

Harm Reduction in the Evolving Drug Overdose Epidemic:

An Update for 2026

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January 2026

Learning Objectives

By the end of this session the participant should be able to:

- Name specific drugs of concern in the post-fentanyl era
- Explain the rationale behind harm reduction
- Describe clinical applications of harm reduction

Outline

- Evolving Drug Overdose Epidemic
 - The Modern Opioid Epidemic
 - Post-Fentanyl Era
 - Non-Opioids
- Harm Reduction
 - Philosophy
 - Four Applications

Evolving Overdose Epidemic

Opioids

Prescription
Analgesics

OxyContin-1996

Fentanyl



Heroin

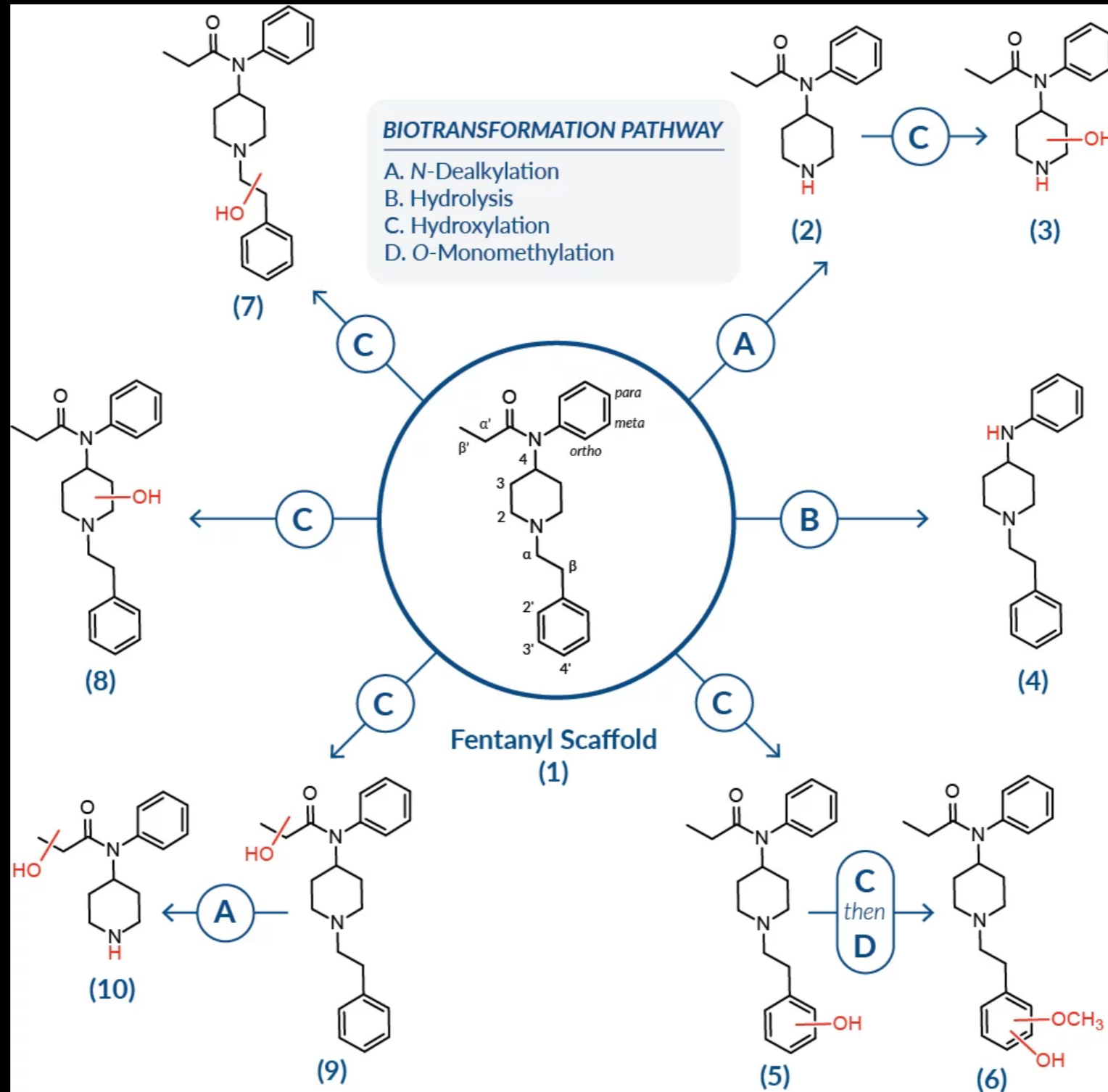
The “Fentanyls”
&
Post-Fentanyl

CDC Injury Center, 2022

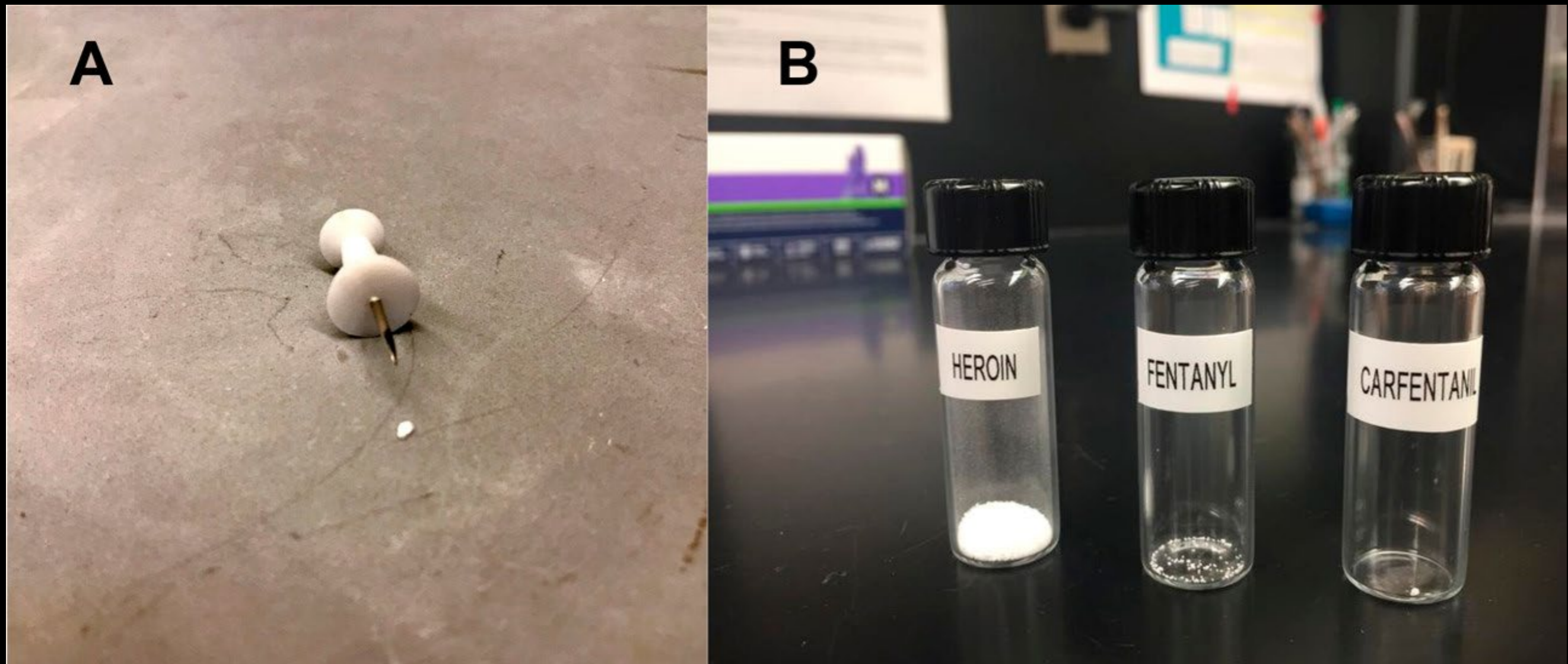
Ciccarone D, *Current Opin Psychiatry*. 2021; 34(4):344-350

Evolving Overdose Epidemic

Opioids



Evolving Overdose Epidemic Opioids



Evolving Overdose Epidemic

Post-Fentanyl

- Opioids
 - Fentanyl, and Fentanyls
 - Nitazenes
- Alpha-2 Agonists
 - Xylazine
 - Medetomidine
- Others
 - "Caines"
 - Hallucinogens
 - Industrial Chemicals

