

Fentanyl and Other Updates From 2020 AAAP Annual Meeting

PEER ECHO LECTURE SERIES

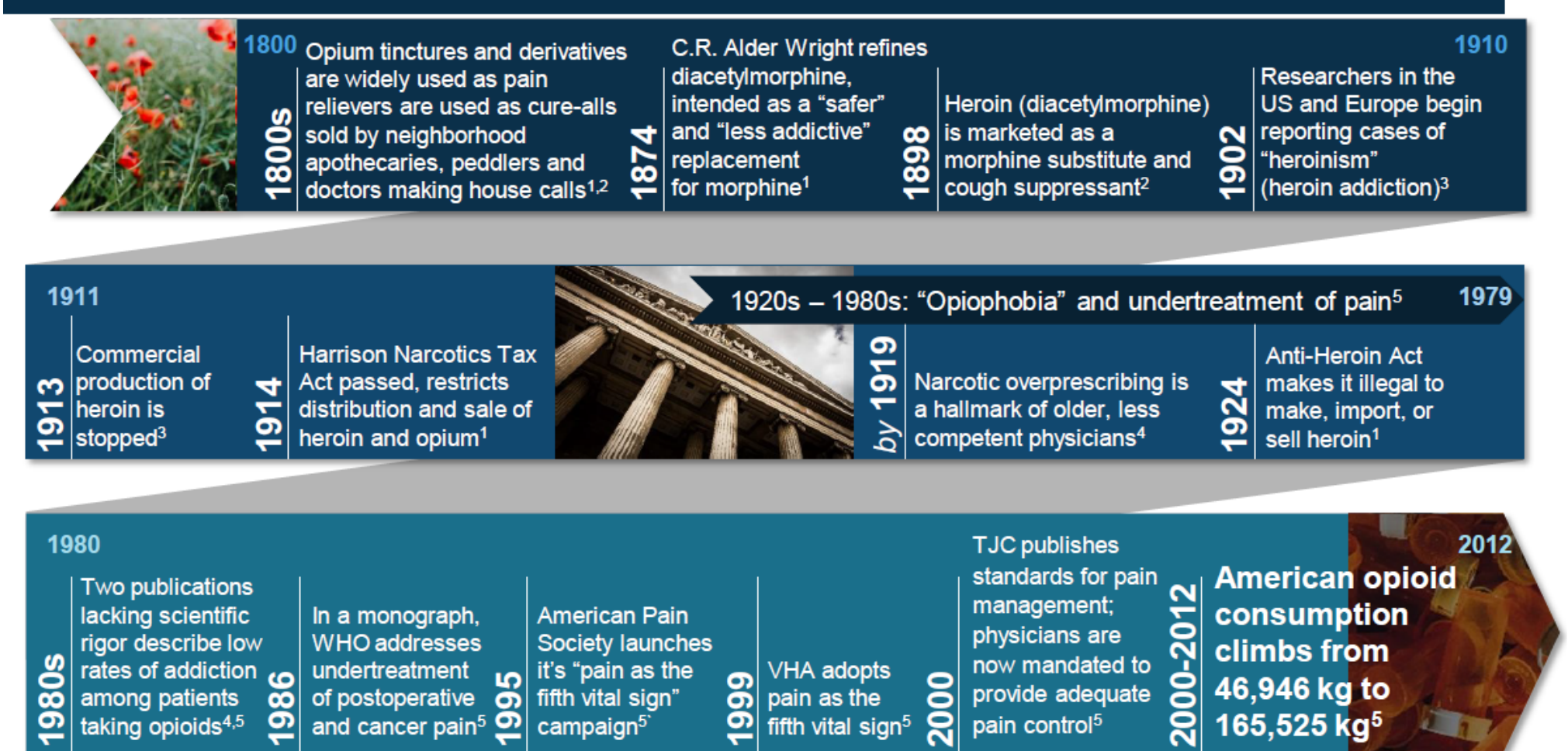
Dr. Michael Capata
Addiction Psychiatry Fellow
Medical University of South Carolina
March 23, 2021



