



Methamphetamine Use Disorders: **Considerations Across the Sequential Intercept Model**

July 16, 2020

Welcome and Introductions

Welcome

- Richard Rawson, Ph.D., Professor Emeritus, University of California at Los Angeles
- Jan Tokumoto, Chief Operating Officer, Frontier Behavioral Health, Washington
- Sergeant Jay Kernkamp, Spokane Police Department, Washington
- Sheena Hargrave, M.Ed., SUDP, Spokane Police Department Co-responder Team, Washington
- Ron Bailey, Director, 12th Judicial District Drug Court, Tennessee

Presenter

Richard Rawson, Ph.D.

- Professor emeritus at the UCLA Department of Psychiatry and research professor at the Vermont Center for Behavior and Health at the University of Vermont
- Conducted numerous clinical trials on pharmacological and psychosocial/behavioral addiction treatments for the treatment of individuals with cocaine and methamphetamine disorders
- Member of the Federal Methamphetamine Advisory Group to Attorney General Janet Reno (1996–2000) and represented the United States at numerous international meetings on methamphetamine



Presenter

Jan Tokumoto

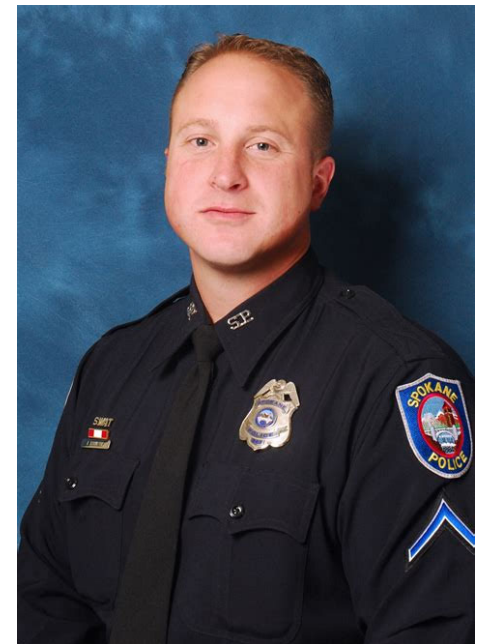
- Chief Operating Officer of Frontier Behavioral Health, the largest provider of behavioral health services in Spokane, Washington
- Provider of outpatient behavioral health services for individuals of all ages, voluntary and involuntary services for adults, and co-deployed teams



Presenter

Sergeant Jay Kernkamp

- Sergeant for Spokane Police Department
- Oversees eight co-deployed teams for the Spokane Police Department and the Spokane County Sheriff's Office



Presenter

Sheena Hargrave, M.Ed., SUDP

- Mental health professional and substance use disorder professional with the Spokane Police Department co-deployed team



Presenter

Ron Bailey

- Director of the 12th Judicial District Drug Court
- President of the Tennessee Association of Recovery Court Professionals, 2017–2018
- Recipient of the Christy Vernon Spirit Award for outstanding advocacy and advancement of recovery courts



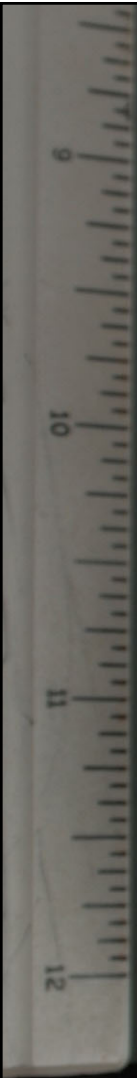
Learning Objectives

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- Describe unique challenges to addressing the needs of individuals with methamphetamine use disorder
- Discuss ways that behavioral health and criminal justice partners can work together to support the recovery of individuals with methamphetamine use disorders
- Understand how support for individuals for methamphetamine use disorders can be tailored at various intercepts of the Sequential Intercept Model

Methamphetamine 2020: New Risks, Current Treatments

Richard Rawson, Ph.D.



