



Methamphetamine 101

Bureau of Substance Abuse Prevention and Control
Los Angeles County Department of Public Health



What will you learn today?

By the end of this presentation, you will be able to:

- Identify signs and symptoms of meth use
- Identify ways that meth is used
- Describe two ways that you can assist your loved one with receiving assistance for substance use disorder

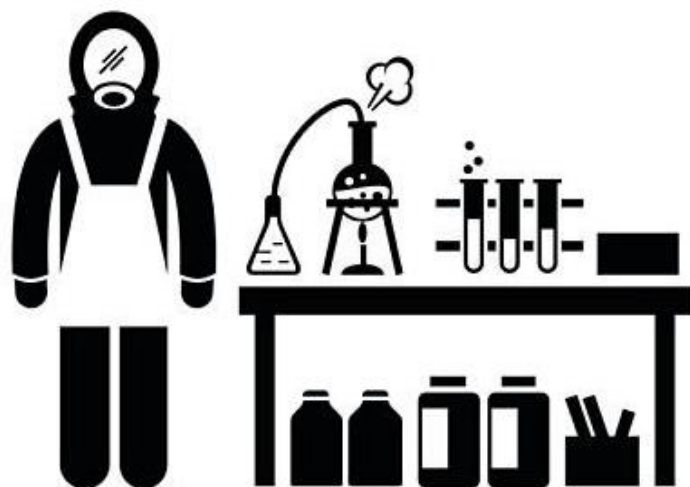


What is Methamphetamine?



What is Methamphetamine?

- A synthetic stimulant
- Temporary sense of heightened euphoria, alertness, and energy



