CASE STUDY

Driving Evidence-based Policy for Drug-Induced Homicide Laws through Data Integration & Artificial Intelligence

September 2018
Problem

Drug-induced homicide (“DIH”) statutes hold liable any individual engaged in the delivery or distribution of an illicit substance when the use of the substance results in the user’s death. Currently, 20 states have formal drug-induced homicide laws, while an additional 16 states prosecute “drug delivery resulting in death” under various felony-murder, depraved heart, or involuntary or voluntary manslaughter provisions. These laws are increasingly used by prosecutors and police as a response to the national opioid crisis.¹

Mission LISA partnered with Health In Justice Action Lab (“Health In Justice”), a not-for-profit advocacy organization focused on translating data into policy and action, to help the organization advance its work surrounding drug-induced homicide laws and the opioid epidemic. With the goal of developing evidence-based policy recommendations for drug-induced homicide laws, Health In Justice sought to synthesize large volumes of data down to specific points at the case level. However, the organization faced inherent data-related challenges.

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Solution

“To overcome the challenges faced by Health In Justice, Mission LISA deployed its portfolio of deep web mining and machine learning technology to systematically capture real-time content at scale from open source data found online.”

To extract specific data points, Mission LISA engages human intelligence to process large volumes of drug-induced homicide data. Further, Mission LISA analysts integrate drug-induced homicide case data with other open source information to fill in disparate gaps in the dataset. Extraction and reporting of over 23 distinct data points on each case are provided weekly to Health In Justice. Information extracted includes the state and court in which the case was filed, the nature of the charge, the plea, the conviction in each case, demographic information related to defendants and decedents, and the severity of outcomes across states and statutes.

Mission LISA provides systematic aggregation and synthesis of data at scale to reduce human labor and production time demand, providing a substantial amount of key information efficiently. Large volumes of synthesized drug-induced homicide case data will support Health In Justice in driving ongoing analysis surrounding the landscape and consequences of drug-induced homicide laws as a means to address the opioid epidemic.
Results

Mission LISA has enabled Health In Justice to establish and maintain meaningful, timely data through a public education web portal on an issue of national concern. The data portal has enabled Health In Justice to secure further funding for its work surrounding drug-induced homicide. In addition, the portal has received national exposure and has been cited in various news stories, including the New York Times, the New York Daily News, The Appeal, and the Crime Report.  

Data provided by Mission LISA also serves as a critical element of the Drug-Induced Homicide Defense Toolkit, a resource for public defenders and defense counsels working with individuals accused of drug-induced homicide as a result of overdose incidents. This data is featured in policymaker education efforts, including a letter to Massachusetts legislators regarding the consideration of new mandatory minimum penalties for drug dealers.

In addition, Mission LISA has provided key support in mapping out mechanisms of drug-induced homicide laws across the country to further facilitate research and analysis. Particularly, Mission LISA has assisted Health In Justice to systematically identify and parse out state level legislation across the country. The resulting dataset will be hosted on Law Atlas, a prominent open-source legal database web portal, and will enable stakeholders to analyze the impact of drug-induced homicide laws on a variety of outcomes, including drug overdose, incarceration rate, and crime.
Finally, Mission LISA has initiated an innovative system to track new legislation on drug-induced homicide and related issues. This policy surveillance system will enable Health In Justice to monitor the pulse of legislative actions surrounding drug-induced homicide and is a critical tool for preventing new counterproductive policies from being enacted.

Since initiation of the project in March 2018, Mission LISA has aggregated more than 122,000 unique webpages relevant to drug-induced homicide news stories and articles. Mission LISA has completed data extraction on more than 1,500 prosecutions from news and media outlets and more than 145 prosecutions from legal databases to date. The dynamic visualizations below are maintained by Mission LISA and display various elements relevant to the drug-induced homicide cases and will assist Health In Justice in identifying trends surrounding these laws.

**Visualizations**

- [Drug-Induced Homicide Charges by Year](#)
- [Median Sentencing by Accused Race](#)
- [Most Active States in Pursuing Drug-Induced Homicide Charges](#)
- [Most Active Counties in Pursuing Drug-Induced Homicide Charges](#)
- [Drug Induced Homicide Charges by State](#)
- [Racial Demographics Across All Relationships](#)
- [Racial Demographics in Traditional Dealer/Buyer Relationship](#)

Mission LISA is a Lumina-owned data aggregation project.

**Endnotes**


2 Key terms developed for this ecosystem include “overdose”, “homicide”, “manslaughter”, “resulting in death”, “plead”, and more.

3 Data points cited may have changed since date of analysis and publication of article.

4 Lumina is a Tampa, Florida based risk sensing intelligence firm which utilizes artificial intelligence and machine learning to systematically capture real-time content at scale from open-source data found online, down to specific data points.