### Substance Use Trends in San Francisco Through 2018

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### **1** INTRODUCTION

We are pleased to release this report on substance use indicators for San Francisco. Substance use plays a role in the lives of all San Franciscans and for some can result in social, medical, or legal difficulties.

The goal of this report is to help track the impact of substance use on health indicators in San Francisco. The data facilitate the assessment of trends in utilization of healthcare services for substance use disorders or related problems, diseases associated with substance use, and overdose and other substance-related deaths.

From 2006 through 2016, during the national opioid crisis, San Francisco saw an increase in the estimated number of people who inject drugs from fewer than 10,000 to nearly 25,000 persons. Despite this change, we did not see an increase in overall overdose mortality from opioids, cocaine, or methamphetamine during that period. We attribute this success to the efforts made by San Francisco residents and service providers. For example, we know from research with the Drug Overdose Prevention and Education (DOPE) Project, that people who use heroin or methamphetamine are also the most likely people to use naloxone to reverse an overdose, supporting their community by saving lives.

Unfortunately, San Francisco did witness an increase in overdose deaths in 2018, which can be attributed to a rise in fentanyl overdose.

The report also details ongoing efforts to address substance use, including: naloxone distribution for overdose prevention, use of buprenorphine for overdose prevention and treatment of opioid use disorder, syringe access for blood-borne disease prevention, programs to treat hepatitis C infection among people who inject drugs, and the Sobering Center helping to manage alcohol use. In future years, we hope to incorporate many other services and interventions not included in this report.

We are proud of the residents and providers of San Francisco who care for our community. We hope this report represents the beginning of a renewed effort to support the safety and health of all San Franciscans.

Additional data regarding substance use in San Francisco can be found at the **San Francisco Community Health Needs Assessment** at <u>sfhip.org/substance-abuse.html</u>

### 2 Ніднііднтя

### Morbidity and mortality

- The most prevalent substances associated with morbidity and mortality in the City and County of San Francisco (CCSF) are opioids, cocaine, methamphetamine, and alcohol.
- Overdose death from opioids, cocaine, and methamphetamine increased in 2018. This increase was driven by **fentanyl** and related analogues, often in combination with cocaine or methamphetamine.
- While indicators of morbidity and mortality are mixed for cocaine and many opioids, methamphetamine indicators suggest increased related health problems.

Substance use disorder (SUD) treatment

- The most common substance resulting in admissions to publicly-funded substance use disorder treatment programs or methadone maintenance programs in CCSF is heroin, followed by alcohol and methamphetamine.
- The overall number of SUD treatment admissions and the number of unique individuals admitted have declined since 2014. Some possible reasons for this include:
  - The number of unique persons treated each year with buprenorphine outside of SUD treatment programs increased from 1,652 in 2014 to 2,616 in 2018; this increase exceeds the reduction in unique persons treated for any opioids from 3,569 in 2014 to 3,400 in 2018, suggesting an overall increase in SUD treatment for people who use opioids.
  - Under Drug Medi-Cal/Organized Delivery System (DMC-ODS), each county provides services for beneficiaries of their own county. Previously, CCSF served many persons whose primary residence was in another county.
  - Other data suggest heightened acuity of several SUDs, which could create a barrier to accessing even fairly low-threshold SUD treatment triage services.
  - Homelessness may serve as a barrier to selected treatment interventions.

#### Demographics

 Overdose death and SUD treatment admission rates are higher for opioids, cocaine, methamphetamine, and alcohol among persons who are middle-aged, African-American, or male. Youth and African-Americans are most likely to be admitted to SUD treatment for cannabis, emphasizing the need for an equity approach to interventions.

#### Interventions

- The number of opioid prescriptions and the number of milligrams of morphine equivalents in each prescription have declined by nearly 30% since 2010.
- The distribution of **naloxone** by community-based organizations continued to increase, with 7,306 naloxone kits distributed and 1,658 overdose reversals reported in 2018.
- The **End Hep C SF** initiative continues to expand tracking and treatment options for treating hepatitis C among people who use substances.
- CCSF convened the Methamphetamine Task Force in 2019, with multiple recommendations including the creation of a trauma-informed sobering and harm reduction center for people who use drugs. In addition, CCSF continues to work toward

opening **overdose prevention sites**, following the recommendations of a previous CCSF task force.

### **3** SUBSTANCE USE INDICATORS, OVERALL

### 3.1 OVERALL OPIOID, COCAINE, AND METHAMPHETAMINE OVERDOSE MORTALITY

Overdose (i.e., acute poisoning) mortality in CCSF is led by deaths caused by opioids, cocaine, and methamphetamine. CCSF saw fairly stable overdose mortality since 2006, with a clear increase in 2018 driven by fentanyl products (**Figure 1**). There were a total of 259 overdose deaths in 2018 caused by any opioid, cocaine, or methamphetamine. Of those 259, 68% involved an opioid (23% of all overdose deaths due to heroin, 27% prescription opioids, and 34% fentanyl), 39% involved cocaine/crack, and 49% involved methamphetamine.



Figure 1: Number of Opioid, Cocaine, and Methamphetamine Overdose Deaths by Non-Mutually Exclusive Substance Category in CCSF, 2006–2018

Substance-related overdose deaths were identified using textual cause of death fields, determined by the San Francisco Office of the Chief Medical Examiner. Homicides and suicides were excluded.

The number of overdose deaths due to cocaine or methamphetamine without opioids remained stable since 2015 (**Figure 2**). Increased mortality since that time was due to deaths that were also due to opioids.



Figure 2: Number of Opioid, Cocaine, and Methamphetamine Overdose Deaths by Mutually Exclusive Substance Category in CCSF, 2006–2018

The width of each band corresponds to the number of events in that category. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded.

Sources: California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS).

Drug overdose mortality tends to be concentrated in the Tenderloin, South of Market, and Mission neighborhoods of CCSF (**Figure 3**). The map displayed includes all opioid, cocaine, and methamphetamine overdose deaths that occurred in CCSF in 2016 and 2017 by location of death, excluding the 64 (16%) that occurred in hospitals.



## Figure 3: Annualized Rate of Opioids, Cocaine, or Methamphetamine Overdose Deaths by Census Tract in CCSF, 2016 and 2017

Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded, as were the 16% of deaths that occurred in a hospital. Rate is annualized and calculated as dividing the two-year rates by two. Census tracts with populations under 1,000 were excluded.

Sources: Overdose mortality obtained from the California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS). Census tract population denominators taken from U.S. Census Bureau, 2013-2017 American Community Survey 5-year Population Estimates.

### **3.2 OVERALL SUBSTANCE USE DISORDER TREATMENT PROGRAM ADMISSIONS**

The number of admissions to programs treating substance use disorders (SUDs) in CCSF steadily decreased from 10,830 admissions in 2014 to 8,609 admissions in 2018 (**Figure 4**; data include publicly funded or methadone maintenance services, but not privately-funded care). The number of unique persons served also declined from 6,972 in 2014 to 5,842 in 2018. Possible reasons for this decline include:

- The number of unique persons treated each year with buprenorphine outside of SUD treatment programs increased from 1,652 in 2014 to 2,616 in 2018; this increase exceeds the reduction in unique persons treated for any opioids from 3,569 in 2014 to 3,400 in 2018, suggesting an overall increase in SUD treatment for people who use opioids.
- Under Drug Medi-Cal/Organized Delivery System (DMC-ODS), each county provides services for beneficiaries of their own county. Previously, CCSF served many persons whose primary residence was another county.
- Other data suggest heightened acuity of several SUDs, which could create a barrier to accessing even fairly low threshold SUD treatment triage services.
- Homelessness may serve as a barrier to selected treatment interventions.



# Figure 4: Number of Admissions to Programs Treating Substance Use Disorders by Primary Substance in CCSF, 2014–2018

Admissions: Data include only publicly-funded or methadone maintenance services. Each admission does not necessarily represent a unique individual because some individuals were admitted to treatment more than once in a given period. The number of unique individuals treated was 6,972 in 2014; 6,910 in 2015; 6,712 in 2016; 6,475 in 2017; and 5,842 in 2018.

### **4** SUBSTANCE USE INDICATORS, BY SUBSTANCE

### 4.1 OPIOIDS

### 4.1.1 Any Opioids

Opioid use indicators in CCSF demonstrate ongoing morbidity and mortality. The rate of overdose deaths due to any opioids increased in 2018 (Figure 5). The rate of SUD treatment admissions involving opioids decreased somewhat, although treatment with buprenorphine increased substantially (Figure 27). Emergency department visits and hospitalizations for opioids also increased, although the increase may be an artifact of a change to the way healthcare visits were coded in the beginning October 1, 2015.



Figure 5: Rate of Opioid Use Health Indicators in CCSF, 2005–2018

Rate is calculated per 100,000 CCSF population. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded. Emergency department visits and hospitalizations include primary or nonprimary ICD-9 codes: E850.0, E850.1, E850.2, 965.0 (poisoning) and ICD-10 codes: T40.0, T40.1, T40.2, T40.3, T40.4, T40.6 (poisoning); as well as primary only ICD-9 codes: 304.0 (dependence), 304.7 (dependence), 305.5 (abuse) and ICD-10 code: F11 (dependence/abuse/use). For ICD-10 codes T40.0, T40.3, T40.4, T40.6, codes with a six in the sixth position involve underdose and were excluded. Hospitalizations and emergency department visits resulting in death were excluded.