Other Names

CRYSTAL METH

ICE

ROCK

FROSTY

METHAMPHETAMINE

TINA

CRANK

SPEED

GLASS

METH

T

SHABU

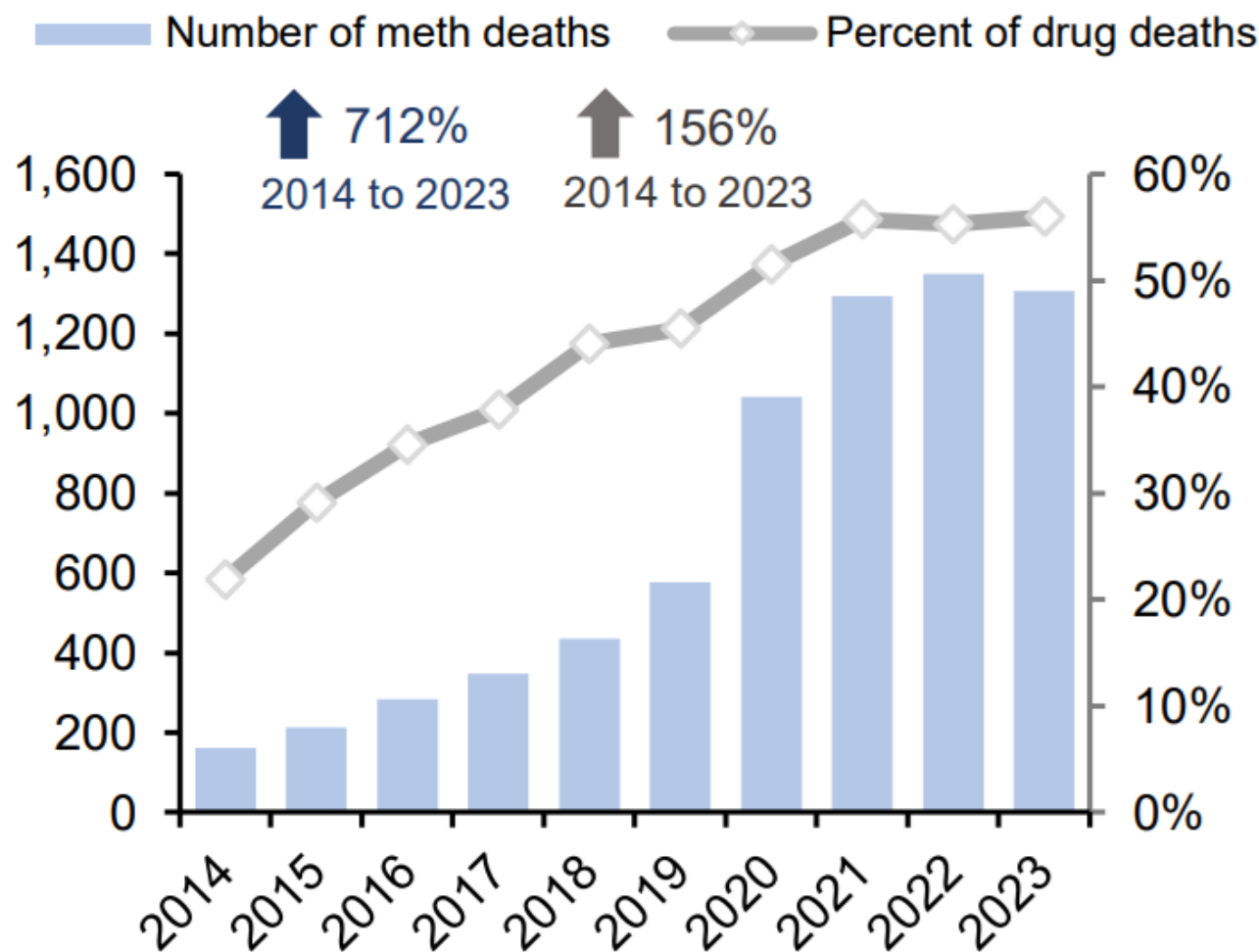
BLUE

Forms of Meth

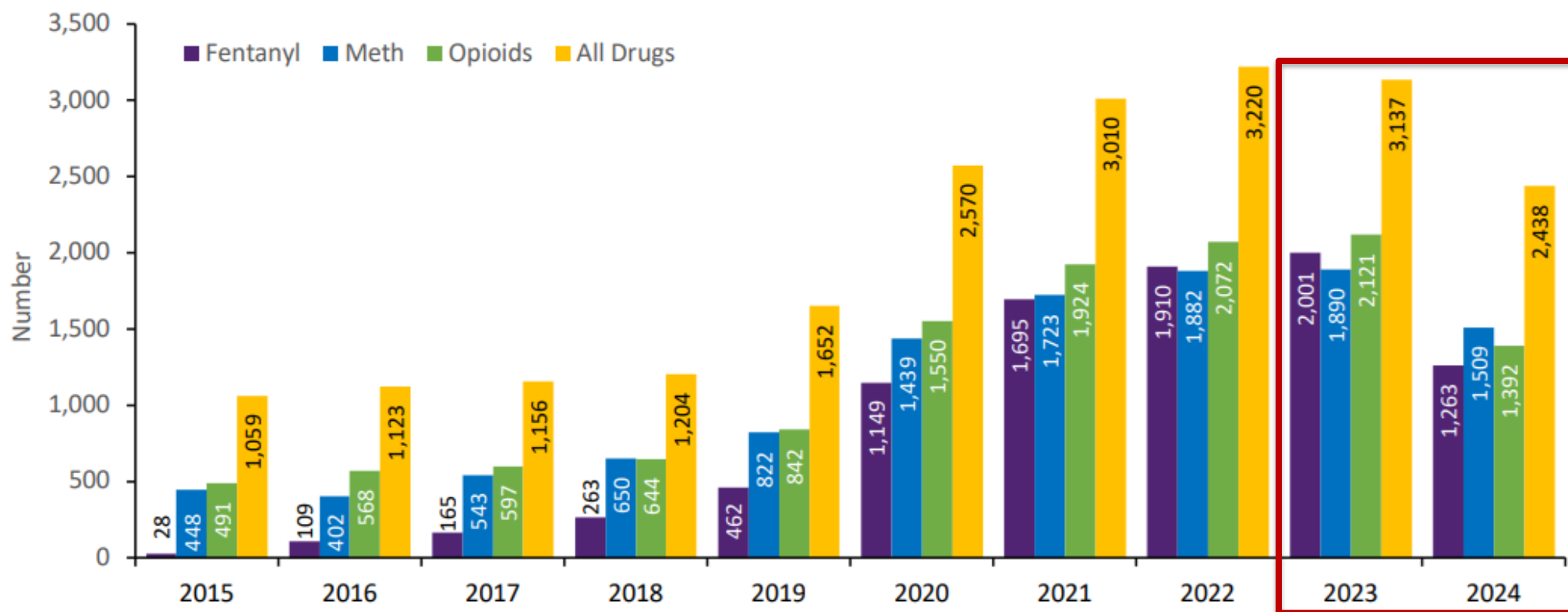
- Can be a pill, powder, liquid, or it resembles glass fragments (crystal meth)



Meth Overdose-related Deaths, LA County, 2014-2023

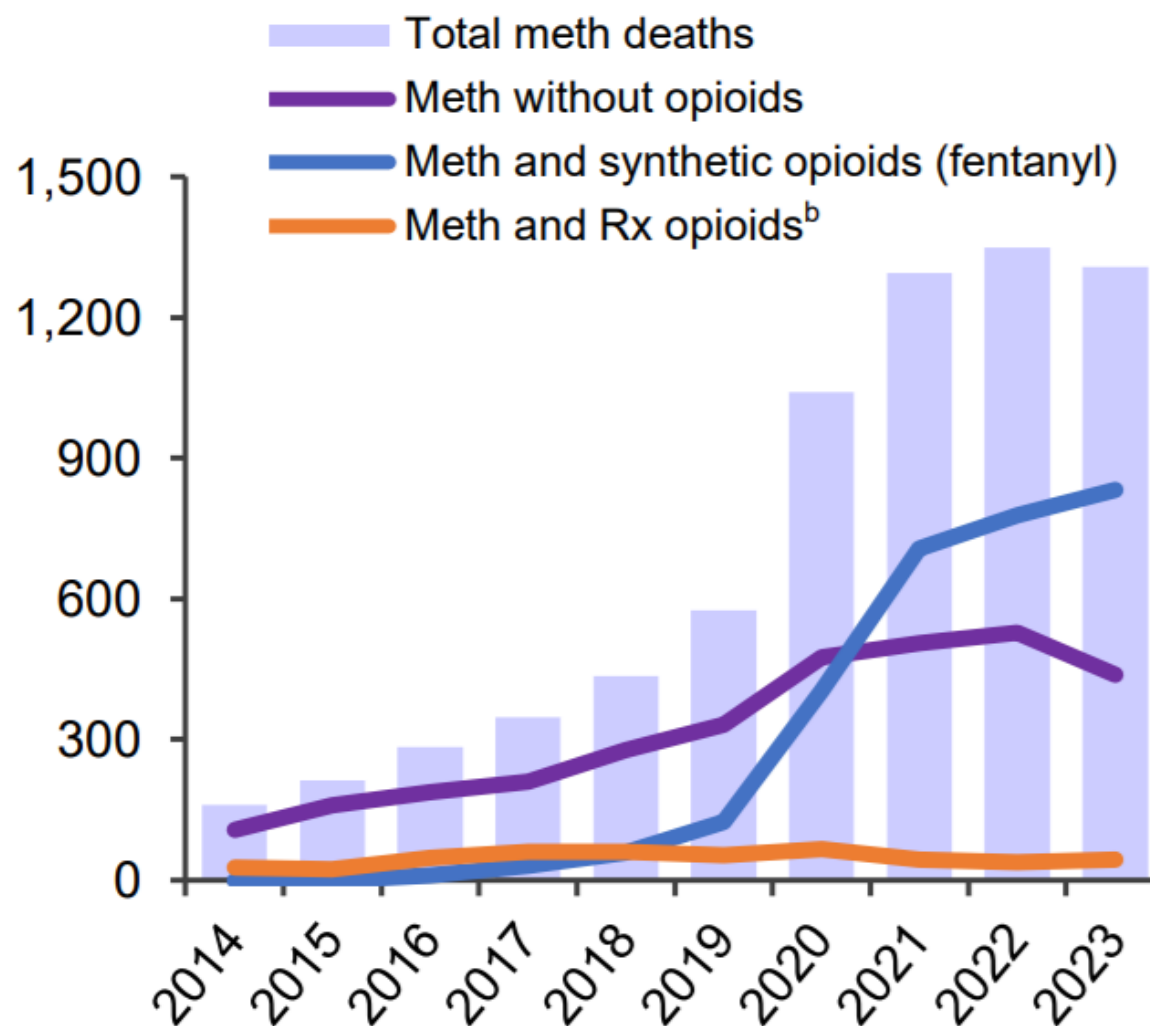


Drug Overdose Deaths by Drug, LA County, 2015-2024



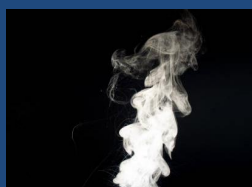
*Notes: All drug overdose deaths in this report are due to accidental drug overdose, excluding intentional overdose such as suicide. Opioids refers to accidental overdose deaths involving all opioids, including fentanyl and heroin. Meth refers to methamphetamine. All drugs refer to all accidental overdose deaths involving alcohol and/or drugs, including fentanyl, meth, and opioids.

