



SAN FRANCISCO
METHAMPHETAMINE
TASK FORCE



FINAL REPORT
2019

SAN FRANCISCO BOARD OF SUPERVISORS

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SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH

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Message from the District 8 Supervisor

Rafael Mandelman

San Francisco has a methamphetamine problem. We see it on our streets, in our emergency rooms, in our jails, and too often on the growing list of neighbors dying from overdoses. While methamphetamine is not new to our City, the public health challenges associated with methamphetamine use and addiction have changed and grown over time.

In 2005, as methamphetamine use among LGBTQ people was on the rise, Mayor Gavin Newsom and Supervisor Bevan Dufty convened the City's first Methamphetamine Task Force to address growing health risks to the LGBTQ community. Since then, methamphetamine use has become increasingly common among people experiencing homelessness, including people with severe mental illness, threatening the health of the most vulnerable San Franciscans and the communities in which they live.

I am grateful to Mayor London Breed and Health Director Dr. Grant Colfax for their leadership in responding to this evolving crisis, and for joining me to convene the 2019 Methamphetamine Task Force. I also want to extend my profound thanks to the members of the Task Force, who represent some of the City's brightest and boldest minds working every day to care for San Franciscans in need. Their wisdom and expertise shaped the conversations we had as a Task Force and generated the recommendations presented in this Report.

For decades, San Francisco has been a public health leader, responding to the challenge of the AIDS epidemic and developing new models of care to save lives, innovating low-threshold drug treatment services

to bring more people into care, and now uniting around an interdepartmental, cross-agency response to the epidemic of problematic methamphetamine use.

I look forward to working with Mayor Breed, the Department of Public Health, my colleagues on the Board of Supervisors and all of our community partners, to build upon the work of the 2019 Methamphetamine Task Force, and to ensure the further development and effective implementation of the Task Force recommendations.

In appreciation,

Rafael Mandelman
District 8 Supervisor



Message from the Director of Health

Grant Colfax, MD

The Department of Public Health is pleased to support this report and the recommendations from the San Francisco Methamphetamine Task Force. From April 2019 through September 2019, a diverse group of representatives from healthcare and community-based organizations, city agencies, research institutions, and people with experience using methamphetamine convened to forge comprehensive recommendations to address adverse effects and public health and safety concerns associated with methamphetamine use.

I am inspired by the Task Force's collective vision that San Francisco is a city that operates from a seat of compassion; that we are driven by the conviction that all individuals deserve an opportunity to achieve their health and wellness goals. As San Francisco has courageously demonstrated leadership on so many fronts throughout history, so, too, will we push forward in this effort to support these bold but achievable recommendations, believing they provide a valuable framework for achieving comprehensive, collaborative, and integrated interventions in all settings and across city services.

I thank Mayor London Breed and Supervisor Rafael Mandelman for their leadership in convening this task force. I am deeply appreciative to the members of the Task Force

and the public for their collective wisdom in developing these recommendations. The success of this endeavor is attributable to all of their outstanding contributions and dedication.

With gratitude,

Grant Colfax, MD
Director of Health

Background

Use of the psychostimulant, methamphetamine, is on the rise around the world, and the impacts of problematic use are a growing public health and safety concern. Several indicators point to increased use in San Francisco, including a rise in overdose deaths related to methamphetamine, substance use disorder (SUD) treatment admissions for methamphetamine, hospitalizations, emergency department visits, and law enforcement seizures involving the drug. Racial disparities related to methamphetamine use are also rising. For example, methamphetamine use may be more common among white men, but Black/African Americans (B/AA) are more likely to experience harmful outcomes.

METHAMPHETAMINE USE IN SAN FRANCISCO

While there are no reliable estimates of how many people use methamphetamine, there are an estimated 24,500 people who inject drugs in San Francisco. Recent data indicate that 39 percent of people who inject drugs in SF reported injecting methamphetamine, and 42 percent reported non-injection use.¹ Since 2008, deaths determined to have been caused by a methamphetamine overdose climbed from 1.8 per 100,000 people to 14.6 in 2018, or 126 deaths.² Among decedents

experiencing homelessness in SF, methamphetamine was the most commonly present substance (47%). From 2006-2007, the mortality rate involving methamphetamine was highest among white, non-Hispanics (7.3), more than three times that for Black/African-Americans (B/AA). However, through 2014-2015, the mortality rate for B/AA rose sharply from 2.1 to 20.2, highest among all groups.³

The association between methamphetamine use and psychosis is reflected in the number of visits to Psychiatric Emergency Services (PES). During, 2017-2018, nearly half (47%) of all patient visits to PES were related to methamphetamine use. Among clients with at least eight 5150s (psychiatric holds) nearly 9 in 10 (89.1%) used only methamphetamine, and 1 in 4 (25%) used methamphetamine in addition to opioids, cocaine, and alcohol.⁴

The increase in local methamphetamine use is also suggested by admissions to substance use disorder (SUD) treatment programs. From 2013 to 2017, admissions to treatment (Tx) programs in SF where methamphetamine is the primary substance have increased 30 percent, while admissions for other substances including alcohol, heroin, and cocaine/crack, have either been stable or decreased.⁵ Patients are most commonly men (77%),

¹ San Francisco Department of Public Health (2019). National HIV Behavioral Surveillance IDU 5 Findings. Population Health Division.

² San Francisco Department of Public Health (2019) Counts of accidental overdose deaths involving cocaine, methamphetamine, or opioids in SF, CA 2006-2018.

³ Coffin, P. (2018). Distribution of mortality by substance category and select characteristics, San Francisco, 2006 – 2015. San Francisco Department of Public Health.

⁴ San Francisco Department of Public Health (2018). CCMS Cohort Report, FY1718 Utilization. Figures are based on clinical diagnostic assessment and self-report.

⁵ Coffin, P.O. & Rowe, C. (2018). NDEWS San Francisco Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2018. National Drug Early Warning System.

FIGURE 1: PERCENT OF POPULATION

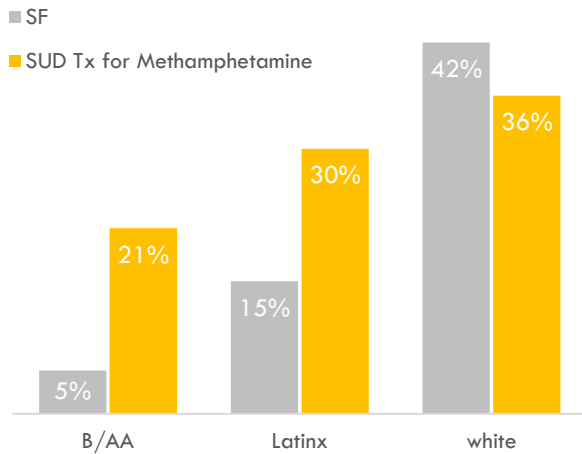
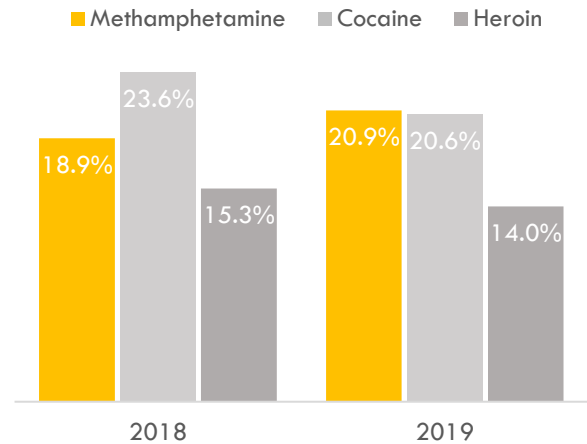


FIGURE 2: PERCENT OF DRUG OFFENSES BY DRUG, THROUGH SEPTEMBER 2019



aged 26-44 years (61%), and smoke the drug (66%). Yet, people who identify as Black/African-American (B/AA) or Latinx are vastly over-represented compared to their proportion of the city’s population (Figure 1).⁶

The number of arrests involving methamphetamine has also steadily risen since 2003, and the percentage of these arrests have trended upward since 2008, from 1 in 20 to roughly 1 in 5 in 2018.⁷ In 2018, drug arrests involving methamphetamine was the second most common behind cocaine. So far in 2019, methamphetamine has surpassed other drugs as most frequently involved in a drug arrest (Figure 2).⁸ Among people in SF’s jails, methamphetamine is the second highest reported substance used behind only alcohol – and it is the highest reported illicit drug used, surpassing heroin, cocaine, and benzodiazepines.⁹

There are a variety of reasons an individual may use methamphetamine such as wanting increased energy and wakefulness, focus and attention, and weight loss. Other reasons may include coping with trauma

and violence, or supporting sexual activity. Some individuals who use the drug may also have an underlying mental health condition or substance use disorder (SUD).

IMPACTS OF PROBLEMATIC USE

The development of methamphetamine use disorder is a medical condition that is caused by chronic use of methamphetamine and impairs an individual’s ability to carry out daily life activities. This problematic use has been associated with a wide range of mental decline, including difficulty processing information and impaired memory, ability to respond, decision-making, problem solving, attention, and language.^{10,11} Long-term use of the drug can cause significant damage to the individual’s brain, heart, lungs, and other organ systems. When an individual stops using methamphetamine, intense cravings, anxiety and depression may follow and last for many months thereafter. Research indicates that intense methamphetamine use is associated with higher levels of depressive symptoms.¹²

⁶ US Census Bureau (2018). 2017 ACS-5year Estimates, San Francisco County.
⁷ San Francisco Police Department (2019). Police Incident Reports: 2003 to Present. Retrieved from <https://data.sfgov.org/browse?category=Public+Safety>
⁸ San Francisco Police Department (2019). Police Incident Reports: 2018 to Present. Retrieved from <https://data.sfgov.org/browse?category=Public+Safety>
⁹ San Francisco Department of Public Health (2019). Self-Reported Substance Use. Jail Health Services.

¹⁰ American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.)
¹¹ Courtney, K.E. & Ray, L.A. (2014). Methamphetamine: An update on epidemiology, pharmacology, clinical phenomenology, and treatment literature. Drug and Alcohol Dependence, 143: 11-21
¹² Hillhouse, MP, Marinelli-Casey, Hillhouse, M, Ang, A, Mooney, LJ et al (2009). Depression Among Methamphetamine Users: Association With Outcomes From the

Problematic methamphetamine use can also lead to psychosis and violent or challenging behaviors, and city services may face difficulty responding to or stabilizing a person under the influence of the drug. Psychiatric symptoms may vary as a result of individual differences in sensitivity to methamphetamine, the amount and/or frequency of use, and how it is consumed. For example, smoking and injecting methamphetamine results in individuals feeling the drug's effects sooner. They can also have the most potential for an overdose due to rapid increases in use. Individuals who inject and who have a family history of psychotic symptoms are at an elevated risk for the development of symptoms which can mimic schizophrenia.¹³

Methamphetamine-associated behaviors such as increased sexual activity and injecting the drug intravenously can increase the risk of contracting HIV, hepatitis, and other sexually transmitted infections. For example, among San Franciscans with syphilis, over half (56%) of men who have sex with women (MSW) and 35 percent of women reported methamphetamine use.¹⁴ Methamphetamine use during pregnancy can result in preterm labor, fetal distress, developmental delays, and death.¹⁵

LOCAL PERSPECTIVES & EXPERIENCES

The increase in long-term and intense methamphetamine use, particularly in public spaces, is a growing concern not only because of its potentially harmful impacts on the individual, but also on surrounding communities. Conditions associated with use of the drug have elicited a range of emotions and concerns among San Franciscans. A series of focus groups and interviews were conducted in parallel to the Task Force meetings to learn how methamphetamine use in the city is impacting people who live and work in San Francisco.

Focus groups that included residents from different neighborhoods and members of the business community reported feeling frustrated, unsafe, or uncertain of how to respond to someone who is using methamphetamine in public spaces. Some employers reported they are considering relocating outside the city or shuttering their business, while others face ongoing challenges recruiting and retaining staff despite their added security investments. Reported experiences attributed to methamphetamine included violent encounters, property damage, thefts, and hazardous waste where they live and/or work.

A focus group with healthcare providers reported potentially dangerous interactions, resource gaps, and structural barriers in the care system that create difficulties when serving clients who use methamphetamine. Additionally, some clients need a lower-threshold location, and may not tolerate the highly restricted setting of residential treatment. Severe methamphetamine intoxication can present on the street as disruptive and dangerous behavior, which is managed in emergency hospital settings that are limited to providing short-term care. This can result in difficulty matching services to the complex needs of people who use methamphetamine. With the added unfamiliarity of how to helpfully engage people under the influence of the drug or what resources are available, these conditions can prevent successful management and stabilization of clients, while leading to burnout and vicarious traumatization of service providers.

Likewise, a focus group with people who currently or formerly used methamphetamine reported stigmatizing encounters with service providers that may hamper the effectiveness of interventions intended to support safe use or recovery. Treatment for methamphetamine use requires long-term practices and supports. The lack of stable housing poses regular challenges for people who use, including risks of violent events or losing necessary medications and belongings when out on the street. People who are unhoused, or marginally housed may

Methamphetamine Treatment Project at 3-Year Follow-Up. *The Journal of Nervous and Mental Disease*, 197(4) 225-231.

¹³ *ibid*

¹⁴ San Francisco Department of Public Health (2019). *Recent Syphilis Trends in California and San Francisco*.

¹⁵ Brecht, M, Greenwell, L, & Anglin, MD. (2005) Methamphetamine treatment: Trends and predictors of retention and completion in a large state treatment system (1992–2002). *Journal of Substance Abuse Treatment*, 29: 295-306.

use methamphetamine as a coping strategy, and they can face increased risks for relapse even after successfully completing treatment.

The difficulty in obtaining and/or maintaining stable housing may dissuade many people from engaging in treatment if there is no certainty they will access long-term housing when they exit treatment. Others who are marginally housed in a shelter or Navigation Center may be reluctant to engage in residential treatment if they might return to experiencing homelessness after completing the program. For example, an individual in a Navigation Center would lose his/her bed if they are absent for 72 hours while in treatment. Upon exiting treatment, the city's Coordinated Entry (CE) assessment might not prioritize them for an affordable housing unit based on their health and risk factors. Some housed individuals may face the risk of eviction from their unit if they are unable to pay rent while participating in a residential treatment program.

CURRENT TREATMENT APPROACHES

Currently, there are no FDA-approved medications for the treatment of methamphetamine use disorder, although studies suggest a benefit of mirtazapine in reducing use. There are mixed data for several other agents, including bupropion, methylphenidate, oxytocin, and others.¹⁶ Results overall suggest that fully effective pharmacotherapy may require more than one agent and in combination with behavioral therapies.

Behavioral therapies are used to help patients recognize, avoid, and cope with the situations in which they are most likely to use drugs. These approaches, such as contingency management, utilize motivational incentives such as vouchers or small cash rewards to encourage patients to engage in treatment and maintain abstinence.¹⁷

There are a variety of factors that influence a person's journey along treatment and recovery from

¹⁶ Colfax, GN, Santos GM, Das M, Santos DM, Matheson T, Gasper J, Shoptaw S, Vittinghoff E. (2011). Mirtazapine to reduce methamphetamine use: a randomized controlled trial. *Archives of General Psychiatry*, 68(11) 1168-75.