Sources: <u>Overdose mortality</u> obtained from the California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS). <u>Drug seizure</u> data 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, NFLIS, DEA. NFLIS methodology allows for accounting up to three drugs per item submitted for analysis; presented is a combined count including primary, secondary, and tertiary reports for each drug. <u>Treatment admissions</u> were provided by Community Behavioral Health Services Division of the San Francisco Department of Public Health and include publicly-funded or methadone maintenance services; admissions include clients admitted in prior years but still receiving services in a particular year. <u>Hospital admissions</u> and <u>emergency department visits</u> for CCSF facilities were provided by the California Office of Statewide Health Planning and Development.

The number of opioid overdose deaths increased from 135 in 2017 to 177 in 2018. Deaths from prescription opioids continued to decline while heroin began increasing in 2010 and fentanyl increased rapidly since 2016 (**Figure 6**). From 2016 to 2018, there was a 70% increase in the number of accidental overdose deaths from opioids, driven by fentanyl.



Figure 6: Number of Opioid Overdose Deaths by Mutually Exclusive Opioid Type in CCSF, 2006–2018

Overdose deaths were identified use textual cause of death fields. Homicides and suicides were excluded. Fentanyl overdose death was defined as any death caused by fentanyl; heroin overdose death was defined as any death caused by heroin but not fentanyl; prescription opioid overdose death was defined as all opioid overdose deaths not also caused by heroin or fentanyl. Fentanyl includes fentanyl analogues.

Overdose deaths due to opioids alone and opioids in combination with stimulants, including cocaine and methamphetamine, have increased (**Figure 7**).



Figure 7: Number of Opioid Overdose Deaths by Mutually Exclusive Involvement of Cocaine or Methamphetamine in CCSF, 2006–2018

The width of each band corresponds to the number of events in that category. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded.

Opioid overdose death was most likely among persons aged 40–59 (**Figure 8**), more than twice as likely among African American/Black residents (**Figure 9**), and three to four times more likely among men compared to women (**Figure 10**).



Figure 8: Rate of Opioid Overdose Deaths by Age Category in CCSF, 2006–2018

Rate is calculated per 100,000 CCSF population. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded.



Figure 9: Rate of Opioid Overdose Deaths by Race/Ethnicity in CCSF, 2006–2018

Rate is calculated per 100,000 CCSF population. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded. NH=non-Hispanic.

Sources: Overdose mortality obtained from the California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS).



Figure 10: Rate of Opioid Overdose Deaths by Sex in CCSF, 2006–2018

*Rate is calculated per 100,000 CCSF population.* Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded. No other sex categories were noted.

SUD treatment admissions for opioids declined somewhat since 2014, although the number of unique patients served was fairly stable (**Figure 11**). In fact, the number of unique individuals who received SUD treatment for opioids may have increased, as the number of unique individuals who received buprenorphine increased from 1,652 in 2014 to 2616 in 2018 (**Figure 27**). The rate of admissions was highest among males, people aged 50 to 59 years of age, and African Americans (**Figures 12 and 13**).





Data include only publicly-funded or methadone maintenance services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.



# Figure 12: Rate of Admissions to Programs Treating Substance Use Disorders for Any Opioids by Sex (a) and Age Group (b) in CCSF, 2018

Rate is calculated per 100,000 CCSF population. Data include only publicly-funded or methadone maintenance services. Data include only publicly-funded or methadone maintenance services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period. There were <5 admissions for heroin among persons 10 to 19 years of age.

Source: San Francisco Department of Public Health (SFDPH), Community Behavioral Health Services Division.



## Figure 13: Rate of Admissions to Programs Treating Substance Use Disorders for Any Opioids by Race/Ethnicity in CCSF, 2018

*Rate is calculated per 100,000 CCSF population. Data include only publicly-funded or methadone maintenance services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period. NH=non-Hispanic.* 

### 4.1.2 Prescription Opioids

Prescription opioids include opioids prescribed for pain or opioid use disorder treatment, such as oxycodone, hydrocodone, oxymorphone, hydromorphone, methadone, and morphine. For the purpose of this report, prescription opioids do not include fentanyl, most of which is now illicitly manufactured when involved in overdose deaths, or heroin.

Indicators for prescription opioids are mixed. The rate of overdose death due to prescription opioids declined from peak in 2010 and the rate of SUD treatment admissions declined since 2014 (**Figure 14**). However, there were increases in both emergency department visits and hospitalizations involving prescription opioids from 2015 to 2017 (due to lack of specificity in opioid-specific ICD coding, these visits include only acute poisoning; in contrast, the overall opioid measures above include use/dependence/abuse codes as well). Shifts in the trend of hospitalizations and emergency department visits from 2015 to 2016 may be artifacts of a change to the way healthcare visits were coded in the U.S. (from ICD-9 to ICD-10) that occurred on October 1, 2015.

Among the 70 overdose deaths caused by prescription opioids in 2018, 23% were exclusive to prescription opioids (meaning they did not involve heroin, fentanyl, cocaine, methamphetamine, or benzodiazepines), 27% involved cocaine, 33% involved methamphetamine, 13% involved heroin, and 17% involved a benzodiazepine.



#### Figure 14: Rate of Prescription Opioid Health Indicators in CCSF, 2005–2018

Rate is calculated per 100,000 CCSF population. Rate is calculated per 100,000 CCSF population. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded. Emergency department visits and hospitalizations include primary or non-primary ICD-9 codes: E850.1, E850.2, 965.00, 965.02, 965.09 (poisoning) and ICD-10 codes: T40.0, T40.2, T40.3, T40.6 (poisoning). For ICD-10 codes T40.0, T40.2, T40.3, T40.6 (poisoning). For ICD-10 codes T40.0, T40.2, T40.3. T40.6, codes with a six in the sixth position involve underdose and were excluded. Shifts in the trend of hospitalizations and emergency department visits from 2015 to 2016 may be artifacts of a change to the way healthcare visits were coded in the U.S. (from ICD-9 to ICD-10) that occurred on October 1, 2015. Hospitalizations and emergency department visits resulting in death were excluded.

Sources: <u>Overdose mortality</u> obtained from the California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS). <u>Drug seizure</u> 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, 2015 and 2016, NFLIS, DEA. NFLIS methodology allows for the accounting of up to three drugs per item submitted for analysis; presented is a combined count including primary, secondary, and tertiary reports for each drug. <u>Treatment admissions</u> were provided by the Community Behavioral Health Services Division of the San Francisco Department of Public Health and include publicly-funded or methadone maintenance services; admissions include clients admitted in prior years but still receiving services in a particular year. <u>Hospital admissions</u> and <u>emergency department visits</u> for CCSF facilities were provided by the California Office of Statewide Health Planning and Development. Prescription opioids accounted for 407 (5%) of SUD treatment admissions in 2018, similar to the prior year (**Figure 15**). Admissions were more common among men, and the highest rates were among persons aged 30 to 39 years (**Figure 16**) and African Americans (**Figure 17**); 73% of admissions reported using prescription opioids orally (**Figure 18**). The most common secondary substances were heroin (12%), methamphetamine (10%), and cocaine/crack (7%), and cannabis (7%).





Data include only publicly-funded or methadone maintenance services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.

Source: San Francisco Department of Public Health (SFDPH), Community Behavioral Health Services Division.



### Figure 16: Rate of Admissions to Programs Treating Substance Use Disorders for Prescription Opioids by Sex (a) and Age Group (b) in CCSF, 2018

Rate is calculated per 100,000 CCSF population. Data include only publicly-funded or methadone maintenance services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period. There were <5 admissions among persons 10 to 19 years of age.

Source: San Francisco Department of Public Health (SFDPH), Community Behavioral Health Services Division.

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# Figure 17: Rate of Admissions to Programs Treating Substance Use Disorders for Prescription Opioids by Race/Ethnicity in CCSF, 2018

Rate is calculated per 100,000 CCSF population. Data include only publicly-funded or methadone maintenance services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period. NH=non-Hispanic.

Source: San Francisco Department of Public Health (SFDPH), Community Behavioral Health Services Division.



# Figure 18: Number of Admissions to Programs Treating Substance Use Disorders for Prescription Opioids Use by Route of Administration in CCSF, 2018

Data include only publicly-funded or methadone maintenance services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.

Since 2010, the number of opioid prescriptions (excluding buprenorphine) dispensed by pharmacies in CCSF decreased by 27% and the daily morphine milligram equivalent (MME; excluding buprenorphine) in each prescription issued also declined by 26% (**Figure 19**).



Figure 19: Number of Opioid prescriptions and Daily MMEs per Opioid Prescription in CCSF, 2010–2018

Data exclude prescriptions for buprenorphine.

Source: California Controlled Substance Utilization Review and Evaluation System (CURES 2.0).

