

# Advanced analytics fight opioid misuse

Combat opioid abuse with a unified, data science based approach



A strong, unified crisis response platform



Rapid identification of emerging patterns



Trusted data to inform cross-agency decisions

## The Issue

Opioid-related overdoses are alarmingly high. **According to the CDC**, approximately 107,622 people in the US died from drug overdoses in 2021 – 50% involved an opioid. There was a 15% increase in drug overdose deaths from 2020 to 2021 – and, for the first time, overdoses exceeded 100,000 annually. Substantial, multi-year increases in drug overdoses continue despite a concerted government effort to reduce opioid prescriptions – including class action lawsuits, tighter regulations, law enforcement efforts and adjustments to clinical practice guidelines.

Illicit drugs are now the prime driver of the opioid epidemic – **with fentanyl contamination of illicit drugs accounting for two-thirds of all opioid overdose deaths**. Fentanyl and its synthetic analogs are easy to make. Fentanyl is 100 times more powerful than morphine and 50 times more powerful than heroin. Making matters worse, fentanyl and drugs laced with it are often smuggled into the US via seaports, airports, railways or drones. Easy access to a highly addictive substance has forced governments to rethink how to tackle the epidemic.

The conclusion of **nationwide litigation** – that is, opioid settlements – is a monumental opportunity to invest in a comprehensive response. Prevention, treatment, enforcement and recovery strategies should be informed by cross-agency data that captures the complex landscape of this crisis.

## The Challenge

**Opioid data is scattered.** Dozens of government agencies collect data relevant to the opioid crisis, but it's rarely brought together to make informed decisions at the right time. SAS helps by combining, linking and analyzing data from public safety, public health, emergency management services and prescription drug monitoring systems.

**The right people can't see the right information.** Health care providers, public health officials, social workers and public safety officers need easier access to opioid-related data. SAS can provide the right data at the right time to the right people – while respecting privacy laws and regulations.

**Interventions are evaluated on instinct, not data.** It's challenging for governments to use data to evaluate the effectiveness of treatment, prevention and enforcement approaches. For example, research supports the use of medication-assisted therapy plus counseling for opioid treatment. Yet, little data exists on relapse rates. SAS gives the power to evaluate results in real time.

## Our Approach

Governments need an integrated, cross-agency response to the opioid crisis. An integrated analytics platform from SAS fuses data across government agencies to help you:

- **Prevent overdose deaths.** SAS creates analytical models to determine the ideal location of treatment resources and how to equip first responders.
- **Manage risks from wholesalers and prescribers.** SAS calculates the risk of oversupply of prescription opioids, augmented with data on illicit drugs. This analysis pinpoints the source of oversupply, allowing for fast and effective intervention.
- **Identify and track criminal contributors.** SAS analytics uncovers patterns and trends to detect the trafficking of drugs like fentanyl – so law enforcement can deploy the right resources at the right time.
- **Disrupt the cycle of harm among supervised populations.** Inmates released from incarceration are **more likely than the general population** to die from an opioid overdose. Using person-centric harm reduction systems before trial, during incarceration or after time served can dramatically affect long-term recovery success.
- **Evaluate prevention and treatment approaches.** Monitor the progress of targeted intervention measures to see if prescribing patterns are improving, overdoses are declining and what percentage of those entering treatment are successful.

## The SAS® Difference

Trusted data integration and predictive analytics techniques generate strategic insights for agencies. With SAS®, you can continuously monitor and improve data provisioning, model performance and intelligence product usage – all while supporting data sharing, strategy, processes and governance. SAS provides:

- **A unified view of opioid-related data.** Access, integrate, cleanse and standardize opioid data from virtually any source. Our solution promotes collaboration, giving all stakeholders increased awareness, timely knowledge and a unified approach.
- **Early insights into risk.** Proactively identify and mitigate risk by tracking a broad range of activities – from opioid dispensing, illicit drug sales, naloxone administration and treatment placement to high-volume opioid distributors and excessive prescribers.
- **Automated data cleansing, integration and analytics processes.** Our solution streamlines the time-intensive process of creating analytics-ready data so your agency can spend more time evaluating findings.
- **A multipurpose analytics platform.** Use the same platform to predict areas of geographic risk for overdose, find emerging trends of peripheral markers (such as increases in hepatitis C or HIV), or uncover subtle linkages indicative of increased criminal activity.



For more information, please visit [SAS for Public Health & Government Health Care](#).