TABLE 1: TYPES OF INTERVENTIONS FOR METHAMPHETAMINE USE

BEHAVIORAL	<ul style="list-style-type: none"> contingency management
COGNITIVE	<ul style="list-style-type: none"> cognitive behavioral therapy
SOCIAL	<ul style="list-style-type: none"> low-threshold services case management
PHARMACOLOGICAL	<ul style="list-style-type: none"> mirtazapine methylphenidate oxytocin n-acetylcysteine antipsychotics antidepressants

**none are FDA-approved treatments for methamphetamine use disorder*



substance use. It is important that a system of care incorporates low-threshold services to engage a person in a safe and respectful manner that builds trust and avoids stigmatization. Harm reduction strategies can also reduce the harms associated with drug use. While available treatments for methamphetamine use may be only modestly effective, it is important to enhance access to quality harm reduction services to reduce the adverse impacts of use.

IMPETUS FOR THE TASK FORCE

San Francisco has been experiencing a convergence of social and economic factors that require strategic approaches that differ from what is currently practiced. To address problematic methamphetamine use, it is important to develop person-centered, comprehensive, and cost-effective interventions, including solutions that address social determinants of health. As the city moves forward, there may be opportunities to support educating SF communities on methamphetamine use.

In February 2019, Mayor London Breed and Supervisor Rafael Mandelman called for the creation of a Methamphetamine Task Force, coordinated by

¹⁷ National Institute on Drug Abuse (2013). Methamphetamine. Retrieved from <https://www.drugabuse.gov/publications/research-reports/methamphetamine/what-methamphetamine>

the Department of Public Health, to develop recommendations on harm reduction strategies to:

- **Decrease health risks** for people under the influence of methamphetamine, especially for individuals experiencing homelessness;
- **Identify best practices** for treatment and service options for people who use methamphetamine;
- **Reduce the negative medical and social impacts** of methamphetamine use on San Franciscans.

The Task Force was an opportunity to further support cross-sector collaboration, increase public awareness of substance use and abuse, and examine cost-effective strategies to better manage the impacts of problematic methamphetamine use on the city's systems and its residents.

Task Force Process Overview

The Task Force was chaired by Rafael Mandelman, District 8 Supervisor, and Dr. Grant Colfax, Director of Health. The group consisted of 22 members that represented multiple disciplines and sectors, including medical and public health professionals, researchers, substance use disorder treatment providers, homelessness and housing providers, emergency responders, criminal justice and law enforcement officials, drug policy experts, and people with experience using substances. See Appendix B for a roster of task force members. More information on the Task Force's meetings and materials can be found at the [Methamphetamine Task Force webpage](#).

The Task Force convened four public meetings between April 2019 and September 2019, and discussed focus areas identified through the review of city priorities and published research: social-behavioral interventions, medical and pharmacological interventions, low-threshold services, workforce development, capacity building, public safety, and the role of the criminal justice system.

In addition to Task Force members' expertise, the process sought to include perspectives from an array of sources that included:

- **Focus groups** with current and/or former users of methamphetamine, treatment providers, housing and shelter providers, residents, and the business community (Appendix D);
- **Interviews** with local first responders and treatment providers, and international experts

and practitioners that supplemented focus group perspectives;

- **Environmental scan** of best practices and considerations from other countries, states, and cities seeking to address problematic methamphetamine use in their jurisdiction (Appendix E);
- **Public comments** at Task Force meetings and received through email correspondence at meth.taskforce@sfdph.org

Qualitative analysis of Task Force meetings, focus groups, interviews, and the environmental scan yielded a set of provisional recommendations. Task Force members engaged in a prioritization process to rate each on a 5-point scale of its potential impact on reducing adverse health and social impacts of methamphetamine use: from "1" (very low) to "5" (very high). Using each recommendation's aggregate score, 17 were selected based on their average rating of "4" (high impact) or greater. See Appendix C for the full set of provisional recommendations and summary ratings.

A subset of these 17 recommendations was assigned to an inter-disciplinary work group of Task Force members to review and discuss, including a high level determination of key partners, resource needs, and structural barriers to their implementation. The following section describes the Task Force's consensus recommendations and findings.

Task Force Recommendations

The following recommendations are the culmination of the Task Force’s work and are informed by the diverse expertise of its members, the local perspectives of people with experience using methamphetamine, service providers, businesses, residents, and best practices from around the world. The recommendations are intended to provide guidelines that support policy makers and agency officials in their planning and development of new approaches to address issues related to problematic methamphetamine use.

Each recommendation includes a description and example(s) of how it could be implemented. The description is followed by a list of key partners and barriers to implementation, as determined by the Task Force. Recommendations are organized into four thematic categories:

- Invest In Care Models to Reduce Harm and Promote Recovery and Wellness
- Improve Access to Treatment and Housing
- Build Capacity of Staff Who Interact with and Provide Services to People Who Use Methamphetamine
- Strengthen Coordination Among City Services and Systems



The following three recommendations were rated overall as most impactful by the Task Force and may provide guidance for future investments and prioritization moving forward. See Appendix C for the full list of recommendations and average ratings.

- **Create a trauma-informed sobering site with integrated harm reduction services for individuals who are under the influence of methamphetamine.**
- **Strengthen the city’s interdisciplinary behavioral health crisis response.**
- **Prioritize and protect housing for people seeking treatment.**



LIST OF METHAMPHETAMINE TASK FORCE RECOMMENDATIONS

INVEST IN CARE MODELS TO REDUCE HARM AND PROMOTE RECOVERY AND WELLNESS

- 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 behavioral health crisis response.

- 3 Increase the availability of safe indoor spaces that provide low-threshold, harm reduction, and basic services.

- 4 Expand low-threshold case management and wrap-around.

- 5 Expand availability and duration of treatment models across the continuum of harm reduction services.

- 6 Expand the use of proven intervention and treatment approaches for stimulant use disorder, including contingency management and medication support.

- 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.

IMPROVE ACCESS TO TREATMENT AND HOUSING

- 10 Prioritize and protect housing for people seeking treatment.

- 11 Ensure that 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 long-term treatment options.

BUILD CAPACITY OF STAFF WHO INTERACT WITH AND PROVIDE SERVICES TO PEOPLE WHO USE METHAMPHETAMINE

- 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.

STRENGTHEN COORDINATION AMONG CITY SERVICES AND SYSTEMS

- 17 Strengthen collaboration among city agencies and service providers.

FIGURE 3: TASK FORCE PRELIMINARY PERSPECTIVE ON IMPLEMENTATION FEASIBILITY



Work groups also shared their perspectives on a high-level implementation timeframe for each recommendation based on its prospective feasibility that factored considerations of resource needs, barriers, and logistical variables. Figure 3 illustrates what the Task Force thought may be feasible under ideal conditions. The color-coded numbers correspond to the thematic category and recommendation. Actual implementation of any recommendation may vary due to changes in the resource, regulatory, or legal environments.

INVEST IN CARE MODELS TO REDUCE HARM & PROMOTE RECOVERY & WELLNESS

1 Create a trauma-informed sobering site with integrated harm reduction services for individuals who are under the influence of methamphetamine.

A person under the influence of methamphetamine can present with psychosis, agitation, or violent behaviors, and emergency departments (ED) are a common place for first responders to transport them. For many, however, an ED is not an appropriate location to come down from methamphetamine intoxication and receive care, as they are meant to provide emergency services and not equipped to provide long-term outpatient resources or behavioral health services. With the increasing prevalence of problematic methamphetamine use in SF, there are numerous benefits to implementing a designated transport site that is specifically equipped to engage a person under the influence of methamphetamine with no emergent medical needs.

A sobering site for people under the influence of methamphetamine could serve as an alternative transport site for those with non-emergency needs and provide on-site medication services such as antipsychotics or sedatives if an individual presents with acute psychosis or agitation. A sobering site for methamphetamine intoxication could serve to relieve pressure on Psychiatric Emergency Services (PES) and hospital emergency departments and maximize an encounter with an individual through integrated services and staff trained to engage the population. This model could result in increased connection to services, improved health outcomes, reduced harms of use, and decreased impacts on the general public and the city's system of services.



KEY PARTNERS: Public and private healthcare systems, Emergency Medical Services, Police Department, people with experience using substances, treatment provider organizations



KEY BARRIERS: Clarifying purpose and goals, siting and location, staffing, funding



2 Strengthen the city's interdisciplinary behavioral health crisis response.

Trauma and feelings of social disconnect are reported as common factors for many people with problematic methamphetamine use. For some, substance use can be a coping strategy. Methamphetamine is increasingly being consumed in public spaces, and residents are more regularly encountering individuals under the influence, who can sometimes present with challenging psychosis-related behaviors or experience moments of mental health crisis. Currently, the only option available to residents seeking assistance for a person in methamphetamine-induced psychosis is to call 911. Generally, this results in a law enforcement or emergency medical response, which may not be appropriate in every circumstance, particularly when an individual is not engaging in criminal behavior or experiencing emergent medical needs. A non-law enforcement response may be more successful in de-escalating a situation and engaging the individual in a way that promotes a connection to the system of care.

Bolstering resources to increase the city’s behavioral health response (e.g., Crisis Intervention Team, comprised of SFPD officers and SFDPH behavioral health clinicians) presents an immediate opportunity to reduce potential harms to the individual and surrounding community. The response may help with immediate stabilization of the individual, and assist in connecting people to care. A behavioral health crisis response could also include a clinician available for police to consult with, which would allow for improved assessment and connection to treatment. To ensure members of the public can easily request a response to behavioral health crises on the street, the behavioral health crisis team could be accessed via the City’s 311 system.


 **KEY PARTNERS:** Department of Public Health, Police Department, Department of Homelessness & Supportive Housing, Emergency Medical Services


 **KEY BARRIERS:** Education of city partners and public on access and availability of resources, staffing

3 Increase the availability of safe indoor spaces that provide low-threshold, harm reduction, and basic services.

People with a history of problematic methamphetamine use may experience more chaotic events and unstructured schedules, and existing services are generally not designed to fit this level of unpredictability. A diversity of safe indoor spaces with low-threshold services provides an opportunity to affirm the humanity and dignity of people who use substances. Safe indoor spaces may also fill a gap in services by reaching people who are ambivalent about their use or who are seeking treatment. While market forces on local real estate costs have impacted their availability, it is a priority for the city to operate spaces that provide compassionate care and services to vulnerable individuals. Additional indoor spaces could reduce the stigma and dangers of use for many, while also enabling trust building, creating engagement, disseminating harm reduction practices, linking individuals to appropriate services, and improving health outcomes.

Examples could include drop-in centers, shelters, and Navigation Centers that provide hospitality, basic medical services, behavioral health services, counseling, and linkages to care.

 **KEY PARTNERS:** Public and private healthcare systems, Department of Homelessness & Supportive Housing, Police Department, Adult Probation Department, Juvenile Probation Department, Emergency Medical Services, community-based organizations, people with experience using substances


 **KEY BARRIERS:** Limited housing capacity, location and siting, funding, limited staffing capacity, determining impact measures

4

Expand low-threshold case management and wrap-around.

People with long-term or intense methamphetamine use may be more likely to present with complex health and social conditions that require various interventions provided in a structured manner. Because unpredictable attendance for appointments may be a factor, people who are engaged in low-threshold case management and wrap-around services may be more successful in managing methamphetamine use or sustaining abstinence over time. Importantly, organizations that provide case management may be well-positioned to manage challenges that may arise after placing an individual in housing.

At scale, investments in staffing to reduce caseloads can translate to societal benefits such as increased overall treatment retention, improved vocational opportunities, reduced hospitalizations and incarcerations, decreased costs to city services, and a decline in adverse public impacts related to problematic methamphetamine use.

 **KEY PARTNERS:** Department of Public Health, Police Department, Department of Homelessness & Supportive Housing, Human Services Agency, social service organizations

 **KEY BARRIERS:** Definitions and measures of success, workforce shortages



5

Expand availability and duration of treatment models across the continuum of harm reduction services.

It is important to differentiate between reasons why an individual uses methamphetamine in order to determine the optimal treatment or harm reduction pathway that supports the individual’s health and wellness goals. While abstinence may be suited for some, a harm reduction approach may be more desirable, feasible, and sustainable for others. Widening the breadth and duration of treatment options recognizes this diversity in consumption behaviors and support needs.

It is important to support people in moving across the continuum of services according to their level of need. For example, a person who no longer needs to be in residential treatment may have the option to move to a less restrictive outpatient service instead of staying longer in a residential treatment setting or discharging to the street. Low-threshold options may also facilitate engagement with individuals either hesitant to interact with the system of care and/or those with criminal-justice involvement. Because methamphetamine use may induce behaviors that can be challenging for staff, it is critical to equip and train staff across treatment models on engaging people under the influence of the drug. Assessment of the system of services and client feedback can help identify the most prudent and cost-effective investments.

Expansions to the continuum of services could include:

- Non-abstinence-based residential treatment programs;
- Residential step-down beds available to clients exiting from residential treatment programs;
- Detox, psychiatric inpatient, and psychiatric emergency care placements for individuals experiencing methamphetamine-induced psychosis; and
- Enhanced staff capacity in methamphetamine-specific treatment models.



KEY PARTNERS: Public and private healthcare systems, contract agencies



KEY BARRIERS: Medi-Cal reimbursement limitations, funding



6

Expand the use of proven intervention and treatment approaches for stimulant use disorder, including contingency management and medication support.

Methamphetamine use can affect individuals in different ways, and research suggests treatment approaches that combine multiple types of interventions (e.g. behavioral therapy, cognitive therapy, medication) can be promising in reducing use. Investing in treatment models that employ multiple interventions could be a promising and cost-effective tool, particularly when used alongside other supports focused on social determinants of health (e.g. housing, employment, etc.).

There are no FDA-approved medications for treating methamphetamine use disorder, but studies show some benefits to medications such as mirtazapine which can reduce use. There may be opportunities for treatment providers to consider their use with behavioral therapies such as contingency management (CM) – a behavior modification intervention that reinforces desired behaviors through incentives and has shown some success in treating people with methamphetamine addiction. CM can be applied in a wide range of treatment contexts for enhancing retention in treatment and decreasing drug use – for not only individuals with a primary SUD diagnosis, but also for individuals diagnosed with mental illness and a substance use disorder.



KEY PARTNERS: CA Department of Health Care Services, Department of Public Health, treatment provider organizations



KEY BARRIERS: State regulations, funding for services not covered under Medi-Cal, staff training




7

Ensure services are culturally and linguistically appropriate, particularly for communities that may be at greater risk of marginalization or injury.

