Tennessee Department of Health Office of Informatics & Analytics: A Holistic Experience

**Purpose:** The Tennessee Department of Health, Office of Informatics & Analytics (TDOH-OIA) is primarily responsible for the translation and assimilation of data into an interpretable, useable way for policymakers, lawmakers, and clinicians to make crucial decisions. The overall goal of this practicum was to understand how TDOH-OIA functions through an examination of the continually changing patterns related to prescribing, dispensing, and abuse of controlled substances.

**Design:** To address the practicum’s goal, a project was developed to update the controlled substances on the state-wide surveillance list. On this list are controlled medications meeting the following criteria: (1) commonly prescribed, dispensed and abused legal medications in TN based on surveillance information, (2) updated CDC 2018-2019 data, and (3) other controlled substances of potential concern. This research helps to provide epidemiologists and data analysts with advanced insights into controlled substance activity patterns. A secondary project was to develop a new database for surveillance focused on gabapentin, now a Schedule IV Controlled Substance in TN.

**Outcomes:** An extensive document that included brand name, National Drug Code [NDC] numbers, dosage, dosage forms, strength, units of measurement, compounded vs. manufactured and expired when applicable was developed. Resources utilized included UpToDate.com, FDA.gov, Micromedex, HIPPA Space National Drug Codes Number Lookup and others to construct the initial stages of the new database. These documents created will be included in the Controlled Substance Monitoring Database (CSMD).

**Lessons Learned:** The primary lesson learned during this practicum was that there are major challenges and logistical concerns to maintaining databases and creating new ones. These include a lack of integration of information from various health information systems, how to maintain privacy and security information of patients, updating data standards that are current with different federal and local laws, minimizing lag time between retrieving data and reporting relevant information to key stakeholders, along with the overall quality of data.