Meth Overdose-related Deaths by Opioid Involvement, LA County, 2014-2023



How is Meth Used?

Smoking



Snorting



Injecting



Orally



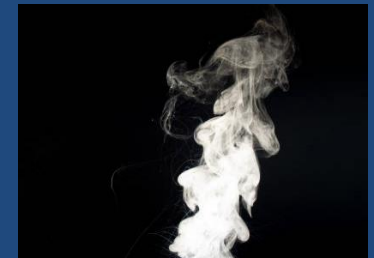
**Rectal
administration**



How is Meth Used?

Smoking

- Most common way of using crystal meth
- It is done using a pipe or 'flute' (doesn't require mixing with any other substance)
- Enters the bloodstream immediately



Physical Effects/Risks

- Can lead to dry mouth, corroded teeth, and gums (AKA "meth mouth")
- Meth mouth is severe dental decay that can begin in the gums, then attack the teeth which causes the two front teeth to fall out first

How is Meth Used?

Snorting

- Crystals are crushed into a small fine powder that can be inhaled through the nose
- Effects aren't instant, takes several minutes to feel high



Physical Effects/Risks

- Chronic runny nose
- Chronic nosebleeds
- Damage to the sinus cavities
- Continued use can lead to hole developing in the nasal septum

How is Meth Used?

Injecting

- Dilute crystal meth from powder form into a liquid and inject it directly into the bloodstream
- Produces an instant and powerful rush



Physical Effects/Risks

- Increased risk of blood-borne infections (i.e., HIV, hepatitis C, and hepatitis B) due to sharing needles
- Physical side effects including injection site marks on body, collapsed vein, skin infection
- Increased risk of long-term substance use disorder

How is Meth Used?

Orally

- Meth pills, “speed” are regularly combined with other drugs to increase their potency and effect
- Takes 15-20 minutes to feel the effects



Physical Effects/Risks

- Increases risk of a bad reaction or overdose due to overconsumption
- Can lead to someone progressing to other more immediate methods of use
- Milder high

How is Meth Used?

Rectal Administration

- Also known as “boofing”
- Use a syringe without a needle to ingest meth anally
- Allows effects to come on faster than other methods



Physical Effects/Risks

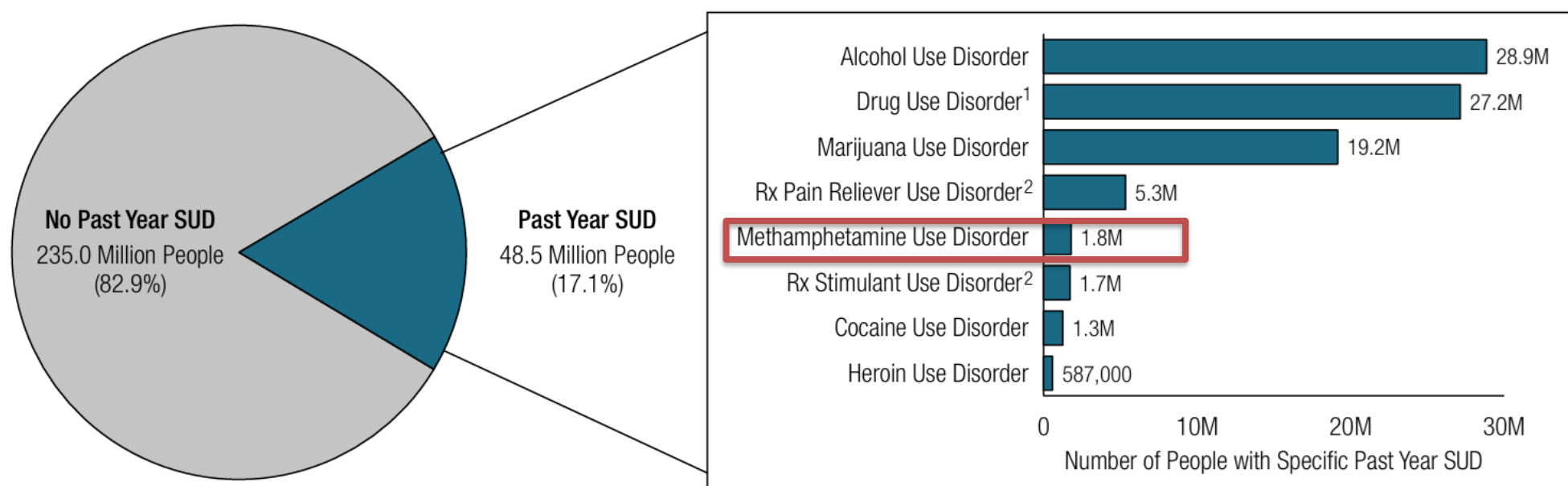
- Increased risk of contracting an STI and infections
- Damaged anus (e.g., bloody stool, hemorrhoids, being unable to control bowels)
- Increase risk of overdose