#### 4.1.3 Heroin

Most indicators suggest increased heroin-related morbidity and mortality in CCSF (**Figure 20**). The rate of overdose death due to heroin increased from a nadir in 2010. Emergency department visits, hospitalizations, and seizures of heroin by law enforcement have also increased. While admissions to SUD treatment programs for heroin declined since 2014, the number of unique persons treated with buprenorphine increased (**Figure 27**). Among the 60 overdose deaths caused by heroin in 2018, 23% were exclusive to heroin, (meaning they did not involve prescription opioids, fentanyl, cocaine, methamphetamine, or benzodiazepines), 50% involved cocaine, 45% involved methamphetamine, 23% involved fentanyl, and 5% involved any benzodiazepine.



#### Figure 20: Rate of Heroin Health Indicators in CCSF, 2005–2018

Rate is calculated per 100,000 CCSF population. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded. Emergency department visits and hospitalizations include primary or non-primary ICD-9 codes: E850.0 (poisoning), 965.01 (poisoning) and ICD-10 code: T40.1 (poisoning). Shifts in the trend of hospitalizations and emergency department visits from 2015 to 2016 may be artifacts of a change to the way healthcare visits were coded in the U.S. (from ICD-9 to ICD-10) that occurred on October 1, 2015. Hospitalizations and emergency department visits resulting in death were excluded.

Sources<u>: Overdose mortality</u> obtained from the California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS). <u>Drug seizure</u> 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, 2015 and 2016, NFLIS, DEA. NFLIS methodology allows for the accounting of up to three drugs per item submitted for analysis; presented is a combined count including primary, secondary, and tertiary reports for each drug. <u>Treatment admissions</u> were provided by the Community Behavioral Health Services Division of the San Francisco Department of Public Health and include publicly-funded or methadone maintenance services; admissions include clients admitted in prior years but still receiving services in a particular year. <u>Hospital admissions</u> and <u>emergency department visits</u> for CCSF facilities were provided by the California Office of Statewide Health Planning and Development.

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The number of SUD treatment admissions for heroin declined since 2014, while the number of unique persons admitted for heroin declined since 2016. This decline is believed to be at least in part due to changes in the Drug Medi-Cal/Organized Delivery System (See **Section 3.2**).

Heroin use accounted for 3,815 SUD treatment admissions in 2018 (44% of all admissions), a decrease from 4,077 in 2017 (**Figure 21**). More than half of the admissions for heroin were male (69%; **Figure 22**), and the highest rates of admissions were among persons aged 50–59 years (**Figure 22**) and African Americans (**Figure 23**); the most commonly reported route of administration was injection (73%; **Figure 24**). The most common secondary substances were cocaine/crack (27%), methamphetamine (25%), and cannabis (6%).





Data include only publicly-funded or methadone maintenance services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.





Rate is calculated per 100,000 CCSF population. Data include only publicly-funded or methadone maintenance services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period. There were <5 admissions for heroin among persons 10 to 19 years of age.

Source: San Francisco Department of Public Health (SFDPH), Community Behavioral Health Services.



### Figure 23: Rate of Admissions to Programs Treating Substance Use Disorders for Heroin by Race/Ethnicity in CCSF, 2018

*Rate is calculated per 100,000 CCSF population. Data include only publicly-funded or methadone maintenance services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period. NH=non-Hispanic.* 



# Figure 24: Number of Admissions to Programs Treating Substance Use Disorders for Heroin by Route of Administration in CCSF, 2018

Data include only publicly-funded or methadone maintenance services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.

#### 4.1.4 Fentanyl

Fentanyl (including common analogues such as acetyl fentanyl) impacted CCSF substantially over the last year, with local indicators suggesting an increase of fentanyl in the illicit drug supply (**Figure 25**). The rate of fentanyl overdose deaths due to fentanyl and law enforcement seizures began increasing in 2016. Among the 89 overdose deaths caused by fentanyl in CCSF in 2018, 18% were exclusive to fentanyl (meaning they did not involve prescription opioids, heroin, cocaine, methamphetamine, or benzodiazepines), 39% involved cocaine, 47% involved methamphetamine, 16% involved heroin, and 25% involved prescription opioids.

Since 2015, there have been scattered reports of counterfeit opioid or benzodiazepine pills, cocaine/crack, and methamphetamine containing fentanyl (<u>www.sfcdcp.org/health-alerts-</u><u>emergencies/health-alerts/</u>).

Reports from people who use drugs and service providers suggest that fentanyl is commonly smoked to allow for dose titration (*Personal communication, 20 October 2019*).



#### Figure 25: Rate of Fentanyl Health Indicators in CCSF, 2006–2018

Rate is calculated per 100,000 CCSF population. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded. Fentanyl includes fentanyl analogues.

Sources: <u>Overdose mortality</u> obtained from the California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS). <u>Drug seizure</u> 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, CCSF, 2015 and 2016, NFLIS, DEA. NFLIS methodology allows for the accounting of up to three drugs per item submitted for analysis; presented is a combined count including primary, secondary, and tertiary reports for each drug. Fentanyl overdose deaths frequently also involve cocaine or methamphetamine (**Figure 26**). Fentanyl deaths also caused by heroin were relatively uncommon.



Figure 26: Number of Fentanyl Overdose Deaths by Mutually Exclusive Involvement of Additional Causative Substance in CCSF, 2006–2018

Fentanyl includes fentanyl analogues.

### 4.1.5 Buprenorphine

The overall number of buprenorphine prescriptions and number of unique patients prescribed buprenorphine steadily increased in CCSF since at least 2010 (**Figure 27**), while the number of opioid prescriptions decreased (**Figure 19**). Since 2012, the opioid prescription rate (excluding buprenorphine, per resident) decreased by 39.6%, while the number of buprenorphine prescriptions per resident increased by nearly 75.8% (*data not shown*).



Figure 27: Annual Number of Buprenorphine Prescriptions and Number of Unique Patients Receiving Buprenorphine Prescriptions in CCSF, 2010–2018

Several efforts have been made to expand buprenorphine access in CCSF, aiming to both treat opioid use disorder and reduce overdose risk, particularly with the increased presence of fentanyl. Buprenorphine trainings have increased the number of providers who can offer the medication. Programs have been initiated to start buprenorphine when patients are in emergency departments or admitted to hospitals.

A prominent service in CCSF is the Street Medicine program of low barrier buprenorphine for persons experiencing homelessness. From November 2016 to August 2019, 562 persons were started on buprenorphine; 130 remained in care as of August 2019. Street Medicine can assess and initiate buprenorphine at the 50 Ivy Street clinic, syringe access sites, health fairs, navigation centers, on the streets, and in parks.

In addition, the Community Behavioral Health Pharmacy at 1380 Howard Street is able to treat patients with buprenorphine. as of September 2019, buprenorphine access was provided to 150 to 200 patients per month, approximately 50 of whom were Street Medicine patients.

Source: California Controlled Substance Utilization Review and Evaluation System (CURES 2.0)

### 4.2 COCAINE/CRACK

Indicators for cocaine/crack were mixed. The rate of overdose death due to cocaine/crack was declining until 2016 but increased in 2018 (**Figure 28**). In contrast, emergency department visits and hospitalizations began increasing sooner, whereas SUD treatment admissions have been declined substantially. Shifts in the trend of hospitalizations and emergency department visits from 2015 to 2016 may be artifacts of a change to the way healthcare visits were coded in the U.S. (from ICD-9 to ICD-10) that occurred on October 1, 2015.



Figure 28: Rate of Cocaine Health Indicators in CCSF, 2005–2018

Rate is calculated per 100,000 CCSF population. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded. Emergency department visits and hospitalizations include primary or nonprimary ICD-9 codes: E855.2 (poisoning), 970.81 (poisoning) and ICD-10 code: T40.5 (poisoning); primary only ICD-9 codes: 304.2 (dependence), 305.6 (abuse) and ICD-10 code: F14 (dependence/abuse/use). For ICD-10 code T40.5, a six in the sixth position involve underdose and were excluded. Shifts in the trend of hospitalizations and emergency department visits from 2015 to 2016 may be artifacts of a change to the way healthcare visits were coded in the U.S. (from ICD-9 to ICD-10) that occurred on October 1, 2015. Hospitalizations and emergency department visits resulting in death were excluded.

Sources: <u>Overdose mortality</u> obtained from the California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS). <u>Drug seizure</u> data provided by the National Forensic Laboratory Information System (NFLIS), Drug Enforcement Administration (DEA). Data were retrieved on Identified Drugs of Total Analyzed Drug Reports, CCSF, 2015 and 2016, NFLIS, DEA. NFLIS methodology allows for the accounting of up to three drugs per item submitted for analysis; presented is a combined count including primary, secondary, and tertiary reports for each drug. <u>Treatment admissions</u> were provided by the Community Behavioral Health Services Division of the San Francisco Department of Public Health and include publicly-funded services; admissions include clients admitted in prior years but still receiving services in a particular year. <u>Hospital admissions</u> and <u>emergency department visits</u> for CCSF facilities were provided by the California Office of Statewide Health Planning and Development.

Overdose deaths due to cocaine alone have decreased since 2006. Among the 101 overdose deaths caused by cocaine in CCSF in 2018, 10% were exclusive to cocaine (meaning they did not involve any opioids, methamphetamine, or benzodiazepines); 66% involved an opioid (35% involved fentanyl), 31% involved methamphetamine, and 5% involved a benzodiazepine.

The increase in cocaine overdose deaths beginning in 2016 involves opioids (Figure 29). Specifically, this increase is due to fentanyl (Figure 30).

