest rising cocaine use and declining

methamphetamine use among MSM in CCSF through 2013 (the most recent MSM cycle), and stable use of these substances among persons who inject drugs (PWID) through 2012 (the most recent PWID cycle). Benzodiazepines, cannabis, and MDMA and other stimulants remain infrequent reasons for treatment admissions and there are no reports of admissions for synthetic cannabinoids at this time. There was a significant reduction in the proportion of high school students reporting lifetime use of MDMA to YRBS from 2011 to 2013. There are rare reports of cathinones among NFLIS data.

The most frequent cause of admissions to substance use treatment is alcohol, with a stable number of roughly 2,500 episodes annually, representing roughly one-quarter of all treatment episodes. This is reflected in mortality data (available only through 2012) finding roughly 250 deaths from alcohol annually since 2005 (California Electronic Death Record System [EDRS]).

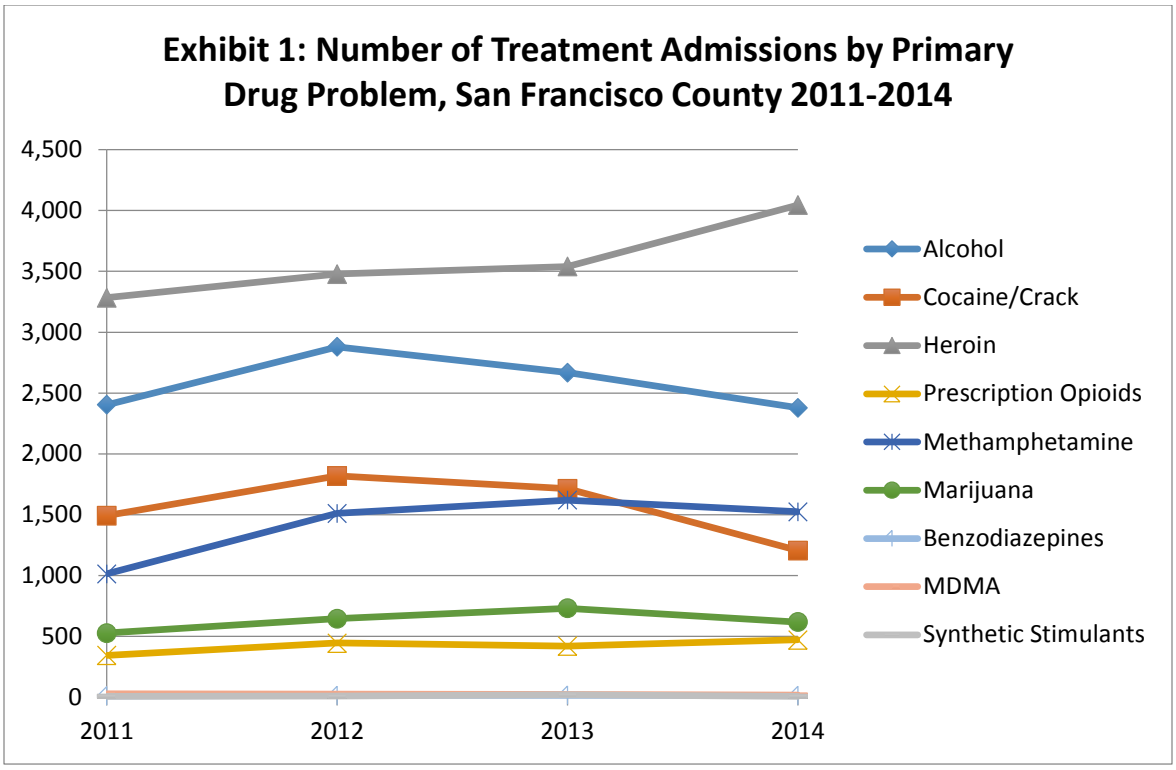
HIV cases have declined to levels seen in the earliest days of the epidemic, with 279 cases in 2014, 16 of which were attributed only to injection drug use (an additional 32 were attributed to MSM-PWID). CCSF remains a major source of HCV diagnoses in California, with 3,102 cases detected in 2014 (9% of all cases in California, with 2% of the state's population).

ALCOHOL

Among CCSF residents surveyed by the NSDUH in 2010-2012, 61% reported past month alcohol use, 25% reported past month binge alcohol use, and 11% reported alcohol dependence or abuse (Appendix Table 2a). Those aged 18-25 had the highest prevalence of past month binge alcohol use (42%) and alcohol dependence or abuse (20%). Among high school students, alcohol use and binge use may have been more frequent among whites compared to Latinos, with no difference by sex and a non-significant reduction from 2011 to 2013.

Alcohol was the second primary drug among admissions for substance abuse treatment in San Francisco (Appendix Tables 4a & 4b; Exhibit 1). Alcohol was the primary drug for more males (n=1,790) than females (n=587), and it was reported for more adults age 45–60 (n=1,304) than for 26–44-years-olds (n=906), clients age 18–25 (n=107), and youth age under 18 (n=61). Alcohol was the primary drug at admission reported by Latinos and Asians, it ranked second among Whites and those of other racial/ethnic categories, and third among African Americans.

Alcohol was determined to be a causal agent in approximately 250 deaths annually from 2005 through 2012 (California Electronic Death Record System), with no discernable trend.



Source: San Francisco Department of Public Health, Community Behavioral Health Services Division

COCAINE

Past year cocaine use was reported by 3.5% of CCSF residents responding to the NSDUH in 2010-2012, with highest prevalence among those aged 18-25 years (9.9%) (Appendix Tables 2a & 2b). Among high school students, cocaine use was stable from 2011 to 2013 (from 7.1% to 6.5%, respectively), with no difference by sex or between Whites and Latinos (Appendix Table 3).

Cocaine ranked tenth among reports for NFLIS drug items seized and analyzed in 2014, accounting for 3 % of total reports among drug items analyzed in CCSF. The proportion and rank were lower than those reported for the United States overall (ranked third and 14% of the total for the United States), and they were lower than the proportion of total cocaine reports in the San Francisco Bay Area (a larger catchment area) for 2013 (13%)[1]. Cocaine was the fourth most frequently reported primary drug among individuals seeking admission to substance abuse treatment in San Francisco (Appendix Table 4a; Exhibit 1). Cocaine was the second most frequently reported primary drug among African Americans enrolled in substance use treatment in CCSF (Appendix Table 4b). Smoked cocaine was the dominant route of administration. Treatment admissions for cocaine use were down somewhat in 2014 compared to preceding years, but similar to 2011. NHBS data suggest that the proportion of PWIDs who consider cocaine/crack as their primary drug has declined (from 2.3% in 2009 to 1.2% in 2012) but increased among MSM.

[1]The San Francisco catchment area used for the 2014 NFLIS data includes only San Francisco County while previous years included data for the 5-county MSA.