Prevalence of Methamphetamine Use



Past Year Substance Use Disorder (SUD): Among People Aged 12 or Older, 2023



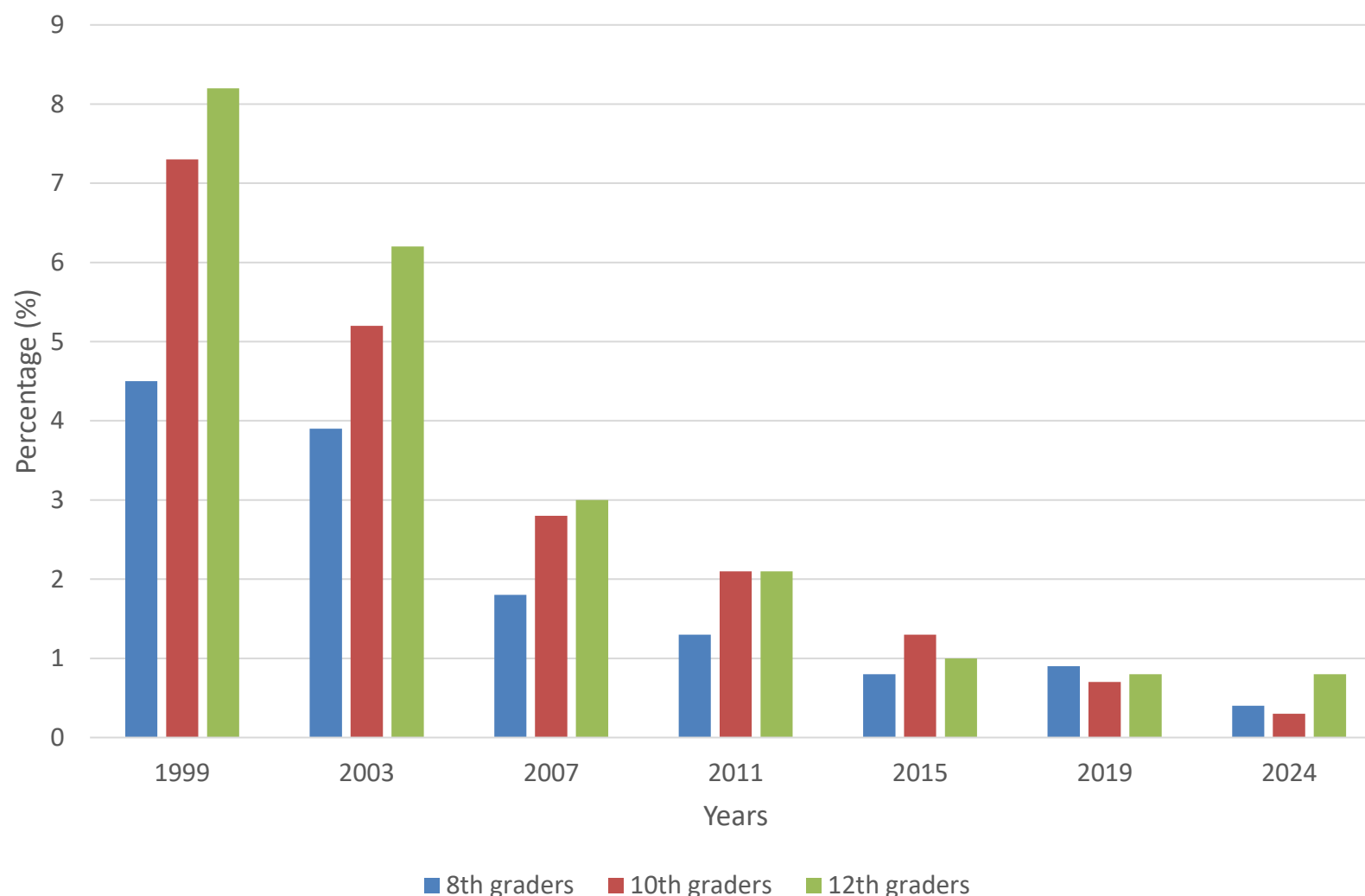
Rx = prescription.

Note: The estimated numbers of people with SUDs are not mutually exclusive because people could have use disorders for more than one substance.

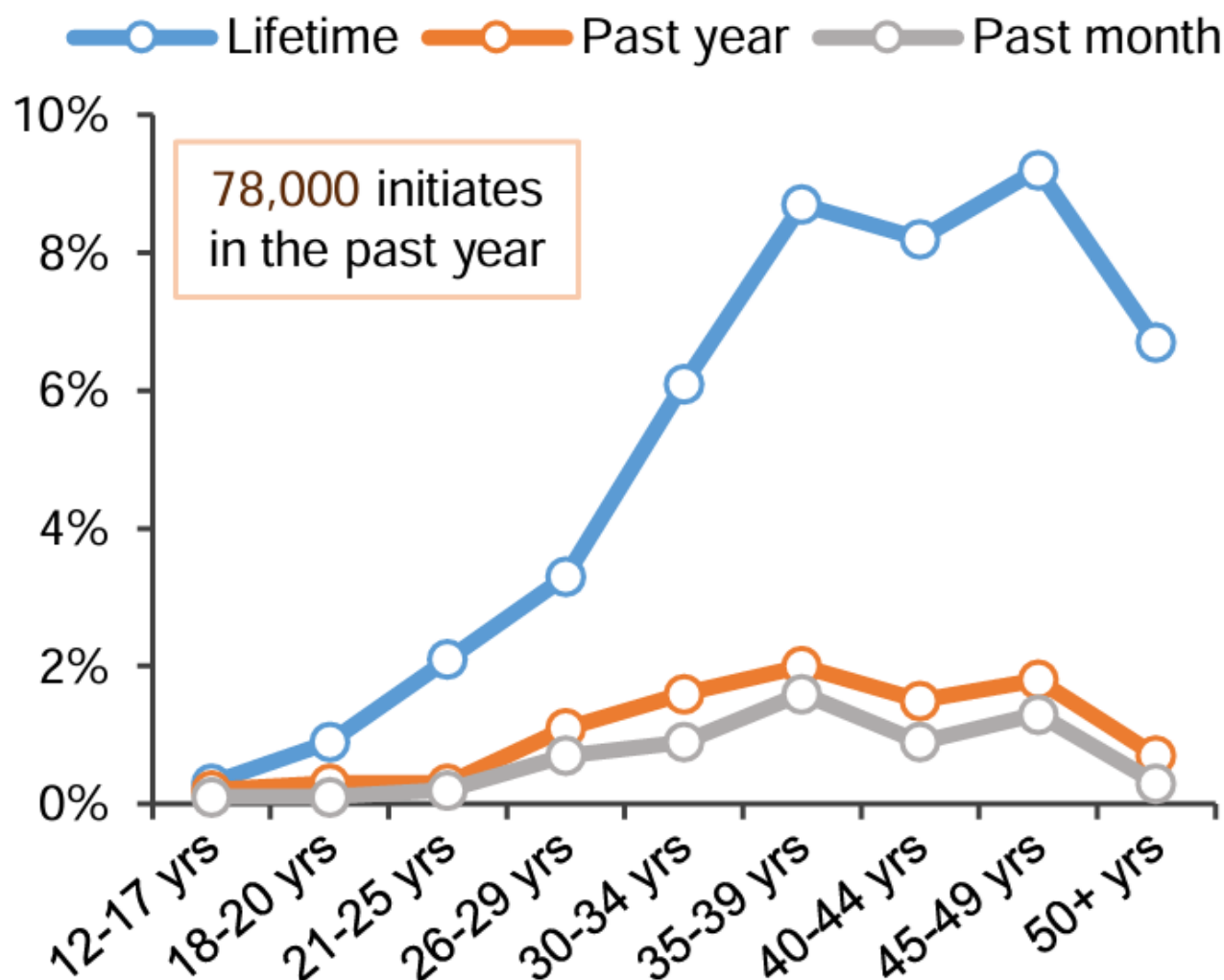
¹ Includes data from all past year users of marijuana, cocaine, heroin, hallucinogens, inhalants, methamphetamine, and prescription psychotherapeutic drugs (i.e., pain relievers, tranquilizers, stimulants, or sedatives).