There have been several recent suspected and confirmed reports of nonfatal and fatal overdose from cocaine/crack that contained fentanyl or was fentanyl mistaken for cocaine/crack (see, e.g., <u>www.sfcdcp.org/health-alerts-emergencies/health-alerts/</u>).



# Figure 29: Number of Cocaine Overdose Deaths by Mutually Exclusive Additional Causative Substances in CCSF, 2006–2018

The width of each band corresponds to the number of events in that category. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded.





Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded. Fentanyl includes fentanyl analogues.

Cocaine overdose deaths were most likely to occur among persons aged 40–59 (**Figure 31**), were far more likely among African Americans (**Figure 32**), and were three to four times more likely among males compared to females (**Figure 33**).



Figure 31: Rate of Cocaine Overdose Deaths by Age Category in CCSF, 2006–2018

Rate is calculated per 100,000 CCSF population. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded. Rates by age exclude <5 deaths due to cocaine overdose among individuals younger than 20 years of age.

Sources: Overdose mortality obtained from the California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS).



Figure 32: Rate of Cocaine Overdose Deaths by Race/Ethnicity in CCSF, 2006–2018

Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded. NH=non-Hispanic.

Sources: Overdose mortality obtained from the California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS).

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Rate is calculated per 100,000 CCSF population. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded. No other sex categories were noted.

The number of SUD treatment admissions and unique persons admitted for cocaine/crack as the primary drug steadily declined since at least 2012 (data since 2014 shown here). From 2017 to 2018, SUD treatment admissions for cocaine/crack in CCSF decreased from 693 to 529, accounting for 6% of treatment admissions in 2018 (**Figure 34**). Almost three quarters of admissions were among men (73%, **Figure 35**), and the highest rate of admissions were among persons aged 50–59 years (**Figure 35**) and African Americans (**Figure 36**); the most common route of administration was smoking (80%, **Figure 37**). The most common secondary substances included alcohol (19.7%), followed by heroin (12.7%) and methamphetamine (11%).



Figure 34: Number of Admissions and Unique Persons Admitted to Programs Treating Substance Use Disorders for Cocaine/Crack as the Primary Substance in CCSF, 2014–2018

Data include only publicly-funded services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.



### Figure 35: Rate of Admissions to Programs Treating Substance Use Disorders for Cocaine/Crack by Sex (a) and Age Group (b) in CCSF, 2018

Rate is calculated per 100,000 CCSF population. Data include only publicly-funded services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.

Source: San Francisco Department of Public Health (SFDPH), Community Behavioral Health Services Division.



### Figure 36: Rate of Admissions to Programs Treating Substance Use Disorders for Cocaine/Crack by Race/Ethnicity in CCSF, 2018

Rate is calculated per 100,000 CCSF population. Data include only publicly-funded services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period. NH=non-Hispanic.





Data include only publicly-funded services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.

### 4.3 МЕТНАМРНЕТАМІНЕ

Indicators suggest a continued increase in methamphetamine-related morbidity and mortality in CCSF (**Figure 38**). The rate of overdose death due to methamphetamine steadily increased since 2009. Hospitalizations and ED visits for methamphetamine increased through 2016. Shifts in the trend of hospitalizations and emergency department visits from 2015 to 2016 may be artifacts of a change to the way healthcare visits were coded in the U.S. (from ICD-9 to ICD-10) that occurred on October 1, 2015. SUD treatment admissions increased from 2011–2017, with a decline in 2018.



Figure 38: Rate of Methamphetamine Health Indicators in CCSF, 2005–2018

Rate is calculated per 100,000 CCSF population. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded. Emergency department visits and hospitalizations include primary or non-primary ICD-9 codes: E854.2, 969.72 (poisoning), and ICD-10 code: T43.62 (poisoning); primary only ICD-9 codes: 304.4 (dependence), 305.7 (abuse) and ICD-10 code: F15 (dependence/abuse/use). For ICD-10 code: T43.62, a six in the sixth position involve underdose and were excluded. Shifts in the trend of hospitalizations and emergency department visits from 2015 to 2016 may be artifacts of a change to the way healthcare visits were coded in the U.S. (from ICD-9 to ICD-10) that occurred on October 1, 2015. Hospitalizations and emergency department visits resulting in death were excluded.

Sources: <u>Overdose mortality</u> obtained from the California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS). <u>Drug seizure</u> 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, 2015 and 2016, NFLIS, DEA. NFLIS methodology allows for the accounting of up to three drugs per item submitted for analysis; presented is a combined count including primary, secondary, and tertiary reports for each drug. <u>Treatment admissions</u> were provided by the Community Behavioral Health Services Division of the San Francisco Department of Public Health and include publicly-funded services; admissions include clients admitted in prior years but still receiving services in a particular year. <u>Hospital admissions</u> and <u>emergency department visits</u> for CCSF facilities were provided by the California Office of Statewide Health Planning and Development. Among the 126 overdose deaths caused by methamphetamine in CCSF in 2018, 19% were exclusively methamphetamine (meaning they did not involve any opioids, cocaine, or benzodiazepines), 56% involved an opioid (21% involved heroin, 33% involved fentanyl), 25% involved cocaine, and 4% involved a benzodiazepine (**Figure 39**). Prior to 2015, increases in methamphetamine overdose deaths were driven by deaths not involving opioids. However, since 2016, the increase in methamphetamine-related deaths was driven by deaths also caused by opioids, particularly fentanyl (**Figure 40**).



Figure 39: Number of Methamphetamine Overdose Deaths by Mutually Exclusive Additional Causative Substance in CCSF, 2006–2018

The width of each band corresponds to the number of events in that category. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded.



Figure 40: Number of Methamphetamine Overdose Deaths by Opioid/Fentanyl Involvement in CCSF, 2006–2018

Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded. Fentanyl includes fentanyl analogues.

Methamphetamine overdose deaths were most likely to occur among persons aged 40–59 (Figure 41), African Americans (Figure 42), and males compared to females (Figure 43).



Figure 41: Rate of Methamphetamine Overdose Deaths by Age Category in CCSF, 2006–2018

Rate is calculated per 100,000 CCSF population. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded. Rate by age exclude <5 deaths due to methamphetamine overdose among individuals younger than 20 years of age.

Sources: Overdose mortality obtained from the California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS).



Figure 42: Rate of Methamphetamine Overdose Deaths by Race/Ethnicity in CCSF, 2006–2018

Rate is calculated per 100,000 CCSF population. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded. NH=non-Hispanic.





Rate is calculated per 100,000 CCSF population. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded. No other sex categories were noted.

Methamphetamine remained a significant contributor to SUD treatment admissions, including 17% of treatment admissions in 2018 (Figure 44). SUD treatment admissions for methamphetamine were far more likely among males (Figure 45), with the highest rates of admissions being among persons aged 40–49 years (Figure 45) and African Americans (Figure 46); the most common reported route of administration was smoking (Figure 47). Among the 1,466 SUD treatment admissions for methamphetamine in CCSF in 2018, the most common secondary substances were alcohol (13%), cannabis (10%), and heroin (9.5%).



Figure 44: Number of Admissions and Unique Persons Admitted to Programs Treating Substance Use Disorders for Methamphetamine as the Primary Substance in CCSF, 2014–2018

Data include only publicly-funded services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.



### Figure 45: Rate of Admissions to Programs Treating Substance Use Disorders for Methamphetamine as the Primary Substance by Sex (a) and Age Group (b) in CCSF, 2018

Rate is calculated per 100,000 CCSF population. Data include only publicly-funded services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.

Source: San Francisco Department of Public Health (SFDPH), Community Behavioral Health Services Division.



### Figure 46: Rate of Admissions to Programs Treating Substance Use Disorders for Methamphetamine as the Primary Substance by Race/Ethnicity in CCSF, 2018

Rate is calculated per 100,000 CCSF population. Data include only publicly-funded services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period. NH=non-Hispanic.



Figure 47: Number of Admissions to Programs Treating Substance Use Disorders for Methamphetamine as the Primary Substance by Route of Administration in CCSF, 2018

Data include only publicly-funded services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.

### **4.4 А**LCOHOL

Alcohol use has long been a prominent issue in CCSF. Alcohol-related deaths (defined as deaths with alcohol as a contributing factor, in contrast to overdose/acute poisoning deaths) have declined somewhat in recent years (**Figure 48**). Alcohol was the second leading primary substance for SUD treatment admissions in 2018. Alcohol was one of the most common substances resulting in hospitalizations and emergency department visits, increasing since 2009.

For additional information regarding the impact of alcohol use on CCSF, see **Economic and Administrative Costs Related to Alcohol Abuse in the City and County of San Francisco** at: sfbos.org/sites/default/files/BLA\_Report\_Alcohol\_Final-041017.pdf



Figure 48: Rate of Alcohol Health Indicators in CCSF, 2005–2018

Alcohol-related deaths include both acute poisoning and other deaths involving acute or chronic use of alcohol (e.g., combined toxicity of heroin and ethanol, acute ethanol intoxication, complications of chronic ethanolism, end stage liver disease due to alcoholism, complications of alcoholic cardiomyopathy). Homicides and suicides were excluded. Emergency department visits and hospitalizations include primary or non-primary ICD-9 codes: E860.0, E860.1, E860.2, E860.9 (acute effects), 980.0, 980.1, 980.9 (acute effects) and ICD-10 code: X45, Y15, T51.0, T51.1, TF1.9 (acute effects); primary only ICD-9 codes: 291, 305.0, 303.0, 303.9, 790.3 (non-acute effects) and ICD-10 codes: F10, R78.0 (non-acute effects); admissions and visits resulting in death were excluded. Shifts in the trend of hospitalizations and emergency department visits from 2015 to 2016 may be artifacts of a change to the way healthcare visits were coded in the U.S. (from ICD-9 to ICD-10) that occurred on October 1, 2015.