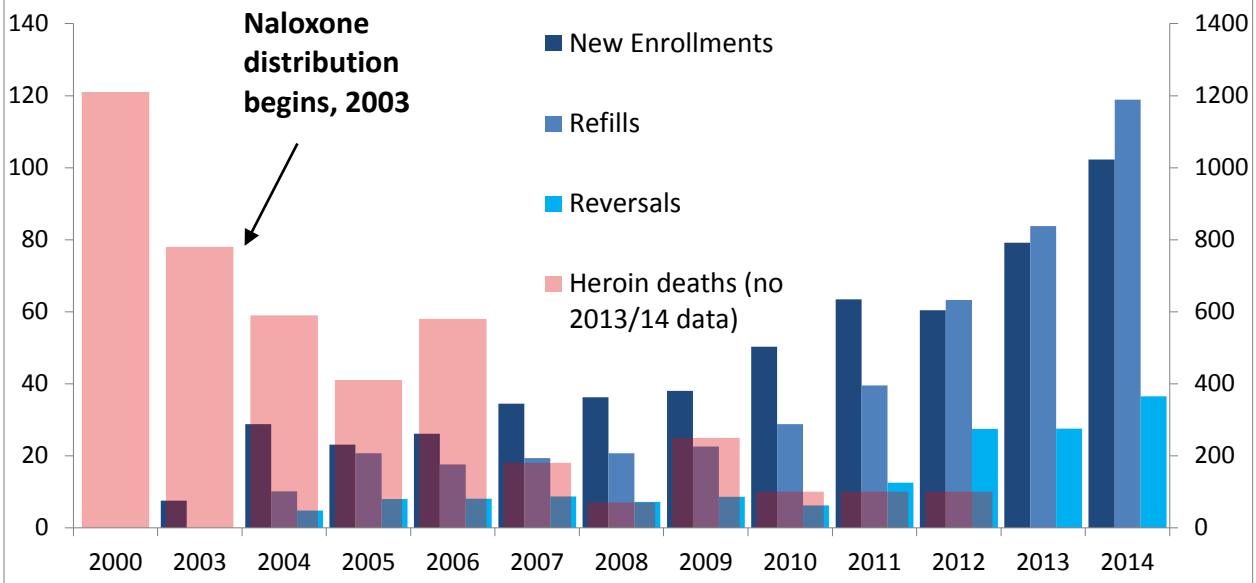
Cocaine was determined to be a causal agent in approximately 70 to 100 deaths annually from 2005 through 2012, with no discernable trend (California EDRS).

HEROIN

Heroin use among public high school students responding to the BRFS significantly decreased from 2011 to 2013 (from 5.0% to 3.0%, respectively), with no difference by sex but a higher prevalence among Latinos (4.8%) compared to Whites (0.0%) (Appendix Table 3).

Indicators for heroin showed increases in treatment episodes and in overdose reversals. Heroin ranked third among NFLIS drug items in 2014 (Appendix Table 7a). Heroin is the leading primary drug listed for admissions to substance abuse treatment in CCSF in 2014 (Appendix Table 4a) and the number of admissions has been increasing through 2014 (Exhibit 1). A majority of clients in treatment for heroin were male, and heroin was the primary drug for all individuals over age 18 (Appendix Table 4b). It was also the primary drug among Whites, African Americans, and those of other racial/ethnic categories.

Exhibit 2: Naloxone Enrollments, Refills, and Reversal Reports to the Drug Overdose Prevention and Education Project, 2003-2013; Heroin Poisoning Deaths 2000-2012



Sources: Drug Overdose Prevention and Education Project; City and County of San Francisco Office of the Chief Medical Examiner; California Electronic Death Record System

Heroin overdose fatalities in CCSF declined substantially since 2000, from over 120 annually to approximately 10 deaths annually from 2010 through 2012 (Exhibit 2; data are not yet available after 2012). This change occurred in the context of increasing availability of naloxone, targeted at PWID throughout CCSF. The number of persons provided with the opioid reversal agent, naloxone, increased dramatically over the past decade. There were 2,500 unique individuals trained in naloxone provision from 2010 through 2013. In 2014, the San Francisco Drug Overdose Prevention Education (DOPE) Project

reported providing naloxone to 1,023 newly trained individuals (an increase from 792 in 2013); refilling naloxone for 1,189 persons (an increase from 838 in 2013); and documenting 365 reversals (an increase from 275 in 2013). These figures represent a persistent increase in naloxone distribution, refills, and passively reported reversals since 2011. In contrast, the number of heroin-related fatalities did not increase through 2012 (data for 2013 through 2015 are expected by 2016).

MARIJUANA

Among respondents to the NSDUH in 2010-2012, 13.5% of CCSF residents reported past year marijuana use. Among public high school students, use was stable from 2011 to 2013 (from 17.9% to 16.3%), with no difference by sex or between Whites and Latinos (Appendix Tables 2a & 2b).

Marijuana was the most frequent drug identified in NFLIS reports in CCSF and in the United States in 2014. Among primary drugs identified by those seeking treatment, marijuana ranked fifth in CCSF in 2014 (n=617), unchanged from prior years (Appendix Table 4a, Exhibit 1). More youth under 18 (n=248) listed marijuana as a primary drug than did other groups: 157 were 18–25-year-olds, 142 were 26–44 year-olds, and 70 were over 44 years of age (Appendix Table 4b).

Medical marijuana has been legal in California since 1996. Legalization of marijuana is expected to be on the state ballot in 2016.

METHAMPHETAMINE

Methamphetamine use among high school students responding to the YRBS was unchanged from 2011 to 2013 (from 5.3% to 4.0%), with no difference by sex or between Whites and Latinos (Appendix Table 3).

Methamphetamine was the second most frequently identified drug report among CCSF NFLIS items in 2014, accounting for 11% of total reports, concordant with national data in which methamphetamine was the second most frequently identified drug and represented 17% of reports (Appendix Table 7a). Methamphetamine was the third most frequently identified primary drug at admission to substance use treatment, with 1,524 treatment episodes in CCSF in 2014 (Appendix Table 4a). Treatment admissions for methamphetamine increased through 2013 and were stable in 2014, but overtook cocaine as the third most common reason for admission (Exhibit 1). NHBS data suggest that methamphetamine use is stable among PWIDs but decreasing among MSM (Coffin, et al., *Drug and Alcohol Dependence*, 2015).

Methamphetamine was determined to be a causal agent in approximately 20-50 deaths annually from 2005 through 2012, with no discernable trend (California EDRS).

PRESCRIPTION OPIOIDS

Past year nonmedical use of pain relievers was reported by 5.5% of CCSF respondents to NSDUH in 2010-2012 (Appendix Table 2a). Use was more common among those aged 18-25 (11.1%) compared to those 26 years of age and older (4.6%). Among high school students, nonmedical use of prescription medications was reported by 11.1%, unchanged from 2011. Use was similar by sex and among Whites compared to Latinos (Appendix Table 2b).