Many communities regularly experience barriers to care and threats to safety that lead to elevated risks for injury, adverse outcomes, and marginalization related to methamphetamine use. As people of color are increasingly more likely to die of a drug overdose or enter substance use treatment, targeted efforts to meet the cultural and linguistic needs of patients can help providers reduce disparities in care and health outcomes for some segments of the service population. To support organizations in addressing health disparities and meeting patients’ needs, the development of culturally and linguistically appropriate practices is ideally an ongoing process. Some practices could include, but not be limited to, staff training on cultural sensitivity and

humility, translating materials for threshold languages, modifying physical spaces to facilitate privacy and social needs, and hiring peer workers.

The cost of living and operating in the region creates economic pressures on provider organizations and staff. Organizations share a common difficulty in recruiting and retaining skilled multi-lingual staff, and this can directly limit service delivery and quality to limited or non-English speaking patients. With the goal of improving the health and social wellbeing of all San Franciscans, financial support to fund pay differentials for multi-lingual staff enables providers to leverage their cultural capital and nurture trusting relationships with the city's diverse and vulnerable communities. This would entail re-aligning current salaries for contracted staff to be competitive with other larger service provider organizations.


 **KEY PARTNERS:** Federal funding agencies, CA Department of Health Care Services, City and County of San Francisco

 **KEY BARRIERS:** Fully fund salaries aligned with other larger service provider organizations



8 Establish overdose prevention programs.

Research on overdose prevention programs (e.g., [supervised injection services](#) and safe consumption services) consistently demonstrate they are an evidenced-based harm reduction strategy that can address public substance use and its adverse health and social impacts. At this time, state and federal law prohibit building owners and operators from allowing the manufacture, storage, or distribution of a controlled substance, and criminal and civil penalties may be imposed on all parties engaged in the property. While the legality of overdose prevention programs is being actively argued in federal courts, San Francisco must continue advocating for legislative paths forward that enable evidence-based interventions.

 **KEY PARTNERS:** Department of Public Health, treatment provider organizations, community-based organizations, business community, neighborhood associations, people with experience using substances, City Attorney's Office, Police Department

 **KEY BARRIERS:** Federal and state regulations, siting and location, startup and operating costs

9 Include peers in the planning and staffing of harm reduction services and treatment programs.

People with current and/or former experience using methamphetamine are invaluable partners with first-hand insight into the needs and preferences of other people who use the drug. Peer staff are uniquely positioned to enhance the value and desirability of services for people who use substances, as they embody an intimate understanding of the various social and structural barriers to accessing services, including stigma associated with drug consumption. Additionally, incorporating peers throughout the planning and staffing of services draws on their relationships with people who use substances, and their familiarity with experiences represents one of the most promising ways to leverage peer networks and community expertise in addressing problematic methamphetamine use.



KEY PARTNERS: Community-based organizations, community navigators

IMPROVE ACCESS TO TREATMENT & HOUSING

10 Prioritize and protect housing for people seeking treatment.

Housing is a fundamental social determinant of health, and housing instability is a key driver of problematic use and relapse. In addition, it serves as a crucial barrier to engaging in treatment. Because individuals experiencing homelessness may not have access to safe indoor spaces, the lack of access to housing can also fuel the use of methamphetamine in public spaces. The difficulty in obtaining and/or maintaining stable housing may discourage many people from engaging in treatment if there is no certainty they will access long-term housing when they are finished. Others who are marginally housed in a shelter may be reluctant to engage in residential treatment if they will become homeless after completing the program. Likewise, some may decline treatment knowing they may be unlikely to retain their current housing due to the housing type's occupancy rules.

Securing funding dedicated to protecting housing and/or facilitating placement in housing upon treatment completion can significantly increase the likelihood that individuals engage in treatment for methamphetamine use and work towards long-term recovery and wellness. This could include a city fund that provides a time-limited, needs-based subsidy for residents who enter voluntary residential or outpatient treatment. Other supports could entail coordinated referrals to eviction defense providers.



KEY PARTNERS: Mayor's Office, Board of Supervisors, Department of Homelessness & Supportive Housing, residential treatment providers, supportive housing providers, Bay Area Legal Aid




KEY BARRIERS: Regulations requiring tenants be present to maintain housing, depending on the type of housing and/or subsidy

11 Ensure that unhoused people in treatment are assessed for housing priority.

Individuals who are unhoused or marginally housed may be more at-risk for complex health conditions, especially in conjunction with problematic methamphetamine use. When an individual chooses to engage in treatment, a lack of adequate housing and supportive services can hinder the effectiveness and longevity of that treatment – even serving as a deterrent for some to engage in treatment at all.

The Department of Homelessness and Supportive Housing (DHS) and behavioral health residential treatment providers could collaborate to ensure that unhoused individuals in residential treatment are assessed through Coordinated Entry (CE) for housing placement before exiting treatment. This approach presents an opportunity to identify and elevate the needs of the most vulnerable individuals by supporting placement in the most appropriate housing setting.


 **KEY PARTNERS:** Department of Homelessness & Supportive Housing, Department of Public Health, residential Treatment providers, supportive housing providers


 **KEY BARRIERS:** Limited housing supply

12 Simplify processes to facilitate timely admission into treatment programs for individuals in the community and those exiting jail.

Service providers may face hurdles in placing an individual in a treatment bed: Drug Medi-Cal funding limitations, workforce shortages, lengthy intake processes, transportation delays, hand-off challenges between services, or complex medical needs. Long waiting periods for an appropriate treatment spot may deter some from waiting for an opening, and many clients may choose not to complete the placement process. Some individuals in custody who are awaiting placement in a community-based treatment facility, may refuse placement in order to avoid staying longer in jail while they wait.

While the city is actively expanding service capacity throughout the continuum of care, city agencies and service provider organizations are in a position to streamline administrative workflows and inter-agency processes to optimize placement of clients in existing program spaces. Efforts can include expanding the number of staff performing intake assessments, assessment hours, and locations (e.g. in custody settings, off-hours, etc.) to allow for immediate connections to services; investing in resources to transport more clients; leveraging city funds to supplement Drug Medi-Cal reimbursement shortfalls; and improving coordination between agencies for discharge planning and reentry services.


 **KEY PARTNERS:** Department of Public Health, Sheriff’s Department, District Attorney’s Office, Public Defender’s Office, Courts, Human Services Agency, treatment provider organizations

 **KEY BARRIERS:** Drug Medi-Cal funding limitations, obtaining Medi-Cal authorization for people in custody, limited program hours, limited staffing

13 Increase capacity and use of alternatives to incarceration and alternative sentencing.

San Francisco has actively explored strategies to reduce its jail population, with a keen awareness that a disproportionate share of individuals in custody are people of color and/or have a serious mental illness diagnosis. Moreover, individuals diagnosed with both mental health and substance use disorders spend the most time in custody compared to the rest of the jail population.

There is wide support in allocating additional resources to broaden opportunities for addressing the primary issues individuals face and not only their offense: diverting eligible individuals to community-based health and social services that focus on the person’s medical and behavioral health, employment, and stable housing; increasing the use of Collaborative Courts and court-mandated treatment to address mental health, substance use disorder, or other social service needs; increasing availability of harm reduction/non-abstinence programs that Collaborative Courts can refer eligible clients to as needed; and training for criminal justice partners on how to engage clients in ways that reduce trauma and improve treatment engagement.

 **KEY PARTNERS:** Department of Public Health, Police Department, Collaborative Courts, District Attorney’s Office, Public Defender’s Office, community-based organizations

 **KEY BARRIERS:** Limited program hours




14 Advocate for state and federal policies that expand access to low-threshold and long-term treatment options.

Current legislative and regulatory barriers prevent implementation and sustainable funding of more expansive treatment options for substance use disorders. For example, while Medi-Cal allows the city to leverage state dollars to fund certain types of drug treatment, statutory limitations on reimbursable services, transportation to stabilization facilities, and eligibility for benefits prevent optimal use of state funds to support treatment. Amendments to remove these limitations could result in profound and positive impacts on the breadth and depth of service models the city could implement in addressing problematic substance use. The changes could potentially reduce costs to the city by increasing reimbursement opportunities from the state, while also ensuring Medi-Cal insured clients have access to treatment options that best fit their needs. In addition, expanding the number of eligible services reimbursable under Medi-Cal can enable greater flexibility in placing individuals in lower and/or more appropriate levels of care.

For example, policy changes to target include:

- Expansion of services that are Medi-Cal reimbursable such as low-threshold services and contingency management interventions;
- Continuation of Medi-Cal benefits during incarceration;
- Removal of residential treatment episode limitations; and
- Authorization of paramedics to determine the most appropriate non-emergent site for transport.


 **KEY PARTNERS:** CA Department of Health Care Services, CA state legislators, Centers for Medicare and Medicaid Services, Department of Public Health

BUILD CAPACITY OF STAFF WHO INTERACT WITH & PROVIDE SERVICES TO PEOPLE WHO USE METHAMPHETAMINE

15 Ensure provider training is trauma-informed and rooted in harm reduction principles.

With the goal of making city services trauma-informed, it is beneficial to standardize training for staff on how to engage marginalized or vulnerable communities in ways that do not perpetuate trauma or stigma, particularly if an interaction may feel challenging, unfamiliar, and/or unsafe. Ongoing training, mentoring, and feedback systems could diminish staff experiences of burnout from vicarious trauma and/or encountering structural roadblocks in responding to clients' needs. These types of staff investments could help improve treatment outcomes for individuals with behavioral health and/or criminal-justice challenges, by ensuring staff are adequately trained to work with individuals with complex and varying needs.

A training program could include in-person and online formats, and target staff in city-operated and funded programs who are likely to interact with individuals under the influence of methamphetamine, individuals with multiple diagnoses, and/or individuals who are criminal justice-involved. Training topics can include, but not be limited to: harm reduction, cultural humility and sensitivity, de-escalation, motivational interviewing, social determinants of health, and drug effects and toxicity.

 **KEY PARTNERS:** Department of Public Health, Police Department, Fire Department, Sheriff's Department, SF Unified School District, Department of Homelessness & Supportive Housing, Adult and Juvenile Probation Departments, Human Services Agency, Treatment provider organizations

 **KEY BARRIERS:** Training capacity and personnel



16 Ensure law enforcement staff are trained to use an integrated crisis intervention approach.

With the purpose of broadening the city's response to people in crisis and/or under the influence of methamphetamine, it is critical that first responders such as law enforcement officers are equipped to engage people in a manner that reduces the person's agitation and the risk of harms and trauma to the individual, staff, and the general public.

Academy training for officers could expand current crisis intervention training to incorporate a trauma-informed lens that focuses on de-escalation, harm reduction, and the goal of connecting individuals under the influence of methamphetamine to services and care. Trainings could also include the identification of signs of methamphetamine-induced psychosis and circumstances for transporting an individual in crisis to a location for connection to the city's system of services. These types of trainings are ideal for staff to earn Continuing Education Units (CEU).



KEY PARTNERS: Police Department, Sheriff’s Department, Adult and Juvenile Probation Departments, Department of Public Health, Treatment provider organizations



KEY BARRIERS: Definitions and measures of success

STRENGTHEN COORDINATION AMONG CITY SERVICES & SYSTEMS

17 Strengthen collaboration among city agencies and service providers.

To meaningfully address problematic methamphetamine use in San Francisco – and the resulting health and social impacts – requires robust and sustained collaboration across government agencies and service provider organizations. An enhanced system of care that successfully implements these improvements could enable the city to identify and place individuals in the most appropriate service more efficiently. Providers’ increased access to shared information while also protecting patient privacy throughout the continuum of care could enhance their ability to adapt interventions that optimize patients’ progress towards their health and wellness goals. Agencies, provider organizations, and patient advocates must work together to develop mechanisms to share information that also allow patient control of sensitive health information and maintain patient trust in the system of care. Beyond improved health outcomes, these system improvements could yield an array of operational and cultural dividends: establishing shared population health goals and success measures; tracking patient outcomes; reducing wait times and cost; evaluating programs and services; cultivating cooperative and accountable relationships; and equipping staff with complementary, appropriate, and ongoing training.

For example, an enhanced systems approach could work to improve:

- Coordination of intake and eligibility of patients with a standardized assessment;
- Sharing of appropriate data across treatment and non-treatment agencies;
- Identification and linkages to behavioral health services;
- Provider education on the full landscape of service options; and
- Warm hand-offs between city services, levels of care, and behavioral health crisis teams



KEY PARTNERS: Department of Public Health, Department of Homelessness & Supportive Housing, Police Department, Sheriff’s Department, Fire Department, Emergency Medical Services, Adult and Juvenile Probation Departments, Human Services Agency, Treatment provider organizations, federal funding agencies



KEY BARRIERS: Federal regulations on information sharing, data systems

APPENDIX A: GLOSSARY

- **Co-occurring disorders** – People who have a substance use disorder as well as mental health disorder are diagnosed as having co-occurring disorders, or sometimes called dual disorders or dual diagnosis.
- **Collaborative Courts** – The city’s Collaborative Courts are a partnership between multiple agencies and community treatment (Tx) providers that approaches criminal activity through six voluntary programs that address addiction, mental health, and other social service needs.
- **Contingency management (CM)** – A type of behavioral therapy that uses motivational incentives such as vouchers or small cash rewards to encourage patients to engage in treatment and maintain abstinence (e.g. vouchers for negative urine drug tests).
- **Coordinated Entry (CE)** – Under the Department of Homeless and Supportive Housing, it is an intake process to match people experiencing homelessness to available community resources that are the best fit for their situation.
- **Drug Medi-Cal Organized Delivery System (DMC-ODS)** – A managed care system for Medicaid payment and management of substance use disorder specialty treatment programs. It is a federal Medicaid waiver designed to improve these services and systems.
- **Inpatient / Residential treatment** – Inpatient programs, also known as residential treatment, are voluntary programs where patients can enter a safe, secure facility for intensive treatment, services, and support network. Inpatient treatment programs commonly last a minimum of 28 days.
- **Low-threshold services** – Services that aim to make support easily accessible with few or no requirements of the client.
- **Methamphetamine use disorder** – Occurs when someone experiences clinically significant impairment caused by the recurrent use of methamphetamine, including health problems, physical withdrawal, persistent or increasing use, and failure to meet major responsibilities at work, school, or home.
- **Navigation center** – A low-threshold residential program with many services for adults experiencing homelessness. Clients can stay up to 30 to 90 days, with a goal of finding them permanent housing.
- **Outpatient treatment** – A treatment (Tx) program where clients return to their regular environments after each visit. It allows more flexibility for clients to maintain a consistent commitment to family, work, and educational responsibilities. The length and nature of visits depend on the client’s needs.

- **Psychiatric Emergency Services (PES)** – Psychiatric Emergency Services at Zuckerberg San Francisco General (ZSFG) is the primary provider of adult emergency mental health care in San Francisco.

- **Shared priority clients** – Clients that are identified for prioritization by multiple agencies for housing, healthcare, and social services through the Coordinated Entry assessment.

- **Social determinants of health** – The conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. These can include housing and access to healthy food options, employment, transportation, and education.

- **Substance use disorder (SUD)** – Substance use disorders occur when the recurrent use of alcohol and/or drugs causes clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home.