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Methamphetamine

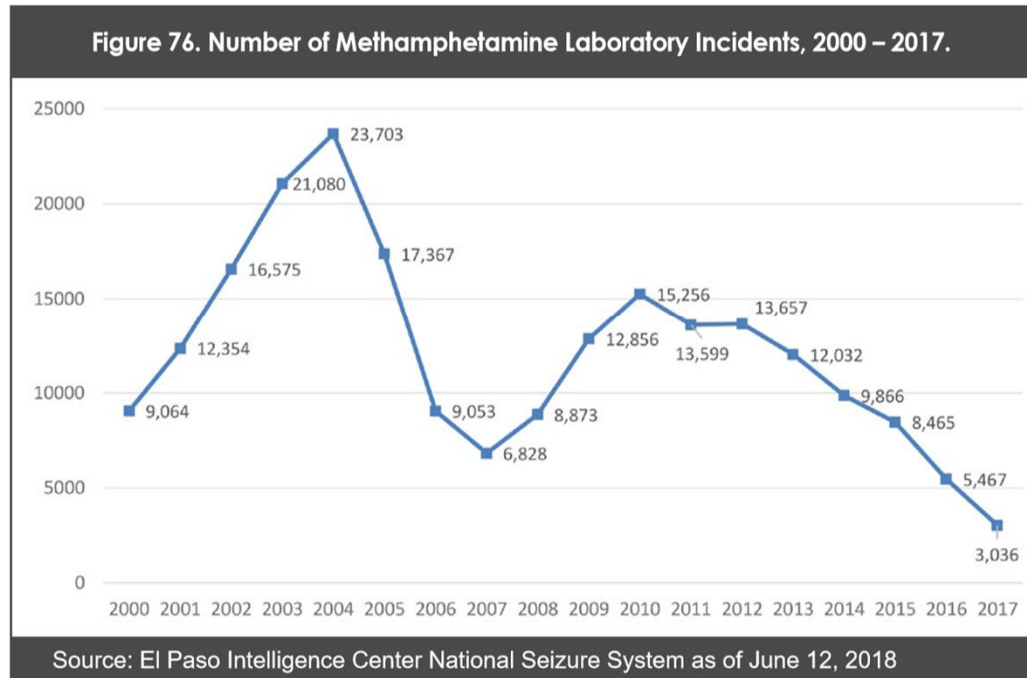
- In the 1990s and early 2000s, methamphetamine made from the decongestants pseudoephedrine and ephedrine poured out of domestic labs like those in the early seasons of “Breaking Bad”
- Narcotics squads partially became hazmat teams



Methamphetamine Lab Incidents

METHAMPHETAMINE

UNCLASSIFIED



Source: U.S. Department of Justice Drug Enforcement Administration. (2018). *2018 national drug threat assessment*. <https://www.dea.gov/sites/default/files/2018-11/DIR-032-18%202018%20NTA%20final%20low%20resolution.pdf>

Methamphetamine Availability Reduced

- In 2005, Congress passed the Combat Methamphetamine Act, which put pseudoephedrine products behind the counter, limited amounts purchased, and tracked purchasers
- Although some methamphetamine makers tried “smurfing,” meth cases plummeted
- With no more meth lab explosions on the nightly news, the public forgot about the drug
- Mexican drug cartels stepped in, improving production with higher potency and lower prices (\$2,000 per pound, down from \$8,000)

Methamphetamine Today

- Experts say that methamphetamine has never been purer, cheaper, or more lethal
- From 2014 to 2018, fentanyl-contaminated meth and cocaine became more prevalent
- As of 2018, United States border agents had seized 10 to 20 times the amount they did a decade ago

Potentially Lethal Dose: Heroin, Fentanyl, and Carfentanil

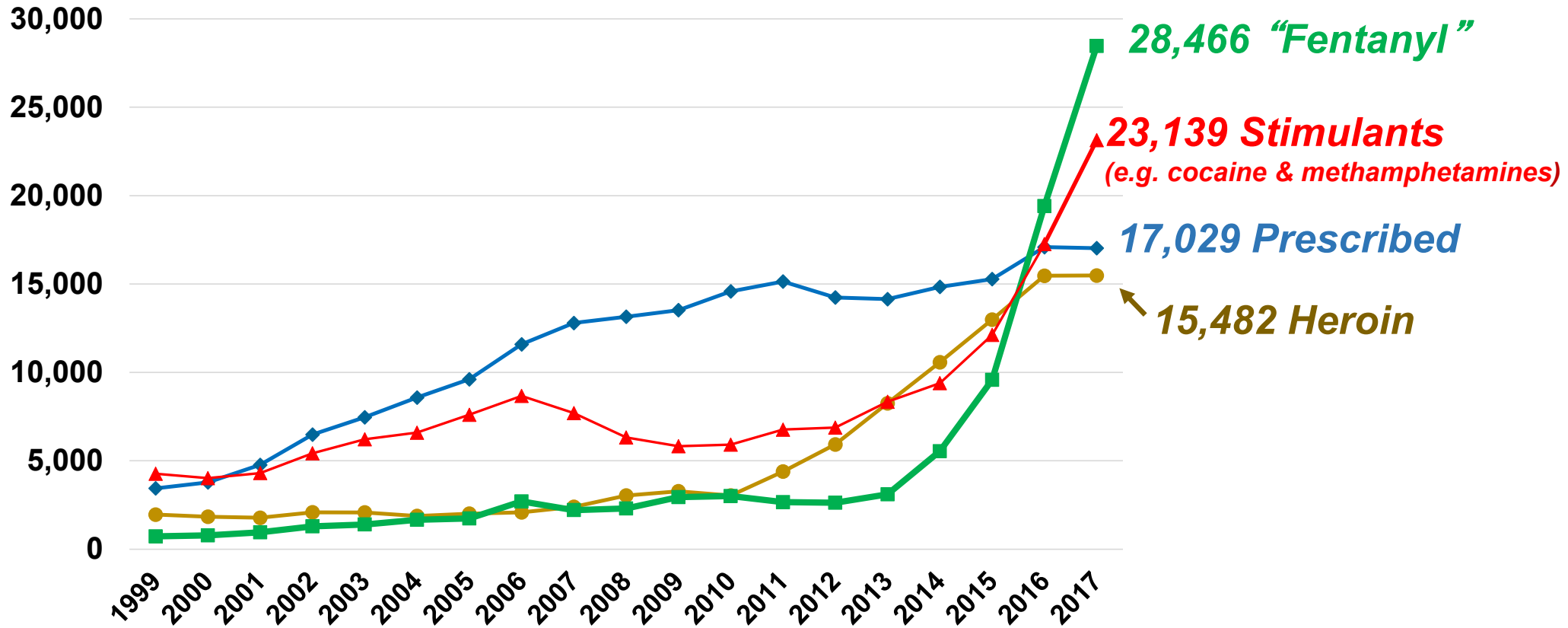
The vials contain an artificial sweetener to illustrate the comparative sizes of lethal doses of heroin, fentanyl, and carfentanil