Evolving Overdose Epidemic

Post-Fentanyl

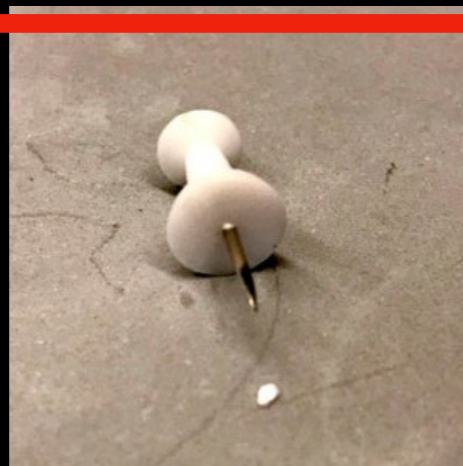
- Nitazenes
 - Developed in the 1950s
 - Emerged post-pandemic
 - Highly potent opioid



Evolving Overdose Epidemic

Post-Fentanyl

Drug	Relative Potency to Heroin
Fentanyl	50
Protonitazine	100
Isonitazene	250
Etonitazene	500
Carfentanil	500



Evolving Overdose Epidemic

Post-Fentanyl

- Opioids
 - Fentanyl, and Fentanyls
 - Nitazenes
- Alpha-2 Agonists
 - Xylazine
 - Medetomidine
- Others
 - "Caines"
 - Hallucinogens
 - Industrial Chemicals

Evolving Overdose Epidemic

Post-Fentanyl

- Alpha-2 Agonists
 - *Non-opioid*
 - Sedating
 - Drops blood pressure

Evolving Overdose Epidemic

Post-Fentanyl

- Xylazine
 - Included with opioids
 - Philadelphia in 2015
 - Detected in all 50 States
- Sedating
- Peripheral wounds

Evolving Overdose
Epidemic

Post-Fentanyl

GRAPHIC PHOTOS COMING
UP

Evolving Overdose Epidemic

Post-Fentanyl

- Can Lead to:
 - Bone Infection
 - Sepsis
 - Loss of limb



Evolving Overdose Epidemic Post-Fentanyl



Stage 2



Stage 3



Evolving Overdose Epidemic

Post-Fentanyl

- Medetomidine
 - 100-300 times more potent than xylazine
 - Profoundly sedating
 - Hallucinations
 - Dangerous withdrawal

Evolving Overdose Epidemic

Post-Fentanyl

- Opioids
 - Fentanyl, and Fentanyls
 - Nitazenes
- Alpha-2 Agonists
 - Xylazine
 - Medetomidine
- Others
 - "Caines"
 - Hallucinogens
 - Industrial Chemicals

Evolving Overdose Epidemic

Post-Fentanyl

- “-Caines”
 - Seizures, arrhythmias, unstable vitals
- Hallucinogens
 - Ketamine
- Industrial Chemicals
 - BTMPS (manufacturing product?)
 - Cardiac toxicity, eye damage, sudden death