Sources: <u>Alcohol-related mortality</u> obtained from California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS). <u>Treatment admissions</u> provided by the Community Behavioral Health Services Division of the San Francisco Department of Public Health and include publicly-funded services; admissions include clients admitted in prior years but still receiving services in a particular year. <u>Hospital admissions</u> and <u>emergency department visits</u> for CCSF facilities were provided by the California Office of Statewide Health Planning and Development. Alcohol was the primary substance responsible for 21% of SUD treatment admissions in 2018 (**Figure 49**). However, SUD treatment admissions for alcohol have been slowly declining since 2014. SUD treatment admission for alcohol were far more likely among males (**Figure 50**), with the highest rates of admissions being among persons aged 50–59 years (**Figure 50**) and African Americans (**Figure 51**). The most common secondary substances were methamphetamine (9%), cocaine/crack (8%), and cannabis (7%).



### Figure 49: Number of Admissions and Unique Persons Admitted to Programs Treating Substance Use Disorders for Alcohol as the Primary Substance in CCSF, 2014–2018

Data include only publicly-funded services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.



## Figure 50: Rate of Admissions to Programs Treating Substance Use Disorders for Alcohol by Sex (a) and Age Group (b) in CCSF, 2018

Rate is calculated per 100,000 CCSF population. Data include only publicly-funded services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.

Source: San Francisco Department of Public Health (SFDPH), Community Behavioral Health Services Division.



### Figure 51: Rate of Admissions to Programs Treating Substance Use Disorders for Alcohol by Race/Ethnicity in CCSF, 2018

Rate is calculated per 100,000 CCSF population. Data include only publicly-funded services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.

#### 4.4.1 Sobering Center

CCSF provides the Sobering Center, a 24/7 nurse-managed program providing support to individuals who are actively intoxicated on alcohol. A team including registered nurses, medical assistants, health workers, and respite workers serve clients through a pre-hospital diversion unit accepting clients aged 18 years and older both from ambulance and police services, as well as walk-ins. The Sobering Center has seen a high and consistent number of clients in recent years (from 3,000–5,000 encounters with over 1,000 unique individuals annually) (**Figure 52**). The Sobering Center was founded to support people who are intoxicated due to alcohol and has sometimes served clients also intoxicated due to other substances.



Figure 52: Annual Number of Sobering Center Visits and Unduplicated Clients in CCSF, 2004–2018

Source: Sobering Center, San Francisco Department of Public Health

### 4.5 CANNABIS

Local indicators for cannabis in CCSF were mixed. Emergency department visits involving cannabis increased since 2006, while hospitalizations remained fairly stable and SUD treatment admissions decreased (**Figure 53**).





Emergency department visits and hospitalizations include primary or non-primary ICD-9 codes: E854.1.0, (poisoning), 969.6 (poisoning) and ICD-10 code: T40.7(poisoning); primary only ICD-9 codes: 304.3, 305.2 (dependence) (abuse) and ICD-10 codes: F12 (dependence/abuse/use). For ICD-10 code: T40.7, a six in the sixth position involve underdose and were excluded, as were events resulting in death. Shifts in the trend of hospitalizations and emergency department visits from 2015 to 2016 may be artifacts of a change to the way healthcare visits were coded in the U.S. (from ICD-9 to ICD-10) that occurred on October 1, 2015.

Sources: <u>Drug seizure</u> data provided by the National Forensic Laboratory Information System (NFLIS), Drug Enforcement Administration (DEA). Data were retrieved on Identified Drugs of Total Analyzed Drug Reports, CCSF, 2015 and 2016, NFLIS, DEA. NFLIS methodology allows for the accounting of up to three drugs per item submitted for analysis; presented is a combined count including primary, secondary, and tertiary reports for each drug. <u>Treatment admissions</u> were provided by the Community Behavioral Health Services Division of the San Francisco Department of Public Health and include publicly-funded services; admissions include clients admitted in prior years but still receiving services in a particular year. <u>Hospital admissions</u> and <u>emergency department visits</u> for CCSF facilities were provided by the California Office of Statewide Health Planning and Development.

California Proposition 64, legalizing the sale and distribution of cannabis products, took effect in 2018. Additional information can be found at the CCSF City Performance Unit publication "Cannabis in San Francisco: A Review Following Adult-Use Legalization" (sfcontroller.org/cannabis-industry-equity-applicants-face-lengthy-permitting-process), and "Cannabis Legalization in San Francisco: A Health Impact Assessment" (sfdph.org/dph/files/EHSdocs/HIA/SFDPH-CannabisReport-Fall2017.pdf).

Cannabis is an uncommon reason for SUD treatment admissions in CCSF, representing 4% of total admissions in 2018 (Figure 54). SUD admissions for cannabis were more likely among males (Figure 55), persons aged 10–19 years (Figure 55), and African Americans (Figure 56). The most common secondary substances were alcohol (29%) and methamphetamine (16%).





Data include only publicly-funded services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.

Source: San Francisco Department of Public Health (SFDPH), Community Behavioral Health Services Division.

**Vaping**: As of 13 November 2019, 49 states, the District of Columbia, and 2 U.S. territories had reported 2,172 cases of lung injury associated with vaping. Analyses of 29 lung fluid samples from 10 states identified vitamin E acetate in all of the samples, as well as tetrahydrocannabinol in 82% and nicotine in 62% of samples. Cases reported in California as of September 2019 were all from unlicensed, "pop-up" cannabis sellers and no cases had occurred as of 19 November 2019 in CCSF.

For more information, see:

www.cdc.gov/tobacco/basic\_information/e-cigarettes/severe-lung-disease.html

### Figure 55: Rate of Admissions to Programs Treating Substance Use Disorders for Cannabis by Sex (a) and Age Group (b) in CCSF, 2018



Rate is calculated per 100,000 CCSF population. Data include only publicly-funded services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.

Source: San Francisco Department of Public Health (SFDPH), Community Behavioral Health Services Division.



### Figure 56: Rate of Admissions to Programs Treating Substance Use Disorders for Cannabis by Race/Ethnicity in CCSF, 2018

Rate is calculated per 100,000 CCSF population. Data include only publicly-funded services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.

### 4.1 **BENZODIAZEPINES**

Overdose deaths due to benzodiazepines increased through 2009 and decreased since 2013 (Figure 57); the vast majority involved opioids (Figure 58).



Figure 57: Number of Benzodiazepine Overdose Deaths in CCSF, 2006–2018

Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded.

Sources: Overdose mortality obtained from the California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS).







2011

2012

2013

2014

2015

Benzodiazepines alone (no opioids or stimulants)

Benzodiazepines and opioids (no stimulants)

2016

2017

Sources: Overdose mortality obtained from the California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS).

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2008

Benzodiazepines and stimulants (no opioids)

Benzodiazepines, opioids, and stimulants

2009

2010

20

0 2006

2007

2018

Previously, the opioid most commonly involved with benzodiazepine overdose deaths was methadone (Figure 59). More recently, other opioids have been more commonly involved.



Figure 59: Number of Overdose Deaths Due to Benzodiazepines and Opioids, by Mutually Exclusive Involvement of Methadone or Other Opioids in CCSF, 2006–2018

■ Benzodiazepines with opioids (excluding methadone) ■ Benzodiazepines with methadone The width of each band corresponds to the number of events in that category. Substance-related overdose deaths were identified using textual cause of death fields. Homicides and suicides were excluded.

Sources: Overdose mortality obtained from the California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS).

Benzodiazepines have remained a rare indication for SUD treatment in CCSF, representing just 0.3% of admissions in 2018 (Figure 60).





Data include only publicly-funded services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period.

### 5 HEALTH SEQUELAE RELATED TO SUBSTANCE USE

### 5.1 **HIV**

Overall, new HIV diagnoses in CCSF have been decreasing steadily over the last ten years (**Figure 61**). In 2018, there were 197 new HIV diagnoses; however, due to delays in case reporting, this number could be slightly underestimated. In contrast, the number of new HIV diagnoses among people who inject drugs (PWID) did not declined since 2015. Among the 197 new diagnoses in 2018, 63% were among men who have sex with men (MSM); 2% were among transgender women who have sex with men (TWSM); 14% were among PWID; 10% were among MSM-PWID; 1% were among TWSM-PWID; and 11% were among heterosexual and those with other or unidentified risk category. Of the roughly 15,990 individuals living with HIV in CCSF in 2018, 21% were PWID (6% PWID, 14% MSM-PWID, 1% TWSM-PWID).