² Includes data from all past year users of the specific prescription drug.

Trends in Lifetime Prevalence of Meth Use in 8th, 10th, and 12th Grade, 2024



Lifetime, Past Year, and Past Month Meth Use by Age, U.S., 2023



History of Meth

1893

Japanese chemist, Nagayoshi Nagai synthesized meth from the precursor chemical ephedrine

1919

Japanese scientist, Akira Ogata, synthesized meth using phosphorus and iodine to reduce the ephedrine into a crystallized form, creating the world's first crystal meth.

1939-1945

During WWII, the German, English, American, & Japanese governments promoted meth use for endurance, wakefulness, & energy for military personnel.

1945

After the war, meth abuse by injection reached epidemic proportions.

1950's

Doctors worldwide began prescribing meth to their patients for symptoms of depression and weight loss.

History of Meth Cont.

1960's

Increased availability of injectable meth, made abuse more widespread.

1970's

Controlled Substances Act of 1970 classified amphetamines as Schedule II substances. American motorcycle gangs came to control much of its production & distribution.

1980's

Amphetamine's key chemical, phenyl-2-propanone (P2P), placed under federal control. Cooks discovered crystal meth could be made using ephedrine & household products.

1990's

Mexican drug runners begin supplying ephedrine to the biker gangs' cooks in CA and home meth labs begin spreading throughout the West Coast.

2006

The U.N. World Drug Report calls meth the most abused hard drug on earth, with 26 million meth addicts worldwide.

Combat Methamphetamine Epidemic Act

- Passed by Congress in 2005
 - Required pharmacies to keep logs of purchases of products containing pseudoephedrine and limits the amount of those products an individual can purchase per day.

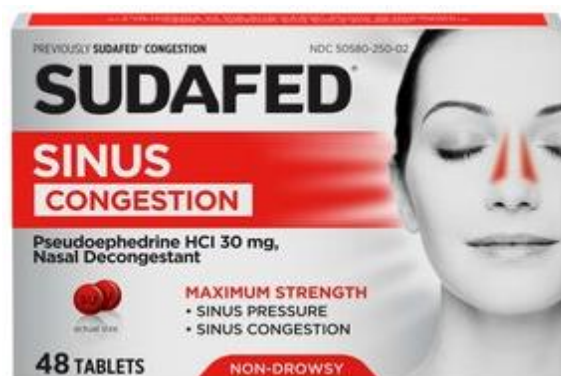


Where is Illegal Meth Made?

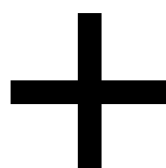
- Manufactured or “cooked” in makeshift laboratories
 - **Superlabs:** Supply organized drug trafficking groups that sell meth in communities across the U.S.
 - **Small Toxic Labs:** Can be set-up almost everywhere (e.g., homes, motel rooms, automobiles, parks, etc.)



Ingredients of Illegal Meth



pseudoephedrine



BATTERIES



ephedrine





Effects of Methamphetamine

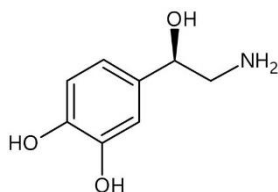


Neurotransmitters Negatively Affected by Meth

NORADRENALINE

Concentration

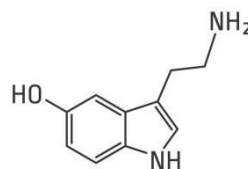
- Fight or Flight
- Increase alertness, arousal, & attention
- Constricts blood vessels
- Affects sleep-wake cycle



SERATONIN

Mood

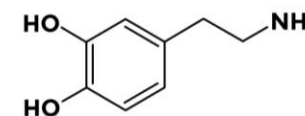
- Regulates mood
- **Normal levels:** feel more focused, emotionally stable, happier, and calmer
- **Low levels:** Associated with depression



DOPAMINE

Pleasure

- Pleasure
- Motivation
- Reinforcement of rewarding behaviors



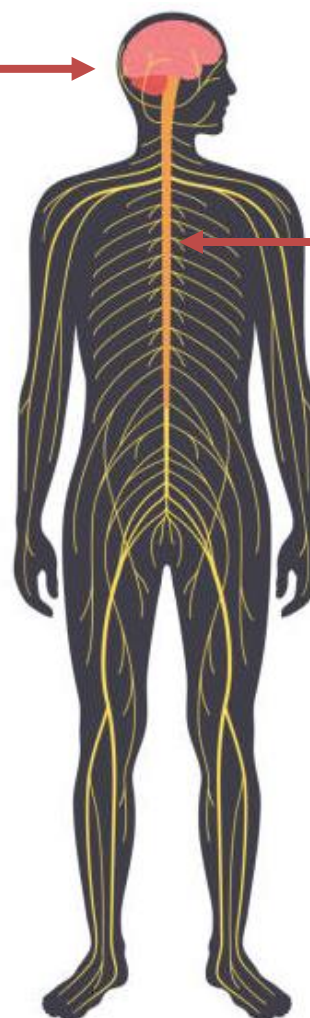
The Reward Circuit – Video



Effects on the Central Nervous System (CNS)

BRAIN

Controls how we think, learn, move, talk, and feel



SPINAL CORD

Carries messages back and forth between the brain and the nerves that run throughout the body

Understanding Meth Addiction

Symptoms of Meth Use: A person using meth who shows signs of paranoia, restlessness, and compulsive disorder

Withdrawal: Feelings of dysphoria, anxiety, and agitation. Symptoms include fatigue, hunger, difficulty concentrating, and meth cravings.