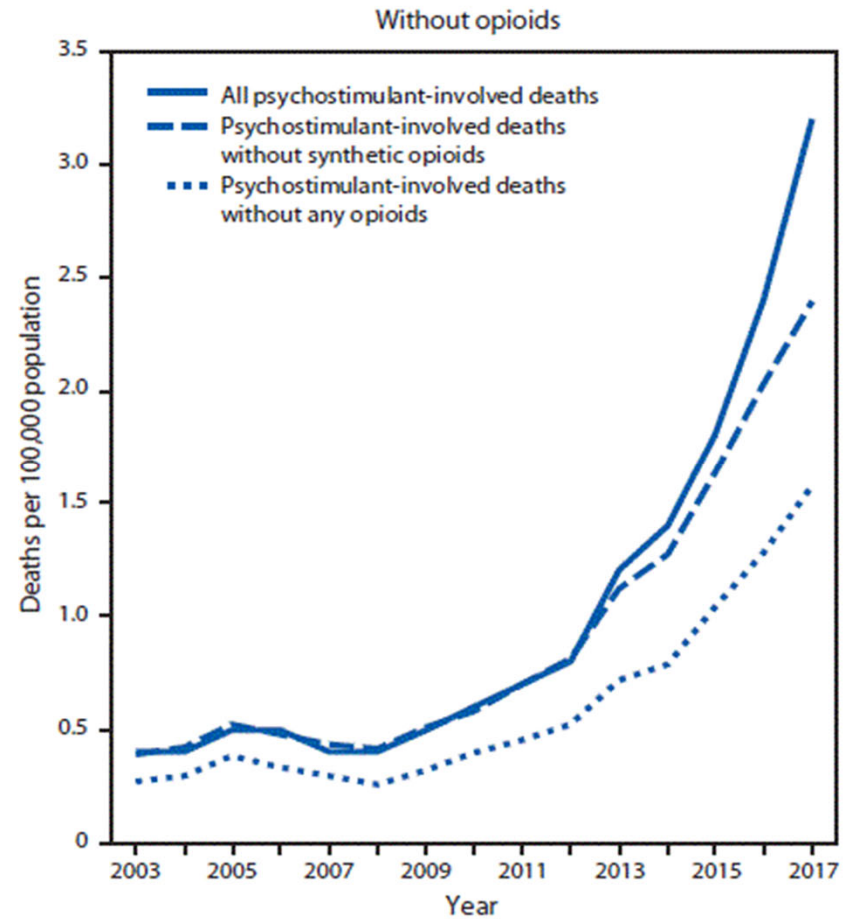
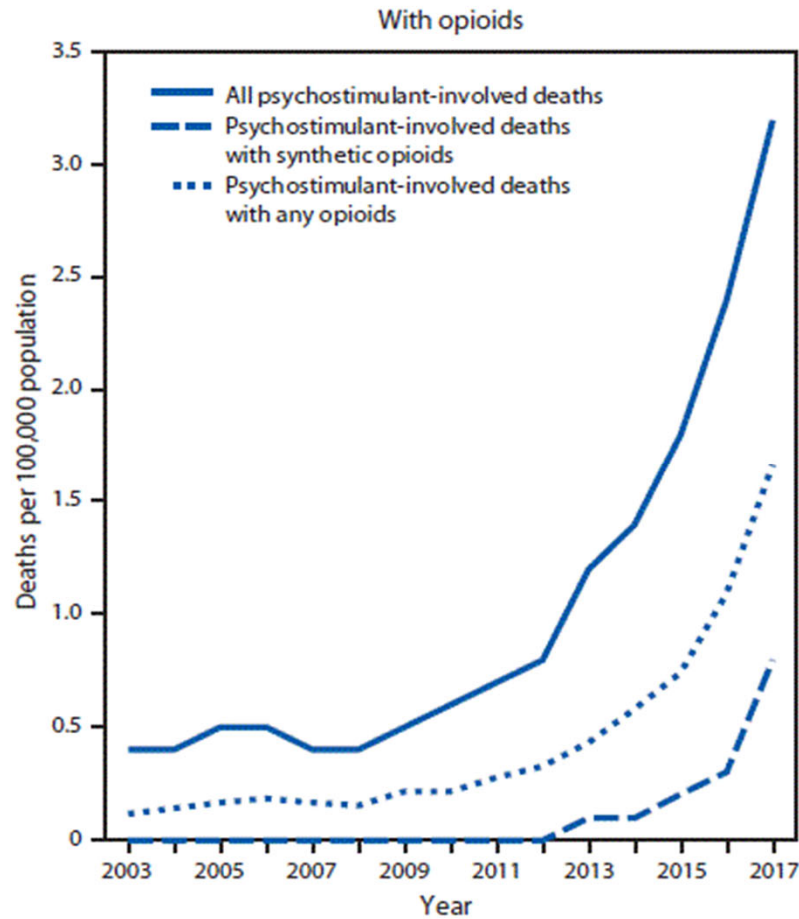
Photo credit: New Hampshire State Police Forensic Laboratory/Bruce Taylor