There were slightly more treatment admissions for non-prescribed opiates/opioids in 2014 than in 2013. The majority of these clients were male, White, and aged 26–44 years. Due to restrictions on data sharing implemented in early 2015 by the California State prescription drug monitoring program (CURES), prescription patterns for 2014 are not available at this time. Various prescription sedatives, hypnotics, and stimulants appeared frequently in reports from NFLIS drug items. When these drugs were combined, they accounted for 37% of total reports. Individual prescription drugs ranking in the top 10 drugs found in NFLIS reports for CCSF in 2014 included oxycodone (4th at 8%), hydrocodone (5th at 4%), alprazolam (6th at 3%), morphine (7th at 3%), and clonazepam (9th at 3%).

Among opioid overdose deaths in CCSF from 2010-2012, 90.3% were due to prescription opioids without the presence of heroin; only 31 of 331 deaths involved heroin. Among the 300 deaths involving only prescription opioids, most decedents were 35-64 years of age (78.3%), male (67.3%), and non-Hispanic White (71.0%); 20.0% were African American. The most commonly reported causal opioids were methadone (48.7%), morphine (29.7%), oxycodone (23.7%), and hydrocodone (23.7%). Fentanyl was detected and considered causal in 17 (5.7%) deaths. Most deaths involved other agents as well, including cocaine (33.3%), alcohol (18.7%), or benzodiazepines (29.0%) (Visconti et al., *Journal of Urban Health*, 2015 and Exhibit 4).

OTHER DRUGS

The category of "club drugs" has experienced a continued decline in indicators in CCSF. While MDMA ranked eleventh among drugs found in NFLIS reports from drug items seized (representing 1.9 % of samples identified) in San Francisco, oxycodone, hydrocodone, and methadone were identified more frequently than MDMA. MDMA and synthetic stimulants combined accounted for just 24 episodes (0.3%) of substance use treatment in CCSF in 2014, a decline from 40 episodes (0.4%) in 2013. There were no reports of synthetic cannabinoids among admissions. Among NFLIS reports, cathinones were detected in 1.3% of drug items seized and synthetic cannabinoids were detected in 1.0%. Piperazines, tryptamines, fentanyl, and acetyl fentanyl were not detected.

NEW AND NOTABLE

Drug use in CCSF remains focused on alcohol, opioids, methamphetamine, and cocaine. The changing availability of prescription opioids and the shifts in types of heroin available may be associated with increasing heroin use and overdose, however, there is not yet a documented increase in heroin-related deaths. There are limited reports of fentanyl-related deaths and limited reports of the presence of fentanyl in drug-related seizures; there have not yet been reports of acetyl fentanyl. New formulations of heroin have been reported. There are limited reports of cathinones and synthetic cannabinoids. Among MSM who use drugs, there are anecdotal reports of increasing use of gamma-hydroxybutyric acid (GHB) and analogues as well as sexual enhancers, and shifting patterns in the use of stimulants.

Heroin and Prescription Opioids

As detailed in prior sections, there has been a sustained increase in heroin use and admissions to substance use treatment programs for heroin. Heroin is frequently detected in NFLIS seizures. Heroin overdose events reversed with lay naloxone have increased four to fivefold in the past three years.

Heroin-related fatalities are not yet known to have increased. These increases are contemporaneous with a substantial decline in the availability of prescription opioids from primary care providers in CCSF. There is not yet a detectable effect of decreased opioid prescribing on NFLIS data, admissions to substance use treatment services for prescription opioids, or mortality from prescription opioids.

A study of lay naloxone reversals from 2010-2013 found that 2,500 participants were registered and provided with naloxone, and 702 reversals were reported to the program. Exhibit 3 provides a summary of characteristics of naloxone recipients from 2010-2013 at the time that they received the take-home naloxone kit. Among 702 overdoses reversed with lay naloxone, 90.3% were due to heroin use and 12.8% involved other opioids. All 692 reversals with a known outcome survived except for 10 cases, 6 of which involved an apparently deceased person at the time of naloxone administration. On multiple logistic and zero-inflated multiple Poisson regression analyses, participants who had witnessed an overdose, used heroin, or used methamphetamine had higher odds of obtaining a refill, of reporting a *reversal, and of reporting more reversals compared to other groups (Rowe, et al., Addiction, 2015).* These results confirm that naloxone programming can reach a large number of community members and result in a large number of lay overdose reversals, and that the community members most likely to use naloxone to reverse an overdose are those who themselves use substances.

Exhibit 3: Baseline characteristics of recipients of take-home naloxone from 2010-2013 (*adapted from Rowe, et al., Addiction 2015*)

	All participants		Later used naloxone to reverse an overdose	
	Number	Column %	Number	Column %
Total	**2500**		**257**	
Mean age	38.6	12.7	37.1	12.3
Gender				
Male	1513	60.5	170	66.1
Female	929	37.2	81	31.5
Transgender/other gender	55	2.2	6	2.3
Missing	3	0.1	0.0	0.0
Race				
European background/white	1471	58.8	181	70.4
African American	505	20.2	26	10.1
Latino	224	9.0	16	6.2
Mixed/other race	264	10.6	28	10.9
Missing	36	1.4	6	2.3

Exhibit 3 (continued): Baseline characteristics of recipients of take-home naloxone from 2010-2013 (*adapted from Rowe, et al., Addiction 2015*)

