

National Drug Early Warning System (NDEWS) San Francisco Sentinel Community Site Drug Use Patterns and Trends, 2015

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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]).

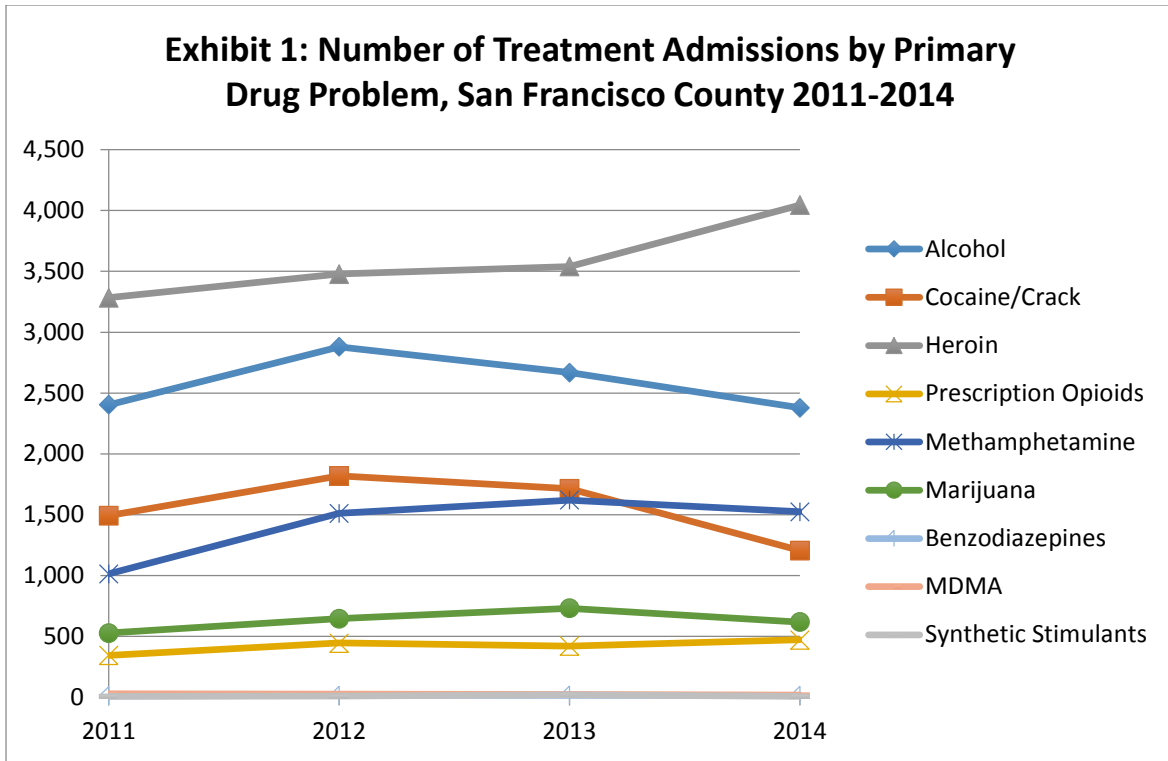
HIV cases have declined to levels seen in the earliest days of the epidemic, with 279 cases in 2014, 16 of which were attributed only to injection drug use (an additional 32 were attributed to MSM-PWID). CCSF remains a major source of HCV diagnoses in California, with 3,102 cases detected in 2014 (9%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

