# Supplemental Toxicology Analysis on Opioid-Related Overdose Deaths Among Massachusetts Residents

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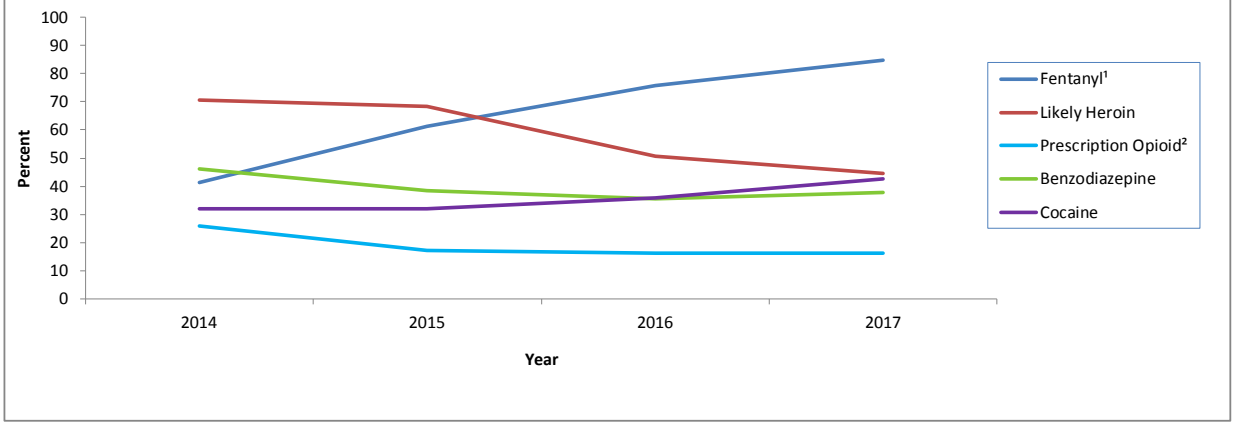
The Massachusetts Department of Public Health uses data from toxicology reports provided by the Office of the Chief Medical Examiner to determine the proportion at which certain drugs were present in opioid-related overdose deaths. This supplemental report examines the annual trends in the toxicology data by race and ethnicity between 2014 and 2017.

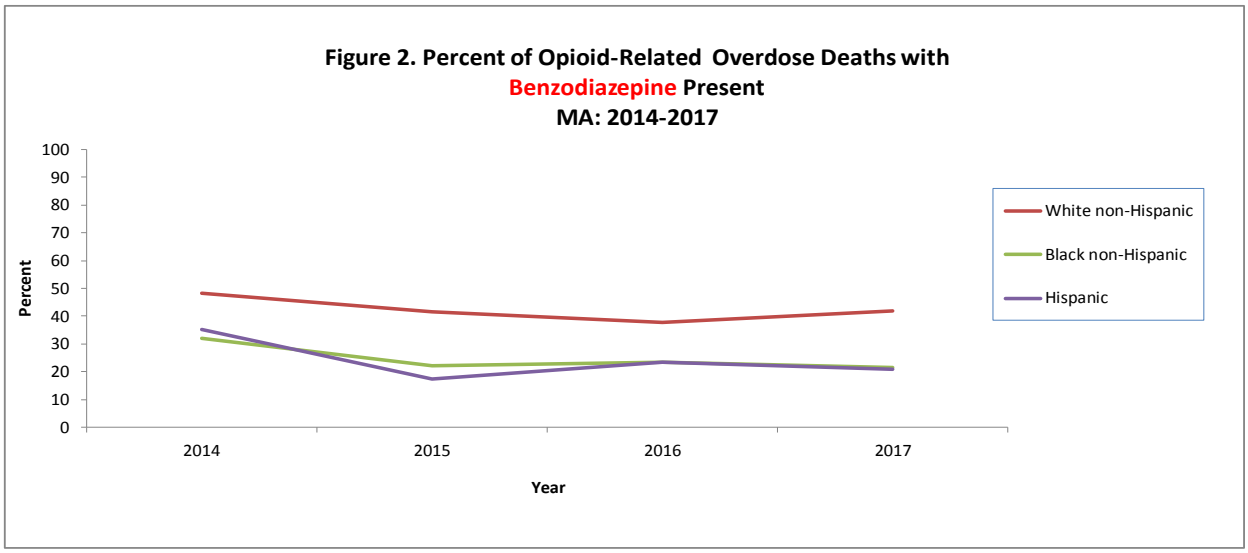
The percentage of opioid-related overdose deaths with cocaine present in toxicology is trending up for all races/ethnicities between 2014 and 2017 (Figure 1).