Evolution of Drivers of Overdose Deaths:

Analgesics ➡ **Heroin** ➡ **Fentanyl** ➡ **Stimulants**

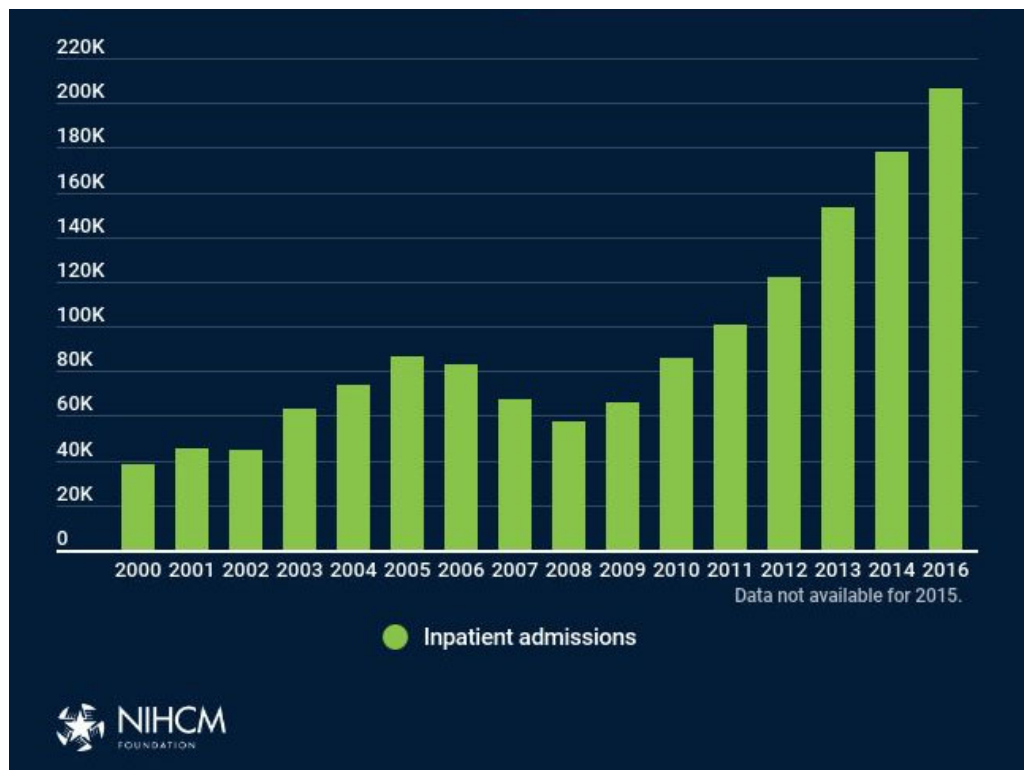


See: Compton WM & Jones CM, *Ann NY Acad Sci*, 2019; Data from CDC WONDER Database



Source: Kariisa, M., Scholl, L., Wilson, N., Seth, P., & Hoots, B. (2019). Drug overdose deaths involving cocaine and psychostimulants with abuse potential—United States, 2003–2017. *MMWR Morb Mortal Wkly Rep*, 68, 388–395. DOI: <http://dx.doi.org/10.15585/mmwr.mm6817a3external icon>