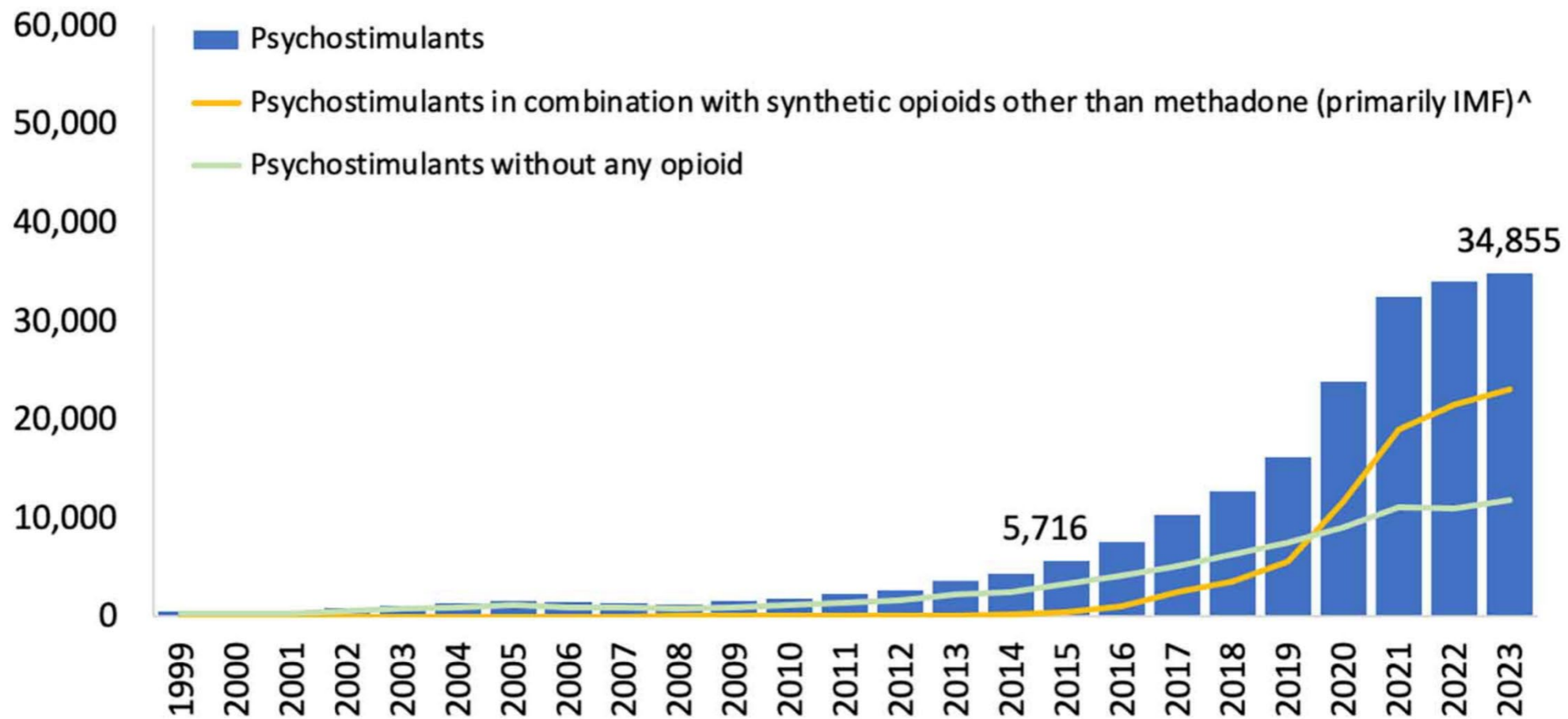
Evolving Overdose Epidemic

Post-Fentanyl

- High potency opioids are being added to non-opioid drugs

Evolving Overdose Epidemic Post-Fentanyl

Figure 7. U.S. Overdose Deaths Involving Psychostimulants with Abuse Potential*, 1999-2023



Putting it all together...

Putting it all together...

- The market is increasingly *chaotic*
- Content is increasingly *unpredictable*
- Use is increasingly *dangerous*

Outline


- Evolving Drug Overdose Epidemic
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 - Non-Opioids
- Harm Reduction
 - Philosophy
 - Four Applications

Practical Harm Reduction Philosophy

- Drug Use has always been integral to our culture

Tripping in the Bronze Age

A new study based on strands of hair found in a Spanish burial cave reveals that humans living about 3,000 years ago used hallucinogens, likely derived from local plants, as part of their rituals.

 Give this article



Ancient strands of human hair found in a burial site on the island of Minorca, Spain, contained traces of alkaloid substances known to produce altered states of consciousness. ASOME-Universitat Autònoma de Barcelona

Practical Harm Reduction Philosophy

- Drug Use has always been integral to our culture
- Total abstinence is unrealistic
- Target negative consequences rather than drug use itself