Changing What's Possible | MUSChealth.org



A Brief History Of Opioids In The United States

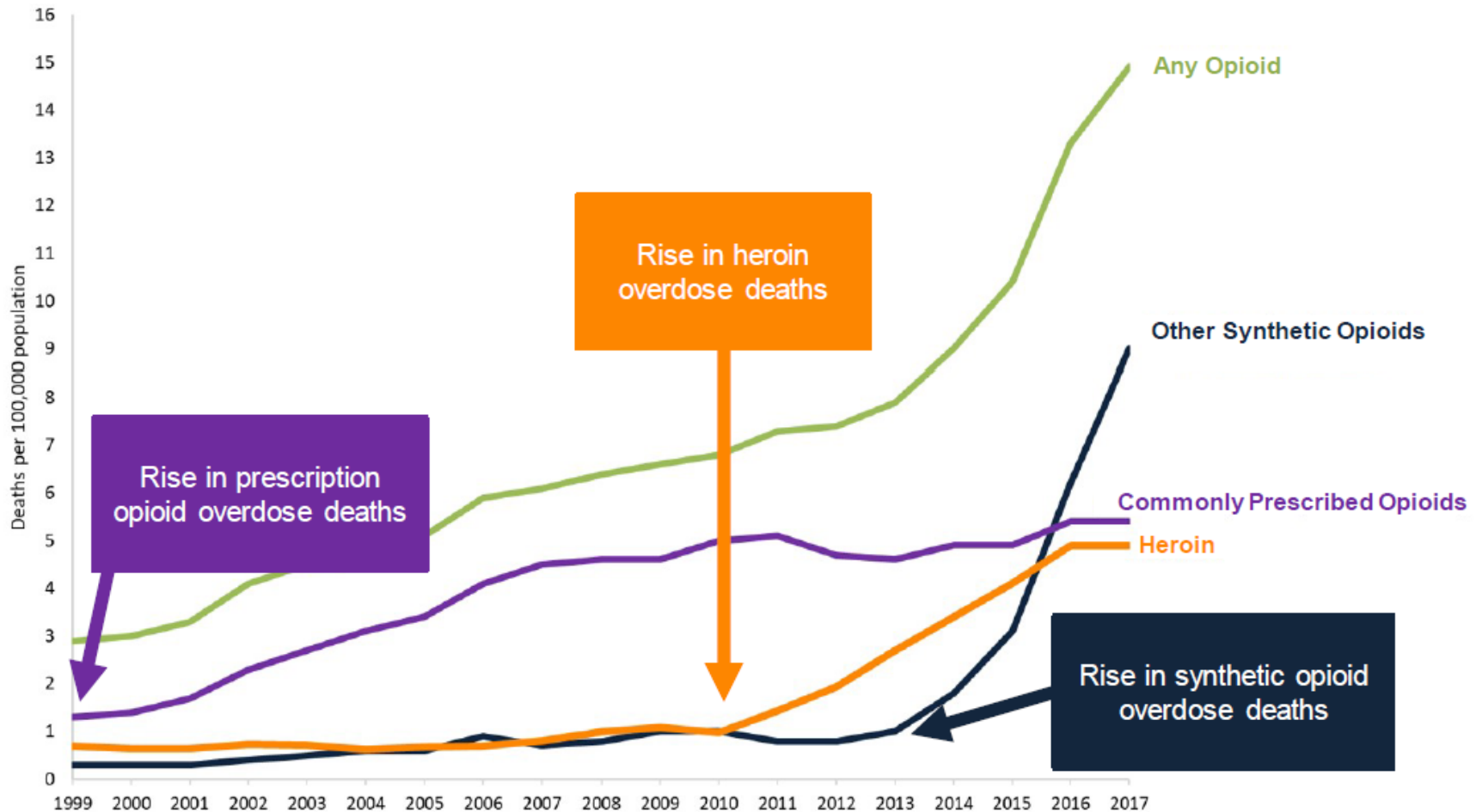


TJC, The Joint Commission; US, United States; VHA, Veteran Health Administration; WHO; World Health Organization.

- History.com editors. Heroin Morphine and Opiates. <https://www.history.com/topics/crime/history-of-heroin-morphine-and-opiates>. Updated August 21, 2018. Accessed March 18, 2019.
- Miroff N. From Teddy Roosevelt to Trump: How drug companies triggered an opioid crisis a century ago. <https://www.washingtonpost.com/news/retropolis/wp/2017/09/29/the-greatest-drug-fiends-in-the-world-an-american-opioid-crisis-in-1908/>. *The Washington Post*. October 17, 2017. Accessed March 18, 2019.
- Borigini M. When heroin was available to housewives and aspirin was bad for the heart. <https://www.psychologytoday.com/us/blog/overcoming-pain/201201/when-heroin-was-available-housewives-and-aspirin-was-bad-the-heart>. *Psychology Today*. Jan 12, 2012. Accessed March 18, 2019.
- Kolodny A et al. *Annu Rev Public Health*. 2015;36:559-74.
- Jones MR et al. *Pain Ther*. 2018;7:13-21.