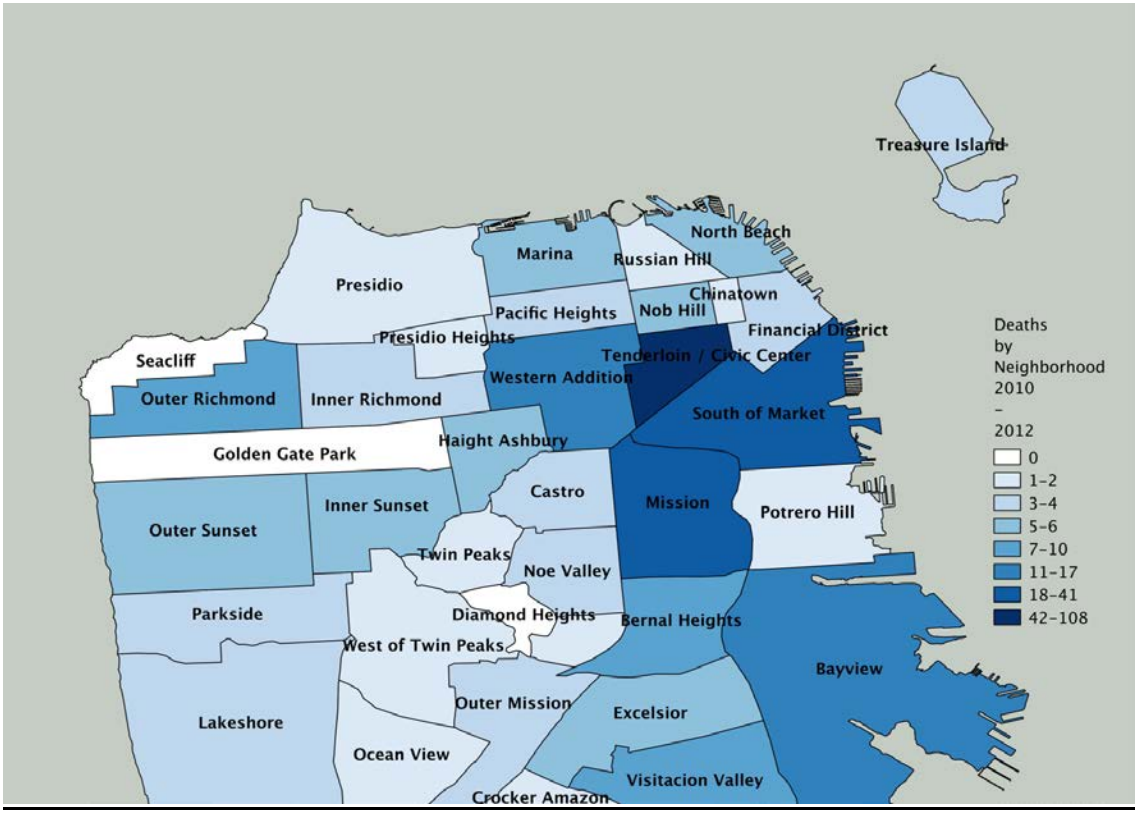
	All participants		Later used naloxone to reverse an overdose	
	Number	Column %	Number	Column %
Housing status				
Stably housed	1007	40.3	86	33.5
Homeless/unstably housed	1403	56.1	156	60.7
Missing	90	3.6	15	5.8
Overdose				
Prior overdose	813	32.5	120	46.7
No prior overdose	1505	60.2	111	43.2
Missing	182	7.3	26	10.1
Witness of overdose				
Witnessed an overdose	1592	63.7	210	81.7
Never witnessed an overdose	747	29.9	27	10.5
Missing	162	6.5	20	7.8
Naloxone administration				
Administered naloxone	270	10.8	68	26.5
Never administered naloxone	2016	80.6	166	64.6
Missing	214	8.6	23	8.9
General substance use in last 30 days				
Any substance use	1847	73.9	216	84.0
No substance use	265	10.6	9	3.5
Missing	388	15.5	32	12.5
Polydrug use in last 30 days				
Polydrug use	1144	45.8	171	66.5
No polydrug use	968	38.7	54	21.0
Missing	388	15.5	32	12.5
Specific substance use in last 30 days				
Any opioids	1267	50.7	177	68.9
Heroin	892	35.7	151	58.8
Methadone	584	23.4	82	31.9
Benzodiazepines	497	19.9	87	33.9
Other opioids	612	24.5	95	37.0
Cocaine/crack	687	27.5	93	36.2
Alcohol	864	34.6	90	35.0
Methamphetamine/speed	776	31.0	122	47.5
Other substances	371	14.8	48	18.7

In addition to a shift from heroin to prescription opioids as the cause for overdose deaths in CCSF, the distribution of opioid overdose deaths now appears to be more diverse (Exhibit 4) compared to prior analyses (Davidson, et al., *Journal of Urban Health*, 2002). In response to this change in the nature of opioid-related mortality, naloxone services were expanded beginning in 2013 to include co-prescription of naloxone to patients on opioid medications for chronic pain. As of April 2015, CCSF safety net clinics had co-prescribed naloxone to at least 646 individuals on opioid medications for chronic pain. Data are pending regarding the impact of this intervention on opioid overdose events or mortality.

Fentanyl and New Forms of Heroin

Fentanyl was found to be causal in 5.7% of opioid overdose deaths from 2010-2012 (Visconti, et al., *Journal of Urban Health*, 2015). In addition, as of 2012, a novel form of heroin emerged in CCSF. This formulation has been referred to as "gunpowder heroin" and is believed to be more potent than the usual black tar heroin that has been in CCSF for decades. Among 19 CCSF heroin users interviewed in a NIDA-funded qualitative study in 2012, the price of heroin was felt to follow expected potency and gunpowder heroin was described as having several forms, including a solid which crumbled, a blend of powder and chunks, and a powder appearing like 'dried coffee,' sometimes black and white speckled (Drs. Sarah Mars and Daniel Ciccarone, University of California San Francisco, 2015). The emergence of novel formulations of heroin in 2012 was associated with a substantial increase in overdoses reported to the DOPE Project.

Exhibit 4: Opioid analgesic deaths by neighborhood in San Francisco, 2010-2012 (Source: *California Electronic Death Record System*)

