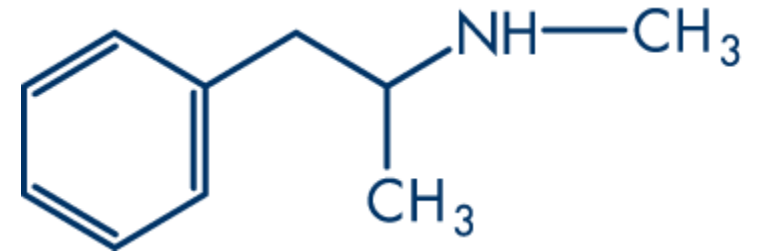
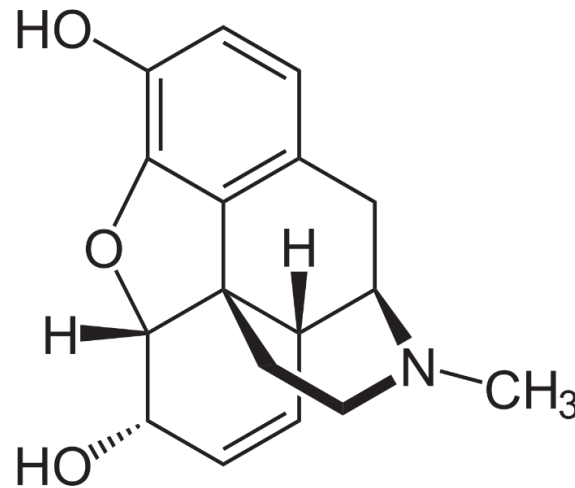
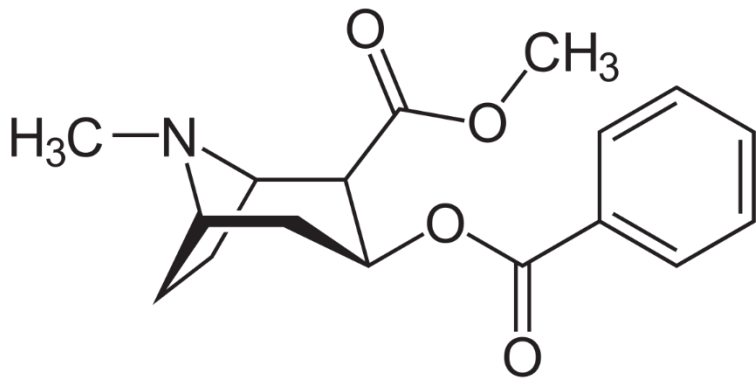


Navigating the New Stimulant Landscape:

Consumer Experiences and Illicit Drug Supply Insights from the RACK and MADDS projects in Massachusetts

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Stimulant Use – National Trends

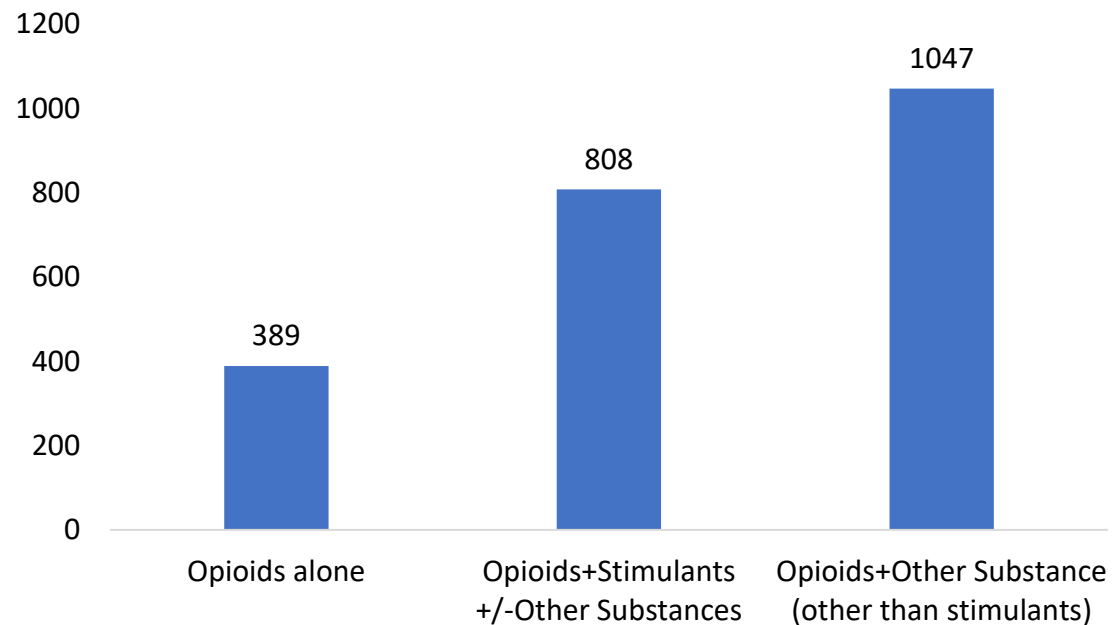
Nationally, there has been an enormous rise in drug overdose deaths involving cocaine.