Three Waves Of The Rise In Opioid Deaths

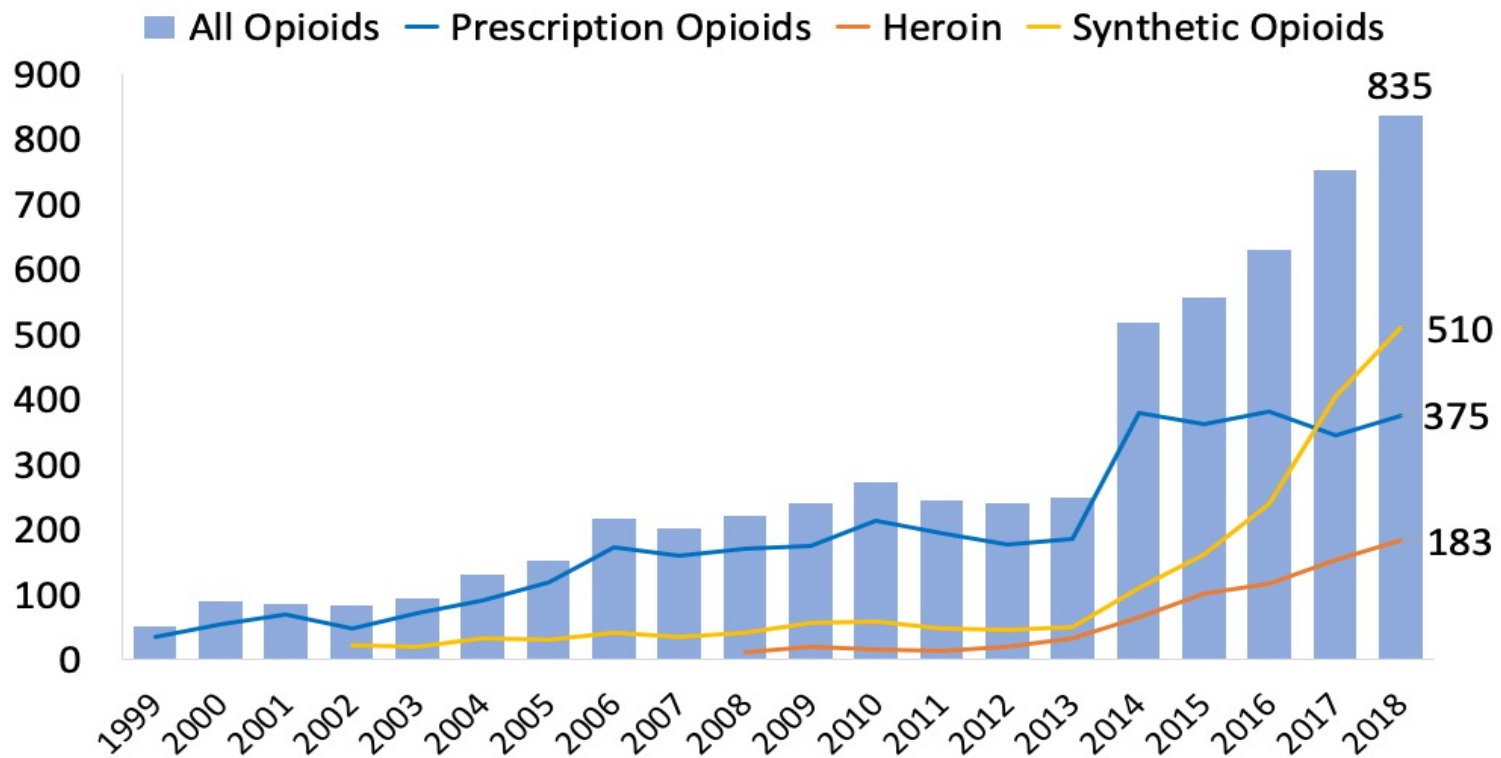
Overdose Death Rates Involving Opioids, by Type, United States, 2000-2017



Centers for Disease Control and Prevention. Overdose waves & Rising Rates. Opioid Data Analysis and Resources. <https://www.cdc.gov/drugoverdose/data/analysis.html>. Updated December 19, 2018. Accessed March 14, 2019.