Practical Harm Reduction Philosophy

Causes

Mental Health Tx

Medical Care

Housing Assistance

Practical Harm Reduction Philosophy

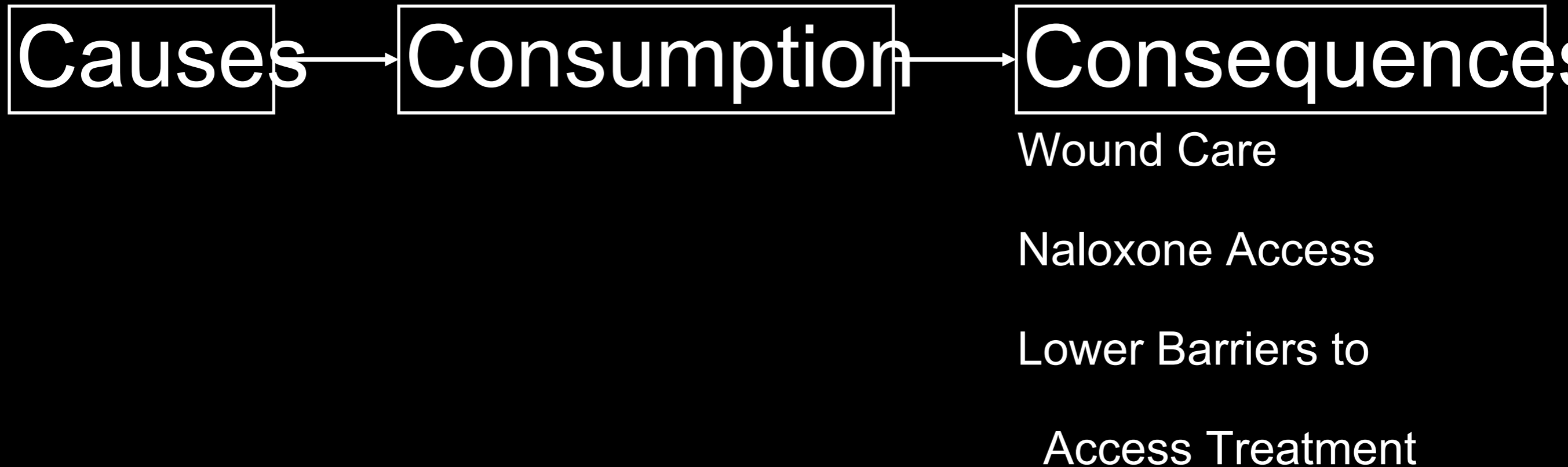


Needle Exchange

Fentanyl Testing

Safe Consumption Site

Practical Harm Reduction Philosophy



Practical Harm Reduction

Syringe Service Programs

- Started in late 1980s in wake of HIV epidemic
- One of the first widely adopted harm reduction approaches
- Criticized for encouraging drug use

Practical Harm Reduction

Syringe Service Programs

- 75% more likely to reduce use, 5X more likely to enter treatment, 3.5X more likely to stop using¹
- Decreases HIV and HCV, especially with MOUD^{2,3}
- No association with crime, inc drug use, or public drug use^{2,3}

1- Hagan H, et al, *J Subst Abuse Treat.* 2000;19(3):247-52.

2- Heimer R, et al. *Am J Med.* 1993;95(2):214-220.

3- Platt L, et al *Cochrane Database Syst Rev.* 2017;9:CD012021.

Practical Harm Reduction

“Syringe Service Program CT”

SSP Program Resources • August 2021 • PAGE 2

SSP	Address	Telephone	Program Contact	Program Email
ACT	110 Bartholomew Ave, Suite 3050 Hartford, CT 06106	860-247-2437	LaToya Tyson	ltyson@act-ct.org
Alliance for Living	154 Broad St, New London, CT 06320	860-447-0884 ext. 233	Carol Jones	cjones@allianceforliving.org
APEX	16 Hospital Ave Danbury, CT 06810	203-778-2437	Alyssa Ramos	aramos@apexcc.org
Family Centers (Stamford CARES)	888 Washington Blvd, 8th Floor Stamford, CT 06901	203-977-5296	Gigi Chaux	YChaux@stamfordct.gov
GBAPP/ Recovery Network of Programs	1470 Barnum Ave, Suite 301 Bridgeport, CT 06610	203-366-8255	Bobby Allen	ballen@gbapp.org
Greater Hartford Harm Reduction Coalition	1229 Albany Ave, Hartford, CT 06112	860-250-4146	Mark Jenkins	markj@ghhrc.org
Liberation Programs, Inc.	399 Mill Hill Ave, Bridgeport, CT 06610	203-953-3347	Joanne Montgomery	joanne.montgomery@ liberationprograms.org

Practical Harm Reduction

North American Syringe Exchange Network

<https://naseen.org/>



NASEEN

A DAVE PURCHASE INITIATIVE

Practical Harm Reduction

Naloxone Distribution

Practical Harm Reduction Naloxone Distribution



Practical Harm Reduction

Naloxone Distribution

- Decrease in overdose mortality¹
- Can be broadly distributed to lay public²
- Cost effective³

1- McDonald R, Strang J, *Addiction*. 2016; 111(7):1177-1187.

2- Townsend T, et al., *Int J Drug Policy*. 2020;75:102536.

3- Cherrier N, et al., *Pharmacoecon Open*. 2022;6(3):329-342.

Practical Harm Reduction Naloxone Distribution

The New York Times

*Once It Was Overdue Books. Now
Librarians Fight Overdoses.*



Practical Harm Reduction Naloxone Distribution

The New York Times

Teaching Children How to Reverse an Overdose

In rural Carter County, Tenn., health officials have embraced a strategy for stemming addiction: Teaching children as young as 6 how to administer Narcan, a nasal spray that can stop an opioid overdose from being fatal.



