Of Speedballs and Goofballs: Stimulants and the 4th Wave of The Opioid Crisis

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HEROIN IN TRANSITION ("HIT") STUDY

• NIH: National Institute of Drug Abuse (DA037820)
• Multi-methodological study: quantitative and qualitative aims
  • Supply changes >> medical consequences including OD
    • Ohio Crime Lab drug seizure data
  • Ethnographic: New drug forms and user perceptions, adaptation, etc.

PUBLICALLY AVAILABLE DATA:

• Centers for Disease Control and Prevention, National Center for Health Statistics
• US Drug Enforcement Administration
• Other academic literature
The Triple Wave Epidemic

- Opioids
- Heroin
- Synthetic
- Cocaine
- Psychostimulants

Age Adjusted Overdose Deaths Per 100,000

Year

1999 2001 2003 2005 2007 2009 2011 2013 2015 2017
RISE IN STIMULANT DEATHS

• Increases in the age-adjusted death rate, 1999-2016):
  • Cocaine-attributed: increased from 1.4 to 3.2 per 100,000 population
  • Psychostimulant-attributed: increased from 0.2 to 2.4
    • Largely driven by methamphetamine [1].
  • Deaths continued to rise sharply between 2016 and 2017, by 34% for cocaine and 33% for psychostimulants [2].

WHAT IS DRIVING THE INCREASE?

- Increase in supply?
  - Changes in production
  - Purity/Potency
  - Contamination eg with synthetic opioids

- Increase in use?
  - Increase in numbers of users
  - Increases in co-use of stimulants and opioids
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Ohio Crime Lab Study
DRUG SEIZURE DATA

• Three Ohio Bureau of Criminal Investigation labs:
  • Data obtained through multiple FOIA requests
  • Lab tests completed between 1.1.2009 and 12.31.2017
    • Final sample: 204,951 samples across 87 counties
    • 8,352 county-month observations
  • Categories: fentanyl, fentanyl analogs, heroin, prescription opioids, cocaine, meth/amphetamines, benzodiazepines, synthetic cannabinoids, MDMA and other designer drugs

• Caveats: private crime labs; no Hamilton County

Acknowledgement: Dennis Cauchon, Harm Reduction Ohio, for obtaining the BCI data
Fraction of Cocaine Positive Lab Tests that Include Opioids

- Cocaine and Heroin
- Cocaine and Fentanyl
- Cocaine and Carfentanil
- Cocaine and Other Fentanyl Analogs
- Cocaine and Heroin, No Synthetic Opioids
Fraction of Meth Positive Lab Tests that Include Opioids

- Meth and Heroin
- Meth and Fentanyl
- Meth and Other Fentanyl Analogs
- Meth and Heroin, No Synthetic Opioids
- Meth and Carfentanil
STIMULANT-FENTANYL CONTAMINATION

• Meaningful levels?
  • 8% cross contamination for cocaine
  • 3% for methamphetamine
  • Caveat: no purity measurements

• Contamination: accidental or purposeful?
  • Pre-dates fentanyl era (ie heroin in cocaine)
  • Co-use is high; so perhaps is co-dealing
INCREASE IN USE?

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SPEEDBALLS AND GOOFBALLS

• “Speedball”: co-use of heroin and cocaine
  - Traditional
  - Makes sense
  - Well-liked

• “Goofball”: Co-use of heroin and methamphetamine
  - Unusual historically
  - Physiologically challenging
  - Requires exploration

Photo: D Ciccarone
Ethnographic Study
ETHNOGRAPHIC METHODS

• “Hotspot study” where our team of researchers goes to visit areas in the country where significant changes in the drug supply or overdoses have been reported
  • West Virginia: Charleston, Nitro, Ripley, Huntington
  • Sept 2017 and Sept 2019
  • 48 participants
• Our aims are to understand the experiences and beliefs of the users themselves, to observe first hand the drugs currently being used
  • Helps build explanatory models but not conclusive
• Methods: TED-X talk: https://www.youtube.com/watch?v=R7z6qPvL1iY
METHAMPHETAMINE IS BACK

Supply has changed since about 2015:

- Less: ‘Shake and Bake’ – locally made
- More: Mexican-sourced ‘Ice’
  - Less expensive
  - Possibly of higher quality
- Polysubstance dealing

Photo: D. Ciccarone
ICE OVER HEROIN

‘Ice’ has become a popular alternative or addition to heroin. For those who used it, including Julie, suffering from scoliosis-induced chronic pain—there was both a pain-management and market-based rationale:

“If I can get heroin, that’s all I want just for the pain. Now, if I don’t have the money or can’t get [heroin], I’ll get Ice. Because it’s so much easier, it’s cheaper. [...] And even if I’m feeling the pain, it gives me the energy that I can at least get something accomplished.”
THE GOOFBALL IS BACK

• The combination of meth and heroin/fentanyl is resurgently popular.
  • Rediscovered since about 2015.
  • Called ‘speedball’; ‘goofball’ term is unheard of here

• Those who like it say it is a “fantastic feel”
  • Fentanyl is strong enough to meet meth

• Those who don’t say it’s a bit of a ‘fight’ between the ‘up’ and ‘down’ physiological feelings
The combined use of ‘heroin’ and meth is part of a spectrum of meth use:

- From none to occasional (don’t like but if free)
- To casual (like but not important)
- To regular use (in combination or separately from heroin)
- To reducing heroin use.
Rebecca, 30s, preferred methamphetamine to heroin but also liked to inject both together:

A: I like heroin and stuff like that but it’s not my choice preference. And actually mixing it with meth is the better buzz, believe it or not.

Q: How do you decide on a given day?

A: Just what we feel like. ...if the dope sickness is not bad we’ll choose meth because then you can fend off the dope sickness ...by being high on meth you won’t feel it.
RESPONSES TO FENTANYL

- Meth and speedball injection can be seen as organic responses to the fentanyl overdose epidemic
  - Some like fentanyl but most accept it and adjust to it
  - Meth use is popularly construed as:
    - Helping to decrease heroin/fentanyl use/need
    - Helping with heroin withdrawal symptoms
    - Protecting for OD when in combination with heroin/fentanyl
    - Useful to reverse OD in a pinch
ON SPEEDBALLS AND GOOFBALLS: SUMMARY

• Co-use:
  • Methamphetamine and the speedball are back
  • Supply may be driving this
    • But may be the result of fentanyl prohibition
  • Adaptive responses are also important:
    • Meth be substituting for heroin and reducing fentanyl exposure
  • **Fentanyl is still the problem** (folks should not be dying from meth)
CRISIS RESPONSE

• Firstly, don’t panic
  • Stigma remains our biggest enemy
• The rise in stimulants shows a failure of public policy
  • Address root causes over single drugs and supply
FOCUS ON FENTANYL

• Deaths are largely being driven by fentanyl exposure
  • Overdose prevention
  • Harm reduction
  • Treatment
TEST THE LETTUCE
GO SLOW
Fentanyl is here
ACKNOWLEDGEMENTS

❖ Heroin in Transition study:
❖ HIT team: Sarah Mars, Jay Unick, Jeff Ondocsin, Eliza Wheeler, Mary Howe, Fernando Castillo, Philippe Bourgois, Dan Rosenblum
❖ NIH/NIDA funding: R01DA037820
❖ Photo credits: Dan Ciccarone, Jeff Ondocsin