Methamphetamine Is Placing a Rapidly Increasing Burden on the Hospital System



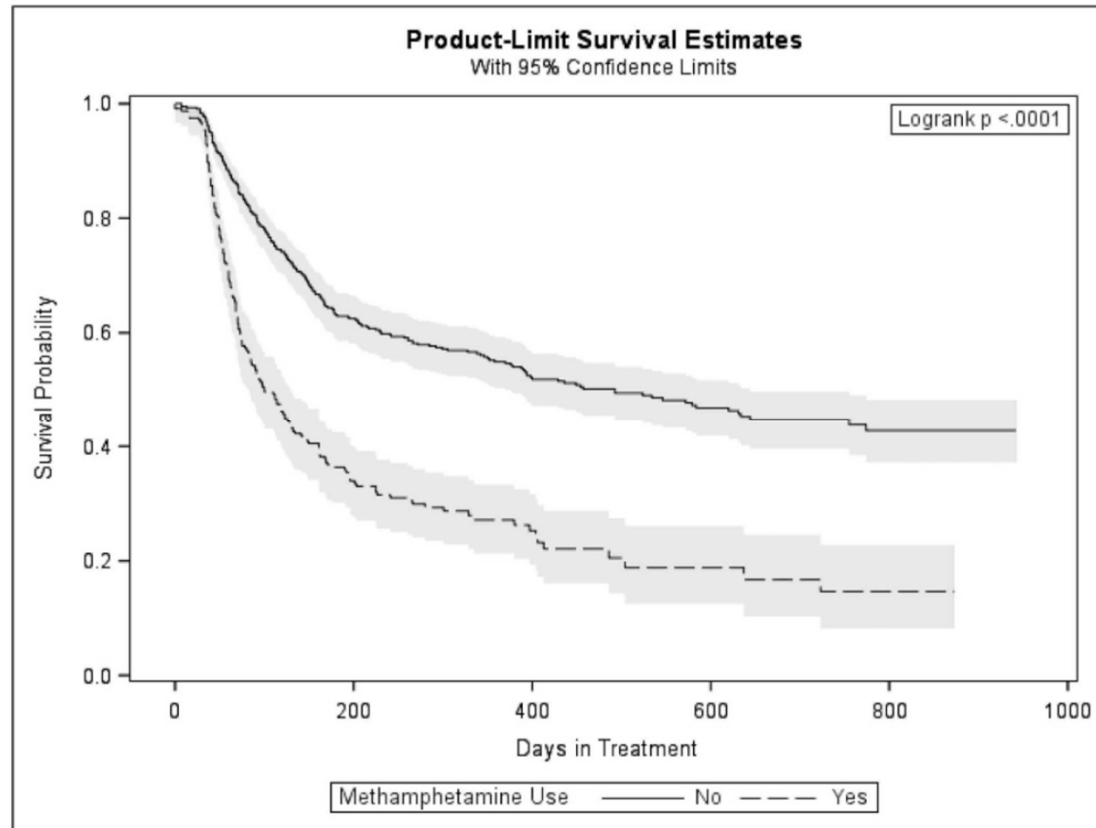
Source: National Institute for Health Care Management Foundation, 2020

Methamphetamine Use and Retention Study

Association between methamphetamine use and retention among patients with opioid use disorders treated with buprenorphine

Tsuia, J., Mayfield, J., Speaker, E., Yakup, S., Ries, R., Funai, H., Leroux, B., & Merrill, J. (2020). *Journal of Substance Abuse Treatment*, 109, 80–85. <https://doi.org/10.1016/j.jsat.2019.10.005>

Methamphetamine Use and Retention Study



Source: Tsui et al., 2020

Medical Issues Related to Methamphetamine Use

- Neurotoxicity, cognitive effects
- Cardiovascular and cerebrovascular symptoms
- Need for pharmacologic interventions

Source: Paulus, M., & Stewart, J. (2020). Neurobiology, clinical presentation, and treatment of methamphetamine use disorder: A review. *JAMA Psychiatry*. <https://doi:10.1001/jamapsychiatry.2020.0246>

Cognition

- It is estimated that more than two-thirds of those with methamphetamine use disorder show cognitive impairment
- Impairment is associated with older age, longer duration of use, and greater frequency of use
- Cognitive impairment may limit ability to follow through with treatment, comprehend advice and direction in treatment, and generally achieve good treatment outcomes

Methamphetamine and Violence

From a review of 28 studies

- Compared with no use, amphetamine use was associated with a twofold increase in the odds of hostility or violence
- Frequent use increases the risk of violent behavior
- Other risk factors included psychotic symptoms, alcohol or other drug use, psychosocial problems, and impulsivity

Source: Foulds, J., Boden, J., McKetin, R., & Newton-Howes, G. (2020). Methamphetamine use and violence: Findings from a longitudinal birth cohort. *Drug and Alcohol Dependence*, 207, 10782. <https://doi.org/10.1016/j.drugalcdep.2019.107826>

Symptoms Preceding Death From Toxic Methamphetamine Effects

- Collapse
- Breathing difficulty
- Hyperthermia
- Methamphetamine users presenting with acute intoxication may be at risk for fatality with symptoms such as
 - Labored breathing
 - Angina, palpitations
 - Cough
 - Coughing up blood
- Should be closely monitored

Collision of COVID-19 and the Addiction Epidemics

- Chinese Center for Disease Control reports a fatality rate of 6.3% for people with chronic respiratory diseases, compared with 2.3% overall
- People who smoke, vape, use opioids, or have a substance use disorder are vulnerable
- Opioid use causes hypoxemia