Methamphetamine Withdrawal

Physical Symptoms:

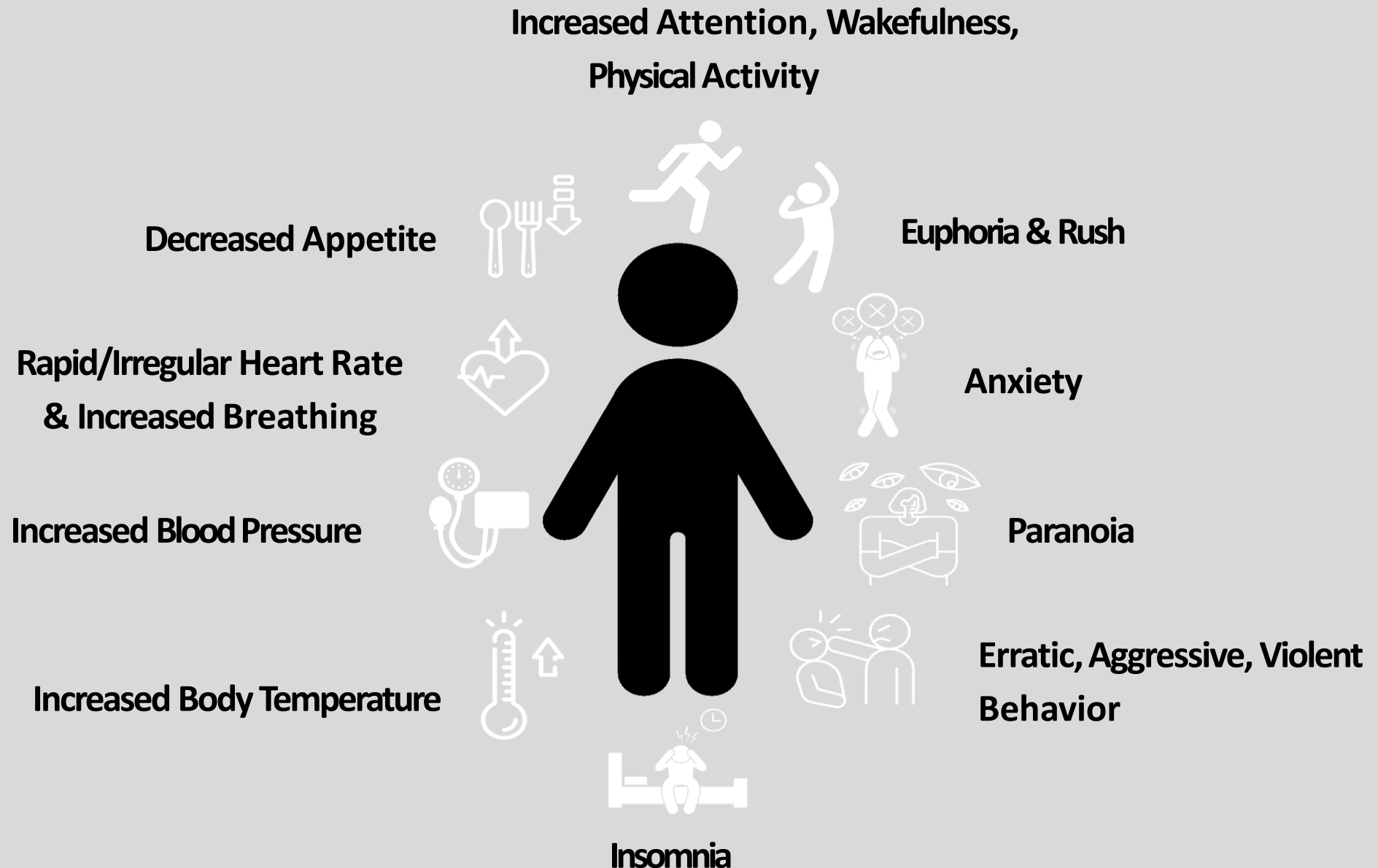
- Feeling very tired
- Disturbed sleep
- Dry mouth
- Headaches
- Feeling anxious, paranoid, or hallucinating
- Not eating enough
- Muscle spasms

Emotional Symptoms:

- Feeling depressed or anxious
- Being paranoid
- Not feeling motivated
- Low energy levels
- Intense cravings for more meth