SC OVERDOSE OPIOID OVERDOSES

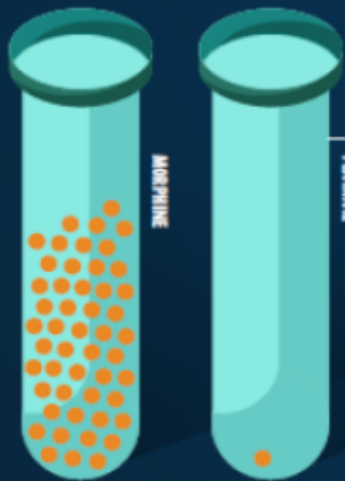
Figure 1. Number of overdose deaths involving opioids in South Carolina, by opioid category.



NIDA. 2020, April 3. South Carolina: Opioid-Involved Deaths and Related Harms. Retrieved from <https://www.drugabuse.gov/drug-topics/opioids/opioid-summaries-by-state/south-carolina-opioid-involved-deaths-related-harms> on 2021, March 24

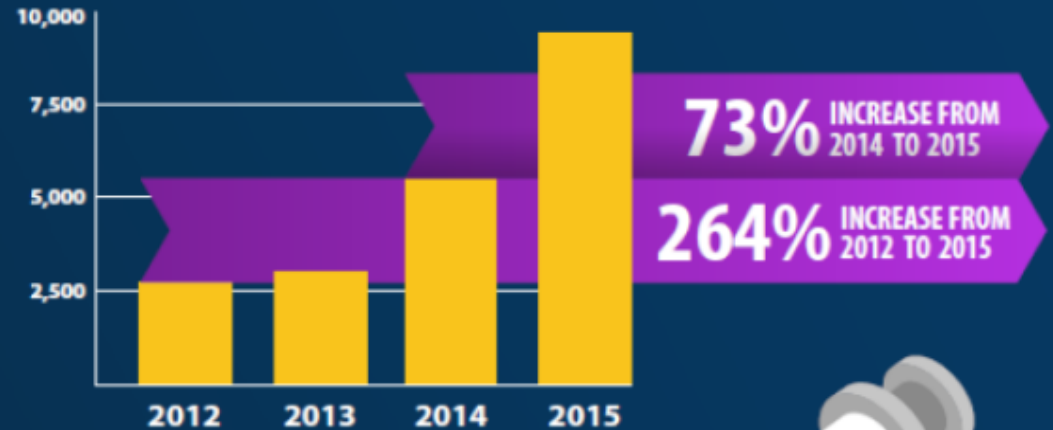


Fentanyl: Overdoses On The Rise

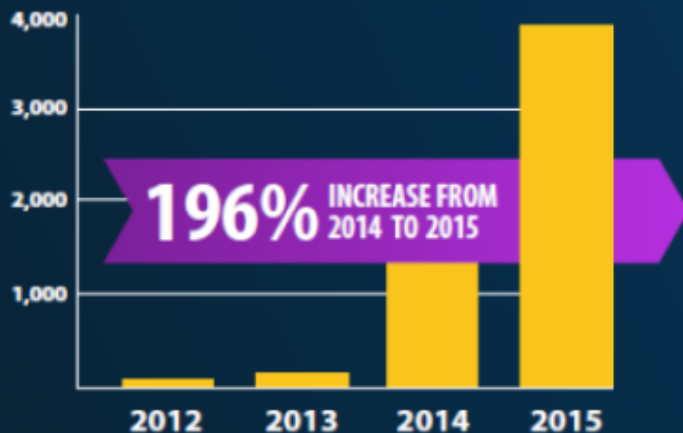


**50-100x
MORE POTENT
THAN MORPHINE**

SYNTHETIC OPIOID DEATHS ACROSS THE U.S.



Ohio Drug Submissions Testing Positive for Illicitly Manufactured Fentanyl



ILLICITLY MANUFACTURED FENTANYL

Although prescription rates have fallen, overdoses associated with fentanyl have risen dramatically, contributing to a sharp spike in synthetic opioid deaths.



OFTEN MIXED WITH **HEROIN OR COCAINE** WITH OR WITHOUT USER KNOWLEDGE

Centers for Disease Control and Prevention. Shareable Graphics and Videos. <https://www.cdc.gov/drugoverdose/resources/graphics.html>. Updated December 21, 2018. Accessed March 14, 2019.

