

## Predicting Overdose After Jail Release in Allegheny County

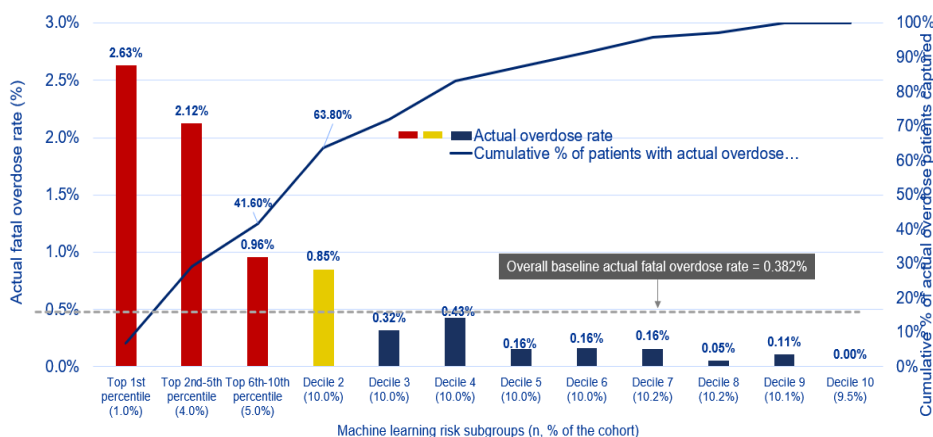
### Why is this work important?

**Jail release is an extremely vulnerable time** for individuals. Nearly 1 in 5 Allegheny County, PA residents who died from opioid overdose between January 2016 - June 2020 had a booking in the County Jail in the year prior to death.

We developed an algorithm to predict risk of fatal opioid overdose within 90 days after Jail release, using **Medicaid data integrated with human services and criminal justice data**.

### How did we develop our risk prediction model?

We **linked healthcare and social service data** from the Allegheny County Data Warehouse and **created 301 predictor variables**, including sociodemographics, patterns of prescription opioid use, health status factors, and criminal justice and social service involvement. **Our model predicts fatal overdose within the 90 days after jail release. We can identify those who are most vulnerable to overdose at release and connect them with services.**



### Why is the Pitt CP3 model different?

- Our **overdose risk prediction model can run in real time** to avoid data lags.
- The model can **stratify individuals by risk to better target prevention activities**.
- We develop our model in a **true partnership** with stakeholders, including government agencies and health systems.
- Our **interprofessional team has a wide range of expertise** in community-based overdose prevention, medical care, health services, and data science.
- We **integrate** healthcare and social service data.
- Our model **accounts for complex interactions among a variety of factors**, and we are **always transparent** about model creation.

### How can I learn more about integrating data to help prevent overdose?

Our team is happy to consult with you to discuss how we can work together to create a predictive risk model with your data. Please email [cp3@pitt.edu](mailto:cp3@pitt.edu) to set up a time to meet. For more information on this and our other risk prediction projects, please visit [our website](#).