- **Trauma-informed** – A treatment framework that involves understanding, recognizing, and responding to the effects of trauma. There is an emphasis on physical, emotional, and psychological safety for clients and providers.

- **Vicarious trauma** – Also known as *secondary trauma*, it can be described as an indirect exposure to a traumatic event through first-hand account or narrative of that event. These stories may lead the listener to experience, to an extent, the same feelings faced by the trauma survivor.

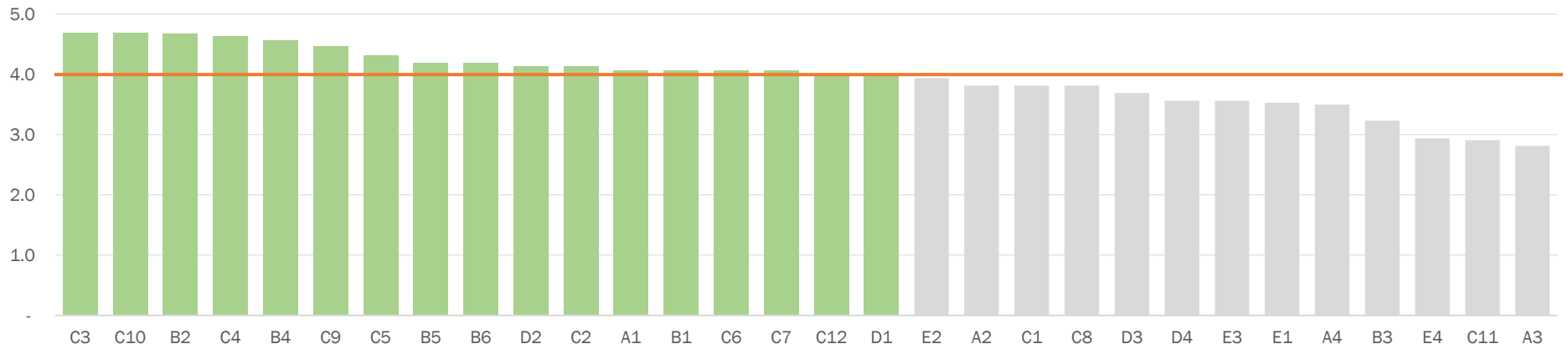
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Appendix C: Summary of Draft Recommendations Survey Ratings: Impact

Updated September 2019

■ Average Rating = ≥ 4 (high)



Recommendation Description	ID	Mean	Variance	Median	Mode
Strengthen Coordination among City Services and Systems Strengthen collaboration among city agencies and service providers by developing a plan to improve: <ul style="list-style-type: none"> Coordination of intake and eligibility of patients; Sharing of appropriate data across non-treatment agencies; Identification and linkages to behavioral health beds; Provider education on the full landscape of service options; and Warm hand-offs between city services and levels of care. 	A1	4.06	1.18	4	5
Increase co-location of services (e.g. housing navigation at behavioral health sites; specialty mental health, behavioral health services at primary care sites, etc.).	A2	3.81	0.65	4	3
Implement a school-based prevention program on drug education in K-12 schools that also includes parents and caregivers.	A3	2.81	1.15	3	3
Increase collaboration between harm reduction and law enforcement to find a careful and constructive balance between increasing safer use and limiting the availability of methamphetamine.	A4	3.50	2.13	4	5
Improve Access to Treatment & Housing for People Who Use Protect housing and secure eviction defense resources for individuals admitted to residential treatment to ensure they maintain or access housing upon completion.	B1	4.06	1.18	4	5
Increase the availability of long-term housing options for individuals exiting treatment, including supportive housing.	B2	4.67	0.36	5	5
Locate treatment and housing in areas with low drug use prevalence.	B3	3.23	1.43	3	3

Simplify processes to facilitate timely admission into detox and residential treatment facilities for individuals in the community and those exiting jail.	B4	4.56	0.50	5	5
Increase capacity in alternatives to incarceration such as mental health diversion, LEAD, rehabilitation programs, Collaborative Courts, alternative sentencing, and skill-building to reduce trauma and improve treatment engagement.	B5	4.19	0.90	5	5
Continue engaging in state and federal policy advocacy to expand access to low-threshold and long-term treatment options, including the: <ul style="list-style-type: none"> Expansion of services that are Medi-Cal reimbursable; Continuation of Medi-Cal and pharmacy benefits during incarceration; Removal of residential treatment episode limitations; Authorization of ambulances to transport individuals to alternate non-emergency sites; and Remove CFR 42 restrictions on sharing substance use data 	B6	4.19	1.15	5	5

Invest in Care Models to Reduce Harm and Promote Recovery and Wellness for People Who Use	ID	Mean	Variance	Median	Mode
Ensure access to appropriate medication support related to methamphetamine by: <ul style="list-style-type: none"> Supporting research opportunities for pharmacological development and pilot studies in the treatment of methamphetamine use; and Implementing promising pharmacologic strategies to treat and reduce risk of methamphetamine use and psychosis, including mirtazapine. 	C1	3.81	1.03	4	4
Expand the use of contingency management models across the city's system of services.	C2	4.13	1.23	5	5
Explore the creation of a trauma-informed detox site with integrated harm reduction services for individuals who are under the influence of methamphetamine that can serve as an alternative to Psychiatric Emergency Services and hospital emergency departments.	C3	4.69	0.21	5	5
Increase the availability of safe indoor spaces that provide low-threshold, harm reduction, and basic services, including shelters and navigation centers.	C4	4.63	0.98	5	5
Expand availability of treatment models across the continuum of harm reduction services such as: <ul style="list-style-type: none"> development of methamphetamine-specific residential treatment models non-abstinence-based residential treatment programs residential treatment programs longer than 90 days in duration detox, psychiatric inpatient, and psychiatric emergency care placements for individuals experiencing methamphetamine-induced psychosis. 	C5	4.31	0.71	5	5
Ensure services are culturally and linguistically appropriate, particularly for communities that may be at greater risk of marginalization or injury (e.g., women, LGBTQI, people of color, homeless, criminal justice-involved, youth, and people with limited English proficiency).	C6	4.06	1.18	5	5
Establish safe consumption services.	C7	4.06	1.31	5	5
Include workforce development trainings and vocational pathways for individuals in treatment as part of their recovery pathway.	C8	3.81	1.03	4	4

Expand low-threshold case management and wrap-around services for individuals who have primary substance use disorder treatment needs.	C9	4.47	0.48	5	5
Strengthen the city's interdisciplinary mental health crisis response to immediately move individuals experiencing methamphetamine-induced psychosis/mental health crises off the streets and into crisis care, including authorizing the city's Crisis Intervention Team (CIT) to make immediate referrals to detox centers and residential treatment programs.	C10	4.69	0.21	5	5
Improve access to online or telehealth interventions by investing in methamphetamine-specific counseling and self-help options.	C11	2.91	1.26	3	3
Include peers in the planning and staffing of harm reduction services and treatment programs.	C12	4.00	1.13	4	4

Build Capacity of Staff Who Interact with and Provide Services to People Who Use Methamphetamine	ID	Mean	Variance	Median	Mode
Ensure provider training in all city-operated and funded programs are comprehensive, trauma-informed, and rooted in harm reduction principles for staff who are likely to interact with individuals under the influence of methamphetamine, individuals with multiple diagnoses, and/or individuals who are criminal justice-involved.	D1	4.00	1.13	4	4
Ensure all law enforcement staff are trained to use an integrated crisis intervention approach that is trauma-informed and focuses on de-escalation and harm reduction, with the goal of connecting individuals under the influence of methamphetamine to services and care.	D2	4.13	1.45	5	5
Explore funding mechanisms to encourage city contracting partners to pay higher wages and incentivize hiring staff with second language skills.	D3	3.69	1.84	4	5
Ensure all programs provide regular mentoring and clinical supervision for case managers and service providers to develop the behavioral health workforce.	D4	3.56	1.37	4	4

Increase Community Engagement, Education, and Investments to Raise Awareness and Improve Public Safety	ID	Mean	Variance	Median	Mode
Implement a public education campaign that: <ul style="list-style-type: none"> ▪ Reduces stigma associated with individuals who use substances; ▪ Supports public awareness on methamphetamine use, available resources, and the city's efforts to address problematic =methamphetamine use; ▪ Educates the public on appropriate and safe ways to respond to individuals experiencing methamphetamine-induced psychosis/mental health crises; and ▪ Provides the public with accessible, effective tools to request the appropriate assistance for individuals in crisis, including alternatives to law enforcement. 	E1	3.53	1.67	4	3
Engage philanthropic partners to provide financial support for services that are not reimbursable under Medi-Cal.	E2	3.94	1.56	4	4
Invest in street improvements and neighborhood beautification in areas experiencing adverse impacts from activities related to problematic substance use.	E3	3.56	1.50	4	3
Identify resources to support businesses that are particularly impacted by problematic methamphetamine use.	E4	2.94	1.18	3	3

Appendix D: Methamphetamine Task Force Summary of Focus Group Themes & Findings

From May to July 2019, the Department of Public Health convened a series of 5 focus groups to learn about the experiences and perspectives of San Franciscans regarding methamphetamine use and its impacts on the city. Focus groups included people who use methamphetamine, treatment (Tx) providers, first responders, housing and shelter providers, business owners, neighborhood groups, and residents. The following summarizes the overall themes, and focus groups are represented by the symbols below:



Environmental Context

- | | Focus Group |
|--|---|
| a. The lack of affordable housing and shelter beds is a key driver of problematic use and the challenges in engaging in treatment. Some users face a dilemma of having to choose either housing or Tx, since their housing is not protected if they are not present in their unit. | |
| b. Stemming the flow of illicit substances and public drug use requires a multi-pronged approach that includes law enforcement and the criminal justice system. | |
| c. A greater understanding of how drug supply networks operate is needed in order to develop policies that support enforcement of legal consequences. | |

Impacts of Problematic Methamphetamine Use on San Franciscans

- | | |
|--|---|
| a. San Francisco residents and its business community experience regular frustration and feel unsure of what can be done to improve street conditions. They perceive that conditions on streets have progressively deteriorated, and people with problematic use and the adverse impacts of use are increasingly concentrated in some neighborhoods. | |
| b. Employers of all sizes experience challenges with staff turnover, recruitment, and retention, especially in areas where problematic substance use are more likely to occur. Small business owners are especially impacted. It is common for staff to report feeling unsafe on a regular basis. | |
| c. Adverse impacts of methamphetamine use are leading to undesirable economic consequences: businesses are leaving, conferences are re-locating, and the closing of small businesses impact neighborhood activity. Merchants may experience retaliation for calling police for support. | |
| d. Problematic methamphetamine use may result in public conditions that can pose a public health risk (e.g., waste, discarded syringes, etc.) | |

Challenges Responding To Methamphetamine Use

- | | |
|---|---|
| a. Patterns and reasons for use vary based on the individual's circumstances, including experiences of childhood trauma and interpersonal violence. It is important to differentiate between reasons why an individual uses methamphetamine in order to be strategic in Tx/harm reduction pathways. | |
| b. Many people who use methamphetamine have an underlying mental health condition or substance use disorder that should be addressed. After they have metabolized the substance and stabilize, many do not believe their use is problematic as they return to their normal activities. | |
| c. Methamphetamine use often leads to psychosis and irrational behaviors. Prolonged and intensive use of methamphetamine often results in violent and agitated behaviors that preclude the individual from being accepted for services or placed in housing, and they are more likely to be arrested and detained. Those accessing services or placed in housing may be more likely to be involved in behaviors that result in harm to staff and/or property. | |
| d. Staff are often not equipped to respond to challenging behaviors and dispositions often expressed by people under the influence of methamphetamine. | |

●
Current/Former Use

●
Service Providers

●
Housing Providers

●
Residents

●
Businesses

- d. The city's current first responder or law enforcement response to a person under the influence of methamphetamine may compound a client's agitation and heightens the risk of a violent occurrence that risks staff and client safety.



System of Care & Treatment

- a. Gaps and barriers (e.g., program hours, capacity, and duration) throughout the city's system of services create challenges matching services to the complex needs of people who use methamphetamine, and prevent successful management and stabilization of behaviors and mental states induced by the drug.
- b. There is agreement that more coordination and capacity is needed across city services and the continuum of care, including expanded hours. Incorporating the input/skills of people with experiences using is necessary throughout planning and implementation.
- c. Trauma-informed drop-in sites such as a detox/sobering center, or a site with low threshold and comprehensive services, including basic vocational and life skills training could be developed or expanded.
- d. There is general support for expanding investment in street outreach and crisis intervention using multi-disciplinary teams.
- e. It may be difficult to engage in treatment and recovery when services are located in proximity to drug dealers and related activities.
- f. Medi-Cal reimbursement rules and limitations on Tx length, type, and episodes hamper opportunities for long-term success and recovery.
- g. Tx providers, first responders, residents, and the business community support court-ordered options for conservatorship, detox, treatment, and diversion programs.



Client & Provider Experiences

- a. Stigma towards people who use illicit substances is prevalent across society, even from those who formerly used. The feelings of rejection perpetuate experiences of societal disconnect.
- b. People who use methamphetamine often face stigma and may choose not to seek services based on previous experiences with providers that resulted in feelings of disrespect and rejection. They may be more likely to seek services from a trusted community provider that provides a safe space that is better suited to their relational and emotional needs.
- c. Staff of all types would benefit from support and training on how to engage people under the influence of methamphetamine in ways that do not perpetuate trauma or stigma.



Community Engagement & Outreach

- a. Information related to substance use should be made accessible to service providers. This includes information on the city's efforts and successes on addressing problematic use, available services and resources, and ways to be involved in problem solving.
- b. Information could be effectively shared via social media, press conferences, news releases, and trusted community resources, including outreach workers, syringe access sites, community provider organizations (etc., Glide, 6th Street Harm Reduction Center, Drop-In Centers), neighborhood associations, and merchants associations.



Appendix E: Environmental Scan of Efforts to Address Methamphetamine Use

The following summarizes recommendations from 10 other cities, states, and countries in an effort to address methamphetamine use and its harmful impacts. Common themes include: treatment and services; staff training and development; housing and post-treatment options; access and linkages to care; community safety; and community engagement and education.

United States

Colorado

In 2013, the Colorado general assembly granted reauthorization to the state's methamphetamine task force. The *Substance Abuse Trend and Respond Task Force* includes representatives from state and local government and the private sector. The core purpose is to 1) examine drug trends and the most effective models and practices for the prevention and intervention of substance use; 2) utilize criminal justice, prevention, and treatment perspectives to formulate a response to current and emerging substance abuse problems; 3) prioritize children and other victims of substance abuse by investigating collaborative models; 4) assist local communities with the implementation of best practices for prevention, intervention and treatment; 5) increase public awareness; and 6) measure and evaluate the progress of state and local jurisdictions in preventing substance abuse.