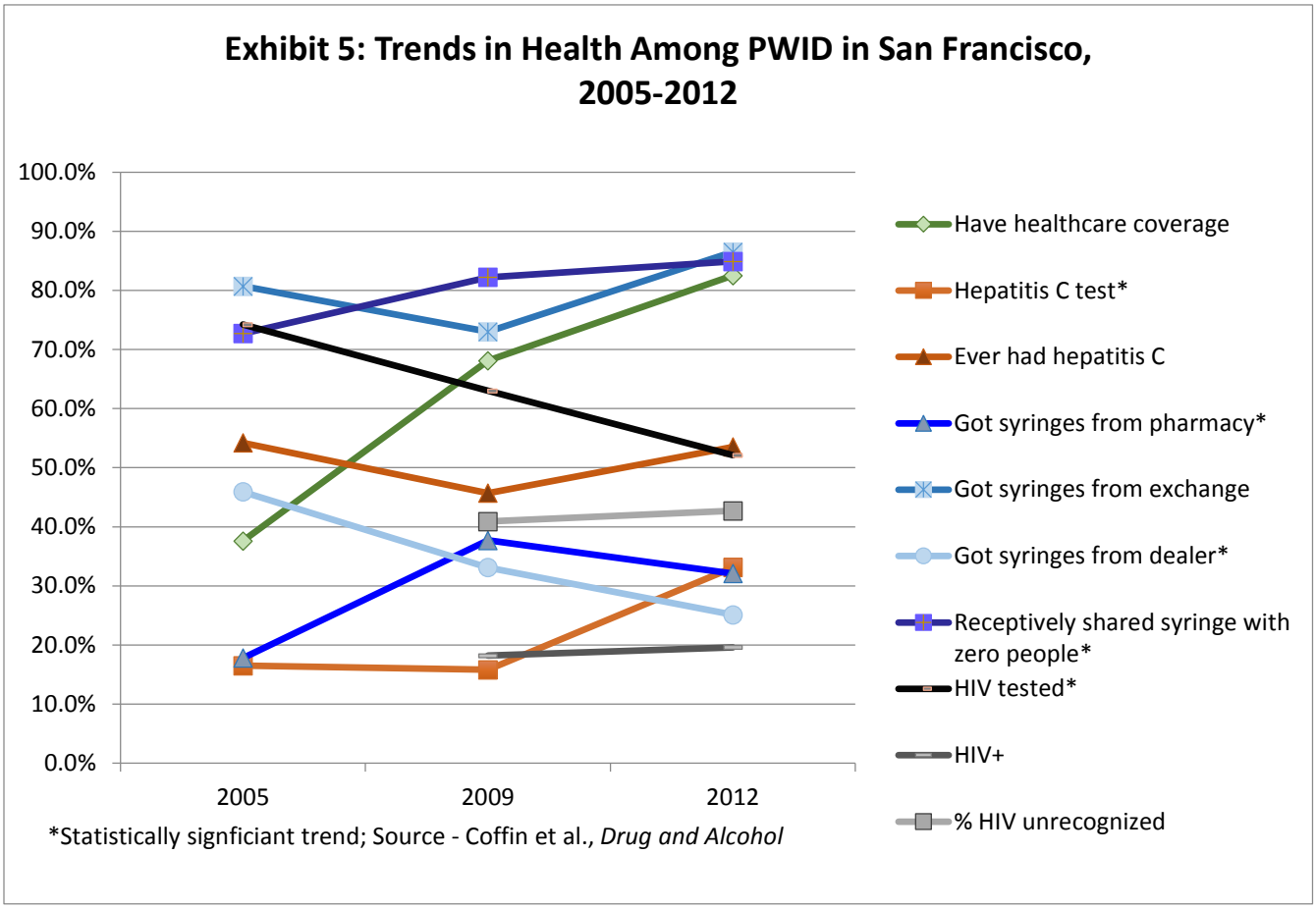


Additional Information on Drug Use Trends

HEALTH TRENDS AMONG PWID IN CCSF

According to the CDC-funded National HIV Behavioral Surveillance (NHBS) conducted in 2012, there are an estimated 13,000-23,000 PWIDs in CCSF. Most PWID (68.5%) are aged 41-60 years, most are male (65.4%), and most are either African American/Black (42.2%) or White (39.0%). Most PWID in CCSF have a high school degree (38.7%) or some college training (31.1%). Most (57.6%) reported being homeless and 37.2% of males reported having sex with men in the preceding 12 months. The primary drug injected was heroin (57.6%), followed by methamphetamine (31.1%). In 2012, 82.5% of PWID had access to healthcare coverage, 34% had been vaccinated for hepatitis B, 33% had received a hepatitis C test in the preceding 12 months, and 53.5% reported having hepatitis C. Most obtained syringes from syringe exchange programs (86.5%) and 84.9% reported using a needle that had been used by someone else zero times in the preceding 12 months. About half (52.1%) reported past year HIV testing and 19.6% were HIV-positive (7.6% by self-report and 12.0% by testing, thus 42.7% of HIV cases among PWID were unrecognized). Two-thirds (66.3%) of those with known HIV were on anti-retroviral treatment (Coffin, et al., *Drug and Alcohol Dependence*, 2015).

In a comparison of results from three cycles of NHBS in 2005, 2009, and 2012, PWID reported significant increases in healthcare coverage (from 37.6% to 82.5%), obtaining syringes from pharmacies (from 17.8% to 32.1%), sharing syringes with zero people (from 72.7% to 84.9%), receiving past-year hepatitis C testing (from 16.5% to 33.1%), and receiving antiretroviral treatment for HIV among those infected (from 46.6% to 66.3%); past year HIV testing declined from 74.2% to 42.1% and the prevalence of unrecognized HIV among PWIDs remained high at 42-43% (Exhibit 5; Coffin, et al., *Drug and Alcohol Dependence*, 2015).



MSM Community

There are several notable drug trends within the MSM community of CCSF.

Gamma-hydroxybutyric acid (GHB) variants

Anecdotal reports from ongoing research studies as well as paramedics from the San Francisco Fire Department suggest that GHB has reemerged as a frequently-used illicit drug among MSM populations in CCSF. Precursors of GHB have also become popular with MSM in CCSF, including gamma-butyrolactone (GBL) and 1-4-butanediol (BDO). GBL and BDO are considered to be more potent than GHB. GBL and BDO are both controlled substances in California. Providers in CCSF have been using gabapentin off-label in treating GHB/GBL/BDO dependence.

Sexual enhancers

Agents to enhance sexual experience are found in the MSM community in CCSF. A recent addition is a "natural" product referred to as "Black Ant." International shipments of this product were reviewed by the FDA, and in March 2015, an FDA warning was issued noting that the product contains sildenafil.

Stimulants

According to NHBS, cocaine use has been increasing and methamphetamine use decreasing among MSM in CCSF. These trends first emerged in 2008 and were found to have continued in 2014 (Exhibit 6). These findings are not reflected in County-level substance use disorder treatment data. Synthetic cathinones are present in some drug reports among NFLIS items seized and analyzed.

Exhibit 6: Past year stimulant drug use among men who have sex with men in San Francisco, 2004-2014 (*National HIV Behavioral Surveillance*)

	2004	2008	2011	2014
	(n=386)	(n=521)	(n=510)	(n=511)
Variable	%	%	%	%
Any stimulant	34.5	32.3	31.0	38.7
Any methamphetamine	23.6	14.6	12.6	12.9
Any cocaine	21.1	24.2	24.6	33.0

Data Sources

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

Population data were obtained from the U.S. Census Bureau, Annual Estimates of the Resident Population for Incorporated Places of 50,000 or More, Ranked by July 1, 2014, Population: April 1, 2010, to July 1, 2014 - United States -- Places Over 50,000 Population 2013 Population Estimates.

Treatment admissions data for San Francisco County were provided by Community Behavioral Health Services Division of the San Francisco Department of Public Health (SFDPH) for calendar years 2011–2014. Treatment episodes include clients admitted in prior years who are still receiving services in a particular year (e.g., methadone maintenance clients).

Nonfatal overdose episode data and naloxone reversals were obtained from the San Francisco Drug Overdose Prevention Education (DOPE) Project, a program of the Harm Reduction Coalition, 2014; with analyses conducted in Rowe C, Santos M, Wheeler E, Vittinghoff E, Davidson P, Coffin PO. Predictors of participant engagement and naloxone utilization in a community-based naloxone distribution program. *Addiction*. 2015. DOI:10.1111/add.12961. PMID: 25917125.

Drug seizure data were provided by the National Forensic Laboratory Information System (NFLIS), Drug Enforcement Administration (DEA). Data were retrieved on Identified Drugs of Total Analyzed Drug Reports, San Francisco, 2014, NFLIS, DEA. NFLIS methodology allows for the accounting of up to three drugs per item submitted for analysis. The data presented are a combined count including primary, secondary, and tertiary reports for each drug. The San Francisco catchment area used for the 2014 NFLIS data includes only San Francisco County while previous years included data for the 5-county MSA.

Acquired immunodeficiency syndrome (AIDS) surveillance and human immunodeficiency virus (HIV) data were provided by the SFDPH, *HIV Epidemiology Section, Quarterly HIV/AIDS Surveillance Report, HIV/AIDS Cases Reported Through December 2014,* accessed at: *http://www.sfdph.org/dph/files/reports/default.asp*.