Source: National Institute on Drug Abuse. (2020, June 11). *COVID-19: Potential implications for individuals with substance use disorders*. <https://www.drugabuse.gov/about-nida/noras-blog/2020/04/covid-19-potential-implications-individuals-substance-use-disorders>

Collision of COVID-19 and the Addiction Epidemics

- Methamphetamine use causes pulmonary damage
- Social distancing increases risk of overdose with fewer people available to administer naloxone
- Access to support for those in recovery is limited
- Isolation, stress, anxiety, and depression can lead to increased substance use

Source: National Institute on Drug Abuse, 2020

Clinical Challenges With Stimulant-Dependent Individuals

- Overdose death
- Limited understanding of stimulant addiction
- Ambivalence about need to stop use
- Impulsivity/poor judgement
- Cognitive impairment and poor memory
- Anhedonia

Clinical Challenges With Stimulant-Dependent Individuals

- Hypersexuality
- Violence and psychosis
- Powerful Pavlovian trigger/craving response
- Very poor retention in outpatient treatment
- Elevated rates of psychiatric comorbidity

Special Treatment Consideration for the Following Groups

- Injection users
- Users who take stimulants daily or in very high doses
- Women (high rates of physical/sexual abuse)
- Individuals experiencing homelessness who are chronically mentally ill and/or have high levels of psychiatric symptoms at admission
- Men who have sex with men
- Users under the age of 21
- **Individuals in medication treatment for opioid use disorder**

Harm-Reduction Strategies for Stimulant Users

- Information about medical and psychiatric effects of methamphetamine
- Syringe exchanges
- Naloxone (for opioid overdose)
- Quiet rooms and washup/shower rooms
- Condoms/safe-sex education
- Topical antibiotic creams and ointments for injection sites
- Water (dehydration)
- Toothpaste/toothbrush

Current Status of Treatment Approaches for Methamphetamine Use Disorder

- Contingency management unanimously (five systematic reviews and meta-analyses) found to have best evidence of effectiveness
- Other approaches with lesser but clear evidence of support include cognitive behavioral therapy and community reinforcement approach
- Evidence backs motivational interviewing for treatment of a variety of substance use disorders
- Physical exercise has shown benefits for methamphetamine users
 - Rawson, R., Chudzynski, [...], & Cooper, C. (2015). Impact of an exercise intervention on methamphetamine use outcomes post-residential treatment care. *Drug Alcohol Depend*, 156, 21–28.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4633370/#_ffn_sectitle

Contact Information

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Responding to Methamphetamine Use: Intercepts 0–1

