

# Understanding Fentanyl Overdose Risk among People who Use Cocaine

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## Background

- The number of fatal overdoses involving cocaine and opioids (namely fentanyl) has increased in recent years in Massachusetts.
- Research is needed to identify risk factors for fatal overdose among individuals who use cocaine/crack alone or in combination with opioids.

## Methods

### Study Design

- Between August 2017 and October 2019, we conducted a mixed-methods, rapid assessment of Massachusetts residents who reported using drugs other than marijuana in the past month.
- The current sample is based on an analytic sample of 465 participants.

### Analytic Sample Inclusion Criteria

- Age 18 or over
- Resident of Massachusetts
- Reported using cocaine and/or opioids in the past month

### Survey Instrument

- A quantitative survey was administered to assess socio-demographics, substance use, overdose experiences and overdose risk (e.g., awareness of fentanyl in drug supply and naloxone awareness, naloxone access, naloxone training).

### Coding and Analysis

- Descriptive statistics (means and frequencies) were calculated for all study variables.
- Chi-Square ( $X^2$ ) and Fisher Exact tests assessed global differences in overdose indicators by substance use history.

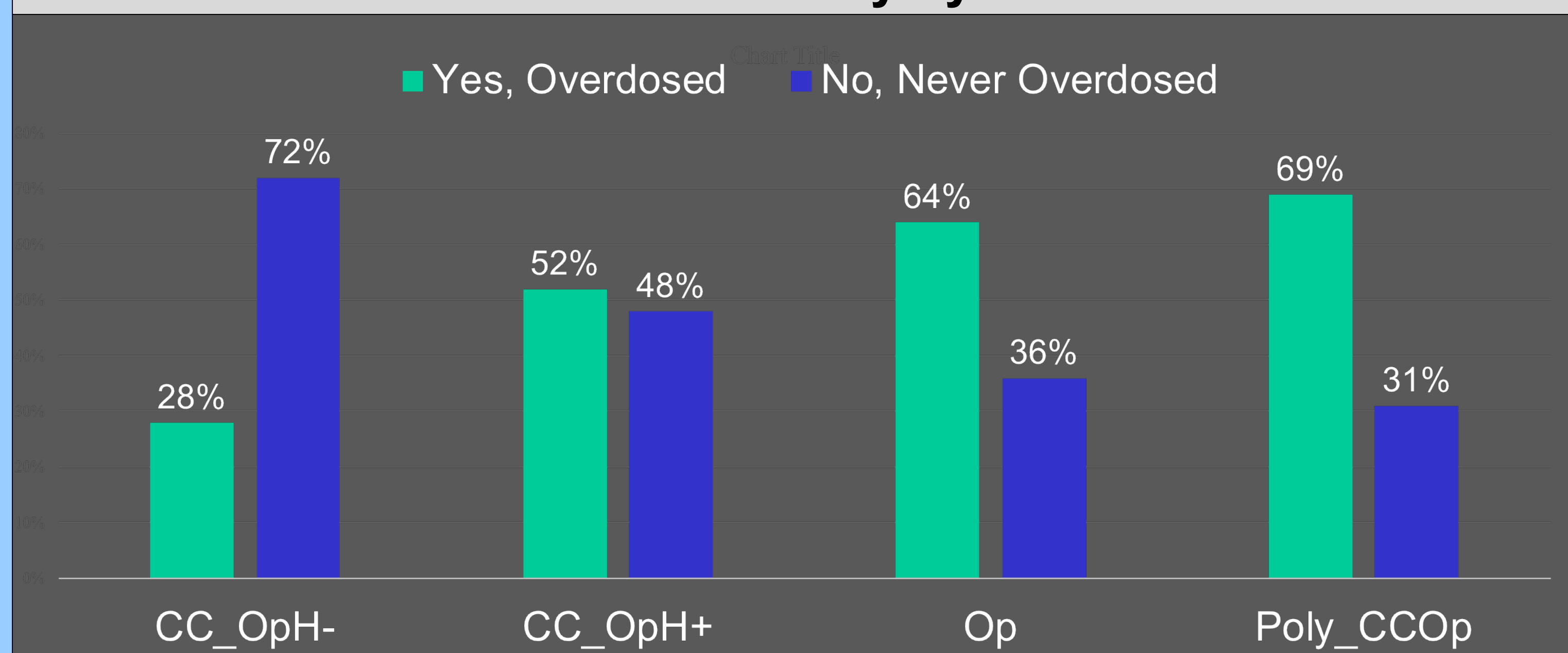
This study was IRB approved by the Institutional Review Board of Boston Medical Center

## Results

### Sample Characteristics (N = 465)

Age		Educational Attainment (n=464)	
18-25	6%	Some High School/GED or Less	29%
26-30	19%	High School Graduate or GED	45%
31-35	20%	Some College or More	26%
36-40	18%	Employment Status (n=464)	
41-45	12%	Unemployed	60%
46-55	17%	SSDI	21%
56+	7%	Street Economy	26%
Sex/Gender		Employed	40%
Female	38%	Taxable Income	18%
Male	61%	SSDI	2%
Another Gender	1%	Street Economy	4%
Race		Current Substance Use	
White	66%	Cocaine/Crack Use Only – No Opioid Use History (CC_OpH-)	9%
Black	10%	Cocaine/Crack Use Only - Opioid Use History (CC_OpH+)	6%
Native American	2%	Opioid Use Only (Op)	19%
Multi-Racial	8%	Cocaine/Crack and Opioid Use (PolyCCOp)	66%
Another Race	14%		
Hispanic Ethnicity			
No	73%		
Yes	27%		

### Lifetime Overdose History by Substance Use



## Results Continued...

### Indicators of Overdose Risk by Substance Use

	CC_OpH-	CC_OpH+	Op	PolyCCOp	Test Stat
Heard of Fentanyl					
No/Don't Know	14%	4%	4%	2%	Fisher
Yes	86%	96%	96%	98%	<b>0.002</b>
Suspect Fentanyl in Drugs					
No/Don't Know	92%	48%	17%	12%	Fisher
Yes	8%	42%	83%	88%	<b>&lt;.0001</b>
Heard of Naloxone					
No	7%	7%	1%	2%	Fisher
Yes	93%	93%	99%	98%	0.09
Have Personal Naloxone Kit					
No	77%	48%	44%	29%	41.20 (df=3)
Yes	23%	52%	56%	71%	<b>&lt;.0001</b>
Trained to Use Naloxone					
No	56%	31%	27%	20%	26.35 (df=3)
Yes	44%	69%	73%	80%	<b>&lt;.0001</b>

Note. Test Statistic =  $X^2$  unless Fisher Exact is specified; DF = Degrees of Freedom; Bolded values =  $p < 0.05$

## Conclusion

- Findings suggest that people who primarily use cocaine/crack and have no history of opioid use may be at greatest risk for a fatal overdose as they have less awareness of fentanyl in the drug supply and are less prepared to respond to an overdose than other groups.
- Public health campaigns are needed to increase fentanyl awareness and overdose prevention preparedness among people primarily using cocaine/crack.



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