



Mercy Health Data Analytics Intern Project

Omotayo Ajileye, MS

Health Informatics and Bioinformatics Graduate Program, School of Computing and Information Systems,
Grand Valley State University, Allendale, MI, USA



Summary

This Internship was done at Mercy health with the Data Analytics team. There are four different projects completed during the three months period of the internship. The projects are grouped into two categories; Exploratory data analysis and Data Visualization. The programming software used are R and Tableau.

Background

There are several database storage servers in the company depending on what type of dataset is needed for each project. The first tasks in the first few weeks is to understand how to navigate the company's network system and connecting the programming software to access the database where all dataset are stored.

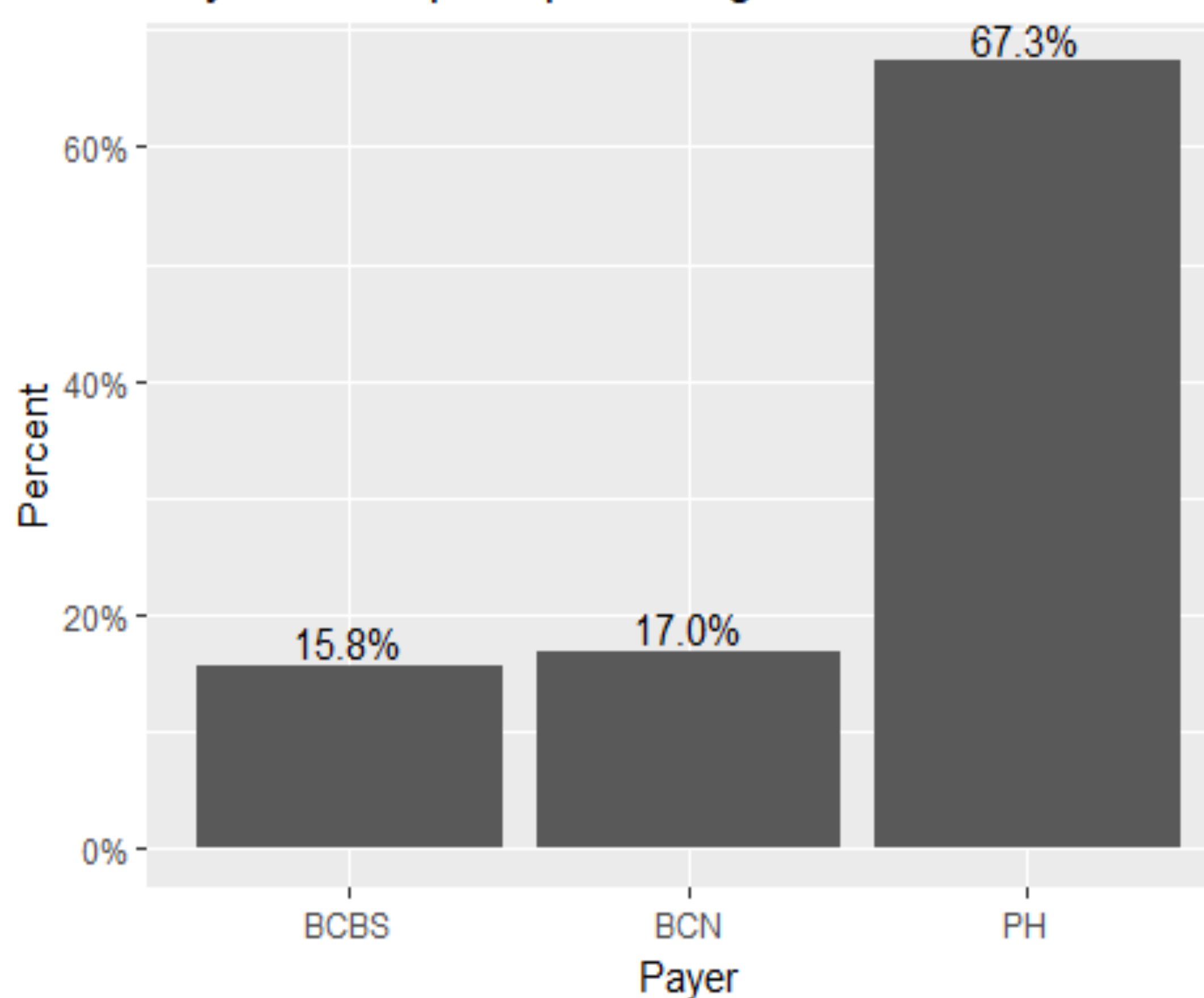
Connecting R and Tableau directly to the SQL server was basically the first completed task of the internship. This made it easier to directly work on any dataset instead of the long process of downloading the dataset from SQL server and then loading it into R and Tableau. The major advantage of connecting R and Tableau directly to the SQL server is that every analysis done on this dataset gets updated as with the SQL server.