Retrieved from: https://coag.gov/sites/default/files/contentuploads/oce/Substance_Abuse_SA/SATF-reports/12th_annual_substance_abuse_task_force_report_2017_final.pdf

Montana

The *Meth Project*, a statewide campaign first initiated in Montana, utilizes youth participation in creating public awareness on methamphetamine use through various interventions such as media, murals, school-based health promotion, and the participation of community leaders. The interventions that involve youth participation as the target population, designers, and communicators of the program can have a significant impact beyond their own generation. This project has also expanded to seven additional states: Arizona, Colorado, Georgia, Hawaii, Idaho, Illinois, and Wyoming, which have all adapted the program to the needs of the population served.

Retrieved from: <http://methproject.org/about/>

Rockville, MD

The Indian Health Service (IHS), a federal health program for American Indians and Alaska natives, has developed a *Methamphetamine and Suicide Prevention Initiative (MSPI)* seeking to address the methamphetamine and suicide crises impacting this population.

Retrieved from: <https://www.ihs.gov/mspi/aboutmspi/>

San Diego, CA

The San Diego Methamphetamine Strike Force is a collaboration of federal, state, and local governments, as well as more than 60-member organizations. The *Methamphetamine Strike Force 2018* report card offers six suggested actions in order to decrease methamphetamine use and its consequences: 1) increase recognition and awareness; 2) disrupt the meth market at all levels; 3) increase health screening; 4) support those who use and their family members with accessible Tx options; 5) expand housing options in areas with minimal crime; and 6) maintain high quality prevention work as the first line of defense, especially for youth in school.

Retrieved from: <https://www.no2meth.org/>

Wisconsin

The 2018 *Northwoods Coalition Know Meth Report* includes recommendations for reducing the use and impact of methamphetamine in Wisconsin. These recommendations are categorized according to the *Seven Strategies for Effective Community Change*: provide information; enhance skills, provide support, enhance access/reduce barriers; change consequences; change physical design; modify/change policies.

Retrieved from: <https://northwoodscoalition.org/wp-content/uploads/2018/01/NWC-kNOw-Meth-Report-Final.pdf>

Canada

Vancouver

Vancouver operates from a four-pillar strategy to address the drug epidemic. These include: Prevention, Treatment, Harm Reduction, and Enforcement. This approach has resulted in a dramatic reduction in open drug use, overdose deaths, and HIV and hepatitis infections.

Retrieved from: <https://vancouver.ca/people-programs/four-pillars-drug-strategy.aspx>

Winnipeg

Winnipeg has launched a recovery program for people who use methamphetamine that utilizes peer support, body mapping, and cognitive behavior therapy (CBT). This evidence-based program teaches new strategies and coping skills for people seeking help, and evidence indicates these techniques have aided those in recognizing and avoiding triggers.

Retrieved from: https://winnipegssun.com/news/local-news/meth-recovery-program-set-to-launch-in-june?fbclid=IwAR2uDEu7Nm1roQ_vu2bzrerOTGKGlxLv-McOSUkR_Ys8fHPXs76vKbx5y48

Middle East

Tehran, Iran

A study done by Tehran University of Medical Sciences Substance Abuse Treatment Center found that an educational intervention based on family-centered empowerment and Pender's health promotion model was an effective way to enhance quality of life and lifestyle when trying to encourage the discontinuation of methamphetamine use. The overall intention of the intervention program was to improve the social support system, overall health, and quality of life of people who use and their family. Researchers found that this intervention was an effective health promotion model to address public health issues such as methamphetamine use.

Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4329963/>

Australia

Australia

In 2015, the *Australia National Ice Taskforce* released 38 recommendations that were informed by content expertise, research, and local and international experience with methamphetamine. These recommendations are centered around supporting families, communities, and frontline workers; targeting prevention; tailoring services and support to the individual; strengthening law enforcement; and improving governance and building better evidence.

Retrieved from: https://www.pmc.gov.au/sites/default/files/publications/national_ice_taskforce_final_report.pdf

Western Australia

The *Full Government Response to the Methamphetamine Action Plan Taskforce Final Report* aims to provide a safer community and promote the reduction in illicit drug use in Western Australia. The state government has committed to implement initiatives that expand treatment for priority groups, develop safe spaces and increased support for individuals and families, and invest in support services, education, and harm reduction.

Retrieved from:

<https://www.dpc.wa.gov.au/ProjectsandSpecialEvents/MAPTTaskforce/Documents/Full%20Government%20Response%20to%20the%20Methamphetamine%20Action%20Plan%20Taskforce%20Report.pdf>

Appendix F: Overview of Methamphetamine Usage & Trends in SF

Issue Brief: April 2019

Background

Methamphetamine, a derivative of amphetamine, is a growing and evolving public health and safety concern, and its illicit use and manufacture have broadened in nature and distribution well beyond California. While methamphetamine use remained stable from 2002 to 2014, more recent evidence indicates an uptick in methamphetamine activity across the country. For example, seizures of methamphetamine by U.S. Customs and Border Protection has tripled since 2012, treatment admissions for methamphetamine has been increasing since 2011, and the US Drug Enforcement Agency has noted that methamphetamine's purity averages above 90 percent while remaining low-cost.^{1,2,3} In addition, amphetamine use is now the fourth most common reason to seek drug treatment in the US, after alcohol, opioid, and marijuana use.⁴

In 2017, drug overdose deaths across the US grew by 9.6 percent from the previous year to 70,237, and the rate has more than tripled since 2000 (6.2 to 21.7 per 100,000 population).^{5,6} California also saw a 4.5 percent increase in drug overdose deaths from 2016. Largely overshadowed by the opioid epidemic, deaths from illicit psychostimulants such as methamphetamine increased more than 250 percent between 2008 and 2015 after a period of declining amphetamine use.⁷ In 2017, illicit psychostimulants were involved in 10,000 overdose deaths – a 33 percent climb from 2016.⁸ Overall, deaths

from psychostimulants have jumped from 5 percent of all overdose deaths in 2010 to 14 percent in 2017.⁹ It is estimated that methamphetamine use disorder costs the US approximately \$23.4 billion in 2005, and rising rates of amphetamine use resulted in \$2.17 billion in annual hospital costs in 2015.^{10,11}

Methamphetamine can be snorted, smoked, ingested orally or rectally, and injected.¹² Due to its synthetic nature, many variations of methamphetamine are produced, and it is referred to by numerous street names such as speed, crank, ice, meth and crystal.¹³ It is currently classified by the US Drug Enforcement Administration as a Schedule II stimulant, and it has the ability to rapidly release high levels of dopamine in reward areas of the brain. In contrast to cocaine, which is quickly removed from and almost completely metabolized in the body, methamphetamine has a much longer duration of action, ultimately leading to prolonged stimulant effects.¹⁴

Methamphetamine Usage and Trends

According to the 2017 National Survey on Drug Use and Health (NSDUH), approximately 530 people started using methamphetamine each day, and 774,000 people aged 12 or older were current users of methamphetamine.^{15,16,17} In fact, the number of current people who use methamphetamine has increased for all

¹ US Customs and Border Protection (2018). CBP Enforcement Statistics FY2018. Retrieved from <https://www.cbp.gov/newsroom/stats/cbp-enforcement-statistics>

² Substance Abuse and Mental Health Services Administration (2018). Treatment Episode Data Set (TEDS) 2016: Admissions to and Discharges from Publicly Funded Substance Use Treatment. Retrieved from https://www.samhsa.gov/data/sites/default/files/2016_Treatment_Episode_Data_Set_Annual.pdf

³ US Drug Enforcement Administration (2018). 2016 National Drug Price and Purity Data. Retrieved from <https://ndews.umd.edu/sites/ndews.umd.edu/files/dea-2016-national-drug-price-purity-data.pdf>

⁴ Winkelman, T.N.A., Admon, L.K., et al (2018). Evaluation of Amphetamine-Related Hospitalizations and Associated Clinical Outcomes and Costs in the United States. *JAMA Network Open*, 1(6)

⁵ Centers for Disease Control and Prevention (2018). Drug Overdose Deaths. Retrieved from <https://www.cdc.gov/drugoverdose/data/statedeaths.html>

⁶ Centers for Disease Control and Prevention (2016). Increases in Drug and Opioid Overdose Deaths – United States, 2000–2014. Retrieved from <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6450a3.htm>

⁷ Centers for Disease Control and Prevention (2018). Drug Overdose Deaths. Retrieved from <https://www.cdc.gov/drugoverdose/data/statedeaths.html>

⁸ Centers for Disease Control and Prevention (2018). Other Drugs. Retrieved from <https://www.cdc.gov/drugoverdose/data/otherdrugs.html>

⁹ Centers for Disease Control and Prevention (2017). Drug Overdose Deaths in the United States, 1999–2015. Retrieved from <https://www.cdc.gov/nchs/products/databriefs/db273.htm>

¹⁰ Nicosia, N., Pacula, R., Kilmer, B., Lundberg, R., & Chiesa, J. (2009). The Economic Cost of Methamphetamine Use in the United States, 2005. *Rand Corporation*.

¹¹ Winkelman, T.N.A., Admon, L.K., et al (2018). Evaluation of Amphetamine-Related Hospitalizations and Associated Clinical Outcomes and Costs in the United States. *JAMA Network Open*, 1(6)

¹² Shrem, M.T. & Halktisi, P.N. (2008). Methamphetamine Abuse in the United States: Contextual, Psychological, and Sociological Considerations. *Journal of Health Psychology*, 13(5) 669-679

¹³ Shukla, R.K., Crump, J.L., & Chrisco, E.S. (2012). An evolving problem: Methamphetamine production and trafficking in the United States. *International Journal of Drug Policy*, 23, 426-435

¹⁴ National Institute on Drug Abuse (2013). Methamphetamine. Retrieved from <https://www.drugabuse.gov/publications/research-reports/methamphetamine/what-methamphetamine>

¹⁵ Substance Abuse and Mental Health Services Administration (2018). Key Substance Use and Mental Health Indicators in the United States: Results from the 2017 National Survey on Drug Use and Health. Retrieved from <https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHFFR2017/NSDUHFFR2017.pdf>

¹⁶ Prior to 2015, questions about methamphetamine use were asked in the context of questions about the misuse of prescription stimulants because methamphetamine is legally available by prescription (Desoxyn®).

¹⁷ There are limitations to the NSDUH as it does not include homeless, marginally housed, or incarcerated individuals. It also did not detect any increase in opioid use over the past two decades.

Table 1: Drug Use and Mental Health Status by Percent of Age Group, California (2016-2017)

Item	12-17	18-25	26+
methamphetamine	0.20	0.96	0.85
heroin	0.05	0.30	0.18
cocaine	0.69	7.99	2.05
substance use disorder	4.63	14.20	6.69
illicit drug use disorder	3.73	7.27	2.15
needing but not receiving treatment for substance use	4.47	13.28	6.42
needing but not receiving treatment for illicit drug use	3.79	6.73	2.02
any mental illness		24.75	17.06
serious mental illness		6.61	3.48
received mental health services		11.34	11.78

age groups from 2016, most significantly 132.3 percent among transitional-aged youth (TAY) ages 18 to 25 years. This population also had increasing rates of serious mental illness and major depressive episodes.¹⁸ In contrast with some other illicit drugs, lifetime methamphetamine use rates are similar between women (7.3%) and men (10.0%), and women represent 38.5 percent of people who use methamphetamine and are more likely than men to report methamphetamine as their primary drug.¹⁹

California

California saw similar patterns in 2017, and TAY had the highest rate of methamphetamine use compared to adolescents and older adults.²⁰ TAY also had the highest use rates for heroin, cocaine, and pain reliever misuse, including substance use disorders and mental illness. However, they were among the least likely to report seeking methamphetamine use disorder treatment.

Among Californians, between 23 and 27 percent of substance-using men who have sex with men (MSM) have reported methamphetamine use in the past 30 days, and approximately 20 percent of trans women in the state have used in the past year.

Table 2: SUD Treatment Admissions, Methamphetamine Primary Substance, San Francisco (2017)

Category	Characteristic	%
Sex	Male	73.9%
	Female	26.1%
Race	White	35.6%
	Black/African-American	20.5%
	Hispanic/Latinx	29.5%
Age	18-25	12.0%
	26-44	60.9%
	45+	26.9%
Administration	Smoked	65.7%
	Injected	23.5%
	Inhaled	7.1%
	Oral/other/unknown	3.6%

After alcohol and marijuana, methamphetamine is the third most frequently used substance among MSM and trans women.²¹

San Francisco

Numerous indicators suggest increasing methamphetamine-related morbidity and mortality in the city (Figure 1). Substance use disorder (SUD) treatment admissions for methamphetamine have continued rising, in addition to hospitalizations, emergency department visits, and law enforcement seizures involving methamphetamine.

Mortality and treatment admission data suggest that people who use methamphetamine in San Francisco are most likely to be male, white, aged 26 and older, and consume the drug through smoking.²² There is also substantial research supporting a close association between methamphetamine use and sexual risk-taking, especially among MSM. Nearly half (47%) of all patients visiting Psychiatric Emergency Services (PES) are due to methamphetamine use. Among clients with at least eight 5150s (psychiatric holds) nearly 9 in 10 (89.1%) used only methamphetamine, and 1 in 4 (25%) used methamphetamine in addition to opioids, cocaine, and alcohol.²³ Individuals with at least eight 5150s would be considered for conservatorship under Senate Bill (SB)

¹⁸ Substance Abuse and Mental Health Services Administration (2018). Key Substance Use and Mental Health Indicators in the United States: Results from the 2017 National Survey on Drug Use and Health. Retrieved from <https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHFFR2017/NSDUHFFR2017.pdf>

¹⁹ Rade, C.B., Desmarais, S.L., et al (2015). Mental Health Correlates of Drug Treatment Among Women Who Use Methamphetamine. *The American Journal on Addictions*, 24: 646–653.