- About 1 in 5 (13,942; 19.8%) of the 70,237 drug overdose deaths that occurred in the United States in 2019 involved cocaine. This is a 34.4% increase from 2016.
- From 2016 to 2017, death rates involving cocaine and psychostimulants increased across age groups, racial/ethnic groups, county urbanization levels, and multiple states.
- Opioids were also involved in 72.7% of cocaine-involved deaths, primarily synthetic opioids like fentanyl.
- Synthetic opioids appear to be the primary driver of cocaine-involved death rate increases, and recent data point to increasing synthetic opioid involvement in psychostimulant-involved deaths.

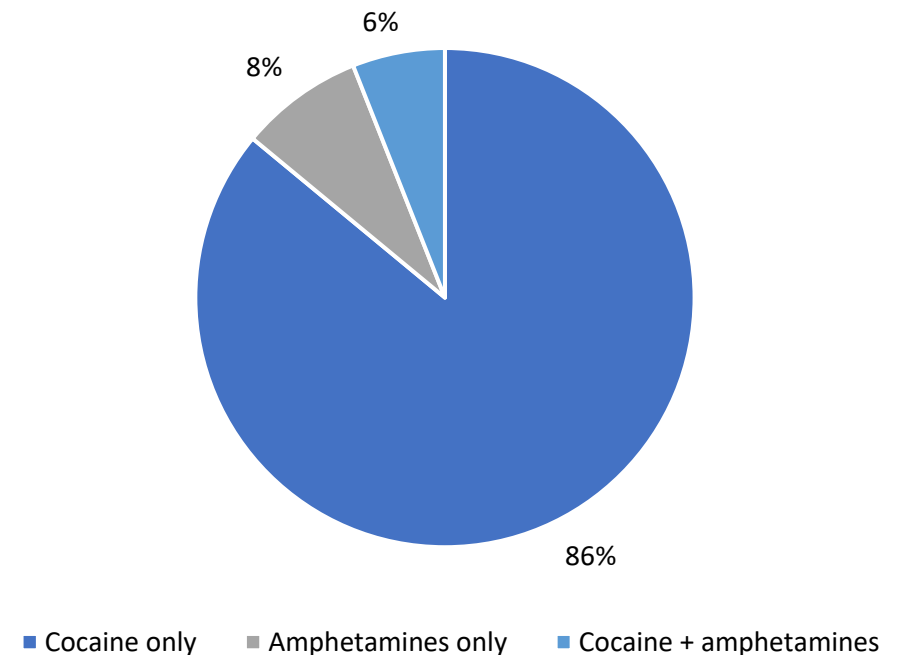
Stimulant Use – Massachusetts

- In MA, opioid-related overdose deaths often involve stimulants, namely cocaine
- What is unknown is if these drugs were taken in combination, sequentially, or without the user's knowledge

Opioid-related Deaths with Accompanying Toxicology:
2014- 2015



Opioids + Stimulants +/- Other Substances



Research and Evidence Base – RACK Consumer Knowledge Study

Rapid Assessment of Consumer Knowledge (RACK)