Viral hepatitis data were provided by the SFDPH, Communicable Disease Control. *Chronic Hepatitis B and Hepatitis C Infection Surveillance Report 2010, San Francisco, February 2012*, accessed at *http://www.sfcdcp.org/document.html?id=749*

Data for the top prescribed drugs, not yet available for this report due to recent changes in data sharing, will be provided by the California Department of Justice, Law Enforcement Support Program, Bureau of Criminal Identification and Investigative Services, from the Controlled Substance Utilization Review and Evaluation System (CURES), California Prescription Drug Monitoring Program (*http://oag.ca.gov/cures-pdmp*).

Drug use and health indicators among persons who inject drugs (PWID) and men who have sex with men (MSM) were provided by Henry Fisher Raymond of the San Francisco Department of Public Health from the CDC-funded National HIV Behavioral Surveillance (NHBS); analyses conducted in Coffin PO, Jin H, Huriaux E, Mirzazadeh A, Raymond HF. Trends in health for persons who inject drugs in San Francisco: results from National HIV Behavioral Surveillance 2005-2012. *Drug and Alcohol Dependence*. 2015. 146:45-51.

Data regarding new formulations of heroin were provided by Drs. Sarah Mars and Daniel Ciccarone of the University of California San Francisco from a qualitative study of heroin funded by the National Institute on Drug Abuse.

Drug mortality data were taken from the National Vital Statistics System-Mortality data, with additional information provided by the California Electronic Death Record System; analyses conducted in Visconti A, Santos M, Lemos N, Burke C, Coffin PO, Opioid Overdose Deaths in the City and County of San Francisco: Prevalence, Distribution, and Disparities. *Journal of Urban Health*. 2015; In Press.

Contact Information: For additional information about the drugs and drug use patterns discussed in this report, please contact Phillip Coffin, MD, MIA, San Francisco Department of Public Health Assistant Clinical Professor, Division of HIV/AIDS, University of California San Francisco, 25 Van Ness Ave, Suite 500, San Francisco, CA 94102, Phone: 415-437-6282, Fax: 415-431-4039, E-mail: phillip.coffin@sfdph.org.

National Drug Early Warning System (NDEWS)
San Francisco 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
- Table 3: Self-Reported Substance Abuse Behaviors Among Public High School Students, 2013, YRBS
- Table 4a: Trends in Admissions to Substance Abuse Treatment Programs, 2010-2014, from local data sources
- Table 4b: Demographic and Drug Use Characteristics of Primary Treatment Admissions for Selected Substances of Abuse, 2014, from local data sources
- Table 5: Drug Poisoning Deaths, by Demographic Characteristics, 2009-2012, NVSS-M, NCHS
- Table 6: HIV/AIDS and Viral Hepatitis Cases, Various Years, CDC
- Table 7a: Drug Reports for Items Seized by Law Enforcement, 2014, NFLIS
- Table 7b: Drug Reports for Selected Categories of New Psychoactive Substances, 2014, NFLIS

Table 1: Demographic and Socio-Economic Characteristics
San Francisco County, California
2009-2013 ACS Five-Year Estimates

	Estimate	Margin of Error
Total Population (#)	**817,501**	**
Age (%)		
18 years and over	86.6%	**
21 years and over	83.7%	+/-0.1
65 years and over	13.8%	+/-0.1
Median Age	38.5	
Race (%)		
White, Not Hisp.	41.7%	+/-0.1
Black/African American, Not Hisp.	5.6%	+/-0.1
Hispanic/Latino	15.2%	**
American Indian/Alaska Native	0.2%	+/-0.1
Asian	33.1%	+/-0.2
Native Hawaiian/Pacific Islander	0.4%	+/-0.1
Some Other Race	0.5%	+/-0.1
Two or More Races	3.3%	+/-0.2
Sex (%)		
Male	50.8%	+/-0.1
Female	49.2%	+/-0.1
Educational Attainment (*Among Population Aged 25+ Years*) (%)		
High School Graduate or Higher	86.3%	+/-0.4
Bachelor's Degree or Higher	52.4%	+/-0.5
Unemployment (*Among Civilian Labor Force Pop Aged 16+ Years*) (%)		
Percent Unemployed	5.7%	+/-0.2
Income		
Median Household Income (in 2013 inflation-adjusted dollars)	$75,604	+/-976
Poverty (%)		
People Whose Income in Past Year is Below Poverty Level	13.5%	+/-0.4

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 *San Francisco^, 2010-2012*
Estimated Percent, 95% Confidence Interval, and Estimated Number
Annual Averages Based on 2010, 2011, 2012 NSDUHs

	Substate Region: San Francisco	
Substance Use Behaviors	Estimated % (95% CI)	Estimated #*
Used in Past Month		
Alcohol	61.06 (55.37 - 66.46)	442,518
Binge Alcohol**	24.96 (21.18 - 29.15)	180,892
Marijuana	13.47 (10.18 - 17.61)	97,621
Use of Illicit Drug Other Than Marijuana	4.68 (3.34 - 6.52)	33,917
Used in Past Year		
Cocaine	3.52 (2.51 - 4.91)	25,510
Nonmedical Use of Pain Relievers	5.47 (4.10 - 7.27)	39,643
Dependence or Abuse in Past Year* **		
Illicit Drugs or Alcohol	**11.91 (9.34 - 15.06)**	**86,315**
Alcohol	10.51 (8.00 - 13.69)	76,169
Illicit Drugs	3.40 (2.60 - 4.43)	24,641

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.
^San Francisco: NSDUH Substate Region 5R which comprises San Francisco 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 *San Francisco* ^, 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: San Francisco		
	12-17	18-25	26+
	Estimated Percent (95% CI)	Estimated Percent (95% CI)	Estimated Percent (95% CI)
Used in Past Month			
Binge Alcohol*	—	42.4 (36.0 - 49.2)	23.4 (19.4 - 28.0)
Marijuana	—	—	11.2 (7.9 - 15.6)
Use of Illicit Drug Other Than Marijuana	—	9.1 (6.4 - 12.9)	4.1 (2.7 - 6.1)
Used in Past Year			
Marijuana	—	—	19.3 (15.0 - 24.6)
Cocaine	—	9.9 (6.6 - 14.5)	2.8 (1.8 - 4.2)
Nonmedical Use of Pain Relievers	—	11.1 (8.3 - 14.7)	4.6 (3.3 - 6.6)
Dependence or Abuse in Past Year**			
Illicit Drugs or Alcohol	—	25.1 (20.4 - 30.6)	10.2 (7.6 - 13.6)
Alcohol	—	20.2 (15.8 - 25.6)	9.5 (6.9 - 12.9)
Illicit Drugs	—	12.3 (8.8 - 16.8)	—