²⁰ Substance Abuse and Mental Health Services Administration (2018). 2016-2017 National Survey on Drug Use and Health: Model-Based Prevalence Estimates (50 States and the District of Columbia). Retrieved from

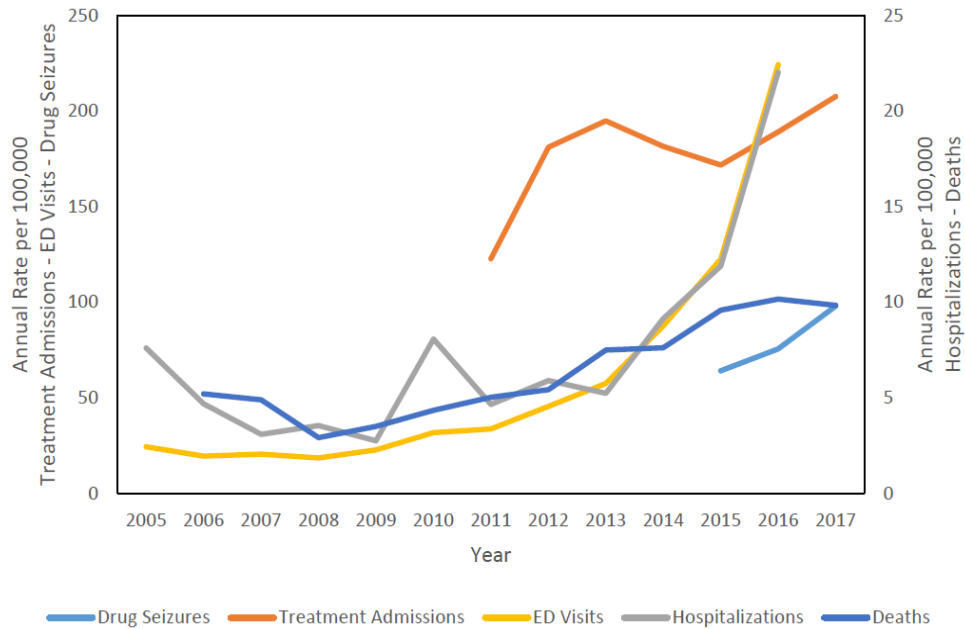
<https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHsaePercentsExcelCSVs2017/NSDUHsaePercents2017.pdf>

²¹ Anderson-Carpenter, K.D., Fletcher, J.B., & Reback, C.J. (2017). Associations Between Methamphetamine Use, Housing Status, and Incarceration Rates Among Men Who Have Sex With Men and Transgender Women. *Journal of Drug Issues*, 47(3) 383-395

²² Coffin, P.O. & Rowe, C. (2018). NDEWS San Francisco Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2018. National Drug Early Warning System.

²³ San Francisco Department of Public Health (2018). CCMS Cohort Report, FY1718 Utilization. Whole Person Care.

Figure 1: San Francisco Methamphetamine Indicators, 2005-2017

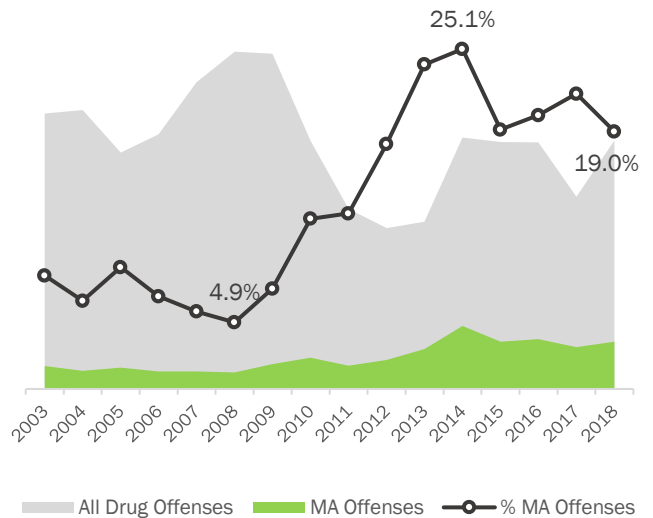


1045. Methamphetamine has been the third most common primary substance for people being admitted to a substance use disorder (SUD) treatment program since 2015, and at least 1,400 have been admitted each year for primary methamphetamine use since 2013.²⁴ Out of 9,660 program admissions in 2017, nearly 1 in 5 (19%) were for methamphetamine as the primary substance.

methamphetamine-involved drug arrests occurred in District 6, which include the Tenderloin (36.6%) and SoMa (17.2%) neighborhoods; about 14 percent were in the Mission.²⁹

Multiple drug use is common among people who use methamphetamine. Among people who inject drugs in San Francisco, a 2017 survey indicated over half (57.5%) injected methamphetamine, and nearly two-thirds (65%) reported injecting more than one drug, with the most common combination being heroin and methamphetamine (55%).²⁵ Out of 419 SUD treatment admissions for prescription opioids in SF, methamphetamine was a secondary substance in 10 percent of cases.²⁶ Among the 54 overdose deaths involving prescription opioids, 22 percent involved methamphetamine.²⁷

Figure 2: Drug & Methamphetamine Offenses, San Francisco (2003-2018)



The number of methamphetamine arrests has steadily risen since 2003, and the percent of drug arrests involving methamphetamine have trended upward since 2008, from 1 in 20 drug arrests to a peak of 1 in 4 in 2014.²⁸ In 2018, about 1 in 5 involved methamphetamine. The majority (55.2%) of

²⁴ Coffin, P.O. & Rowe, C. (2018). NDEWS San Francisco Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2018. National Drug Early Warning System.
²⁵ San Francisco Department of Public Health (2018). CHEP Safe Injection Services Survey Results.
²⁶ Coffin, P.O. & Rowe, C. (2018). NDEWS San Francisco Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2018. National Drug Early Warning System.
²⁷ *ibid*
²⁸ San Francisco Police Department (2019). Police Incident Reports: 2003 to Present. Retrieved from <https://data.sfgov.org/browse?category=Public+Safety>
²⁹ *ibid*

Impacts of Methamphetamine Use

Methamphetamine can result in many of the same health impacts as those of other stimulants such as cocaine, including: increased wakefulness and physical activity, decreased appetite, faster breathing, rapid and/or irregular heartbeat, and increased blood pressure and body temperature. Long-term methamphetamine use may also lead to or exacerbate the following symptoms and conditions:

- hallucinations
- psychosis
- violent and aggressive behavior
- anxiety and confusion
- insomnia
- depression
- suicidal ideation
- impulsivity
- reduced motor coordination and memory
- extreme and unreasonable paranoia
- sexual risk-taking
- increased risk of contracting HIV and sexually transmitted infections
- chest pain
- pulmonary diseases
- cardiac and cerebrovascular disease
- respiratory failure
- extreme weight loss
- severe dental problems
- intense itching and skin sores
- Parkinson's-like symptoms
- toxicity of the kidneys and liver
- prenatal complications and birth defects
- increased likelihood of incarceration^{30,31, 32}

A study of HIV-positive people who use stimulants in San Francisco found recent use to be associated with inflammation, innate immune activation, neuroendocrine hormone regulation, and neurotransmitter synthesis.³³ Withdrawal symptoms can include anxiety, fatigue, severe depression, psychosis, and intense drug cravings.³⁴

³⁰ Shrem, M.T. & Halktisi, P.N. (2008). Methamphetamine Abuse in the United States: Contextual, Psychological, and Sociological Considerations. *Journal of Health Psychology*, 13(5) 669-679.

³¹ National Institute on Drug Abuse (2013). Methamphetamine. Retrieved from <https://www.drugabuse.gov/publications/research-reports/methamphetamine/what-methamphetamine>

³² Tsai, H., Lee, J.H., et al (2017). Methamphetamine And Common Pulmonary Diseases: A Retrospective Investigation Of Hospital Discharges In California From 2005 Through 2011. *American Journal of Respiratory and Critical Care Medicine*, 195.

³³ Carrico AW, Flentje A, Kober K, Lee S, Hunt P, Riley ED, Shoptaw S, Flowers E, Dilworth SE, Pahwa S, Auizerat BE. (2018). Recent stimulant use and leukocyte gene expression in methamphetamine users with treated HIV infection. *Brain, Behavior, and Immunity*, 71:108-115.

Overdose Mortality in San Francisco

Deaths determined to have been caused by methamphetamine in San Francisco have steadily increased from 1.8 per 100,000 in 2008 to 11.5 in 2017.³⁵ Decedents are typically male, white, and average 48.6 years.³⁶ Methamphetamine is known to increase heart rate and blood pressure, likely exerting strain on the individual's cardiovascular and cerebrovascular systems. A study of overdose deaths in San Francisco found that individuals who died of acute methamphetamine or cocaine poisoning were significantly more likely to have also suffered a cardiac event or cerebral hemorrhage contributing to their demise, when compared to those who died from acute opioid poisoning.³⁷

Consistent with patterns of multiple drug use, in 2017, 22 percent of the city's overdose deaths involving cocaine also involved methamphetamine; 35 percent of overdose deaths from fentanyl also involved methamphetamine present in their system.³⁸ Notably, an episode in February 2018 involved three overdose decedents that tested positive for multiple illicit substances, including methamphetamine and fentanyl. Paraphernalia suggested that either the methamphetamine or the cocaine was laced with fentanyl. Among decedents experiencing homelessness, methamphetamine was the most commonly present (47%) substance in toxicology reports.³⁹

Overdose deaths in San Francisco involving methamphetamine and amphetamines have shifted geographically over time. In 2006-2007, deaths were more localized in eastern neighborhoods like South of Market, Western Addition, Union Square, and Mission (Figure 3). Over the following decade, deaths involving those substances spread to eastern and southeastern neighborhoods, including the Bayview, Excelsior, Potrero Hill, Mission Bay, and the Embarcadero (Figure 4).

³⁴ National Institute on Drug Abuse (2013). Methamphetamine. Retrieved from <https://www.drugabuse.gov/publications/research-reports/methamphetamine/what-methamphetamine>

³⁵ Coffin, P.O. & Rowe, C. (2018). NDEWS San Francisco Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2018. *National Drug Early Warning System*.

³⁶ Coffin, P. (2018). Distribution of mortality by substance category and select characteristics, San Francisco, 2006 - 2015. San Francisco Department of Public Health.

³⁷ Turner, C., Chandrakumar, D., Rowe, C., Santos, G., Riley, E.D., & Coffin, P. (2017). Cross-sectional cause of death comparisons for stimulant and opioid mortality in San Francisco, 2005-2015. *Drug and Alcohol Dependence*, 185: 305-312.

³⁸ *ibid*

³⁹ Zevin, B. & Cawley, C. (2019). Homeless Mortality in San Francisco: Opportunities for Prevention. San Francisco Department of Public Health

Figure 3: Methamphetamine & Amphetamine Overdose Deaths Per 100k, 2006-2007

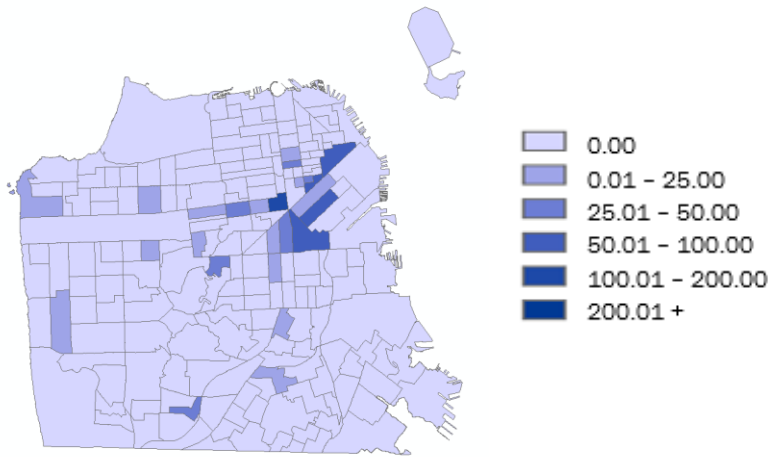
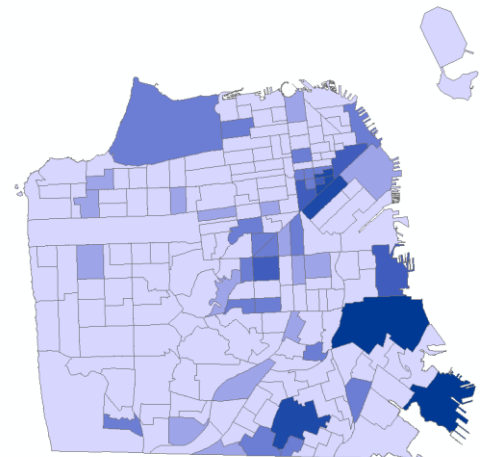


Figure 4: Methamphetamine & Amphetamine Overdose Deaths Per 100k, 2014-2015



Characteristics of People Who Use Methamphetamine

According to SAMHSA, methamphetamine use disorder occurs when “someone experiences clinically significant impairment caused by the recurrent use of methamphetamine, including health problems, physical withdrawal, persistent or increasing use, and failure to meet major responsibilities at work, school, or home.”⁴² In 2017, an estimated 964,000 Americans aged 12 or older had a methamphetamine use disorder, a 41 percent surge from 2016. While the number of adults 18 and older with methamphetamine use disorder increased, the two-thirds increase among 12-17 year olds was the sharpest among the age groups. Furthermore, an additional 212,000 adults 26 and older developed methamphetamine use disorder.

Models of addiction vary in their emphasis on personality characteristics (e.g. high reactivity, pessimism) and socialization sources (e.g. family, schools, the media, and peer groups) as contributing factors toward substance use disorder.⁴³ Other studies have shown that women often begin using at an earlier age and develop dependence at a quicker rate than men.⁴⁴

Opportunities and Challenges for Intervention

Nearly half of people who use visit PES are under the influence of methamphetamine, and clinical and behavioral manifestations often include cognitive impairment, poor memory, elevated rates of psychiatric co-morbidity, short attention span, decreased motivation, and sleep disorders. The presence of powerful trigger and craving responses, ambivalence about the need to stop, and a limited understanding of addiction commonly result in poor retention in outpatient treatment.

There is considerable comorbidity between psychopathology and use of methamphetamine, underscoring the significance of understanding the developmental, contextual, and personality factors which contribute to methamphetamine use. For example, psychiatric comorbidity including depression, personality disorders, and psychoses were found in nearly half of participants diagnosed with methamphetamine dependency.⁴⁵ Other studies have shown that 1 in 3 people who use methamphetamine report lifetime mood disorders, and over 1 in 4 report lifetime anxiety disorders. Female users of methamphetamine are more likely to experience depression and anxiety symptoms compared to men.⁴⁶

Psychiatric comorbidity is a major health concern when treating addiction to stimulant drugs such as

⁴² Substance Abuse and Mental Health Services Administration (2018). Key Substance Use and Mental Health Indicators in the United States: Results from the 2017 National Survey on Drug Use and Health. Retrieved from <https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHF2017/NSDUHF2017.pdf>

⁴³ Shrem, M.T. & Halktisi, P.N. (2008). Methamphetamine Abuse in the United States: Contextual, Psychological, and Sociological Considerations. *Journal of Health Psychology*, 13(5) 669-679.

⁴⁴ Brecht ML, O'Brien A, Von Mayrhauser C, Anglin, MD. (2004). Methamphetamine use behaviors and gender differences. *Addictive Behaviors*. 2004; 29:89–106.

⁴⁵ Shrem, M.T. & Halktisi, P.N. (2008). Methamphetamine Abuse in the United States: Contextual, Psychological, and Sociological Considerations. *Journal of Health Psychology*, 13(5) 669-679.