Figure 61: HIV Infection by Transmission Category of Initial HIV Diagnosis in CCSF, 2007–2018

Source: SFDPH HIV Epidemiology Annual Report, September 2019

#### For more information on HIV in CCSF, see:

www.sfdph.org/dph/files/reports/RptsHIVAIDS/HIV-Epidemiology-Annual-Report-2018.pdf

### 5.2 HEPATITIS C VIRUS

Hepatitis C Virus (HCV) epidemiology is challenged by the nature of testing for HCV and limits of surveillance capabilities. There are several sources of data regarding HCV in CCSF: (a) surveillance data from SFDPH; (b) data and estimates generated by End Hep C SF; (c) data from the National HIV Behavioral Surveillance Study (NHBS); (d) incidence data from the UFO Study; and (e) results from the Hep C Health Program providing HCV treatment at program sites.

Overall, most HCV infections in CCSF are among PWID or people with a history of injection drug use. The best data available suggest that as of 2018, approximately 36% of PWID with HCV had been treated for their infection, most of whom achieved cure defined as undetectable HCV RNA at 12 weeks post-treatment.

### 5.2.1 SFDPH Surveillance

In 2016, 1,961 HCV cases were newly reported to SFDPH. HCV surveillance captures new positive HCV testing results from laboratories throughout CCSF. These results may indicate prior exposure or current infection (distinct from HIV, a positive serology for HCV does not necessarily indicate current infection). These data do not represent incidence or prevalence of HCV.

Table 1: Race/Ethnicity of Hepatitis C Cases Reported to Surveillance in CCSF, 2016

Race/Ethnicity of HCV cases newly reported	
to SFDPH in 2016 (N=1961)	%
White	49.7
Black	24.2
Asian/Pacific Islander	8.1
American Indian/Alaska Native	0.9
Hispanic/Latinx	13.3
Other	3.8
Total	100.0

Race/ethnicity data is missing for 43% of cases

#### 5.2.2 End Hep C SF

End Hep C SF is a multi-sector, collective impact initiative that works to eliminate HCV as a public health threat in San Francisco. To estimate and characterize HCV prevalence, members of End Hep C SF's Research and Surveillance work group developed a local prevalence estimate. As of 2015, there were an estimated 21,758 HCV seropositive (i.e., antibody-positive) persons in CCSF, of whom 16,408 were estimated to be living with current HCV infection (**Figure 62**). The majority of persons living with HCV infection in 2015 had a history of injection drug use (68%); MSM, baby boomers, and transgender women also experienced a disproportionate burden of HCV in CCSF.



### Figure 62: Estimated Number of HCV Seropositive and Viremic Individuals in CCSF, 2015

Estimated number of HCV viremic include those who have been treated and cured of HCV since becoming chronically infected

Source: Facente SN, Grebe E, Burk K, Morris MD, Murphy EL, Mirzazadeh A, et al. (2018) Estimated hepatitis C prevalence and key population sizes in San Francisco: A foundation for elimination. PLoS ONE 13 (4): e0195575

PWID were also disproportionally burdened by co-infection with HCV and HIV. HCV treatment is covered by Medi-Cal and many other payors for all people living with HIV, and HCV treatment access significantly expanded in San Francisco since 2014. End Hep C SF developed an implementation plan for HCV elimination among people living with HIV. The main aspects of this implementation program are HCV/HIV surveillance and data management, provider collaborations and technical assistance, and increase support within communities that have the highest barriers to treatment and cure. The HCV Micro-Elimination goal will be implemented over 3 years, from 2020-2022. The goals include a 90% reduction of HCV among people living with HIV by the end of 2022 (*Source: End Hep C SF: HIV/HCV Microlamination Planning*).

End Hep C SF also reported on testing conducted by community-based organizations among persons in community settings who experience barriers to access and are less likely to be treated for HCV in a traditional healthcare setting. The data below (**Figure 63**) show the number of rapid HCV tests performed by community-based organizations. In 2018, those community-based organizations tested 5,732 persons for antibodies (Ab) to HCV, 1,685 of whom were PWID. Ten percent of tests were reactive.



# Figure 63: Total HCV Tests and Antibody Reactivity by End Hep C SF Annual Evaluation in CCSF, 2016–2018

Source: End Hep C SF Annual Evaluation Report, Year 3

#### 5.2.3 National HIV Behavioral Surveillance

An additional source of data on HCV in CCSF is the National HIV Behavioral Surveillance Study (NHBS). NHBS is funded by the Centers for Disease Control and Prevention (CDC) and surveys PWIDs every 3 years (most recently in 2018) through respondent-driven sampling. NHBS is able to produce estimates that may approximate disease burden among PWID throughout CCSF.

Among 464 PWID sampled, 67% were male, 67% were white, and 72% identified as heterosexual. The plurality were 45–54 years of age, although from 2005-2018, there was an overall shift toward an older population suggesting the possibility of an aging cohort of PWID in CCSF (*Source: SFDPH National HIV Behavioral Surveillance, Center for Public Health Research, Population Health Division*).

In NHBS, HCV was evaluated both through self-report and, in a subsample, through serology and RNA testing.

### 5.2.3.1 HCV by Self-Report in NHBS

Among the 464 PWID sampled, 90.7% had been tested for HCV at some point. Of those tested, 65.1% reported they had tested positive, 82.5% of whom had received an HCV RNA test. Of the 209 respondents who had a positive HCV RNA test, 36.0% reported ever receiving HCV treatment, 72.0% of whom had been cured and 21.0% of whom were still awaiting results. (**Figure 64**).

Among PWID who reported being tested or being treated for HCV in the NHBS 2018 survey, 74.8% reported that their most recent test occurred in 2017 or 2018 and 79% reported that treatment occurred in 2017 or 2018.





Cured = undetectable HCV RNA at 12 weeks post-treatment Source: Hep C Health Project, San Francisco AIDS Foundation

### 5.2.3.2 HCV by Testing in NHBS

HCV status by self-report in NHBS was supplemented by HCV status by lab testing, which may more accurately represent current infection status, but would fail to capture the impact of HCV treatment. Of NHBS participants, 462 were tested for HCV antibodies during the study, 75.6% of whom were seropositive. Of the 369 persons tested for RNA, 40.3% were living with current HCV infection. Of the 126 persons testing antibody positive but RNA negative (i.e., previously exposed to or infected with HCV, but not currently infected), 49.2% reported having received HCV treatment.

NHBS also evaluated HCV and HIV co-infection. Almost one-third (32.3%) of participants were living with current HCV infection, 11.0% were living with HIV, and 2.4% were living with both HIV and HCV (**Figure 65**).



HIV Ab+ is evidence of confirmed HIV infection. HCV RNA+ is evidence of confirmed current infection with HCV. HCV Ab+ is evidence of exposure, past infection, or current infection with HCV.

Source: SFDPH National HIV Behavioral Surveillance, Center for Public Health Research, Population Health Division

#### 5.2.4 UFO Study

The UFO Study followed PWID under 30 years of age who were not previously infected with HCV for the occurrence of incident infections. As of 2007, HCV incidence in this population was 26.7/100 person years. This value did not change substantially in more recent years of UFO Study activity (*Source: Page K, Hahn J.A., Shiboski S, Lum, P, Delwart E, et al. Acute hepatitis C virus infection in young adult injection drug users: A prospective study of incident infection, resolution and reinfection. Journal of Infectious Disease. 2009*).

### 5.2.5 Hep C Health Program

The Hep C Health Program of the San Francisco AIDS Foundation provides treatment for HCV at the 6<sup>th</sup> Street Syringe Access Program and at Magnet. As of mid-2019, they had screened 151 persons (81% at 6<sup>th</sup> Street) and initiated HCV treatment for 126. Ninety-five had completed treatment and 15 were in active treatment; 79 had confirmed cure (i.e., no virus detected at 12 weeks post-treatment; *Source: Hep C Health Project, San Francisco AIDS Foundation*).

### 5.3 GROUP A STREPTOCOCCUS

Group A streptococcus (GAS) is a bacterium that can cause life-threatening invasive infections. Invasive GAS infections are more common among PWID and persons with limited access to hygiene, compared to the general population. The number of invasive GAS infections increased since about 2014 (**Figure 66**). People experiencing homelessness, PWIDs, and those with any record of substance use account for a substantial proportion of invasive GAS infections. In 2018, 41% of invasive GAS infections were among persons experiencing homelessness, 32% were among PWID, and 51% were among persons reporting any substance use.



Figure 66: Annual Number of Invasive Group A Streptococcus Cases in CCSF, 1995–2018

Due to inconsistent data entry, case classification by these characteristics (substance use and homelessness) is not comprehensive. For cases that were not affirmatively identified as individuals who injected drugs, were experiencing homelessness, or used any substance, their status for these characteristics is unknown, and thus the reported counts of cases with each of these characteristics are likely to underestimate the true counts. Data on housing status were only available starting in 2010.

Source: California Emerging Infections Program, provisional infectious diseases data provided per Data Request, 12/18/2018

### 5.4 ENDOCARDITIS

Endocarditis is frequently a complication of injection drug use, although can occur in any person. The chart below (**Figure 67**) includes all cases of endocarditis, not limited to those occurring among PWID. As can be seen, the number of hospitalizations for endocarditis increased somewhat from 2009–2014, but was relatively stable since.



