

# Reconsidering Addiction and Opioid Abuse

## Background:

- The current opioid addiction crisis has been linked to doctors overprescribing opioids.
- No causal chain has demonstrated a link between prescribing and addiction.
- Not everybody who takes opioids can become addicted. Who does and who doesn't?

## Motivating Questions:

- Can we find a causal link between prescribing and addiction?
- Can we predict who among those prescribed will actually become addicted to opioids?

## Our Focus:

- Can we find a link between impulsivity and addiction?

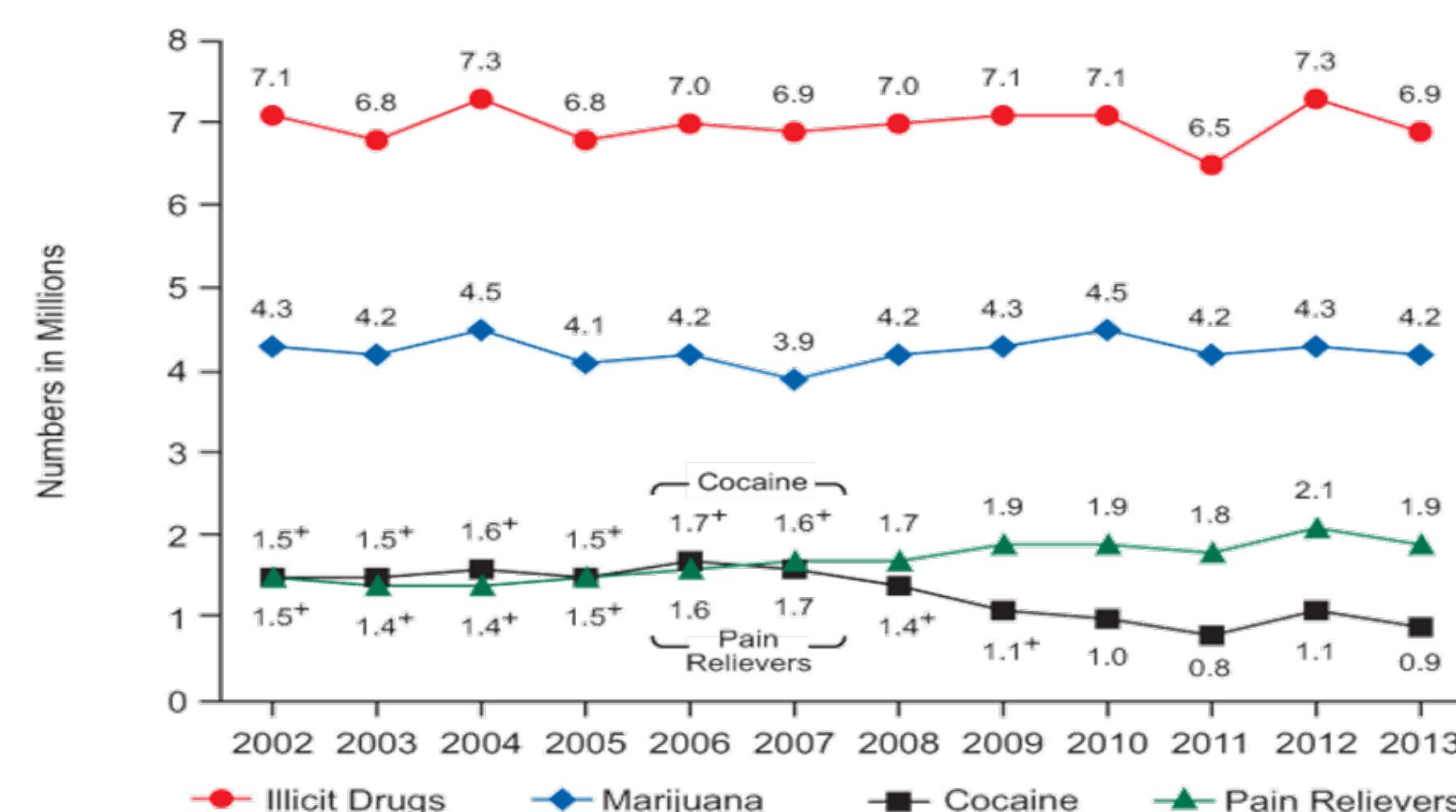
## Acknowledgements:

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## Study: Impulsivity and Addition

- 167 Duke students were recruited for a survey which included questions on impulsivity and signs of addiction-related behavior.
- Questions from many previous studies, such as the Opioid Risk Tool, the Impulsivity BIS11 survey, the Eysenck impulsivity survey, and the 2017 State and Local Youth Risk Behavior Survey were included.
- The results of this survey created a profile that would allow us to analyze impulsivity, and other factors, with drug use.
- We then conducted statistical analysis to explore if there was a significant relationship between impulsivity and addictive behavior.



Rates of pain reliever usage have been relatively stable, as have the usage of other types of drugs.

## Results:

Dependent variable:		
In the last 30 days, have you engaged in addicting behaviors?*		
	(1)	(2)
Impulsiveness Index	0.096** (0.038)	
Impulsiveness PCA		0.592** (0.256)
Male	1.463*** (0.473)	1.418*** (0.467)
Undergraduate	1.296** (0.582)	1.233** (0.563)
Constant	-3.360*** (0.878)	-2.056*** (0.590)
Observations	98	98
Log Likelihood	-56.001	-56.629
Akaike Inf. Crit.	120.001	121.258
Note: *p<0.1; **p<0.05; ***p<0.01		

Variable Name	Definition
Addicting Behaviors	Binary variable: respondent was coded as a 1 if they answered any of the questions covering Cigarettes, Drinking (more than 4-5 drinks on more than 6 days of the last 30), Marijuana, Cocaine, MDMA, Prescription Drugs (outside doctors orders), Opiates, Methamphetamine, and sniffing glue as "Yes". Question takes the form of "In the last 30 days, have you"...All were coded for 1 day or more with the exception of drinking, which we defined as 4-5 drinks on more than 6 days.
Impulsivity Index	Added questions together from Eysenck Impulsivity Questionnaire
Impulsivity PCA	1-dimension from Principal Component Analysis of Eysenck Impulsivity Questionnaire
Male	"What is your Gender" answered Male
Undergraduate	"Are you an Undergraduate" answered Yes

## Conclusion:

- Impulsivity is positively correlated with "addicting" behavior.
- With principal component analysis, it was found that the most predictive dimension of the impulsivity index was significantly correlated with addicting behavior.
- Not all those who use drugs can or will become addicted to drugs. Need to better target policies.