7/27/16: Appriss Research Findings
Presenter: David Speights, Chief Data Scientist, Appriss, dspeights@theretailequation.com
Relevant Attachment: Appriss Super-Utilizers Analysis

Key Takeaways: Appriss found that 1 in every 1000 people had been booked four or more times in 2015. Appriss hopes to combine data to model out different facility bookings to develop a score to help predict the likelihood of high-utilization and identify what type of interventions can help assist these populations. Appriss also hopes to apply one of their methods to give first-responders, service providers, and law enforcement a tool that helps identify high-utilizers and other individuals at risk of substance abuse.

Appriss's ability to track multiple bookings is based on their algorithm that consolidates information based on the person's name. Of the 9.8 million total bookings, they narrow down to 6.8 million individual bookings using their algorithm, the difference representing people with multiple bookings. For behavioral health data that gets folded into the Appriss system, much of the data varies in detail and in standard information. Appriss works with agencies, when possible, to enhance and standardize behavioral health data that they input.

Appriss hopes to generate a score in the next year, based on different criteria (ranging from types of offenses, drug/mental health indicators/prescription narcotic abuse indicators, etc.), which predicts the chances of an individual becoming a high-utilizer and also of their future potential activity (e.g., drug overdose, jail in the next 90 days).

Based on the number of incarcerations in 2015 for target offenses, Appriss identified people with five or more bookings as likely high-utilizers. Based on addresses provided, Appriss is able to identify most of the addresses that are tied to shelters and quantifies those who provide no address to determine a rough list of people who are possibly homeless or transient.

Appriss found that 1 in every 1000 people had been booked four or more times in 2015. Additionally, people who are booked multiple times are booked at different facilities (i.e., a local jail, prison, or department of corrections. This data does not include their entry into service providers yet. They would need access to other service provider data to fold that information in). The more facilities an individual is booked in, the more likely they are a high-utilizer, according to Appriss.

Appriss hopes to combine data to model out different facility bookings (service providers/bookings, etc.) to develop a score for those who are booked X number of times and using X type of services Y number of times to help predict the likelihood of high-utilization and what type of interventions can help assist these populations. Appriss created a score that identifies the risk level of people overdosing on prescription drugs based on the number of prescriptions being given to patients. They use this score as a tool for doctors to show the odds of the patient they are writing a prescription for dying from an overdose. Appriss hopes to use this same method to give first-responders, service providers, and law enforcement a similar tool that helps identify high-utilizers and other individuals at risk of substance abuse.