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.
^San Francisco: NSDUH Substate Region 5R which comprises San Francisco County.
'—': Data not available-low precision; no estimate reported.
***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 *San Francisco* ^ 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	Asian
	Percent			Percent			Percent			
	Estimate (95% CI)	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	18.6 (16.3 - 21.1)	21.0 (18.8 -23.5)	0.15	17.3 (14.4 -20.7)	19.7 (16.7 -23.1)	0.26	45.5 (36.0 -55.3)	N/A	28.5 (23.6 - 34.0)	9.1 (7.2 - 11.5)
Binge Alcohol**	10.4 (8.8 - 12.3)	11.7 (10.0 -13.5)	0.31	10.1 (8.1 - 12.5)	10.4 (8.3 - 12.9)	0.85	28.9 (20.5 -39.1)	N/A	15.3 (12.1 - 19.0)	4.3 (3.2 - 5.8)
Marijuana	16.3 (13.6 - 19.3)	17.9 (15.8 -20.3)	0.37	16.7 (13.2 -20.9)	15.6 (12.7 -18.9)	0.61	33.9 (24.7 -44.5)	N/A	29.8 (24.2 - 36.1)	4.7 (3.3 - 6.6)
Ever Used in Lifetime										
Alcohol	46.0 (42.6 - 49.4)	49.1 (46.0 -52.2)	0.18	44.4 (39.8 -49.1)	47.2 (43.2 -51.2)	0.31	64.7 (54.7 -73.6)	N/A	59.2 (52.5 - 65.5)	36.6 (33.0 -40.4)
Marijuana	28.2 (24.7 - 32.0)	30.1 (27.1 -33.2)	0.45	28.3 (23.7 -33.4)	27.8 (23.6 -32.4)	0.85	50.6 (37.9 -63.2)	N/A	52.5 (45.4 - 59.4)	11.5 (9.2 - 14.4)
Cocaine	6.5 (5.2 - 8.1)	7.1 (5.6 - 8.9)	0.63	6.0 (4.1 - 8.7)	6.6 (5.1 - 8.4)	0.7	11.3 (6.5 - 18.9)	N/A	10.5 (6.9 - 15.6)	2.4 (1.4 - 4.0)
Hallucinogenic Drugs	—	—	~	—	—	~	—	—	—	—
Inhalants	5.9 (4.8 - 7.2)	7.4 (5.9 - 9.3)	0.15	6.1 (4.5 - 8.3)	5.3 (3.9 - 7.1)	0.54	2.3 (0.8 - 6.6)	N/A	9.9 (7.1 - 13.7)	2.8 (1.7 - 4.7)
Ecstasy also called "MDMA"	8.5 (6.7 - 10.6)	12.1 (10.2 - 14.2)	**0.01**	8.6 (6.3 - 11.6)	8.1 (6.3 - 10.3)	0.71	17.9 (11.0 -27.8)	N/A	12.5 (8.7 - 17.7)	3.7 (2.6 - 5.3)
Heroin	3.0 (2.2 - 4.1)	5.0 (3.7 - 6.6)	**0.02**	3.3 (2.2 - 5.0)	2.5 (1.5 - 4.0)	0.36	0.0 (0.0 - 0.0)	N/A	4.8 (3.0 - 7.7)	1.0 (0.5 - 2.0)
Methamphetamine	4.0 (3.0 - 5.3)	5.3 (4.2 - 6.6)	0.13	4.1 (2.8 - 5.9)	3.4 (2.1 - 5.3)	0.53	4.2 (1.2 - 13.7)	N/A	6.9 (4.3 - 10.9)	0.8 (0.4 - 1.8)
Rx Drugs without a Doctors Prescription	11.1 (9.3 - 13.3)	11.4 (9.3 - 13.8)	0.86	10.8 (8.5 - 13.6)	11.1 (9.1 - 13.6)	0.8	20.1 (13.4 -29.1)	N/A	17.0 (13.1 - 21.7)	4.5 (3.3 - 6.2)
Injected Any Illegal Drug	—	—	~	—	—	~	—	—	—	—

NOTES:
'—' = Data not available; **~ =** P-value not available; **N/A =** < 100 respondents for the subgroup.
^San Francisco: weighted data were available for San Francisco 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 2,220 with an overall response rate of 74%; the 2013 sample size was 1,953 with a 75% 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, *San Francisco* 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 (#)	unavail	unavail	**10,397**	n/a	**11,609**	n/a	**11,306**	n/a	**10,689**	n/a
Primary Substance of Abuse (%)										
Alcohol	unavail	unavail	2,404	23.1%	2,880	24.8%	2,668	23.6%	2,378	22.2%
Cocaine/Crack	unavail	unavail	1,492	14.4%	1,818	15.7%	1,713	15.2%	1,205	11.3%
Heroin	unavail	unavail	3,284	31.6%	3,478	30.0%	3,540	31.3%	4,045	37.8%
Prescription Opioids	unavail	unavail	344	3.3%	445	3.8%	420	3.7%	471	4.4%
Methamphetamine	unavail	unavail	1,013	9.7%	1,511	13.0%	1,619	14.3%	1,524	14.3%
Marijuana	unavail	unavail	526	5.1%	645	5.6%	730	6.5%	617	5.8%
Benzodiazepines	unavail	unavail	10	<1%	13	<1%	15	<1%	13	<1%
MDMA	unavail	unavail	28	<1%	26	<1%	21	<1%	17	<1%
Synthetic Stimulants	unavail	unavail	7	<1%	8	<1%	19	<1%	7	<1%
Synthetic Cannabinoids	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Other Drugs/Unknown	unavail	unavail	1,289	12.4%	785	6.8%	561	5.0%	412	3.9%

NOTES:

***Admissions:** Each admission does not necessarily represent a unique individual, since some individuals are admitted to treatment more than once in a given period.

Source: Data provided by the San Francisco SCE and San Francisco Department of Public Health, Community Behavioral Health Services Division.