FDA NEWS RELEASE

FDA Approves First Over-the-Counter Naloxone Nasal Spray

Agency Continues to Take Critical Steps to Reduce Drug Overdose Deaths Being Driven Primarily by Illicit Opioids

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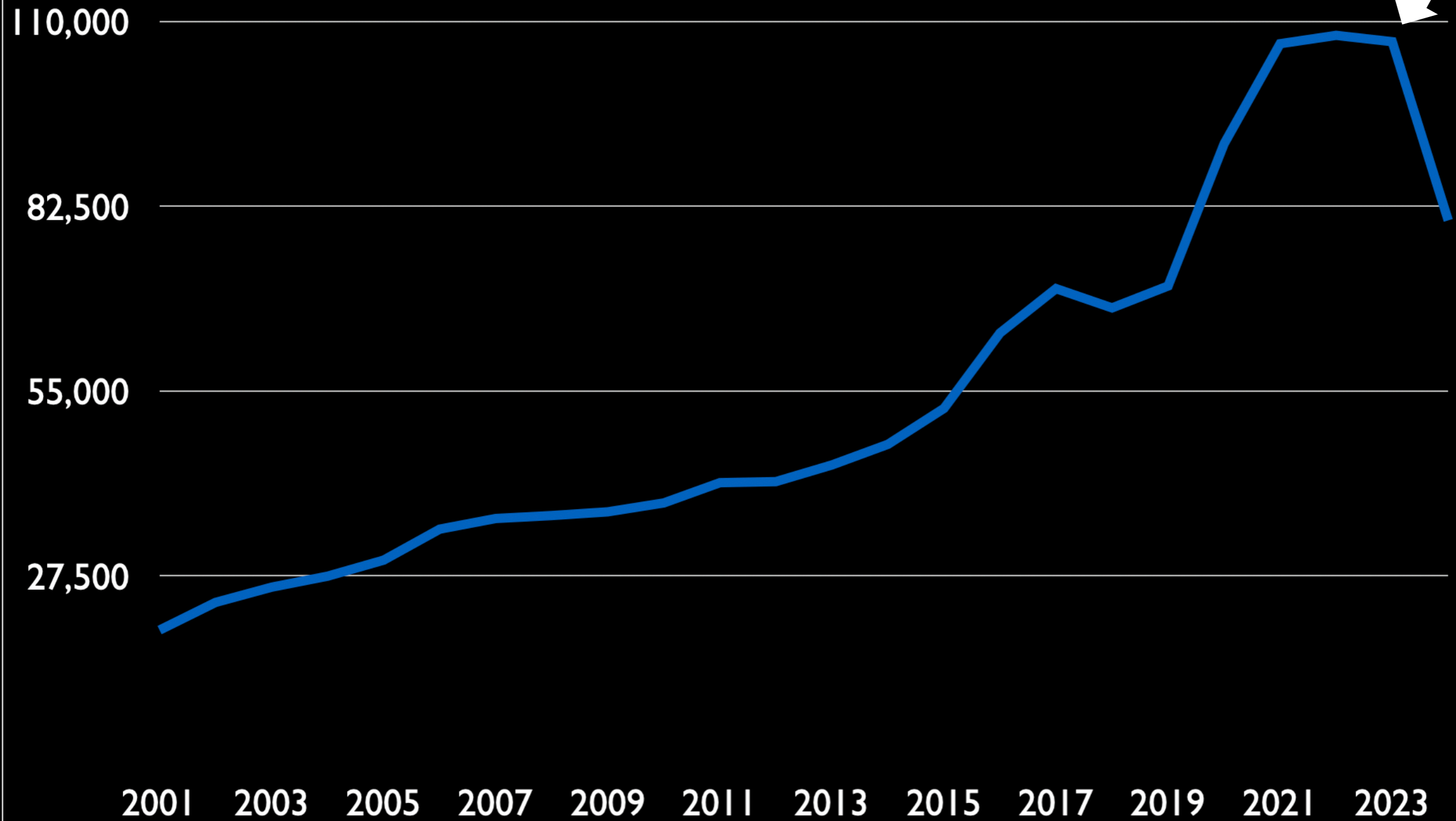
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Practical Harm Reduction Naloxone Distribution