Fentanyl and Other Substances

“The combined presence of fentanyl and cocaine steadily tripled from 2015 to 2016”

“The combined presence of fentanyl and methamphetamine increased 179% from 2015 to 2016”

Fentanyl has also been found in other substances including benzodiazepines and marijuana

Park JN, Rashidi E, Foti K, Zoorob M, Sherman S, Alexander GC. Fentanyl and fentanyl analogs in the illicit stimulant supply: Results from U.S. drug seizure data, 2011-2016. *Drug Alcohol Depend.* 2021 Jan 1;218:108416. doi: 10.1016/j.drugalcdep.2020.108416. Epub 2020 Nov 23. PMID: 33278761; PMCID: PMC7751390.



Legal Uses of Fentanyl

Fentanyl can be prescribed for pain management

When prescribed, it comes as a shot, patch, or lozenge

When illegally produced it often comes as a powder or in pill form

<https://www.drugabuse.gov/publications/drugfacts/fentanyl#:~:text=When%20prescribed%20by%20a%20doctor,are%20sucked%20like%20cough%20drops.&text=The%20illegally%20used%20fentanyl%20most,overdoses%20is%20made%20in%20labs.>



Naloxone

How Naloxone Saves Lives in Opioid Overdose

https://youtu.be/zWe_IPniEq4

On June 5, 2016, S.C. Code Ann. § 44-130-40 was amended to allow pharmacists to dispense Naloxone pursuant to a written joint protocol issued by the South Carolina Board of Medical Examiners and the South Carolina Board of Pharmacy without requiring a patient-specific written order or prescription.

<http://naloxonesavessc.org/>

Participating pharmacies in South Carolina

<http://naloxonesavessc.org/wp-content/uploads/2020/12/NaloxoneDec172020.pdf>



Treatment of Opioid Use Disorders

Chronic use of fentanyl can make it difficult to start someone on buprenorphine as fentanyl is highly lipophilic

Buprenorphine can be started 12-24 hours after last use, but some patients experience precipitated withdrawal 72 hours after last use, therefore ancillary medications can be helpful

Micro-dosing “lower doses” of buprenorphine might help reduce the risk of precipitating withdrawal and is currently a hot topic of research

Antoine D, Huhn AS, Strain EC, Turner G, Jardot J, Hammond AS, Dunn KE. Method for Successfully Inducting Individuals Who Use Illicit Fentanyl Onto Buprenorphine/Naloxone. *Am J Addict*. 2021 Jan;30(1):83-87. doi: 10.1111/ajad.13069. Epub 2020 Jun 23. PMID: 32572978; PMCID: PMC7755703.



Does Treatment Work?

- Buprenorphine reduces death of those with OUD by 70%
- Long term opioid treatment discontinuation led to high risk of overdose death (4.9%) compared to those who continued treatment (1.75%)

James JR, Scott JM, Klein JW, Jackson S, McKinney C, Novack M, Chew L, Merrill JO. Mortality After Discontinuation of Primary Care-Based Chronic Opioid Therapy for Pain: a Retrospective Cohort Study. *J Gen Intern Med.* 2019 Dec;34(12):2749-2755. doi: 10.1007/s11606-019-05301-2. Epub 2019 Aug 29. PMID: 31468341; PMCID: PMC6854174.



Medical Complications from Fentanyl

- Endocarditis
 - For those <30 years old, 30% of endocarditis is from PWID (persons who inject drugs), instead of IV drug users
- ED encounters as touchpoints prior to opioid overdose deaths
 - 17% non-fatal overdose
 - 6% serious infection

Deo SV, Raza S, Kalra A, Deo VS, Altarabsheh SE, Zia A, Khan MS, Markowitz AH, Sabik JF 3rd, Park SJ. Admissions for Infective Endocarditis in Intravenous Drug Users. *J Am Coll Cardiol*. 2018 Apr 10;71(14):1596-1597. doi: 10.1016/j.jacc.2018.02.011. PMID: 29622169.

Larochelle MR, Bernstein R, Bernson D, et al. Touchpoints - Opportunities to predict and prevent opioid overdose: A cohort study. *Drug Alcohol Depend*. 2019;204:107537. doi:10.1016/j.drugalcdep.2019.06.039



Populations Most Impacted by Fentanyl

Drug overdose deaths involving fentanyl from 2011-2016

- Non-Hispanic black persons had the largest annual increase 140.6%/year
- Hispanic persons had the second largest increase 118.3%/year

Spencer MR, Warner M, Bastian BA, Trinidad JP, Hedegaard H. Drug overdose deaths involving fentanyl, 2011–2016. National Vital Statistics Reports; vol 68 no 3. Hyattsville, MD: National Center for Health Statistics. 2019.