⁴⁶ Hartwell, E.E., Moallem, N.R., et al (2016). Gender differences in the association between internalizing symptoms and craving in methamphetamine users. *Journal of Addiction Medicine*, 10(6) 395-401.

methamphetamine, and many comorbid symptoms are exacerbated by ongoing methamphetamine use. For example, up to 25 percent of individuals diagnosed with drug-induced psychosis after some years developed a primary psychotic disorder⁴⁷ In addition, 38 percent of individuals with methamphetamine-associated psychosis may be diagnosed with schizophrenia due to persistent psychosis.⁴⁸ Conversely, remaining abstinent reduces the severity of psychiatric symptoms. Development of treatment interventions may need to consider integrated treatment of both methamphetamine-induced and other Axis I disorders with symptoms such as psychosis, depression and anxiety.⁴⁹

Current Treatment Options

Although there are no FDA-approved medications for the treatment of methamphetamine use disorder, there have been several studies suggesting potential benefits from mirtazapine, bupropion, methylphenidate, and oxytocin.⁵⁰ Furthermore, there preliminary data suggest potential neuroprotection from agents such as n-acetylcysteine.⁵¹ Results overall suggest that fully effective pharmacotherapy may require more than one agent.

Behavioral therapies are currently used to help patients recognize, avoid, and cope with the situations in which they are most likely to use drugs. These approaches include utilizing motivational incentives such as vouchers or small cash rewards to encourage patients to remain abstinent.⁵²

Examples of specific behavioral therapies include:

- Contingency management interventions provide tangible incentives in exchange for engaging in treatment and maintaining abstinence.
- The Matrix Model is a 16-week comprehensive behavioral treatment approach that combines behavioral therapy, family education, individual counseling, 12-Step support, drug testing, and encouragement for non-drug-related activities.

- Motivational Incentives for Enhancing Drug Abuse Recovery (MIEDAR) is an incentive-based method for promoting cocaine and methamphetamine abstinence.

Additional Considerations

- Stigma plays an influential role in the mental and social health of individuals who use drugs and in the success of treatment.
- Populations that may need specific treatment considerations include: female stimulant users; people who inject drugs; individuals under 21 years of age; individuals experiencing homelessness; individuals who take stimulants daily or in very high doses; and individuals with chronic mental illness and/or high levels of psychiatric symptoms at admission.
- Many experts consider use of methamphetamine as a cardiac risk factor and recommend accounting for that in consideration of interventions addressing primary and secondary cardiac risk.⁵⁴
- Studies indicate that people who use methamphetamine consulted with healthcare professionals at roughly similar rates as seen in the general population. Health care providers could potentially serve as a point of engagement, screening, and intervention.⁵⁵
- The lack of consistent usage of ICD-9-CM diagnostic codes has persisted in updated ICD-10 codes and raises concerns that the current coding structures are insufficiently utilized to detect and respond to emerging public health issues related to a variety of psychostimulants.⁵⁶

⁴⁷ Bramness JG, Gundersen ØH, Guterstam J, et al. Amphetamine-induced psychosis—a separate diagnostic entity or primary psychosis triggered in the vulnerable?. *BMC Psychiatry*. 2012;12:221. Published 2012 Dec 5. doi:10.1186/1471-244X-12-221.

⁴⁸ Kittirattanapaiboon P, Mahatnirunkul S, Booncharoen H, Thummawong P, Dumrongchai U, Chutha W. Long-term outcomes in methamphetamine psychosis patients after first hospitalisation. *Drug Alcohol Rev*. 2010;29(4):456–461.

⁴⁹ Salo, R., Flower, K., et al (2011). Psychiatric comorbidity in methamphetamine dependence. *Psychiatry Review*, 186(2-3) 356-361.

⁵⁰ Colfax, GN, Santos GM, Das M, Santos DM, Matheson T, Gasper J, Shoptaw S, Vittinghoff E.(2011). Mirtazapine to reduce methamphetamine use: a randomized controlled trial. *Archives of General Psychiatry*, 68(11) 1168-75.

⁵¹ Bavarsad Shahripour, R., Harrigan, M. R., & Alexandrov, A. V. (2014). N-acetylcysteine (NAC) in neurological disorders: mechanisms of action and therapeutic opportunities. *Brain and Behavior*, 4(2), 108-22.

⁵² National Institute on Drug Abuse (2013). Methamphetamine. Retrieved from <https://www.drugabuse.gov/publications/research-reports/methamphetamine/what-methamphetamine>

⁵⁴ Turner, C., Chandrakumar, D., Rowe, C., Santos, G., Riley, E.D., & Coffin, P. (2017). Cross-sectional cause of death comparisons for stimulant and opioid mortality in San Francisco, 2005–2015. *Drug and Alcohol Dependence*, 185: 305-312.

⁵⁵ Herbeck, D.M., Brecht, M.L., & Lovinger, K. (2015). Mortality, causes of death and health status among methamphetamine users. *Journal of Addictive Diseases*, 34(1) 88-100.

⁵⁶ Winkelman, T.N.A., Admon, L.K., et al (2018). Evaluation of Amphetamine-Related Hospitalizations and Associated Clinical Outcomes and Costs in the United States. *JAMA Network Open*, 1(6)

Appendix G: Meeting 2 Issue Brief

Overview of Interventions & Considerations for Addressing Methamphetamine Use

Introduction

There are a variety of reasons an individual may use methamphetamine such as wanting increased energy and wakefulness, focus and attention, confidence, and weight loss. However, the increase in long-term and intense methamphetamine use is a growing concern because of its harmful effects on the individual and society. In 2009, methamphetamine use in the U.S. cost approximately \$23.4 billion, which included the costs associated with drug treatment, other drug use-related health costs, premature death, lost productivity, crime and criminal justice costs, child endangerment, and harms resulting from production of the substance.^{1,2}

In San Francisco, over 90 people died of a methamphetamine overdose in 2017, and nearly half (47%) of all psychiatric emergency visits are related to methamphetamine use.^{3,4} People in treatment for methamphetamine/amphetamine use are more likely to be in long-term rehabilitation/residential treatment compared to all other drug treatment admissions combined.⁵ The considerable resources devoted to responding to and treating problematic methamphetamine use underscores the need for more effective, accessible, and cost-effective treatments.

Effects of Long-Term & Intense Methamphetamine Use

Problematic substance use occurs when it increases a person's risk for health consequences (hazardous use) or has already led to health consequences (harmful use).⁶ A substance use disorder (SUD) may be diagnosed when use leads to clinically significant distress and impairment in four broad areas: unhealthy use, social problems, loss of control, and pharmacological symptoms (e.g., tolerance

and withdrawal). SUD severity can be mild, moderate, or severe, with many persons with moderate to severe SUD suffering from the disease of addiction.⁷

Methamphetamine use disorder is a complex psychiatric condition characterized by a set of maladaptive behaviors which impairs an individual's ability to carry out daily life activities.⁸ The DSM-5 criteria include maladaptive behaviors such as "continued use despite persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of methamphetamine", the development of "tolerance" and "withdrawal," and "persistent desire or unsuccessful efforts to stop or cut down or control methamphetamine use."⁹

There are numerous harmful effects of methamphetamine use, and long-term use of the drug can cause significant damage to the individual's brain, heart, lungs, and other organ systems. Both long-term and intense methamphetamine use has been associated with a wide range of mental decline, including difficulty processing information, memory, ability to respond, decision-making, problem solving, attention, and language.¹⁰ When an individual stops using the substance, anxiety and depression may follow and last for many months thereafter. Research indicates that intense methamphetamine use is associated with higher levels of depressive symptoms.¹¹

Clinical symptoms of methamphetamine-induced psychosis include extreme paranoia, delusions, and hallucinations.^{12,13} However, psychiatric symptoms may vary as a result of individual differences in sensitivity to methamphetamine, the amount and/or frequency of use, and how it is consumed. For example, smoking and injecting methamphetamine result in the individuals feeling the drug's effects sooner, and they have the most potential for an overdose due to rapid increases in use. Individuals who inject and who have a family history of

¹ Nicosia, N. et al (2009). The Economic Cost of Methamphetamine Use in the United States, 2005. Retrieved from <https://www.rand.org/pubs/monographs/MG829.html>

² Brecht, M, Greenwell, L, & Anglin, MD. (2005) Methamphetamine treatment: Trends and predictors of retention and completion in a large state treatment system (1992–2002). *Journal of Substance Abuse Treatment*, 29: 295-306.

³ Coffin, P.O. & Rowe, C. (2018). NDEWS San Francisco Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2018. National Drug Early Warning System.

⁴ San Francisco Department of Public Health (2018). CCMS Cohort Report, FY1718 Utilization. Whole Person Care.

⁵ Courtney, K.E. & Ray, L.A. (2014). Methamphetamine: An update on epidemiology, pharmacology, clinical phenomenology, and treatment literature. *Drug and Alcohol Dependence*, 143: 11-21.

⁶ American Society of Addiction Medicine (2013). Terminology Related to the Spectrum of Unhealthy Substance Use. Retrieved from <https://www.asam.org/advocacy/find-a-policy-statement/view-policy-statement/public-policy-statements/2014/08/01/terminology-related-to-the-spectrum-of-unhealthy-substance-use>

⁷ Hasin, D.S. et al. (2013). DSM-5 Criteria for Substance Use Disorders: Recommendations and Rationale. *American Journal of Psychiatry*, 170(8), 834-

851. Retrieved from <http://ajp.psychiatryonline.org/doi/pdf/10.1176/appi.ajp.2013.12060782>

⁸ American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.)

⁹ *ibid*

¹⁰ Courtney, K.E. & Ray, L.A. (2014). Methamphetamine: An update on epidemiology, pharmacology, clinical phenomenology, and treatment literature. *Drug and Alcohol Dependence*, 143: 11-21

¹¹ Hillhouse, MP, Marinelli-Casey, Hillhouse, M, Ang, A, Mooney, LJ et al (2009). Depression Among Methamphetamine Users: Association With Outcomes From the Methamphetamine Treatment Project at 3-Year Follow-Up. *The Journal of Nervous and Mental Disease*, 197(4) 225-231.

¹² Rawson, RA (2013). Current research on the epidemiology, medical and psychiatric effects, and treatment of methamphetamine use. *Journal of Food and Drug Analysis*, 21:S77-S81.

¹³ Hillhouse, MP, Marinelli-Casey, P, Gonzales, R, Ang, Alfonso, Rawson, RA et al (2007). Predicting in-treatment performance and post-treatment outcomes in methamphetamine users. *Addiction*, 102:84-95.

psychotic symptoms are at an elevated risk for the development of symptoms which can mimic schizophrenia.¹⁴

Methamphetamine-associated behaviors such as increased sexuality and injection drug use by some can increase the risk of contracting HIV, hepatitis, and other sexually transmitted infections. For example, among San Franciscans with syphilis, over half (56%) of men who have sex with women (MSW) and 35 percent of women reported methamphetamine use.¹⁵ Use during pregnancy can result in preterm labor, fetal distress, fetal/ infant death, and infant growth restriction.¹⁶

Potential Drivers of Problematic Use

History of Violence or Abuse

Methamphetamine is often associated with violence, and people with problematic methamphetamine use may have histories marked by violence and abuse as children and adults. Multiple studies estimate that at least 60 percent of women who use substances have a history of being sexually abused. Additionally, interpersonal violence is characteristic of the lifestyles of the majority of persons entering treatment for methamphetamine use disorder.¹⁷ Individuals experiencing both past and current abuse and violence tend to face an increased risk for a variety of psychological problems, including poor self-esteem, depression and anxiety disorders, post-traumatic stress disorders, substance abuse, suicide attempts, eating disorders, and interpersonal and sexual relationship problems.¹⁸ Altogether, research suggests that integrated treatment approaches designed to address victimization, PTSD, and/or substance use disorders may be needed for a significant proportion of the methamphetamine treatment population, especially women.

Craving & Binging

Frequent use of methamphetamine results in significant withdrawal symptoms such as depression, irritability, anxiety, aggression, inability to feel pleasure, excessive tiredness, and intense cravings for methamphetamine.¹⁹

Methamphetamine craving has been observed to be present for at least five weeks into abstinence, and the individual becomes particularly vulnerable to relapse for up to two weeks after discontinuing use – a significant predictor of subsequent use during outpatient treatment.²⁰ People who use methamphetamine develop a tolerance to the substance, and chronic use may lead to consuming it every few hours in “binging” episodes.²¹

Stigma

People who use methamphetamine are likely to experience high levels of stigma and rejection in their personal and social lives from the public, health care professionals, and even individuals who practice non-injecting methamphetamine use.²² Additionally, they often have multiple stigmatizing characteristics (e.g., HIV, MSM, mental illness, felony convictions) placing them at higher risk for experiencing stigma and its health consequences.²³ Studies indicate that illicit drug use is more stigmatized than mental illnesses such as depression and schizophrenia, perhaps because people who use drugs are perceived as having control over their use, and are thus more likely to be blamed for their substance use disorder.²⁴ These associations and attitudes are often reinforced by language and media portrayals depicting individuals who use alongside images of immorality, having chaotic lives, and perpetual use.^{25,26} Higher levels of stigma are associated with chronic methamphetamine exposure, abuse of multiple substances, methamphetamine-induced psychosis, riskier practices such as injecting drugs and sharing syringes, and reduced use of services.²⁷

Treatment Barriers & Considerations

From 2013 to 2017, admissions to SUD treatment programs in San Francisco have increased 30 percent to 1,836 where methamphetamine is the primary substance. Over the same time period, admissions for other primary substances including alcohol, heroin, and cocaine/crack,

¹⁴ *ibid*

¹⁵ San Francisco Department of Public Health (2019). Recent Syphilis Trends in California and San Francisco.

¹⁶ Brecht, M, Greenwell, L, & Anglin, MD. (2005) Methamphetamine treatment: Trends and predictors of retention and completion in a large state treatment system (1992–2002). *Journal of Substance Abuse Treatment*, 29: 295-306.

¹⁷ Cohen, JB, Dickow, A, Horner, K, Zweben, JE, Balabis, J et al (2003). Abuse and Violence History of the Men and Women in Treatment for Methamphetamine Dependence. *The American Journal on Addictions*, 12:377-385

¹⁸ *ibid*

¹⁹ Courtney, K.E. & Ray, L.A. (2014). Methamphetamine: An update on epidemiology, pharmacology, clinical phenomenology, and treatment literature. *Drug and Alcohol Dependence*, 143: 11-21

²⁰ Galloway, G.P. & Singleton, E.G.. (2009). How long does craving predict use of methamphetamine? Assessment of use one to seven weeks after the assessment of craving: Craving and ongoing methamphetamine use. *Subst Abuse*. 1. 63-79.

²¹ Quinn, B., Stooze, M, Papanastasiou, C, & Dietze, P (2013). An exploration of self-perceived non-problematic use as a barrier to professional support for methamphetamine users. *International Journal of Drug Policy*, 24:619-623.

²² Semple SJ, Grant I, Patterson TL. Utilization of drug treatment programs by methamphetamine users: the role of social stigma. *Am J Addict*. 2005;14(4):367–380.

²³ Semple, SJ, Strathdee, SA, Zians, J, & Patterson, TL (2012). Factors associated with experiences of stigma in a sample of HIV-positive, methamphetamine-using men who have sex with men. *Drug and Alcohol Dependence*, 125(1-2) 154-159.

²⁴ Corrigan, Patrick & Larson, Jonathon & Rüsche, Nicolas. (2009). Self-stigma and the “why try” effect: Impact on life goals and evidence-based practices. *World Psychiatry: official journal of the World Psychiatric Association (WPA)*. 8. 75-81.