Practical Harm Reduction

Naloxone Distribution

- >1 year → Universal Naloxone at CVH
- New generic formulations



Practical Harm Reduction

Drug Testing

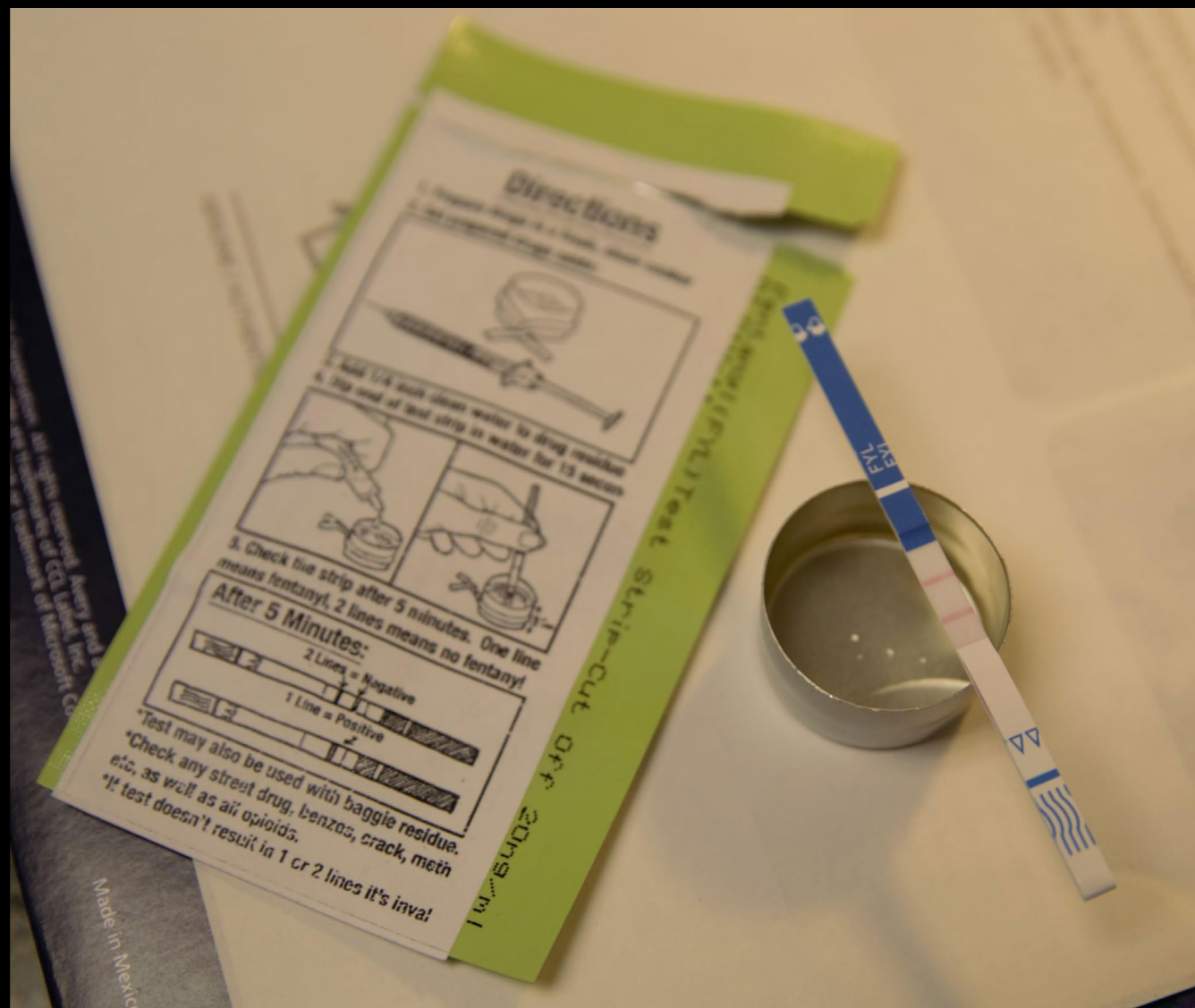
Practical Harm Reduction

Drug Testing

- Test drugs for their contents
- Immunoassay technology
- Inexpensive (<\$2)
- Quick (<5 mins)

Practical Harm Reduction

Drug Testing



Practical Harm Reduction

Drug Testing

STEP 1- Select sample to test

- Dissolve all drugs in water
- Crush in a bag and test residue
- Crush 10mg (hair of Abe Lincoln)