- 2019 study funded by CDC and DPH/BSAS which examined trends in cocaine-opioid involved overdose deaths in Massachusetts using data already collected for CDC surveillance from the State Unintentional Drug Overdose Reporting System (SUDORS).
- Utilized surveys and interviews specific to cocaine use with people who use drugs living in the communities with the highest burden of cocaine-opioid overdose deaths in the state.
- Key findings:
 - Compared to non-cocaine involved opioid overdoses, cocaine-opioid overdose deaths were:
 - More likely to be Hispanic and non-Hispanic Black
 - More likely homeless
 - Slightly younger (25-34)
 - More likely to have recently been released from jail/prison
 - More likely to have recently been released from hospital
 - Less likely to have been recently released from drug treatment or residential treatment

Research and Evidence Base – Findings on At-Risk Populations

Special Considerations: Men who have Sex with Men (MSM)

- New HIV infections in MA: MSM remains predominant exposure mode. Stimulant use is major factor in transmission
- Consumption of drugs to facilitate or enhance sexual activity (Party and Play)
- 10-25% of MSM report using stimulants in context of sex
- Mostly smoking of crystal meth but also booty bumping, less so injection

Special Considerations: Reach of services and convergence with social context

- Less harm reduction service/syringe service program uptake for meth-related supports, more treatment seeking
- Socio-economic status and sex work considerations of meth use

Source: MDPH; RACK study; Colfax G, Shoptaw S. The methamphetamine epidemic: implications for HIV prevention and treatment. Curr HIV/AIDS Rep. 2005;2:194–9

Research and Evidence Base – Industries and Employees Most At-Risk

- Certain industries and employment categories have been impacted by cocaine-involved opioid overdose more than others.

Employment	N	%	Example positions
Construction/Trades	236	28.8	Construction worker, electrical apprentice, iron worker
Not in workforce	155	18.9	Disabled, homemaker, student
Accommodation and food services	94	11.5	Bartender, chef, waitstaff
Healthcare	55	6.7	Counselor, home health aide, medical assistant

Source: Vital Statistics and SUDORS overdose death surveillance, Massachusetts

Research and Evidence Base – Availability and Cost

- **Methamphetamine use is uncommon, expensive, comparatively, but those who use it have easy access.**
- **Cocaine and crack, in contrast, are readily available and inexpensive for more people.**

Drug availability, across MA communities

Perceived Availability of Drugs on the Street n (%)			
	Under 1 hour	A few hours	1 day or longer
Buprenorphine/ Suboxone (n=33)	28 (85)	4 (12)	1 (3)
Heroin (n=41)	36 (88)	3 (7)	2 (5)
Fentanyl (n=33)	31 (94)	2 (6)	--
Benzodiazepines (n=26)	18 (69)	5 (19)	3 (12)
Rx Opioids (n=26)	13 (50)	5 (19)	8 (31)
Cocaine (powder) (n=43)	31 (72)	7 (16)	5 (12)
Crack (n=44)	38 (86)	5 (11)	1 (2)
Methamphetamine (n=20)	15 (75)	4 (20)	1 (5)

Street prices, across MA communities

Drug	Estimated Street Price
Buprenorphine/Suboxone	\$7.45/strip
Heroin	\$56.90/gram
Fentanyl	\$59.23/gram
Benzodiazepines	\$4.30/per pill
Rx Opioids	\$.99/per mg
Cocaine	\$66.63/gram
Crack	\$53.55/gram
Methamphetamine	\$71.11/gram

Source: RACK Study, Massachusetts

Research and Evidence Base – Implications and Possible Interventions

Based on the RACK Study's findings, a number of possible interventions emerged:

- **Broad-based educational campaigns addressing cocaine, crack users even occasional users**
- **Syringe Service Program/Provider communications focused on cocaine risks**
- **Include fentanyl test strips and education in safe smoking/safe snorting kits**
- **Street distribution level outreach/interventions**
 - Drug checking, education
 - Packaging protections, prevention plan
 - Naloxone distribution ambassadors or locales
- **Engage cut distribution points, especially bodegas in outreach/intervention**
 - Couple with safe syringe sale, distribution
- **Offer Community Drug Checking: *People want to know what's in their drugs.***
 - Most primary cocaine/crack users indicated that they would avoid fentanyl laced drugs if they could
 - *See following slide for additional details on Community Drug Checking*

Interventions – MADDs Community Drug Checking

Massachusetts is the first and only state conducting drug supply screenings through the **Massachusetts Drug Supply Data Stream (MADDs)**



Notes:

GC/MS = gas chromatography mass spectrometry

FTIR = Fourier transform infrared spectroscopy

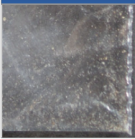


Interventions – MADDs Community Drug Checking Results

Results from the **Massachusetts Drug Supply Data Stream (MADDs)** from sampling in Quincy, New Bedford, Lynn, Lowell, Boston, Berkshire County indicated a strong presence of fentanyl and in many powder and pill form drugs.