Short-Term Effects



Long-Term Effects

Anxiety,
confusion, and
insomnia

Permanent damage to the
heart and brain

*(memory loss and defects in
motor skills)*

Paranoia, delusions,
hallucinations, mood
disturbances, or
violent behavior

Severe dental
problems

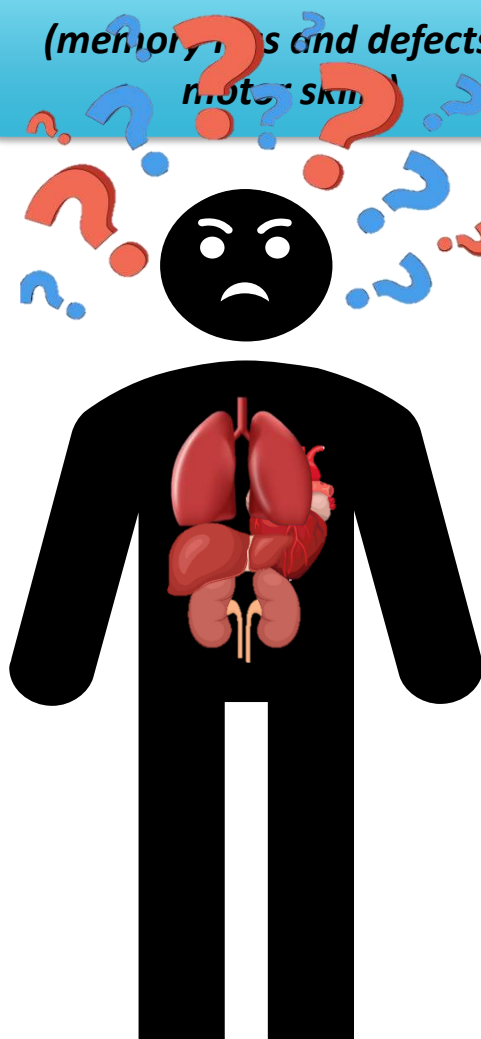
Weight loss

High blood
pressure

Intense itching

Liver, kidney, and
lung damage

Skin sores





Signs of Methamphetamine Use



Signs of Meth Use

Physical Symptoms	Behavioral Symptoms	Psychological Symptoms
<ul style="list-style-type: none">• Extreme weight loss	<ul style="list-style-type: none">• Intense cravings	<ul style="list-style-type: none">• Paranoia
<ul style="list-style-type: none">• Tooth decay	<ul style="list-style-type: none">• Secrecy and withdrawal	<ul style="list-style-type: none">• Hallucinations
<ul style="list-style-type: none">• Skin sores	<ul style="list-style-type: none">• Heightened aggression and hostility	<ul style="list-style-type: none">• Delusions
<ul style="list-style-type: none">• Poor hygiene	<ul style="list-style-type: none">• Erratic and hyperactive behavior	<ul style="list-style-type: none">• Mood swings

Meth Paraphernalia



Signs of Meth Overdose

- Trouble breathing
- Signs of a heart attack or stroke, like chest pain or confusion
- Seizures
- High or low blood pressure
- A high body temperature (hyperthermia)
- Kidney failure
- Intense stomach pain
- Changes in personality or alertness
- Loss in consciousness
- Intensely hyper or aggressive behavior
- Paranoia





Resources





Patient Eligibility

Youth, young adults and adults can access no-cost (no fees) substance use treatment services at any provider in the network if they meet the following criteria AND meet medical necessity:

**Los
Angeles
County
Resident**



Medi-Cal Eligible or Enrolled

(active benefits are not required at time of screening, referral, or intake)

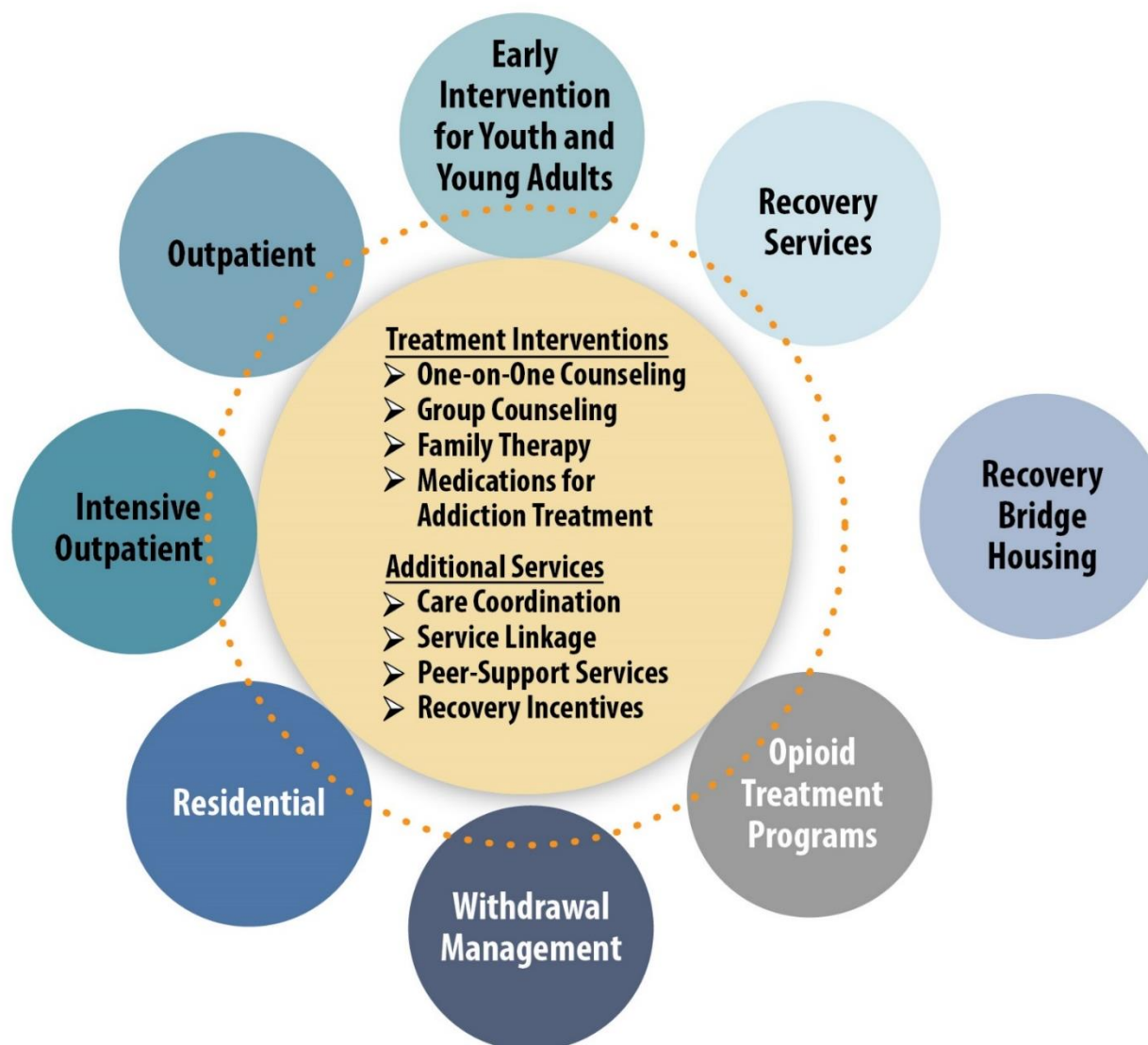
OR

Other County-Funded Program Participant

(such as AB 109, Drug Court)

There are also fee-for-service options for patients that do not meet these eligibility criteria.