STEP 2- Dissolve in water

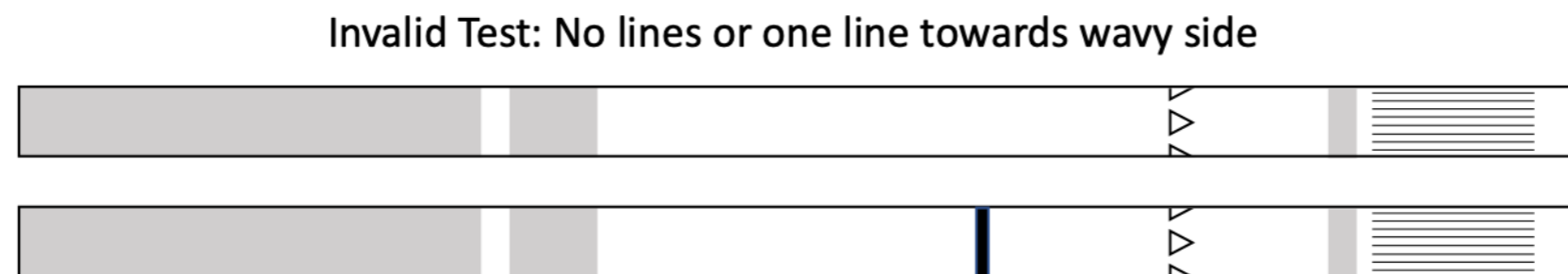
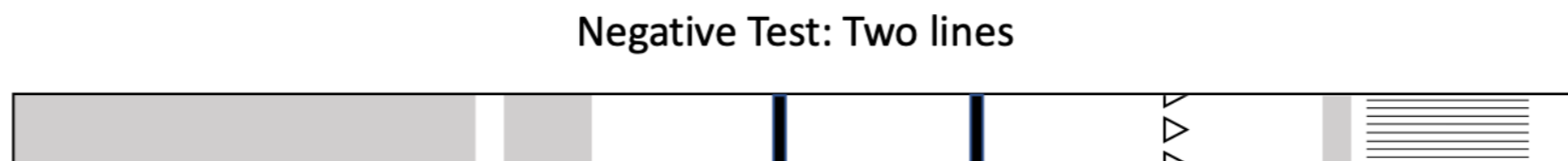
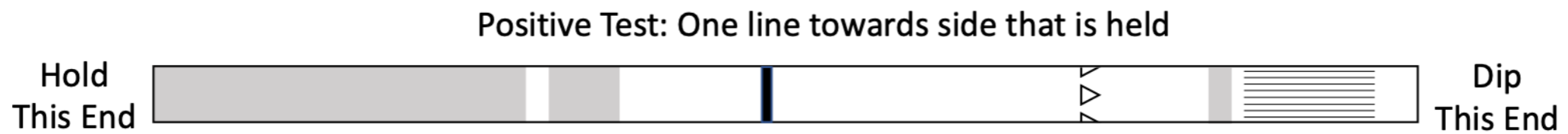
- 1 tsp for methamphetamine & MDMA, 1/2tsp for others

STEP 3- “Wavy, Water, Wait”

- Dip wavy end into water and wait 2-5 mins

Practical Harm Reduction

Drug Testing



Practical Harm Reduction

Drug Testing

Drug	Sensitivity/Specificity
Fentanyl ¹	Sensitivity=98.5%, Specificity=89.2%
Xylazine ²	Sensitivity=100%, Specificity=85%
Medetomidine ³	Variable
Benzodiazepines ⁴	Sensitivity=75%, Specificity=82%

1-Park JN et al, *Drug Alcohol Depend* 2022;240:109610).

2- Jones S & Bailey S. *CADTH Horizon Scan*. 2023:EN0049.

3- Amate A and Lieberman M. *Harm Red Journal*. 2026. Ahead of print.

4- Crepeault H, et al. *Drug Alc Depend*. 2025; 271:112631.

Practical Harm Reduction

Wound Care

Practical Harm Reduction Wound Care

- Low barrier wound care
- Can be folded into existing services
- Increasing need since xylazine

Practical Harm Reduction

Wound Care

- Soap & Water
- Antibiotic (OTC or silver sulfadiazine)
- Non-adherent dressing
- Dry covering

Practical Harm Reduction Wound Care



National Harm Reduction Coalition

2-hour Wound Care Training

Harmreduction.org

Mail-Based Harm Reduction

Online Education

Nextdistro.org



Harm Reduction Resources

National Harm Reduction Coalition

Harmreduction.org

Mail-Based Harm Reduction

Nextdistro.org

North American Syringe Exchange Network

www.nasen.org

Harm Reduction Resources

Connecticut Harm Reduction Alliance

www.ghhrc.org

Drug Free CT

drugfreeCT.org

DMHAS Harm Reduction Resources Portal

“Connecticut Harm Reduction DMHAS”

OOC Opioid Services

karolina.wytrykowska@ct.gov