TPG analytics

TPG ANALYTICS ADVANCEMENT OF PUBLIC HEALTH AND SAFETY MISSIONS

Integrated Solutions to Combat the Opioid Epidemic

The opioid epidemic has been a devastating public health crisis, with more than 750,000 deaths occurring in the United States from an opioid-related overdose since 1999.

TPG Analytics partners with federal, state, and local agencies, community service providers, and other stakeholders to develop and employ data-powered strategies aimed at saving lives by combatting opioid trafficking, abuse, and illicit diversion. We focus our efforts in four critical areas:

1. Improve data collection and analysis to gain actionable insights into the scope and impact of the epidemic.

2. Strengthen law enforcement efforts to prosecute drug traffickers and disrupt the supply of illicit opioids.

3. Increase public awareness and education on the dangers of opioid misuse and abuse.

4. Reduce over-prescribing of opioids by healthcare practitioners.

With experts ranging from data scientists and engineers, scientists, statisticians, program analysts, policy and regulatory specialists, investigative and intelligence analysts, community outreach and public awareness experts, and other internal subject matter experts with decades of experience, TPG Analytics integrates our deep domain knowledge with analytical and technical expertise to support a coordinated, whole-of-government response for this critical public health and safety mission.

TPG ANALYTICS CAPABILITIES IN ACTION
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Optimize Big Data. TPG Analytics' expertise in integrating and analyzing vast data sets from diverse sources—e.g., prescription drug monitoring programs, law enforcement databases, and open-source mediums—allow entities involved in the fight against the opioid epidemic to pinpoint illicit drug trafficking networks, identify emerging trends and threats such as overdose hotspots, and develop more effective strategies to confront the crisis. We leverage data analytics and technical expertise to allow agencies to detect hidden connections like suspicious prescribing practices, fraudulent prescriptions, and the movement of illicit drugs across borders. By providing real-time data insights and collaborative platforms, we enable agencies to enhance their investigative capabilities, respond swiftly to emerging threats, coordinate effective resource allocation with community service providers and first responders, and disrupt the supply chain of illicit opioids.

Development of Opioid Investigative Database

CHALLENGE: Terabytes of unique artifacts and information across millions of files contained potentially useful investigative information but were archived in a manner that severely limited investigators and analysts' ability to search, link and share information.

TPG ANALYTICS SOLUTION: Development of a secure, scalable, cloud-ready, web-based database to rapidly ingest, manage, and analyze the vast data repository, including a custom migration engine to automate the sorting, cleansing, indexing, recall and fusion of data.

RESULTS: Optimized ability to store, query, link, analyze, and share critical opioid-related data resulted in identification of previously unknown linkages of opioid-related deaths, criminal suspects, and drug trafficking networks across more than 100 separate opioid-related investigations, with direct evidence being linked to suspects and networks in over 50 opioid-related overdose death investigations.

IN OUR CUSTOMER'S WORDS: "The system's ability to ingest, fuse, organize, and analyze data is critical in providing investigative and analytic support to the interagency mission. It is an invaluable tool as we collectively combat the overdose crisis and its impact on the fabric of this nation."

Detect Trafficking Networks and Disrupt Supply Chains. TPG Analytics works hand-in-hand with federal and state law enforcement agencies to execute mission-critical operations in the fight against opioid addiction, trafficking, and illicit diversion. We deploy cutting-edge investigative and intelligence techniques to compile critical information and evidence that enable agencies to disrupt and dismantle drug trafficking organizations, uncover corrupt healthcare providers, prosecute criminals, and render justice for victims.

Dismantling Cyber Distribution Networks

CHALLENGE: A dark web-based distribution network ran an international synthetic opioid trafficking operation suspected of importing over 10 kilograms of fentanyl and over 300,000 counterfeit Xanax pills monthly from China to Canada and the U.S.

TPG ANALYTICS SOLUTION: Intelligence Analysts and Data Scientists employed advanced cyber investigative capabilities and tools to target and identify participants, networks, and assets.

RESULTS: Nearly 200 arrests worldwide, including one of DEA's Most Wanted targets, as well as the seizure of over $6.5 million in virtual currency, 500 kilograms of illegal narcotics, and pill presses utilized to manufacture fentanyl-laced counterfeit tablets.

Engage the Community. TPG Analytics provides public awareness and community out reach experts to launch awareness and engagement campaigns to educate registrants and citizens on the dangers of opioid use and abuse. Our experts focus on developing grassroots relationships with all manner of audiences within local communities—from community groups like schools and universities, civic organizations, and county governments to healthcare practitioners, professional associations, the registrant community, state and local police departments, and sheriff's associations. Working with these organizations, we launch new initiatives, coordinate presentations, and bring insights into new and emerging trends in the opioid epidemic to the public at large—a critical component in proactively preventing overdose tragedies from devastating families and communities across the nation.

In Our Audience's Words

 "I would like to personally thank [TPG Analytics' community outreach expert] for your outstanding presentation at the 10th annual Safety in Our Schools Conference…Your compelling session made a significant impression on our attendees and provided vital information for prevention and intervention efforts in their respective school districts."

"Over 500 [regional] law enforcement officers, first responders and educators were provided with the latest updates… When parents send their children to school each morning, they want to know that we all have done everything in our power to make sure that they come home safely at the end of the day. This training allowed us to focus on the things that our combined efforts as law enforcement, educators, and first responders can do to make sure that our children have a safe place to learn."

Target Over-Prescribers. For government entities involved in opioid prescription reduction efforts, the need to sort through massive amounts of live and historical data regarding registrant information, drug details, and transaction data between manufacturer, distributor, pharmacy and providers to detect abnormalities in supply and distribution chains is critical for efforts to curb overdose deaths that result from the illicit distribution of pharmaceuticals. Our team of data scientists and analysts synthesize data, enabling highly granular analyses along every step of the pharmaceutical supply chain to detect nefarious actors and develop target packages. We augment this analysis with dashboards and data visualizations to assist customers in understanding the structure, means, methods and patterns of illegal activities and anticipate future trends.

Targeting Corrupt Medical Practitioners in Alaska

CHALLENGE: A significant increase in opioid prescriptions in the state was fueling an increase in opioid addiction and opioid-related deaths.

TPG ANALYTICS SOLUTION: Data collection and analysis to identify medical practitioners with prescription rates above the average rates across the state and country, including the development of detailed analytical reports and data visualizations utilized as evidence by prosecutors.

RESULTS: Prosecution and arrest of corrupt practitioners that subsequently resulted in eight million fewer opioids being prescribed annually in Alaska, a state with a population fewer than 750,000.

LOOKING AHEAD: THE NEXT CHAPTER IN THE OPIOID FIGHT

While progress has been made, the fight is far from over. The opioid epidemic continues to be a significant public health challenge, exacerbated by the proliferation of synthetic opioids like fentanyl that present a critical threat to public health and safety. Continued efforts and new strategies are crucial for identifying and disrupting the flow of these deadly substances and developing the next generation of community-based interventions.

At TPG Analytics, we continue to advance analytical capabilities targeted at preventing the flow of fentanyl and fentanyl precursor chemicals into the United States, and are utilizing artificial intelligence and machine learning technologies to develop models to forecast future overdose hotspots, improving the ability to identify high-risk populations and proactively employ targeted interventions.

By working collaboratively with government agencies and their partners, TPG Analytics is committed to leveraging its expertise to combat the opioid epidemic, save lives, and build a healthier future.

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