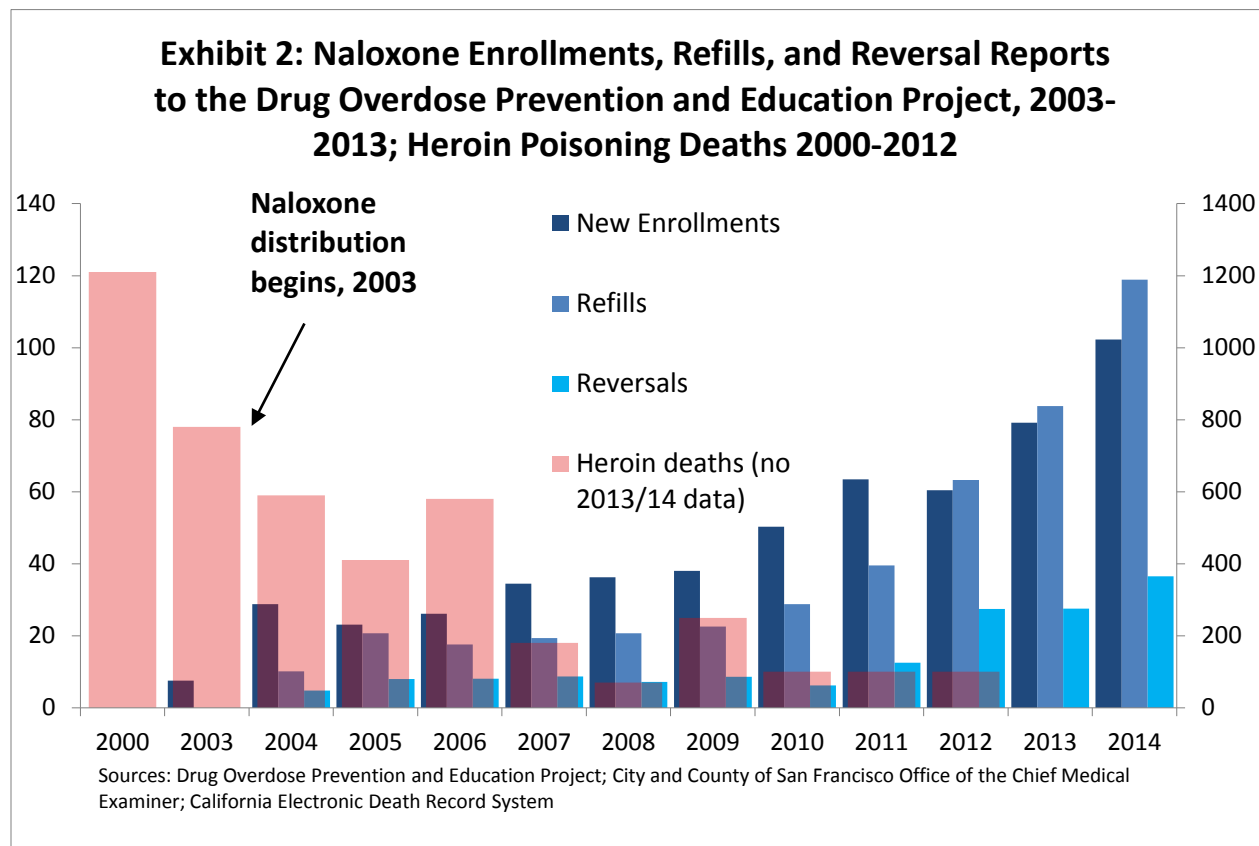
¹The San Francisco catchment area used for the 2014 NFLIS data includes only San Francisco County while previous years included data for the 5-county MSA.

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 BRFSS 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.



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)

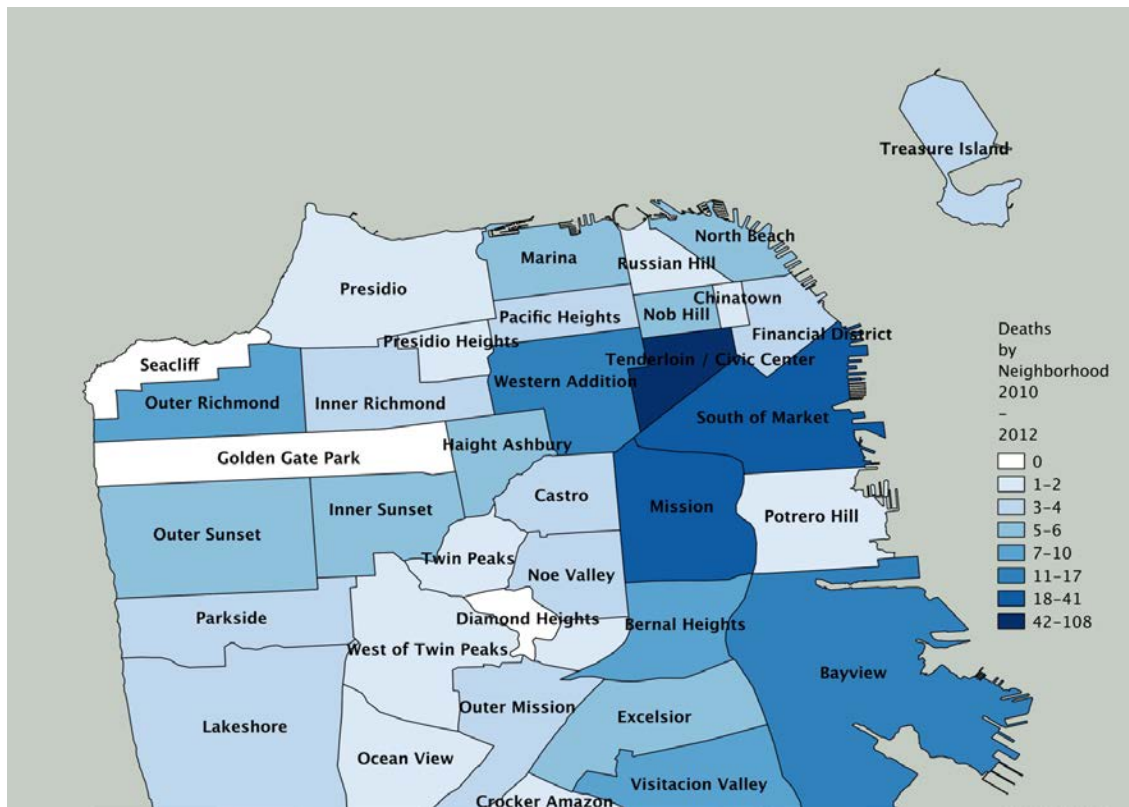
	All participants		Later used naloxone to reverse an overdose	
	Number	Column %	Number	Column %
<u>Housing status</u>				
Stably housed	1007	40.3	86	33.5
Homeless/unstably housed	1403	56.1	156	60.7
Missing	90	3.6	15	5.8
<u>Overdose</u>				
Prior overdose	813	32.5	120	46.7
No prior overdose	1505	60.2	111	43.2
Missing	182	7.3	26	10.1
<u>Witness of overdose</u>				
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
<u>Naloxone administration</u>				
Administered naloxone	270	10.8	68	26.5
Never administered naloxone	2016	80.6	166	64.6
Missing	214	8.6	23	8.9
<u>General substance use in last 30 days</u>				
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
<u>Polydrug use in last 30 days</u>				
Polydrug use	1144	45.8	171	66.5
No polydrug use	968	38.7	54	21.0
Missing	388	15.5	32	12.5
<u>Specific substance use in last 30 days</u>				
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*)