Los Angeles County's Available SUD Benefits



Entryways to Treatment

A 24/7 toll-free helpline to provide screening, resources, and referral directly to a treatment provider.

SUBSTANCE ABUSE SERVICE HELPLINE
 **1.844.804.7500**



CORE Centers offer sites throughout L.A. County where staff provide education, resources, and in-person screening and linkage to treatment.

 **COREcenter**
Connecting to Opportunities for Recovery and Engagement



CENS Staff serve as liaisons between state, county, and city agencies and providers conducting in-person navigation, screening, and linkage to treatment.

CENS
Client Engagement
and Navigation Services



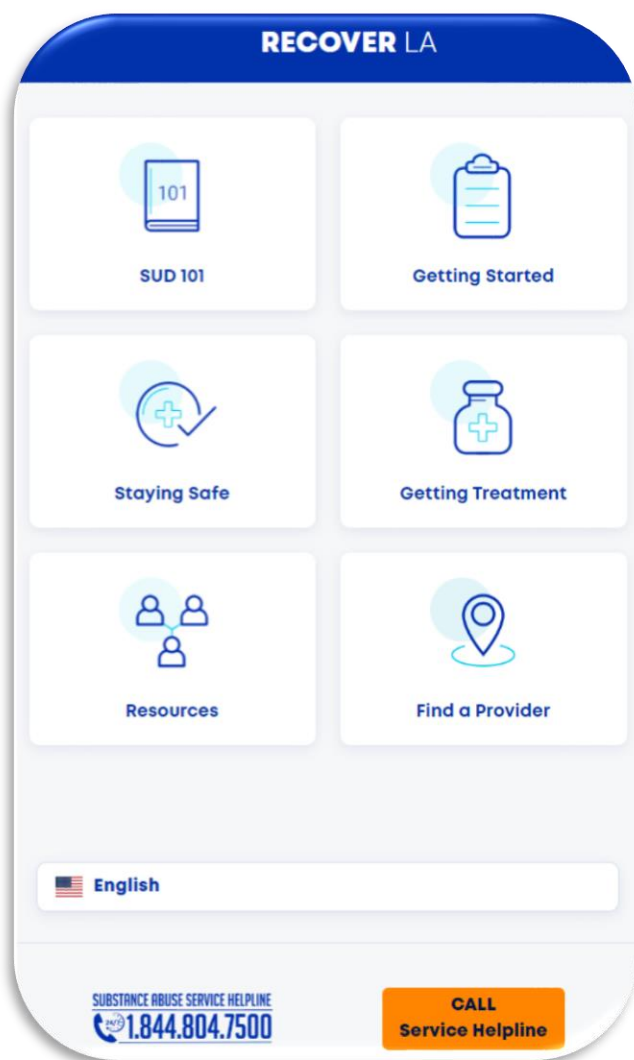
Any person (or their representative) can contact treatment providers directly or by using www.SUDHelpLA.org

**Service Bed and
Availability Tool
(SBAT)**



[No Wrong Door Pathways to Access Alcohol/Drug Treatment](#)

Recover LA Mobile App



- Free mobile app
- Provides education and resources
- Available in 13 languages

Visit RecoverLA.org or use the QR code below to access the app



Install this webapp on your phone:
Tap  and then Add to Homescreen





Additional Resources

Name	Description	Call Toll-free	Web Address
Department of Mental Health (DMH) Access Hotline	24/7 Mental Health Services include screening, assessment, referral & crisis counseling.	(800) 854-7771 24 hours per day/ 7 days a week	List of Mental Health Services: https://dmh.lacounty.gov/our-services/
Department of Public Social Services (DPSS)	To apply for Medi-Cal, food stamps and income support for low-income families and individuals.	(866) 613-3777 Monday-Friday 7:30am - 5:30pm	http://dpss.lacounty.gov/wps/portal/dpss
Office of Immigration Affairs (OIA)	Connection to free or low-cost attorney if you have questions regarding the “public charge” test and your immigration status.	(800) 593-8222 Monday-Friday 8:00am-4:30pm	oia.lacounty.gov
Alcoholics Anonymous (AA)	Peer supported program for people in recovery from alcohol use disorder who meet regularly.	(800) 923-8722	www.AA.org
Narcotics Anonymous (NA)	Peer supported program for people in recovery from other illicit substances who meet regularly.	(800) 974-0062	www.NA.org



Additional Resources – Cont.

Name	Description	Call Toll-free	Web Address
National Alliance on Mental Illness (NAMI)	Provides education support & advocacy to improve the lives of those living with mental illness.	(800) 950-6264	www.nami.org
Nicotine Anonymous	Peer supported program for people in recovery or who need support to stop use of tobacco and nicotine products who meet regularly.	(877) 879-6422	https://www.nicotine-anonymous.org/
Al-Anon Los Angeles	Members who are worried about someone important to them with a substance use issue.	(888) 425-2666 (818) 760-7440 - Los Angeles	www.al-anon.org
Medication-Assisted Recovery Anonymous (MARA)	Peer supported program for people in recovery that utilize medication-assisted treatment.	N/A	California MARA International (mara-international.org)
Los Angeles Helpline	Central source for providing information/referrals for all health and human services in LA County.	211 24 hours per day/ 7 days per week	www.211la.org
988 Suicide & Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline)	988 Suicide & Crisis Lifeline provides free and confidential emotional support to people in suicidal crisis or emotional distress.	988 Call & Text 24 hours per day/ 7 days a week	Lifeline (988lifeline.org)



Resources for Youth

Name and Description	Website
L.A. County Youth Suicide Prevention Project	https://preventsuicide.lacoe.edu
National Crisis Text Line	https://www.crisistextline.org Text HOME to 741741
Trevor Project Lifeline Provide support to LGBTQ+ youth and allies in crisis or in need of a safe and judgment-free place to talk	https://www.thetrevorproject.org/get-help 1-866-488-7386
LA-HOP L.A. County Homeless Outreach Portal	https://www.lahsa.org/portal/apps/la-hop
Addressing Teen Mental Health Challenges A mental health toolkit for teens	http://publichealth.lacounty.gov/pie/Education/MentalHealthToolKit/toolkit-teen.htm



Meth Can Impact Anyone



THANK YOU!



Sources

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