

Understanding Opioid Users' Views on Fentanyl could help Reduce Overdoses

**Kate McLean, Shannon Monnat,
Khary Rigg, Glenn Sterner, &
Ashton Verdery**

In March 2015, the Drug Enforcement Administration (DEA) issued a nationwide alert regarding fentanyl, a potent synthetic opioid implicated in a surging number of overdose deaths. Labelling the drug a “significant threat to health and safety,” the agency warned law enforcement personnel to take precautions against accidental exposure, while imploring “parents, caregivers, and teachers” to educate others on the drug’s dangers.¹ Just six months later, the U.S. Centers for Disease Control sent out a similar advisory, urging awareness among public health workers and other first responders.² Neither announcement addressed illicit opioid users, the population most at risk of fentanyl overdose. Declining to provide practical advice for fentanyl identification, the alerts further failed to ask whether users wanted to avoid the drug.

Such information and understanding could still prove vital. The year 2017 saw nearly 29,000 fentanyl-related deaths - more than triple the count observed in 2015, when national alarms first began to sound.³ Amazingly, fentanyl fatalities eclipsed those involving heroin in August 2016, and continued to climb through mid-2018, even as overall overdose mortality plateaued. Perhaps more surprising is the drug’s geographic toll. Far from the country’s most notorious heroin markets, fentanyl overdoses have been concentrated in the Appalachian Rust Belt, devastating West Virginia, Ohio, and Pennsylvania, in particular. Where the regional opioid epidemic is rooted in deindustrialization, occupational injury, and easy access to prescription opioids, it has been bolstered by rapidly expanding supplies of first heroin, then fentanyl. Yet the new availability of illicit opioids has not necessarily led to immediate increases in substance use services. “Harm reduction” programs - which seek to minimize the risks of illicit drug use through non-judgmental and pragmatic education - are especially scarce. Faced with limited outlets for help and information, opioid users may evolve unique techniques for finding, avoiding, and managing the risks surrounding fentanyl, techniques that may inform broader public health strategies.

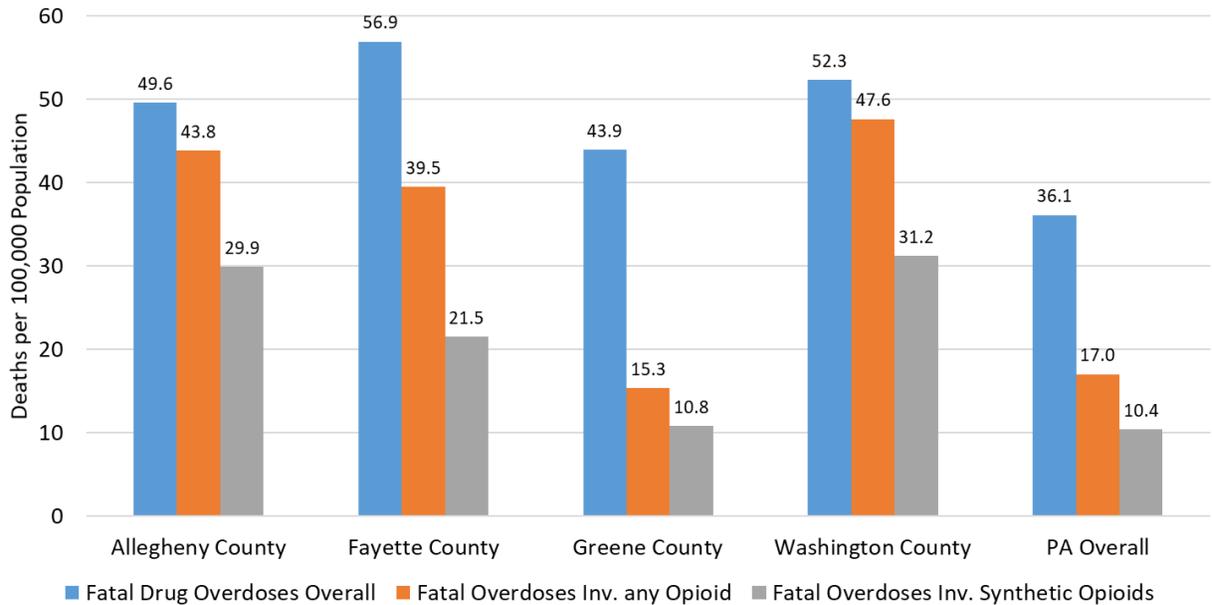
In this brief, we summarize findings from a study we conducted in 2017 and 2018 among individuals who use prescription and illicit opioids in southwestern Pennsylvania, specifically Allegheny, Fayette, Greene, and Washington counties.⁴ This region of PA has a much higher fatal drug overdose rate than the state as a whole. After sporadic outbreaks in the preceding 30 years, fentanyl emerged as a pervasive additive in drugs sold as heroin in the region in the mid-2010s, a reality that forced local opioid users to