Table 4b: Demographic and Drug Use Characteristics of Primary Treament Admissions*
for Select Substances of Abuse, *San Francisco* 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 (#)	2,378	1,205	4,045	471	1,524	617	13	7	unavail
Sex (%)									
Male	75.3%	68.9%	66.9%	65.0%	75.3%	66.0%	61.5%	71.4%	unavail
Female	24.7%	31.1%	33.1%	34.6%	24.3%	33.9%	38.5%	28.6%	unavail
Race/Ethnicity (%)									
White, Non-Hisp.	40.2%	16.3%	50.0%	63.7%	46.2%	12.6%	61.5%	14.3%	unavail
African-Am/Black, Non-Hisp	27.0%	71.2%	30.7%	13.0%	23.6%	41.0%	7.7%	42.9%	unavail
Hispanic/Latino	13.8%	4.8%	6.0%	5.5%	11.7%	21.9%	7.7%	0.0%	unavail
Asian	3.7%	1.8%	2.0%	2.5%	5.1%	3.7%	15.4%	14.3%	unavail
Other	15.3%	5.9%	11.3%	15.3%	13.5%	20.7%	7.7%	28.6%	unavail
Age Group (%)									
Under 18	2.6%	0.1%	0.0%	0.2%	0.1%	40.2%	0.0%	42.9%	unavail
18-25	4.5%	3.2%	5.0%	6.6%	9.8%	25.4%	23.1%	0.0%	unavail
26-44	38.1%	31.6%	39.4%	53.9%	60.6%	23.0%	46.2%	28.6%	unavail
45+	54.8%	65.1%	55.7%	39.3%	29.5%	11.3%	30.8%	28.6%	unavail
Route of Administration (%)									
Smoked	0.0%	89.7%	3.1%	3.4%	61.2%	94.3%	0.0%	14.3%	unavail
Inhaled	0.0%	5.7%	14.3%	7.2%	4.6%	0.5%	0.0%	14.3%	unavail
Injected	0.0%	0.7%	78.9%	13.8%	31.4%	0.2%	0.0%	14.3%	unavail
Oral/Other/Unknown	100.0%	3.9%	3.6%	75.6%	2.8%	5.0%	100.0%	57.1%	unavail
Secondary Substance (%)									
None	55.6%	35.3%	37.9%	45.2%	44.7%	46.8%	69.2%	28.6%	unavail
Alcohol	0.0%	31.4%	5.6%	4.9%	19.4%	25.1%	7.7%	0.0%	unavail
Cocaine/Crack	17.3%	0.0%	30.9%	9.1%	6.0%	6.6%	0.0%	0.0%	unavail
Heroin	2.8%	11.3%	0.0%	12.7%	8.5%	1.6%	0.0%	14.3%	unavail
Prescription Opioids	1.0%	1.0%	5.4%	0.0%	1.5%	1.8%	7.7%	0.0%	unavail
Methamphetamine	10.8%	9.4%	13.6%	9.8%	0.0%	6.0%	0.0%	14.3%	unavail
Marijuana	11.2%	11.0%	4.5%	6.6%	16.5%	0.0%	15.4%	28.6%	unavail

NOTES:
*Admissions: Each admission does not necessarily represent a unique individual, since some individuals are admitted to treatment more than once in a given period.
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 San Francisco SCE and San Francisco Department of Public Health, Community Behavioral Health Services Division.

Table 5: Drug Poisoning Deaths*, by Demographic Characteristics, *San Francisco County,* 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**)	19.5 (17.8 - 21.2)	17.8 (16.2 - 19.4)
Sex (Age-Adjusted**)		
Male	27.2 (24.4 - 29.9)	24.1 (21.6 - 26.7)
Female	11.2 (9.3 - 13.0)	10.9 (9.1 - 12.7)
Race/Ethnicity (Age-Adjusted**)		
White, Non-Hisp.	27.6 (24.5 - 30.6)	25.2 (22.3 - 28.1)
African-American/Black, Non-Hisp.	60.2 (48.8 - 71.6)	62.1 (50.3 - 73.8)
Hispanic	13.0 (9.5 - 17.4)	10.3 (7.3 - 14.0)
Asian	3.5 (2.5 - 4.9)	3.2 (2.2 - 4.5)
American Indian/Alaska Native	DSU	DSU
Age Group		
<18	DSU	DSU
18-44	14.7 (12.4 - 16.9)	13.9 (11.7 - 16.1)
45-64	51.2 (45.6 - 56.8)	46.4 (41.1 - 51.7)
65+	13.9 (10.2 - 18.5)	13.4 (9.7 - 17.9)

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,
San Francisco County* and *State of California
Number of Cases and Rate per 100,000 Population, Various Years

Type of Disease	San Francisco		California	
	#	Rate per 100,000	#	Rate per 100,000
HIV				
Diagnosis of HIV Infection, 2012[a]	467	62.9	5,801	18.5
Persons Living with Diagnosed HIV Infection (Prevalence), Year-End 2011[a]	14,487	1,976.6	112,776	362.7
Hepatitis B, 2012[b]				
Acute Cases (reported new cases)	unavail	unavail	136	0.4
Chronic Cases (estimated #)	unavail	unavail	unavail	unavail
Hepatitis C, 2012[b]				
Acute Cases (reported new cases)	unavail	unavail	63	0.2
Chronic Cases (estimated #)	unavail	unavail	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 *San Francisco*^ 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*	**309**	**100%**
Top 10 Drug Reports		
Cannabis	35	11.3%
Methamphetamine	33	10.7%
Heroin	28	9.1%
Oxycodone	25	8.1%
Hydrocodone	13	4.2%
Alprazolam	10	3.2%
Morphine	10	3.2%
Amphetamine	8	2.6%
Clonazepam	8	2.6%
Cocaine	8	2.6%
Top 10 Total	**178**	**57.6%**
Selected Drugs/Drug Categories**		
Fentanyl & Fentanyl Analogs	0	0.0%
Synthetic Cannabinoids	3	1.0%
Synthetic Cathinones	2	0.6%
2C Phenethylamines	2	0.6%
Piperazines	0	0.0%
Tryptamines	0	0.0%

NOTES:
^San Francisco County: note that this San Francisco County catchment area is different than that previously reported for the NFLIS San Francisco area, which included data for the 5-county MSA.
***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 San Francisco Police Department (SFPD) laboratory has been closed since 2010; however, beginning in January 2012, the San Mateo Sheriff Department laboratory began reporting their SFPD cases to NFLIS.

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 San Francisco County^ *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**		
XLR-11 (1-(5-FLUOROPENTYL-1H-3-YL)(2,2,3,3-TETRAMETHYLCYCLOPROPYL)METHANONE)	3	100.0%
Total *Synthetic Cannabinoid* Reports	**3**	**100.0%**
Top 5 *Synthetic Cathinone* Drug Reports**		
3,4-METHYLENEDIOXYETHYLCATHINONE (ETHYLONE)	1	50.0%
4-METHYL-N-ETHYLCATHINONE (4-MEC)	1	50.0%
Total *Synthetic Cathinone* Reports	**2**	**100.0%**
Top 5 *2C Phenethylamine* Drug Reports**		
2-(4-IODO-2,5-DIMETHOXYPHENYL)-N-(2-METHOXYBENZYL)ETHANAMINE (2C-I-NBOME)	1	50.0%
2-(4-CHLORO-2,5-DIMETHOXYPHENYL)-N-(2-METHOXYBENZYL)ETHANAMINE (2C-C-NBOME)	1	50.0%
Total *2C Phenethylamine* Reports	**2**	**100.0%**
Top 5 *Piperazine* Drug Reports**		
Total *Piperazine* Reports	**0**	**0.0%**
Top 5 *Tryptamine* Drug Reports**		
Total *Tryptamine* Reports	**0**	**0.0%**

NOTES:
^San Francisco County: note that this San Francisco County catchment area is different than that previously reported for the NFLIS San Francisco area, which included data for the 5-county MSA.
***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. The San Francisco Police Department (SFPD) laboratory has been closed since 2010; however, beginning in January 2012, the San Mateo Sheriff Department laboratory began reporting their SFPD cases to NFLIS.

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.