Below are the list of major projects done in order of their completion:

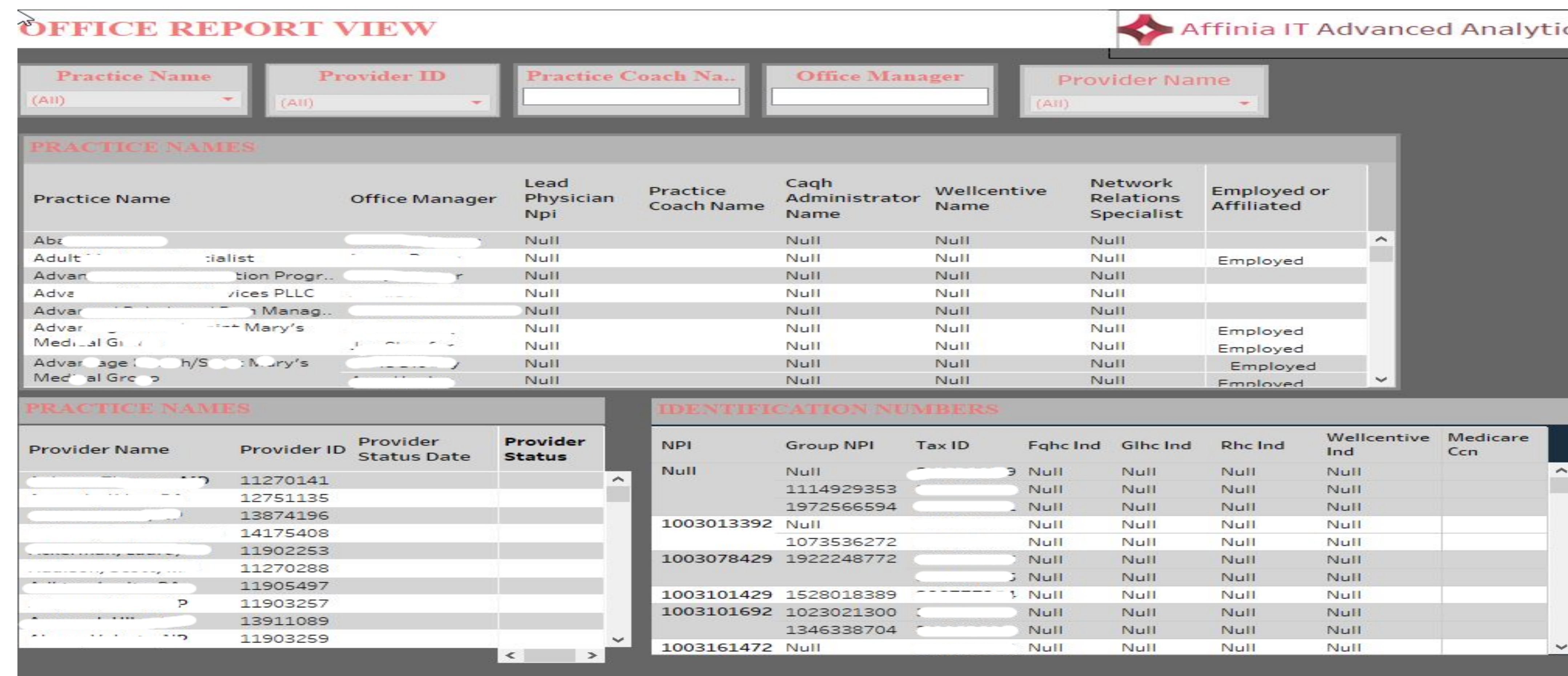
1. Provider View Index Dashboard.
2. Opioid Exploratory Data Analysis (EDA).
3. Shadow Appointments EDA.
4. Shadow Appointments Dashboard.