KEY FINDINGS

- Fentanyl, a synthetic opioid, is a widespread additive to heroin in the U.S. Rust Belt.
- Most people who use heroin want to avoid fentanyl, due to its association with overdose.
- Some people who use prefer fentanyl due to its shorter, stronger high, even when snorted.
- The ability to identify fentanyl in heroin through self-test strips might help all users reduce undesirable effects and overdose risk.

reevaluate their existing perceptions of “heroin”-related risks - and pleasures. We found that many individuals attempted to adjust their opioid use habits to minimize the dangers of fentanyl exposure. But our study also revealed a small, but significant, population of individuals who desired fentanyl for reasons that reflected their specific life circumstances.

Figure 1: The Southwestern Region of Pennsylvania has among the Highest Fatal Overdose Rates in the State



Data Source: CDC WONDER Online Database, 2015-17⁵

Most Want to Avoid Fentanyl - But Can't

A majority of interview participants expressed fears about fentanyl, a substance that they associated with fast and fatal overdose. Over 80% indicated that they had lost a friend or family member to overdose at some point in their lives, while nearly one-third said that they had personally experienced an overdose requiring medical intervention in the past year alone. In recounting recent overdose events that they had suffered or witnessed, interviewees often suspected the presence of fentanyl in the heroin they, or others, had consumed. But lacking access to formal toxicology testing, no one could be certain that fentanyl had in fact caused them to overdose - a reality that constantly undermined their attempts to avoid overdose. In the absence of reliable testing methods, such as fentanyl testing strips which allow an individual to know if the drug is present in their batch, individuals who used heroin relied on subjective indicators to detect fentanyl in the drugs they bought. For example, they would evaluate the color, consistency, or bodily effects of a bag against their previous experiences. Knowing such methods to be flawed, some respondents altered their heroin use behaviors in more drastic ways.

When we met in July 2017, Jeffrey, a 46-year-old man from Pittsburgh, was working on giving up opioids after nearly 25 years of use. He had first tried heroin on a whim in 1993, when a friend who had typically provided him with cocaine offered him the opportunity to sample something new. “Oh, I loved it...and it was cheap,” he said, describing his initiation. Well-connected to the local market, Jeffrey’s heroin habit lasted over two decades, despite sporadic stints of treatment and prolonged

“I would never buy [heroin] on the street. Never. You never know what you get nowadays.”

periods of abstinence. His job as a long-haul trucker influenced both his desire and ability to successfully quit. As a member of the Teamster union, Jeffrey enjoyed excellent access to inpatient treatment, but the nature of his job fueled his opioid cravings: “It is like an eight-hour jog. Your mind’s constantly going if you wanna get high or not.” Jeffrey was still driving trucks at the time of our interview, however, the toll of opioid use on his social circle had recently convinced him to renounce heroin. “I went to 12 funerals this past year and a half. People are dying left and right,” he said, noting that the same person who had introduced him to heroin in 1993 had recently committed suicide. Jeffrey stressed that, due to fentanyl, many individuals were vulnerable to overdose after leaving treatment, stating, “I think fentanyl has a lot to do with it... They’re cutting the heroin with fentanyl.” For this reason, Jeffrey sought out cocaine or pills whenever he had the urge to use, explaining: “I would never buy [heroin] on the street. Never. You never know what you get nowadays.”

Others See Benefits to Fentanyl

Unexpectedly, some interview participants reported that they specifically sought out fentanyl, a substance they saw as having both advantages and disadvantages. Such individuals often described incidents of overdose that they linked to fentanyl. But ultimately, they identified other ways in which fentanyl allowed them to manage the many drug-related risks they were tasked with managing every day. Challenging many stereotypes around who uses fentanyl and why, one couple deemed fentanyl to be an easier drug to incorporate into their busy work and childcare schedules. Cammie (age 24) and Ryan (age 26) had both begun their opioid use with prescription pain pills before being introduced to heroin by a mutual co-worker. Soon after, Ryan survived his first, and thus far only, overdose after using a bag he believed to contain fentanyl - an event that subsequently led the couple to search out the drug exclusively, as fentanyl became “the only thing that we could do that get us high.”