Figure 67: Number of Hospitalizations for Endocarditis in CCSF, 2005-2017

Admissions were identified using ICD-9 codes: 391.1; 397.9; 421.0\*; 421.1\*; 421.9\*; 424.90; 424.91; 424.99; 115.04; 115.14; 115.94; 112.81; 036.42; 074.22; 093.20; 093.21; 093.22; 093.23; 093.24; 098.84; and ICD-10 codes: I33\*; I38\*; I39\*; A01.02; A18.84; A32.82; A39.51; A52.03; A54.83; B33.21; B37.6\*; M05.3\*; M32.11; I01.1\*. Shifts in the trend of hospitalizations and emergency department visits from 2015 to 2016 may be artifacts of a change to the way healthcare visits were coded in the U.S. (from ICD-9 to ICD-10) that occurred on October 1, 2015.

Source: Hospital admission data for CCSF facilities were provided by the California Office of Statewide Health Planning and Development.

### 6 Additional Interventions

### 6.1 SYRINGE ACCESS

Syringe access programs have been proven to reduce HIV infection and improve engagement in care for people who use drugs. Furthermore, increased access to syringes decreases the likelihood that a syringe will carry a blood-borne pathogen. CCSF has made substantial efforts both to ensure access to syringes and associated injection equipment, and to reduce syringe/needle waste. Sixty-six percent of distributed syringes were collected in 2018. The main source of syringe collection is syringe access sites, followed by kiosks placed in key locations of CCSF, as well as manual sweeps conducted by SFDPH.

The data below represent a collaboration of the San Francisco AIDS Foundation, Glide Health, San Francisco Dug Users Union, Homeless Youth Alliance, St. James Infirmary, UCSF Alliance Health Project, and the Community Health Response Team of the San Francisco Department of Public Health.



### Figure 68: Number of Syringes Dispensed and Collected (a) and Sources of Collected Syringes (b) in CCSF, 2018

Access sites = syringe access programs; Kiosks = syringe disposal units in public spaces; Sweeps = teams of workers collecting syringes from public settings. Syringes collected does not include syringes collected by the San Francisco Department of Public Works.

Source: Community Health Equity and Promotion Branch, San Francisco Department of Public Health

More information regarding syringe access and disposal programs can be found at:

- www.sfdph.org/dph/alerts/syringe.asp
- www.sfaf.org/services/syringe-access-disposal/syringe-pick-up-crew/

### 6.2 NALOXONE

The distribution of **naloxone** by community-based organizations continued to increase, with 7,306 naloxone kits distributed and 1,658 overdose reversals reported in 2018. Preliminary data from 2019 suggest a substantial ongoing increase in naloxone provision and use.

Naloxone distribution in CCSF is led by the Drug Overdose Prevention and Education (DOPE) Project of the Harm Reduction Coalition. The DOPE Project provides naloxone at syringe access sites, some SUD treatment settings, other community settings, and pre-release at the San Francisco County Jail.

## Figure 69: Naloxone Enrollments, Refills, and Reversal Reports to the Drug Overdose Prevention and Education Project, 2003–2018



Source: Drug Overdose Prevention and Education Project

Naloxone is also provided through several other venues, including primary care and pharmacy furnishing, at the Community Behavioral Health Services Pharmacy at 1380 Howard Street (70-120 furnishings per month), at selected SUD treatment programs, and at selected emergency departments. Project Friend is a newly formed project funded by the Substance Use and Mental Health Services Administration (SAMHSA) allowing paramedics to provide take-home naloxone to at-risk patients and caretakers. Naloxone is also carried by several groups of first responders, including some law enforcement officers.

### 6.3 METHAMPHETAMINE TASK FORCE

CCSF Mayor London Breed and Supervisor Rafael Mandelman initiated a Methamphetamine Task Force in April 2019 to review the surge in methamphetamine-related morbidity and mortality. The Task Force was co-chaired by the Director of Health and Supervisor Mandelman, and its report was released in October 2019. Recommendations included:

- 1) Create a trauma-informed sobering site with integrated harm reduction services for individuals who are under the influence of methamphetamine.
- 2) Strengthen the city's interdisciplinary mental health crisis response.
- **3)** Increase the availability of safe indoor spaces that provide low-threshold harm reduction and other basic services.
- 4) Expand low-threshold case management and wrap-around services.
- 5) Expand availability and duration of treatment models across the continuum of harm reduction services.
- 6) Expand the use of proven treatment approaches for stimulant use disorder, including contingency management and medications to support reducing or stopping use.
- **7)** Ensure services are culturally and linguistically appropriate, particularly for communities that may be at greater risk of marginalization or injury.
- 8) Establish overdose prevention programs.
- 9) Include peers in the planning and staffing of harm reduction services and treatment programs.
- **10)** Prioritize and protect housing for people seeking treatment.
- 11) Ensure that high-priority unhoused people in treatment are assessed for housing priority.
- 12) Simplify processes to facilitate timely admission into treatment programs for individuals in the community and those exiting jail.
- 13) Increase capacity and use of alternatives to incarceration and alternative sentencing.
- 14) Advocate for state and federal policies that expand access to low-threshold and longterm treatment options.
- **15)** Ensure provider training is trauma-informed and rooted in harm reduction principles.
- **16)** Ensure law enforcement staff are trained to use an integrated crisis intervention approach.
- 17) Strengthen collaboration among city agencies and service providers.

For more information, see the San Francisco Department of Public Health Methamphetamine Task Force at: <a href="http://www.sfdph.org/dph/comupg/knowlcol/MethTaskForce/default.asp">www.sfdph.org/dph/comupg/knowlcol/MethTaskForce/default.asp</a>

### 7 **APPENDICES**

Table 2 (*page 1 of 3*): Rate per 100,000 Population of Drug Seizures, Treatment Admissions, Hospitalizations, ED Visits, and Deaths Involving or Caused by Cocaine/Crack, Methamphetamine, All opioids, Heroin, Prescription Opioids, Fentanyl and Fentanyl Analogues, Cannabis, Alcohol, and Endocarditis in CCSF, 2005–2018

Substance	Measure	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	Drug Seizures											61.007	72.182	74.389	
	Treatment Admissions							180.59	215.31	202.66	142.64	107.43	86.733	78.825	59.889
Cocaine/Crack	Hospitalizations	11.795	4.9437	4.238	3.1599	2.3693	5.4621	12.137	10.977	10.835	11.044	11.924	16.842	15.583	
	ED Visits	27.653	39.029	32.491	26.67	22.446	17.504	23.416	24.607	25.838	31.606	33.918	51.558	43.223	
	Deaths		17.433	15.026	10.617	9.7266	9.5587	10.053	9.288	10.24	10.339	8.3349	8.1348	10.123	11.434
	Drug Seizures											64.248	75.848	98.502	
	Treatment Admissions							122.84	181.42	195.16	182	172.25	189.74	208.83	165.97
Methamphetamine	Hospitalizations	11.533	5.7243	3.7243	3.4127	3.1175	8.3173	6.1299	7.1168	7.0251	9.7519	13.313	29.102	28.095	
	ED Visits	36.303	26.8	27.097	25.28	27.06	41.959	38.741	56.331	74.776	118.08	164.61	332.5	305.18	
	Deaths		4.6835	4.3664	2.6544	3.3669	3.9724	4.9039	5.428	7.2633	7.2846	9.3768	10.083	11.261	14.265
	Drug Seizures											65.522	61.641	71.886	
	Treatment Admissions							439.63	469.47	471.76	545.87	541.65	500.12	511.39	477.98
All Opioids	Hospitalizations	40.104	37.989	38.27	36.15	36.911	43.2	38.986	40.409	39.174	36.893	51.862	124.43	117.84	
	ED Visits	51.506	50.999	51.755	53.34	55.118	53.38	45.484	57.899	61.321	74.96	102.57	145.17	151.05	
	Deaths		13.4	14.769	14.283	16.71	15.269	14.957	13.63	15.717	14.922	11.692	11.916	15.355	20.038

Table 2 (*page 2 of 3*): Rate per 100,000 Population of Drug Seizures, Treatment Admissions, Hospitalizations, ED Visits, and Deaths Involving or Caused by Cocaine/Crack, Methamphetamine, All opioids, Heroin, Prescription Opioids, Fentanyl and Fentanyl Analogues, Cannabis, Alcohol, and Endocarditis in CCSF, 2005–2018

Substance	Measure	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	Drug Seizures											33.34	42.736	57.327	
	Treatment														
	Admissions							397.09	414.46	420.44	487.01	483.54	479.26	463.73	431.9
Heroin	Hospitalizations	2.8833	3.2525	3.4674	2.528	1.4964	1.4897	1.9616	2.0506	1.4288	2.2324	3.1256	4.8121	8.0758	
	ED Visits	21.363	17.823	14.127	11.249	8.8537	7.3242	7.7236	11.7	12.145	20.914	35.076	48.121	54.37	
	Deaths		4.5534	3.4674	3.4127	2.8681	1.2414	1.5938	2.2918	2.9768	4.2297	3.7044	4.8121	5.4597	6.7927
	Drug Seizures											31.719	16.384	12.512	
	Treatment														
Prescription	Admissions							42.541	55.004	51.319	58.864	58.113	55.225	47.659	46.077
Opioids	Hospitalizations	17.693	17.693	17.851	14.03	16.086	20.483	18.635	19.3	20.004	18.446	33.803	113.89	103.05	
	ED Visits	17.3	17.043	21.318	22.372	31.923	34.014	29.056	30.638	30.839	33.015	34.613	50.069	45.839	
	Deaths		9.3671	11.687	10.87	14.216	13.655	13.608	11.7	13.217	11.514	7.6403	6.3016	7.2796	7.9248
	Drug Seizures											0.4631	2.5206	2.0474	
	Treatment														
Fentanyl and	Admissions														
Fentanyl	Hospitalizations												4.0101	5.6872	
Analogues	ED Visits												2.5206	4.2085	
	Deaths		0.6505	0.3853	0.632	0.9976	0.7448	1.226	0.7237	0.7144	0.9399	1.2734	2.5206	4.0948	10.076