²⁵ Schwartz, J & Andsager, JL (2008). Sexual Health and Stigma in Urban Newspaper Coverage of Methamphetamine. *American Journal of Men’s Health*, 2(1) 57-67.

²⁶ Ahern, J., Stuber, J., & Galea, Sandro. (2007). Stigma, discrimination and the health of illicit drug users. *Drug and Alcohol Dependence*, 88(2), 188-196. *Drug and alcohol dependence*. 88. 188-96.

²⁷ Semple, SJ, Strathdee, SA, Zians, J, & Patterson, TL (2012). Factors associated with experiences of stigma in a sample of HIV-positive, methamphetamine-using men who have sex with men. *Drug and Alcohol Dependence*, 125(1-2) 154-159.

have either leveled off or decreased.²⁸ Consuming multiple substances is common among people who use methamphetamine, and half (50.1%) of treatment program admissions in 2017 involved methamphetamine as a secondary substance – most often with heroin (21.7%) and prescription opioids (9.8%).²⁹ The growing number of individuals using methamphetamine in treatment programs suggests that providers need to be aware of the factors associated with treatment engagement, retention, abstinence, completion, and post-treatment outcomes. Early identification of problematic methamphetamine use and effective treatment implementation is critical to successful outcomes. Moreover, successful treatment participation is influenced by many factors.

A system of care must consider a number of factors that may pose a barrier to effective treatment. For example:

- People who use methamphetamine face stigma and often choose not to seek city services based on previous experiences with providers resulting in feelings of disrespect, rejection, and distrust.
- Prolonged and intensive use of methamphetamine often results in violent and/or criminal behaviors that prevent the individual from being accepted for services. Individuals who use methamphetamine and are accepted into services may experience difficulty adhering to treatment, including filling their prescriptions.
- Program staff are often not trained to care for people with challenging behaviors and dispositions often expressed when people are under the influence of methamphetamine.
- Gaps throughout the city's system of services create challenges for people who use methamphetamine to consistently receive appropriate services at the appropriate time. People under the influence of methamphetamine present complex behaviors and needs, and more flexible approaches are needed that do not yet exist.
- Medi-Cal may not pay for some types of low-threshold services and may limit the number of treatment visits. The cost of treatment is too expensive for many to pay out of pocket.

People Experiencing Housing Instability

In FY1718, 1,454 (10.6%) individuals in San Francisco experiencing housing stability were identified as using

methamphetamine.³⁰ Individuals without stable housing encounter a wide range of challenges in engaging and completing a treatment program. Treatment for methamphetamine use requires long-term practices and supports, and the lack of stable housing poses a regular threat, including the risk of losing necessary medications and belongings. Residential programs also do not exist for people who use stimulants. Moreover, because residential treatment is not housing, individuals may be reluctant to engage in this type service if they will become homeless after completing the program.

Youth

The transition to methamphetamine use among youth is considered a particularly dangerous and growing problem. From 2015 to 2017, SUD treatment admissions for methamphetamine rose over 54 percent (7.9% to 12.2%) in San Francisco for those aged 25 years or younger.^{31,32} Research suggests that, particularly among young, street-involved populations, methamphetamine use is associated with serious mental illness, malnutrition, incarceration, and numerous sex- and drug-related “risks behaviors” and negative health outcomes.^{33,34} Youth's initiation often suggests a number of other factors that influenced their use such as experiencing abuse, disconnection from school, social exclusion, and negative experiences with health care professionals.³⁵ Even low-threshold treatment programs and mental health services can be perceived by youth to be a poor fit with their everyday lived experiences and priorities. Thus, interventions which address certain immediate needs, provide support to stabilize young people's lives, and address experiences of alienation are arguably as important as expanding treatment programs and mental health services available to local youth.

Women

Women use methamphetamine at rates almost equal to men, and studies suggest that they are more likely than men to be attracted to the drug for weight loss and to control symptoms of depression. Over 70 percent of women with methamphetamine use disorder report histories of physical and sexual abuse, and they are also more likely than men to seek treatment while experiencing greater psychological distress.^{36,37} In 2017, women accounted for over 1 in 4 (26.1%) of treatment admissions for methamphetamine in San Francisco.³⁸

²⁸ Coffin, P.O. & Rowe, C. (2018). NDEWS San Francisco Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2018. National Drug Early Warning System.

²⁹ *ibid*

³⁰ San Francisco Department of Public Health (2018). Whole Person Care Patient Data, FY17-18.

³¹ Coffin, P.O. & Rowe, C. (2016). NDEWS San Francisco Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2016. National Drug Early Warning System.

³² Coffin, P.O. & Rowe, C. (2018). NDEWS San Francisco Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2018. National Drug Early Warning System.

³³ Brecht, M, Lovinger, K, Herbeck, DM, & Urada, D. (2013). Patterns of treatment utilization and methamphetamine use during first 10 years after methamphetamine initiation. *Journal of Substance Abuse Treatment*, 44:548-556.

³⁴ Fast, D, Kerr, T, Wood, E, & Small, W (2014). The multiple truths about crystal meth among young people entrenched in an urban drug scene: A longitudinal ethnographic investigation. *Social Science & Medicine*, 110: 41-48.

³⁵ *ibid*

³⁶ Rawson, RA (2013). Current research on the epidemiology, medical and psychiatric effects, and treatment of methamphetamine use. *Journal of Food and Drug Analysis*, 21:S77-S81.

³⁷ Brecht, M, Lovinger, K, Herbeck, DM, & Urada, D. (2013). Patterns of treatment utilization and methamphetamine use during first 10 years after methamphetamine initiation. *Journal of Substance Abuse Treatment*, 44:548-556.

³⁸ Coffin, P.O. & Rowe, C. (2018). NDEWS San Francisco Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2018. National Drug Early Warning System.

Women are statistically more likely to drop out of residential treatment before completion, but less likely to drop out of outpatient treatment. It is suggested that this illustrates reported difficulty for women to coordinate requirements of commonly available residential treatment with their child care responsibilities.³⁹

Racial & Ethnic Minorities

In 2017, racial and ethnic minorities accounted for nearly two-thirds (64.4%) of treatment admissions for methamphetamine in San Francisco – an increase from 49.4 percent since 2015.^{40,41} The increasing ethnic diversity of the methamphetamine treatment population suggests an growing need for culturally and language-appropriate services and for greater understanding of any community-specific behaviors and context that might have treatment implications, including the location of services. For example, the city's pre-dominantly Black/African American neighborhoods are disproportionately affected by a lack of services; at the same time, the Black/African American also experiences over-representation in the criminal justice system.

Intervention Approaches

There are a variety of factors that influence a person's journey along treatment and recovery from substance use, and it is important that a system of care incorporates low-threshold services to engage a person in a safe and respectful manner that builds trust and avoids stigmatization.

For example:

- a culture of hospitality
- welcoming spaces and flexible hours that offer support and community building opportunities
- drop-in groups and/or counseling operated by staff trained in trauma-informed care, motivational interviewing, de-escalation, and other relevant areas
- peer involvement
- outreach
- health fairs

Harm Reduction

Harm reduction is a strategy that aims to reduce the harms associated with certain behaviors, such as drug use. While available treatments for methamphetamine

use only modestly effective, it is important to enhance the efficacy and quality of harm reduction services to reduce the adverse impacts of use, including:

- integrate harm reduction principles into treatment settings
- integrate evidence-based practices into treatment settings
- increase the accuracy, availability, and accessibility of up-to-date trainings and information for service providers
- challenge stigmatizing attitudes and beliefs about people who use drugs
- incorporate the perspective of people who use substances in developing strategies and resources.⁴²

Behavioral Interventions

Behavioral interventions, in the form of either outpatient or inpatient treatment programs, are the current standard of treatment for methamphetamine use. However, dropout rates in these programs can be as high as 75 percent.⁴³ Furthermore, studies show that while residential treatment significantly reduced methamphetamine use frequency at 3 months after treatment program completion, by 1 and 3 years post-treatment, the vast majority of people who received treatment reported similar methamphetamine use levels as would be expected had they not received treatment or had only received detoxification.⁴⁴

- **Contingency Management**

Contingency management (CM) is a behavior modification intervention which reinforces desired behaviors through incentives and has been successful in treating people with methamphetamine addiction.⁴⁵ In successful CM-based treatment models, individuals would choose not to use methamphetamine when given a choice between methamphetamine and a monetary reinforcer, and the likelihood of using methamphetamine decreased as the monetary incentive amount increased.⁴⁶ The effectiveness of a purely behavioral intervention—such as CM alone—shows that financial rewards can compete with biological rewards influenced by cocaine and amphetamine. This seems to be true only if rewards are based upon the individual providing drug-free urine samples, as other types of rewards were not shown to be effective.²⁷

³⁹ Brecht, M, Greenwell, L, & Anglin, MD. (2005) Methamphetamine treatment: Trends and predictors of retention and completion in a large state treatment system (1992–2002). *Journal of Substance Abuse Treatment*, 29: 295-306.

⁴⁰ Coffin, P.O. & Rowe, C. (2016). NDEWS San Francisco Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2016. National Drug Early Warning System.

⁴¹ Coffin, P.O. & Rowe, C. (2018). NDEWS San Francisco Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2018. National Drug Early Warning System.

⁴² Drug Policy Alliance. (2017). Stimulant Use: Harm Reduction, Treatment, and Future Directions.

⁴³ Colfax G, Shoptaw S. "The methamphetamine epidemic: Implications for HIV prevention and treatment." *Current HIV/AIDS Reports*. 2005;2(4):194–199.

⁴⁴ Mcketin, Rebecca & Najman, Jakob & Baker, Amanda & Lubman, Dan & Dawe, Sharon & Ali, Robert & Lee, Nicole & P Mattick, Richard & Mamun, Abdullah. (2012). Evaluating the impact of community-based treatment options on methamphetamine use: Findings from the Methamphetamine Treatment Evaluation Study (MATES). *Addiction*, 107:1998-2008

⁴⁵ Rawson, RA., McCann MJ., et al. (2006). A comparison of contingency management of cognitive-behavioral approaches for stimulant-dependent individuals. *Addiction*. 101, 267-274

⁴⁶ Roll, J. (2007). Contingency management in methamphetamine disorder treatments. *Addiction*. 102 (Suppl. 1), 114-120).

- **Cognitive Behavioral Therapy**

Cognitive behavioral therapy (CBT) is a form of psychotherapy, or counseling, that provides individuals with new skills (e.g. coping, stress management, cognitive restructuring) to reduce risk behaviors, such as drug use.^{47,35} However, these treatments are time-intensive, expensive, and the outcomes are relatively poor at longer follow-up periods. At present, few effective options exist for individuals seeking treatment for methamphetamine use disorder, and to date these options have been limited to psychosocial interventions. There is modest evidence to suggest that other psychological interventions are effective for stimulant users.

Pharmacological Interventions

There are currently no medications approved by the U.S. Food and Drug Administration (FDA) for use in treating methamphetamine use. Anti-depressants and anxiolytics may be used to improve depressive and anxiety symptoms with only limited benefits in reducing withdrawal symptoms. Neuroleptics may be used to treat methamphetamine-induced psychotic symptoms in the context of intoxication or recent use.⁴⁸ Research suggests potential benefits from mirtazapine, bupropion, methylphenidate, and oxytocin in reducing use.^{49,50} Furthermore, there preliminary data suggest potential neuroprotection from agents such as n-acetylcysteine.⁵¹ Results overall suggest that fully effective pharmacotherapy may require more than one agent.

Other Considerations

- Research suggests that non-clinical providers may be more likely – and more confident – in discussing substance use with people who use methamphetamine rather than clinical providers who are tasked with providing medical services. Some providers acknowledge their need to learn how to be more culturally competent and sensitive when working with Black and Latino MSM who use methamphetamine in order to develop trust and not perpetuate stigma.⁵²
- Providing education and sensitivity training to service providers and law enforcement partners may ensure that their actions and attitudes do not worsen experiences of stigma among the substance users they are intending to assist.

- Increased social support for people who use methamphetamine has shown positive effects on their mental health status, and it may lessen the negative social and emotional health consequences of stigma. Reducing levels of stigma among people who use methamphetamine might best be achieved using a multi-level approach that includes individual therapies to address drug cravings and negative emotions (e.g., Cognitive Behavioral Therapy, motivational interviewing), structural interventions (e.g., opioid substitution programs) to reduce injection drug use and promote safer injection practices, and community-based interventions to increase access to and availability of drug treatment programs.⁵³
- There is growing evidence that reducing punishment – such as incarceration – and adopting positive reinforcement for people with substance use improves their access to services, reintegration into society, and public safety.⁵⁴

Conclusion

The rise in methamphetamine use and the associated adverse impacts on the individual and surrounding community underscore the need to investigate factors associated with successful methamphetamine treatment outcomes. There is a need to better understand treatment utilization and methamphetamine use patterns in order to optimize intervention efforts and minimize morbidity and social consequences of problematic methamphetamine use.

⁴⁷ Malgarejo, T. et al. (2018). A Blueprint Guide to Supporting Black and Latino MSM Who Use Crystal Meth. *Blueprint A Community Response to Crystal Meth*.

⁴⁸ Rawson, RA (2013). Current research on the epidemiology, medical and psychiatric effects, and treatment of methamphetamine use. *Journal of Food and Drug Analysis*, 21:S77-S81.

⁴⁹ Courtney, K.E. & Ray, L.A. (2014). Methamphetamine: An update on epidemiology, pharmacology, clinical phenomenology, and treatment literature. *Drug and Alcohol Dependence*, 143: 11-21

⁵⁰ Coffax, GN, Santos GM, Das M, Santos DM, Matheson T, Gasper J, Shoptaw S, Vittinghoff E.(2011). Mirtazapine to reduce methamphetamine use: a randomized controlled trial. *Archives of General Psychiatry*, 68(11) 1168-75.

⁵¹ Bavarsad Shahripour, R., Harrigan, M. R., & Alexandrov, A. V. (2014). N-acetylcysteine (NAC) in neurological disorders: mechanisms of action and therapeutic opportunities. *Brain and Behavior*, 4(2), 108-22.

⁵² Malgarejo, T. et al. (2018). A Blueprint Guide to Supporting Black and Latino MSM Who Use Crystal Meth. *Blueprint A Community Response to Crystal Meth*.

⁵³ Semple, SJ, Strathdee, SA, Zians, J, & Patterson, TL (2012). Factors associated with experiences of stigma in a sample of HIV-positive, methamphetamine-using men who have sex with men. *Drug and Alcohol Dependence*, 125(1-2) 154-159.

⁵⁴ De Crescenzo, F, Ciabattini, M, D'Alo, GL, De Giorgi, Giovane, CD et al (2018). Comparative efficacy and acceptability of psychosocial interventions for individuals with cocaine and amphetamine addiction: A systematic review and network meta-analysis. *PLoS Med* 15(12): e1002715. <https://doi.org/10.1371/journal.pmed.1002715>