Beyond experiencing fentanyl as a more pleasurable substance than heroin, Cammie explained that the drug’s higher potency was a practical necessity given her responsibilities as a mother. Opioid withdrawal - characterized by debilitating flu-like symptoms - constantly threatened her ability to watch the couple’s 5-year-old daughter, and fentanyl was most consistent in preventing the onset of sickness: “I can’t be lying in bed all day. I have a kid. I shouldn’t be doing that, but I feel like I can be a better mom if I’m not lying in bed, dying all day.” Ryan agreed, remarking that the “sickness is worse on heroin, than fentanyl,” before stating that fentanyl was a safer drug for somebody like himself who was looking for a job: “As far as working, taking drug tests and stuff like that, it won’t show up.” Intent upon hiding their use from both potential employers and family members, Cammie and Ryan both resisted injection, a practice that might scar them with visible “track marks.” In this respect, fentanyl offered an advantage, as it could be snorted with more consistent effects than heroin.

Ironically, the couple echoed Jeffrey in worrying about the unpredictability of the illicit drug market. They couldn’t always guarantee that they would receive fentanyl, and recently it was just “regular, plain heroin.” Departing from the usual descriptions of fentanyl as a uniquely dangerous drug, Cammie complained that heroin was “really high risk, because we don’t know what we’re getting, or if its garbage, or it’s not real. You’re wasting money on it.”

Whatever their opinions about fentanyl, nearly all of the people we spoke with were in agreement about the need for more and better information when purchasing substances with life-or-death implications. Emerging research suggests that individuals who use opioids are willing to use of fentanyl self-test trips, which allow for the advance detection of fentanyl in drugs sold as heroin.⁶ Our data similarly shows participant interest in the ability to reliably identify the substances they purchase. Ultimately, fentanyl is most dangerous when its presence cannot be known and accounted for in practices of drug use.

Data

This brief draws upon surveys (N=125) and in-depth interviews with 30 individuals residing in southwestern Pennsylvania who reported prescription opioid misuse or heroin use in the 12 months prior to the interview. For a more detailed discussion of our study's methods and findings please see: <https://www.ncbi.nlm.nih.gov/pubmed/30676198>.

Endnotes

1. Drug Enforcement Administration. (2015). DEA Issues Nationwide Alert on Fentanyl as Threat to Health and Public Safety. Press Release. March 18, 2015.
2. Centers for Disease Control and Prevention. (2015). Increases in Fentanyl Drug Confiscations and Fentanyl-Related Overdose Fatalities. Health Alert Network. October 26, 2015.
3. Ahmad, F.B., Rossen, L.M., Spencer, M.R., Warner, M., & Sutton P. (2019). Provisional Drug Overdose Death Counts. National Center for Health Statistics.
4. McLean, K., Monnat, S.M., Rigg, K., Sterner, G.E. 3rd, & Verdery, A. (2019). 'You Never Know What You're Getting': Opioid Users' Perceptions of Fentanyl in Southwest Pennsylvania. *Substance Use & Misuse*, 54(6), 955 - 966.
5. U.S. Centers for Disease Control and Prevention. CDC WONDER Online Database. Multiple Cause of Death Files, 2015-17.
6. Krieger, M.S., Yedinak, J.L., Buxton, J.A., Lysyshyn, M., Bernstein, E., Rich, J.D., & Marshall, B.D.L. (2018). High Willingness to Use Rapid Fentanyl Test Strips Among Young Adults Who Use Drugs. *Harm Reduction Journal*, 15(1).

Acknowledgements

This study was funded by the Social Science Research Institute and by the Justice Center for Research at Penn State University (PI: Ashton Verdery). The authors thank Alexandra Punch for helpful feedback on previous drafts of this brief.

About the Author

Kate McLean is an Assistant Professor in Administration of Justice at Penn State Greater Allegheny (kjm47@psu.edu). Shannon Monnat is Lerner Chair for Public Health Promotion and Associate Professor of Sociology at Syracuse University (smmonnat@maxwell.syr.edu). Khary Rigg is an Assistant Professor in the Department of Mental Health Law & Policy at the University of South Florida and a faculty affiliate with the Louis de la Parte Florida Mental Health Institute (rigg@usf.edu). Ashton Verdery is Assistant Professor of Sociology at Penn State University (amv5430@psu.edu). Glenn Sterner is Assistant Professor of Criminal Justice at Penn State Abington (ges5098@psu.edu).

The mission of the Lerner Center for Public Health Promotion at Syracuse University is to improve population health through applied research and evaluation, education, engaged service, and advocating for evidence-based policy and practice change.