Table 2 (*page 3 of 3*): Rate per 100,000 Population of Drug Seizures, Treatment Admissions, Hospitalizations, ED Visits, and Deaths Involving or Caused by Cocaine/Crack, Methamphetamine, All opioids, Heroin, Prescription Opioids, Fentanyl and Fentanyl Analogues, Cannabis, Alcohol, and Endocarditis in CCSF, 2005–2018

Substance	Measure	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	Drug Seizures											54.756	47.663	19.678	
	Treatment														
	Admissions							62.034	76.113	87.278	73.668	67.605	53.048	44.36	37.926
Cannabis	Hospitalizations	3.9318	1.1709	1.0274	0.3792	0.8729	2.4828	2.0842	1.6887	3.2149	2.3499	2.5468	4.8121	5.9147	
	ED Visits	9.3052	6.5049	9.8886	8.9743	10.6	18.745	19.248	19.3	18.932	26.083	32.992	41.018	46.976	
	Deaths		0	0.1284	0	0.2494	0.7448	1.1034	0.8444	2.0242	0.3525	0.2315	0.1146	0	0
	Drug Seizures														
	Treatment														
	Admissions							293.62	345.34	317.92	280.1	265.44	245.65	222.82	199.93
Alcohol	Hospitalizations	68.937	76.107	73.201	71.541	72.077	81.807	85.328	90.226	96.09	110.44	113.1	97.045	101.91	
	ED Visits	485.31	444.94	505.22	667.38	714.28	748.56	715.6	671.39	700.13	783.21	911.75	1017.5	1046.1	
	Deaths		20.686	20.291	19.718	24.067	20.731	21.087	19.058	17.741	19.151	16.323	18.446	13.991	13.699
Endocarditis	Hospitalizations	42.987	40.2	38.27	34.001	30.926	34.014	33.347	36.549	35.007	38.42	44.221	36.664	40.607	

Source: <u>Overdose mortality</u> obtained from the California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS). Deaths caused by any opioid, cocaine/crack, and methamphetamine were due to acute poisoning/overdose; deaths due to alcohol include alcohol-related deaths. <u>Drug seizure</u> 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, 2015 and 2016, NFLIS, DEA. NFLIS methodology allows for the accounting of up to three drugs per item submitted for analysis. The data presented is a combined count including primary, secondary, and tertiary reports for each drug. <u>Treatment admissions</u> data were provided by the Community Behavioral Health Services Division of the San Francisco Department of Public Health (SFDPH). Treatment episodes include clients admitted in prior years who were still receiving services in a particular year (e.g., methadone maintenance clients). <u>Hospital admission</u> data for CCSF facilities were provided by the California Office of Statewide Health Planning and Development. <u>Emergency department</u> visit data for CCSF facilities were provided by the California Office of Statewide Health Planning and Development.

Substance	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Opioids only (no	26	42	62	82	69	67	69	76	73	47	44	53	63
cocaine or													
methamphetamine)													
Opioids and cocaine	65	61	43	43	41	37	30	32	29	30	30	42	43
(no													
methamphetamine)													
Opioids and	*	5	5	7	9	9	12	15	19	16	21	29	47
methamphetamine (no													
cocaine)													
Opioids, cocaine, and	9	7	*	*	*	9	*	9	6	8	9	11	24
methamphetamine													
Cocaine only (no	54	46	37	30	32	35	39	40	47	29	24	28	27
opioids or													
methamphetamine)													
Cocaine and	6	*	*	*	*	*	6	5	6	5	8	8	7
methamphetamine (no													
opioids)													
Methamphetamine	18	19	12	15	19	21	25	32	31	52	50	51	48
only (no opioids or													
cocaine)													

### Table 3: Number of Opioid, Cocaine, and Methamphetamine Overdose Deaths by Mutually Exclusive Substance Category in CCSF, 2006–2018

Overdose deaths were identified use textual cause of death fields. Homicides and suicides were excluded. \*=<5 admissions.

*Sources: California Electronic Death Registration System (CA-EDRS) via the Vital Records Business Intelligence System (VRBIS).* 

	2014	2014		2015			2017		2018	
	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)
Total Admissions (#)	10,830	100%	10,270	100%	9,958	100%	9,660	100%	8,609	100%
Primary										
Substance										
Alcohol	2,384	22.0%	2,293	22.3%	2,144	21.5%	1,959	20.3%	1,766	20.5%
Cocaine/Crack	1,214	11.2%	928	9.0%	757	7.6%	693	7.2%	529	6.1%
Heroin	4,145	38.3%	4,177	40.7%	4,183	42.0%	4,077	42.2%	3,815	44.3%
Prescription Opioids	501	4.6%	502	4.9%	482	4.8%	419	4.3%	407	4.7%
Methamphetamine	1,549	14.3%	1,488	14.5%	1,656	16.6%	1,836	19.0%	1,466	17.0%
Marijuana	627	5.8%	584	5.7%	463	4.6%	390	4.0%	335	3.9%
Benzodiazepines	20	0.2%	22	0.2%	23	0.2%	14	0.1%	24	0.3%
MDMA	19	0.2%	12	0.1%	5	0.1%	5	0.1%	7	0.1%
Other	370	3.4%	263	2.6%	245	2.5%	267	2.8%	260	3.0%
Drugs/Unknown										

Table 4: Admissions to Programs Treating Substance Use Disorders in CCSF, 2014–2018

Data include only publicly-funded or methadone maintenance services. Each admission may not represent a unique individual because some individuals were admitted to treatment more than once in a given period. MDMA= 3,4-methylenedioxy-methamphetamine

### 8 SOURCES

Data	Source and Description
Deaths	California Electronic Death Registration System (CA-EDRS) via the Vital Records Business
	using textual cause of death fields. Homicides and suicides were excluded.
Treatment	Community Behavioral Health Services Division of the San Francisco Department of Public Health
Admissions	(SFDPH). Treatment episodes include clients admitted in prior years who were still receiving services in a particular year (e.g., methadone maintenance clients).
Hospitalizations	California Office of Statewide Health Planning and Development. Admissions by substance or for
	resulted in death were excluded. Shifts in the trend of hospitalizations visits from 2015 to 2016 may
	be artifacts of a change to the way healthcare visits were coded in the U.S. (from ICD-9 to ICD-10)
Emergency	that occurred on October 1, 2015.
Department Visits	identified using ICD codes. Visits that resulted in death were excluded. Shifts in the trend of
	emergency department visits from 2015 to 2016 may be artifacts of a change to the way healthcare
Drug Soizuroo	visits were coded in the U.S. (from ICD-9 to ICD-10) that occurred on October 1, 2015.
Drug Seizures	Data were retrieved on Identified Drugs of Total Analyzed Drug Reports, CCSF, 2015 and 2016,
	NFLIS, DEA. NFLIS methodology allows for the accounting of up to three drugs per item submitted
	for analysis. The data presented is a combined count including primary, secondary, and tertiary
	reports for each drug.
Prescription Data	Opioid Prescription data, including Buprenorphine, were provided by the California Controlled
110.7	Substance Utilization Review and Evaluation System (CURES 2.0)
HIV Henatitis C	SEDPH HIV Epidemiology Annual Report, September 2019
nepatitis C	Division
	Facente SN, Grebe E, Burk K, Morris MD, Murphy EL, Mirzazadeh A, et al. (2018) Estimated hepatitis C prevalence and key population sizes in San Francisco: A foundation for elimination. <i>PLoS ONE</i> . 13
	(4): e0195575
	End Hep C SF Annual Evaluation Report, Year 3 ( <u>http://www.endhepcsf.org/end-hep-c-sf-year-3-</u> evaluation/)
	End Hep C SF: HIV/HCV Microlamination Planning ( <u>http://www.endhepcsf.org/end-hep-c-sf-micro-</u> elimination-plan/)
	SFDPH National HIV Behavioral Surveillance, Center for Public Health Research, Population Health
	Hep C Health Project, San Francisco AIDS Foundation
	Page K, Hahn J.A., Shiboski S, Lum, P, Delwart E, et al. (2009) Acute hepatitis C virus infection in
	young adult injection drug users: A prospective study of incident infection, resolution and reinfection, <i>Journal of Infectious Disease</i> , Doi: 10.1086/605947
Group A Strep	Provisional infectious diseases data by the California Emerging Infections Program, per data
-	request, 12/18/2018
Naloxone	Drug Overdose Prevention and Education Project
Syringe Access	Community Health Equity and Promotion Branch, San Francisco Department of Public Health
Sobering Center	San Francisco Department of Public Health