**Figure 1. Percent of Opioid-Related Overdose Deaths with Specific Drugs Present MA: 2014-2017**

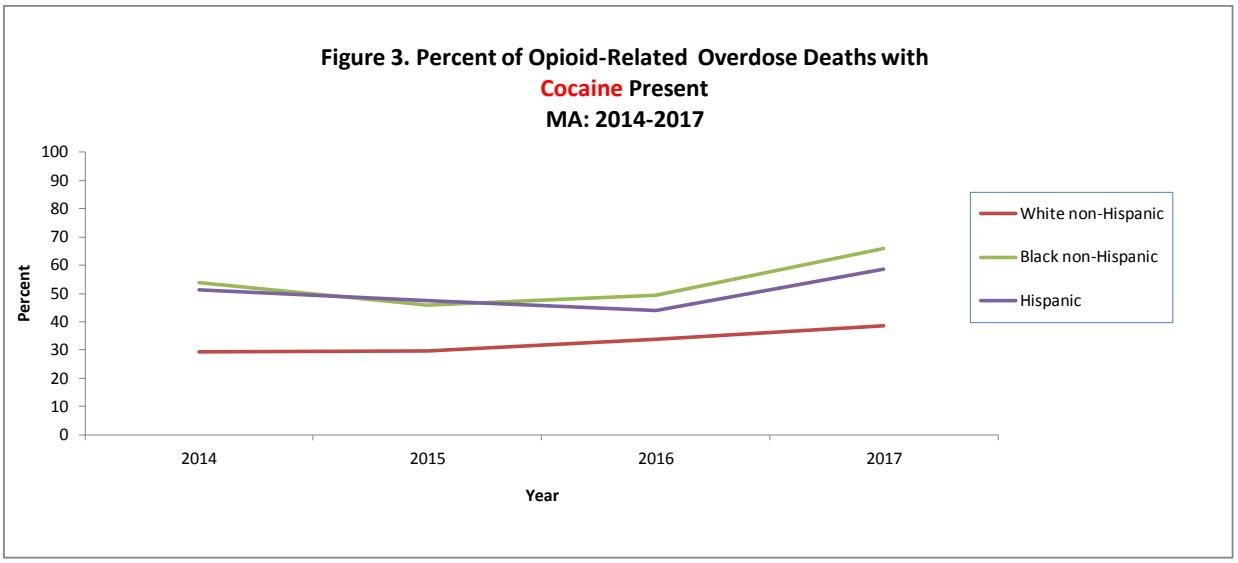



The percentage of benzodiazepines present in the toxicology of White non-Hispanic decedents are almost twice the percentages of benzodiazepines present in the toxicology of Black non-Hispanic and Hispanic decedents (Figure 2).

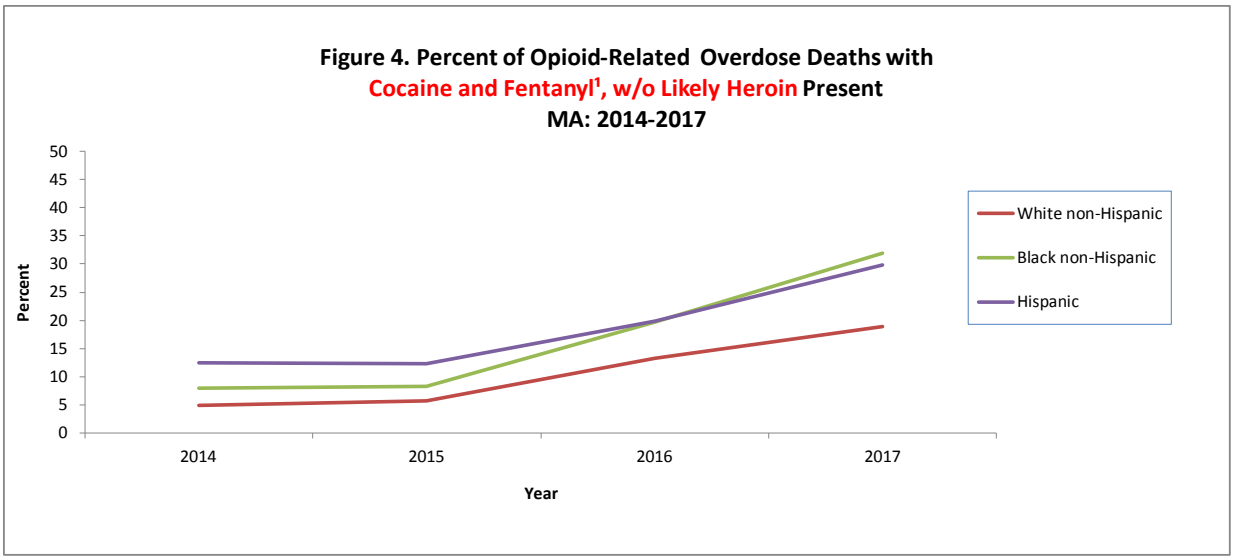
**Figure 2. Percent of Opioid-Related Overdose Deaths with Benzodiazepine Present MA: 2014-2017**



Black non-Hispanic and Hispanic decedents have a higher percentage of cocaine present in their toxicology compared with White non-Hispanics (Figure 3).




The percent of opioid-related overdose deaths with cocaine and fentanyl present but without likely heroin is increasing across all races. In 2017, the percentages were highest among Black non-Hispanics followed closely by Hispanics (Figure 4). The trend in the combined presence of fentanyl and cocaine in toxicology can represent either polysubstance use or cocaine with fentanyl present.




Notes:

1. This is most likely illicitly produced and sold, **not** prescription fentanyl
2. Prescription opioids include: hydrocodone, hydromorphone, oxycodone, oxymorphone, and tramadol
3. While screening tests can be used to note the rate at which certain drugs are detected in toxicology reports, they are insufficient to determine the final cause of death without additional information. The cause of death is a clinical judgement made within the Office of the Chief Medical Examiner.