Jan Tokumoto

Sergeant Jay Kernkamp

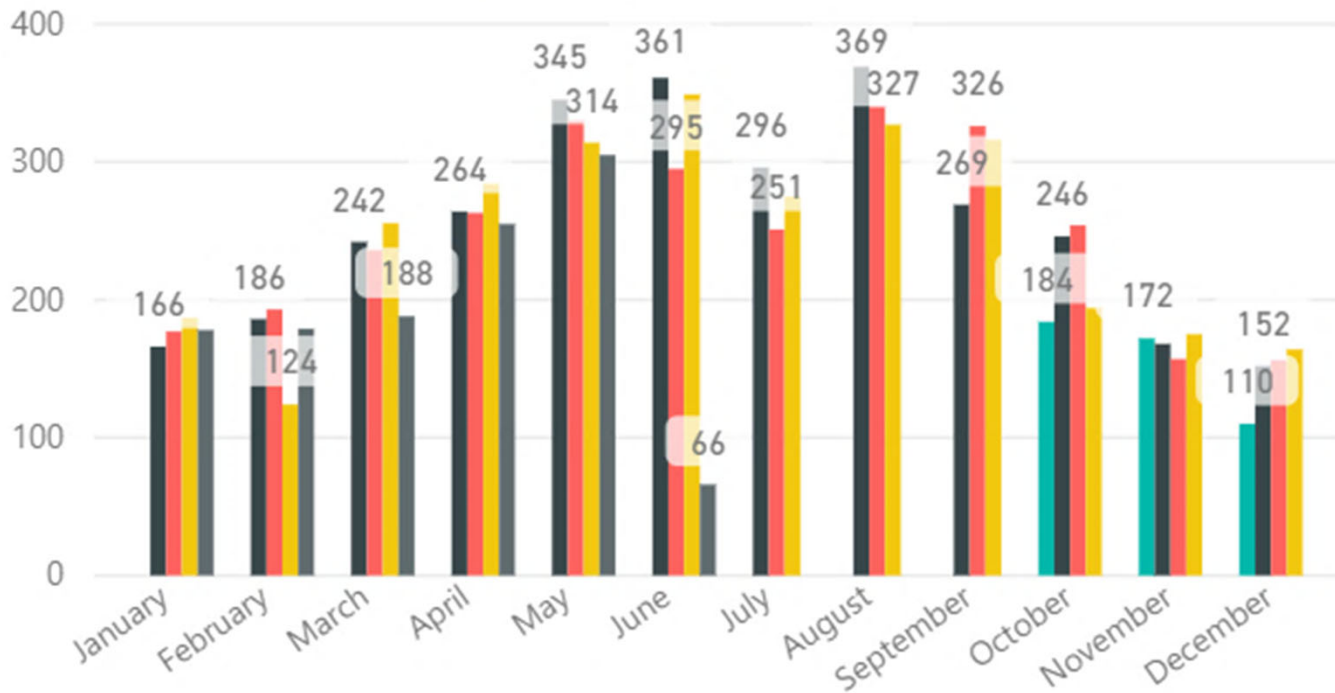
Sheena Hargrave, M.Ed., SUDP

Co-Deployed Teams

- Contracts for co-deployed teams: eight teams with the Spokane Police Department; two teams with the Spokane County Sheriff's Office. Contract with local detox because of high rate of substance use
- What officers experience: individuals with rapid, slowed, or irregular heartbeat; difficulty breathing; chest pains; or high body temperature or high blood pressure
- Impact to community: harm to neighbors, the environment, property values, and, tragically, to innocent victims such as young children

Count of Incident_Number by Month and Year

Year ● 2016 ● 2017 ● 2018 ● 2019 ● 2020



Methamphetamine Versus Opiates

- Contact with people using methamphetamine versus opiates
- Most people would meet the criteria for a severe methamphetamine use disorder
- Some have previous participation in a substance use disorder treatment program, but the majority have not
- Many experience withdrawal symptoms, consume large quantities of methamphetamine multiple times per day, and have built up a tolerance because of their large consumption
- Many continue to use substances to avoid withdrawal symptoms, which perpetuates their continued use and inability to discontinue

Barriers to Accessing Resources/Services

- Lack of knowledge of the resources/services available
- Lack of insight regarding the need for resources/services, perhaps due to the pre-contemplation stage of change
- Lack of medical insurance or other means to pay for services
- May decline services/resources despite numerous offerings by officers and clinicians
- May be homeless and accustomed to this lifestyle
- Continued use of substances on a regular basis with no desire to discontinue their use

Contact Information

- Jan Tokumoto: jtokumoto@fbhwa.org
- Sergeant Jay Kernkamp: jkernkamp@spokanepolice.org
- Sheena Hargrave: shargrave@fbhwa.org

Responding to Methamphetamine Use: Intercept 3

Ron Bailey

Methamphetamine in Appalachia

- Arrived in the 1990s during a period of demographic and social change
- Low education levels and high levels of unemployment and poverty left people in the region vulnerable to substance abuse
- Meth was integrated into the culture in several ways
 - Provided enhanced physical/cognitive performance for laborers doing strenuous work
 - Offered escape from the boredom and lack of opportunity many faced
 - Was easily assimilated into the “self-contained culture” of the region

Damaging Effects of Methamphetamine

- Effects of chronic use can last for years after cessation
 - Behavioral—anxiety, confusion, insomnia, mood disturbances, violence
 - Neurological—impaired learning abilities, altered structures in decision making, memory, and emotional pathways/areas of the brain
 - Physical—reduced motor skills, dental decay, gastrointestinal issues, weight loss
- Most effects ARE reversible with long-term treatment and abstinence
 - Can take a minimum of 2 years and up to 10-plus years

Dangers of Relapse

- Intense, severe discomfort of withdrawal due to physiological dependence leads to quick and frequent relapse
- Even after significant clean time, relapse often occurs because the stressors of normal life become too overwhelming for a brain that has been compromised by chronic methamphetamine use
- There is a high risk of overdose and death when one relapses after a period of sobriety