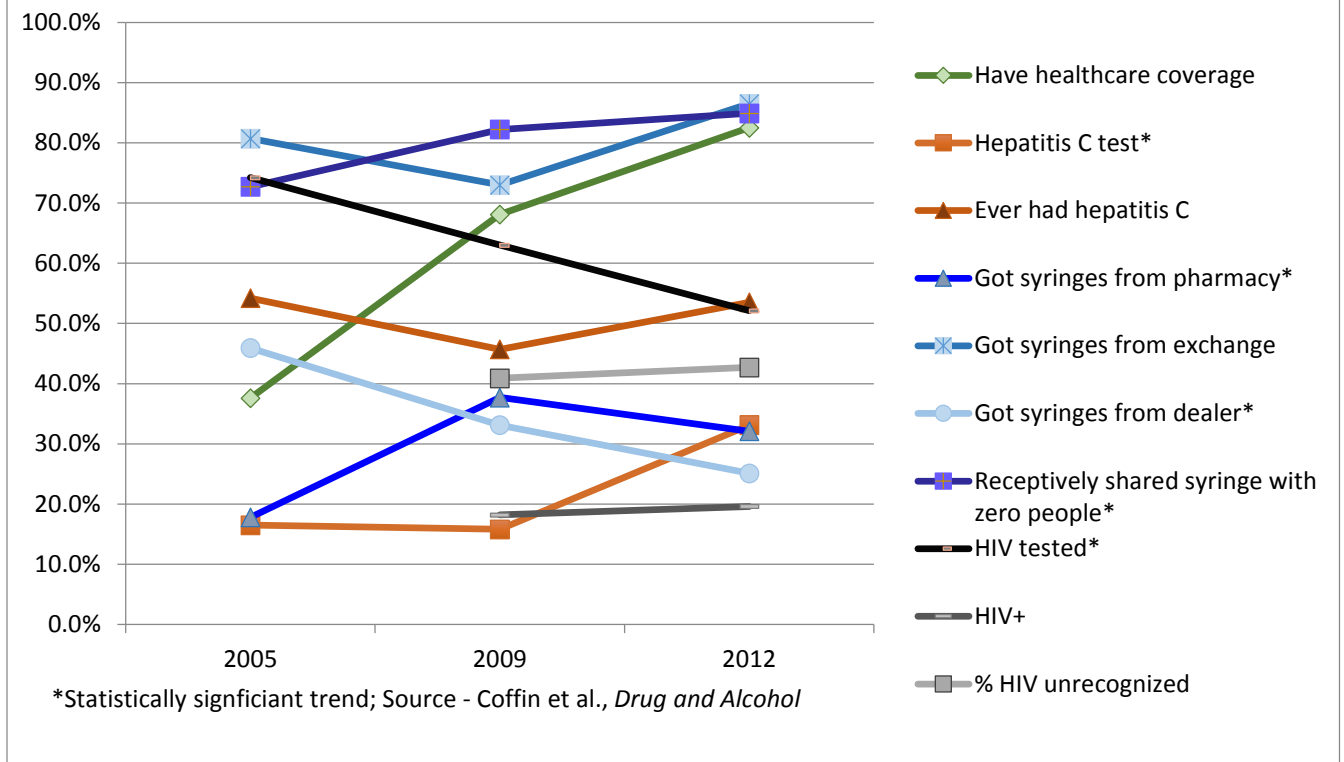
Additional Information on Drug Use Trends

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).

Exhibit 5: Trends in Health Among PWID in San Francisco, 2005-2012



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.sfcddcp.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, Hurliaux 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.

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