However, 2021 MADDs samples indicated that the current supply contains a more toxic analog, 4-fluorofentanyl, now found in all locations. We note that, in 2021, multiple samples expected to be heroin/dope/fentanyl contained methamphetamine (see example). Rarely were samples expected to be methamphetamine or confirmed to contain methamphetamine also found to contain fentanyl.

Substance	Powder Cocaine	Any Pill/ Counterfeit pills	Methamphetamine	Crack	Heroin
Suspected	19	26/16	21	19	161
Unknown, + for column substance	34	12/7	2	25	48
TOTAL	53	38/23	23	44	209
Fentanyl present	13 (25%)	6 (16%/26%)	0 (0%)*	0 (0%)	178 (85%)

Sample MADDs Results, 2021

Dope	Sold as: Dope	ID: 10826
	ID: 10826 Name: Dope Other Names: UniqueCode: AC2021B590A Marquis: Unknown Mecke: Unknown Mandelin: Unknown GC/MS: • Gabapentin : 40 • 4-Fluorofentanyl : 20 • Fentanyl : 20 • Methamphetamine : 20 • ADB-BUTINACA : 1	Test Date: Jul 19, 2021 Pub. Date: Jul 19, 2021 Src Location: Boston, MA Submitter: Boston, MA Loc: United States Color: Tan Size: 1 mg Data Source: DrugsData (EcstasyData) Tested by: DDL Lab's ID: 21070059
		
	Sold as: Dope Expected to be: Fentanyl Description Light tan/brown powder in baggie. Experience Note: 'Blacked out for 5 hours.' BTNX Fentanyl Test Strip (prior to sending in sample): Positive	

MADDS Findings – Turning Research into Public Health Policy

From the MADDS study findings, a number of public health interventions were identified, which are either being currently implemented or could be explored

MADDS Finding	Interventions / Public Health Strategy
<ul style="list-style-type: none">The heroin drug supply is heavily inundated with fentanyl. Methamphetamine powder products rarely contain fentanyl. Fentanyl products may contain meth.	<ul style="list-style-type: none">Naloxone, low-barrier MOUD, harm reduction supplies, wound care, safe places for use, quick detection of overdose, community drug checking, communications to providers/systems about supply
<ul style="list-style-type: none">For any given suspected illicit pill, 16% appear to contain fentanyl. If a counterfeit pill is suspected, 26% contain fentanyl	<ul style="list-style-type: none">Public service announcements/campaigns to reach people using counterfeit pills or non-prescribed pills urging to get naloxone, obtain fentanyl test strips, Never Use Alone hotline

MADDS Findings – Turning Research into Public Health Policy

MADDS Finding	Interventions / Public Health Strategy
<ul style="list-style-type: none">Presently, about 25% of illicit drugs in powder form contain fentanyl, other than suspected heroin which contain higher proportions of fentanyl	<ul style="list-style-type: none">Public service announcements/campaigns targeted to important subgroups of people using illicit drugs in powder form.Harm reduction supplies and education, community drug checking, safer smoking and safer snorting kits to promote replacement, fentanyl test strips, naloxone
<ul style="list-style-type: none">Illicit drugs may contain other things that can cause unexpected and harmful reactions when consumed.	<ul style="list-style-type: none">Remain vigilant, share information about unexpected drug contents with provider, EMS, public safety to calibrate response
<ul style="list-style-type: none">Fentanyl exposure is possible through intentional mixing in drug preparation, mislabeled drugs, and reuse or sharing of drug preparation or materials used for administration (i.e., stem, pipe, syringe)	<ul style="list-style-type: none">Ensure sufficient supply of new sterile equipment (syringes, stems, etc), encourage community drug checking participation



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