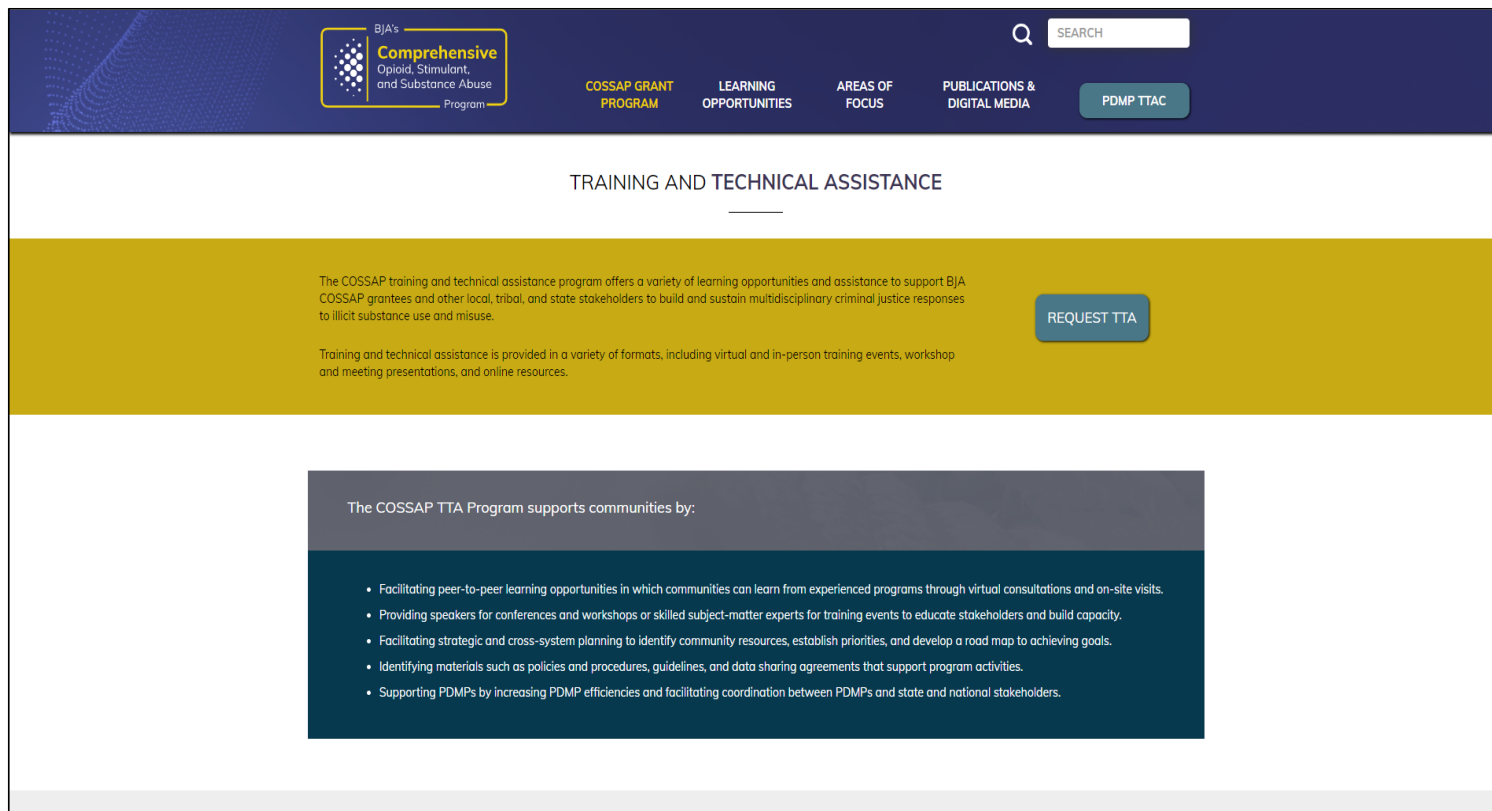
Contact Information

- Ron Bailey: Ron.B@12dc.org



Questions?

<https://cossapresources.org/Program/TTA>



The screenshot shows the website for the COSSAP TTA Program. The header is dark blue with the BJA's Comprehensive Opioid, Stimulant, and Substance Abuse Program logo on the left. Navigation links include COSSAP GRANT PROGRAM, LEARNING OPPORTUNITIES, AREAS OF FOCUS, PUBLICATIONS & DIGITAL MEDIA, and a PDMP TTAC button. A search bar is also present. The main content area is white with a yellow banner for 'TRAINING AND TECHNICAL ASSISTANCE'. Below this, a yellow box contains text about the program and a 'REQUEST TTA' button. A dark blue box lists the ways the program supports communities.

BJA's **Comprehensive**
Opioid, Stimulant,
and Substance Abuse
Program

COSSAP GRANT PROGRAM LEARNING OPPORTUNITIES AREAS OF FOCUS PUBLICATIONS & DIGITAL MEDIA PDMP TTAC

SEARCH

TRAINING AND TECHNICAL ASSISTANCE

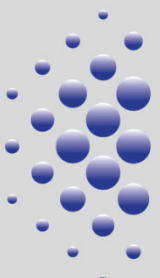
The COSSAP training and technical assistance program offers a variety of learning opportunities and assistance to support BJA COSSAP grantees and other local, tribal, and state stakeholders to build and sustain multidisciplinary criminal justice responses to illicit substance use and misuse.

REQUEST TTA

Training and technical assistance is provided in a variety of formats, including virtual and in-person training events, workshop and meeting presentations, and online resources.

The COSSAP TTA Program supports communities by:

- Facilitating peer-to-peer learning opportunities in which communities can learn from experienced programs through virtual consultations and on-site visits.
- Providing speakers for conferences and workshops or skilled subject-matter experts for training events to educate stakeholders and build capacity.
- Facilitating strategic and cross-system planning to identify community resources, establish priorities, and develop a road map to achieving goals.
- Identifying materials such as policies and procedures, guidelines, and data sharing agreements that support program activities.
- Supporting PDMPs by increasing PDMP efficiencies and facilitating coordination between PDMPs and state and national stakeholders.



BJA's

Comprehensive
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