

Using Complimentary SAS® Code to Calculate Opioid Levels and Identify Patients at Risk of Misuse or Overdose

The US HHS Office of Inspector General Toolkit



"We will continue to attack the opioid crisis from every angle. And we will continue to work tirelessly to bring down the number of opioid prescriptions, reduce the number of fatal overdoses, and to protect the American people."

Jeff Sessions,
Attorney General of the United States



1 in 3²

Nearly one in three Medicare Part D beneficiaries received a prescription opioid in 2017.

42,000²

More than 42,000 opioid-related overdose deaths occurred in the United States in 2016.

71,000²

About 71,000 beneficiaries are at serious risk of opioid misuse or overdose.

Do you know what the numbers are in your state?

¹ OIG, Toolkit Homepage - <https://oig.hhs.gov/oei/reports/oei-02-17-00560.asp>

² OIG, Toolkit: Using Data Analysis to Calculate Opioid Levels and Identify Patients At Risk of Misuse or Overdose, OEI-02-17-00560, June 2018.

What is the OIG Toolkit?

The **toolkit**¹ provides the steps and complimentary SAS programming code to analyze patients' opioid levels and prescription drug claims to identify patients who are at risk of opioid misuse or overdose and over-prescribers when applied to prescription drug claims data such as from Medicare Part D.

Why now?

In many places, documenting and analyzing prescription, Medicare, Medicaid and other health data is still performed manually or may be limited by available analysis skills and tools. The methodology developed by the US Department of Health and Human Services Office of Inspector General (OIG) for its extensive work on opioids provides a critical foundation on which states, attorneys general and other public and private partners can begin to change the trajectory of the opioid crisis.

Who should be using it?

The toolkit provides important technical information and support to Medicare Part D plan sponsors, private health plans, State Medicaid Fraud Control Units, state prescription drug monitoring programs (PDMPs), researchers and private sector partners.

How does it help?

The toolkit walks public and private researchers and analysts through how to collect prescription drug claims data and merge data for daily morphine equivalent dose (MED) calculation - also called the morphine milligram equivalent. The MED calculation produces a standard value from converted prescription opioids and opioid strengths. It also provides guidance on conducting data quality control checks, investigating patients with specific conditions and pinpointing at-risk patients. The code may be modified to fit the needs of different users and applied to state Medicaid data or a variety of other sources (commercial, Medicaid, EMS, law enforcement, etc.).

Goal

Provide government officials with the tools they need to help save lives by delivering immediate insight into critical areas related to the opioid epidemic.

Benefits

- Proactively identify individuals at risk.
- Streamline processes to collect and distribute data.
- Increase success of prevention initiatives and improve coordination of treatment.
- Easily share data across agencies and strengthen collaboration and resource use.
- Deter drug trafficking and diversion.

Any Data. Any Format. In Real Time.

Treatment	Medicaid
Naloxone Deployments	Child Welfare
Law Enforcement	Behavior
Vital Statistics	Mental Health
EMS	Drug Courts
Prescription Drug Monitoring	

About SAS

SAS is the leader in analytics. Through innovative software and services, SAS empowers and inspires customers around the world to transform data into intelligence. SAS gives you THE POWER TO KNOW®.

Building on the toolkit foundation

A multifaceted approach to combating the opioid crisis includes aggregating and analyzing opioid-related data scattered across numerous government agencies. Prescribers can't rely on PDMP opioid prescription data alone because it doesn't paint a full picture. States need the ability to continuously monitor behavior to intervene faster and investigate potential misuse by prescribers, beneficiaries, manufacturers and distributors. It's time to put the power of pattern recognition, machine learning, anomaly detection and artificial intelligence in the hands of analysts working in a range of disciplines.

Identify early signs of addiction

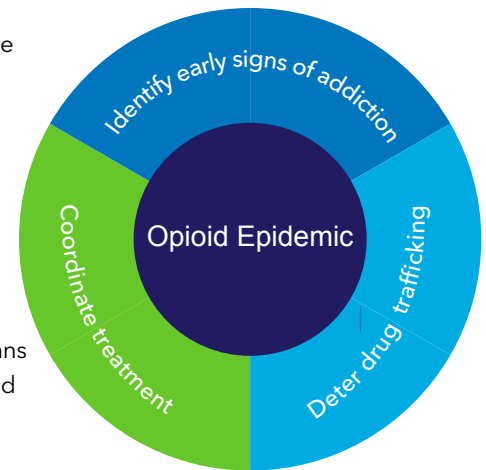
States can identify patients who have inappropriate amounts or combinations of opioid prescriptions.

Deter drug trafficking

Accelerating the identification of suspicious prescribing and dispensing patterns facilitates increased and more highly targeted interdiction.

Coordinate treatment

Providing patient/drug insights directly to physicians and prescribers allows them to make well-informed decisions about whether to prescribe an opioid at patient contact.



A SAS dashboard of opioid toolkit data categorizing beneficiary risk based on average daily MED and the percentage of beneficiaries that are doctor shopping.

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