Opioid Exploratory Data Analysis

Payer Prescription percentage



Provider View Index Dashboard



Shadow Appointment Dashboard

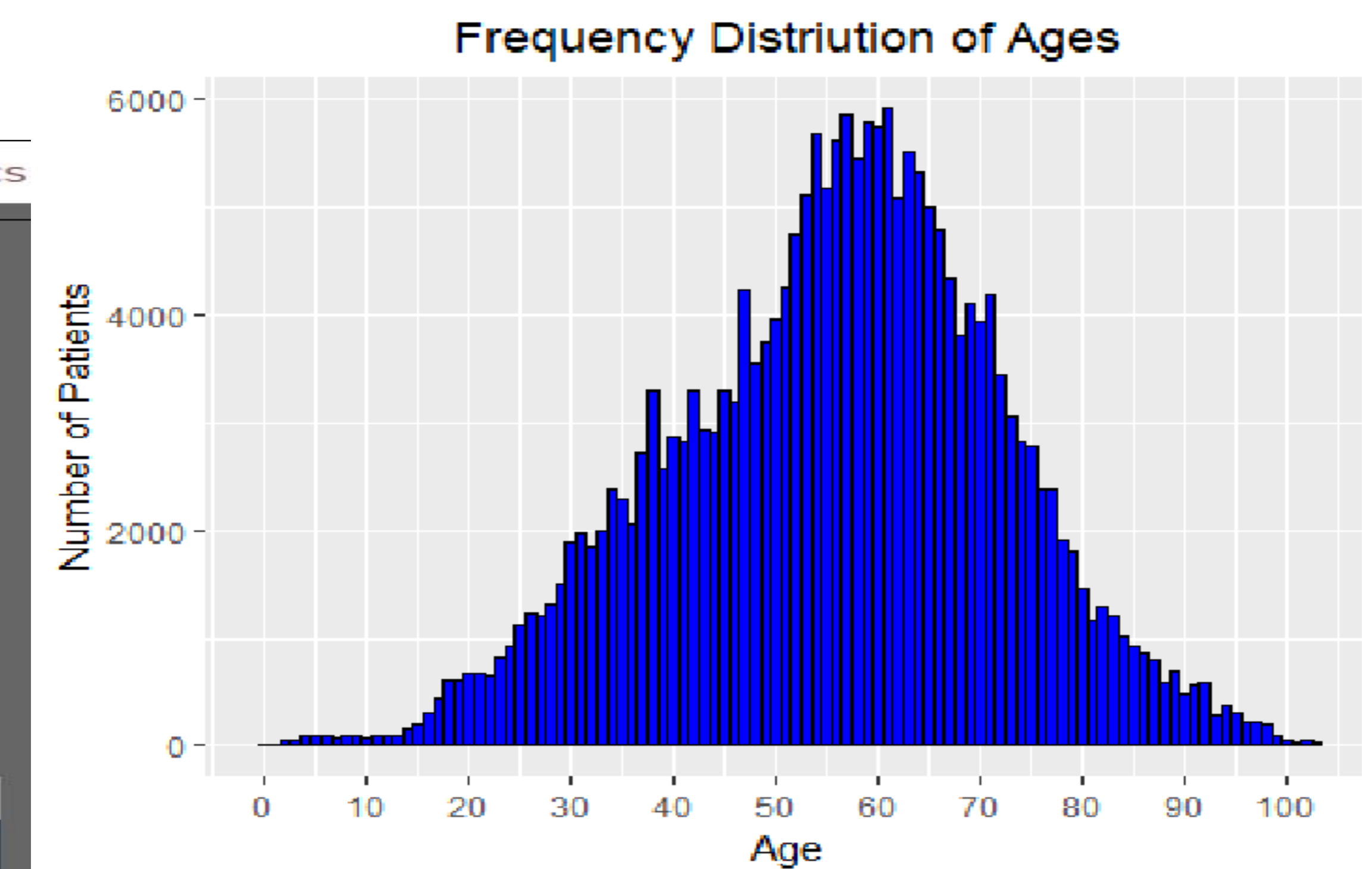
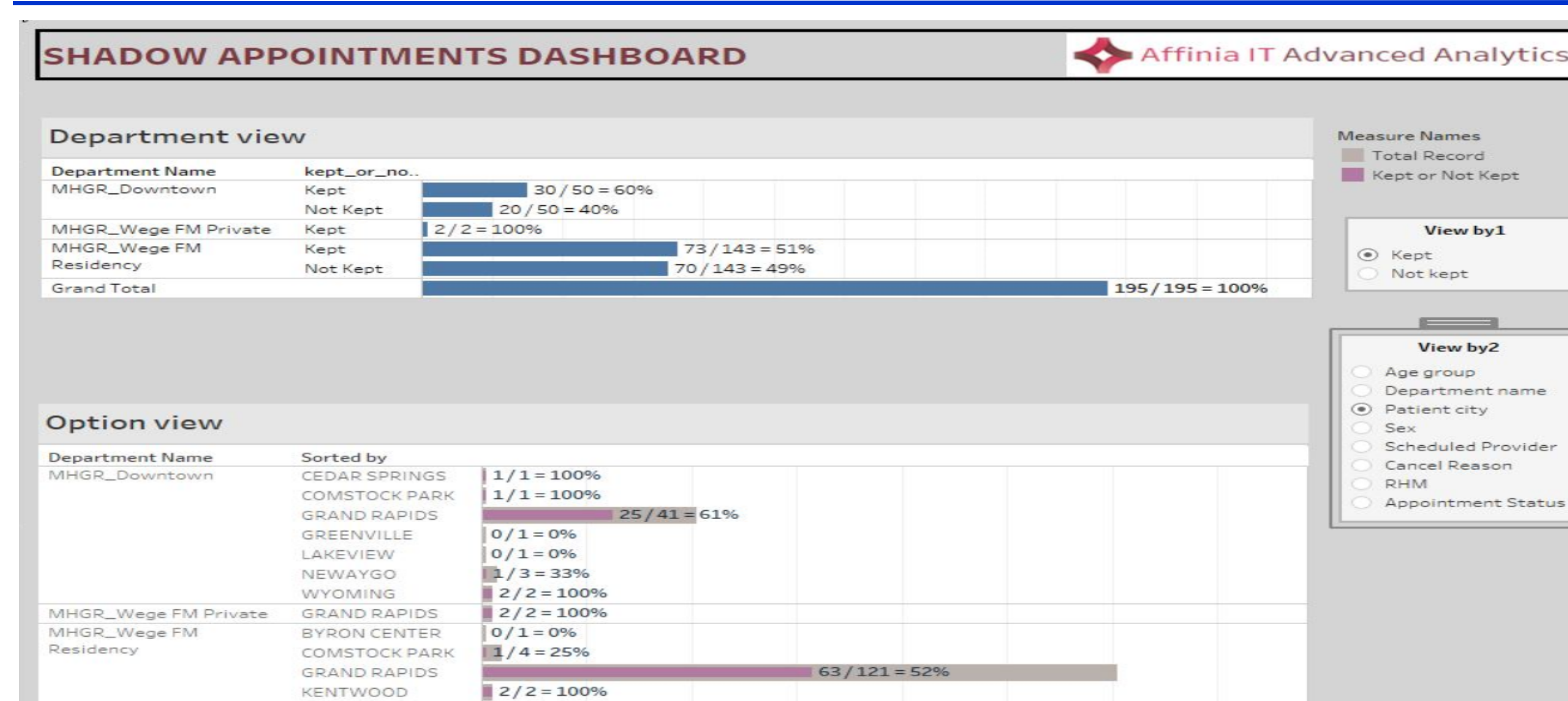


Figure 1: Frequency distribution of Ages to patient's receiving opioid prescription.

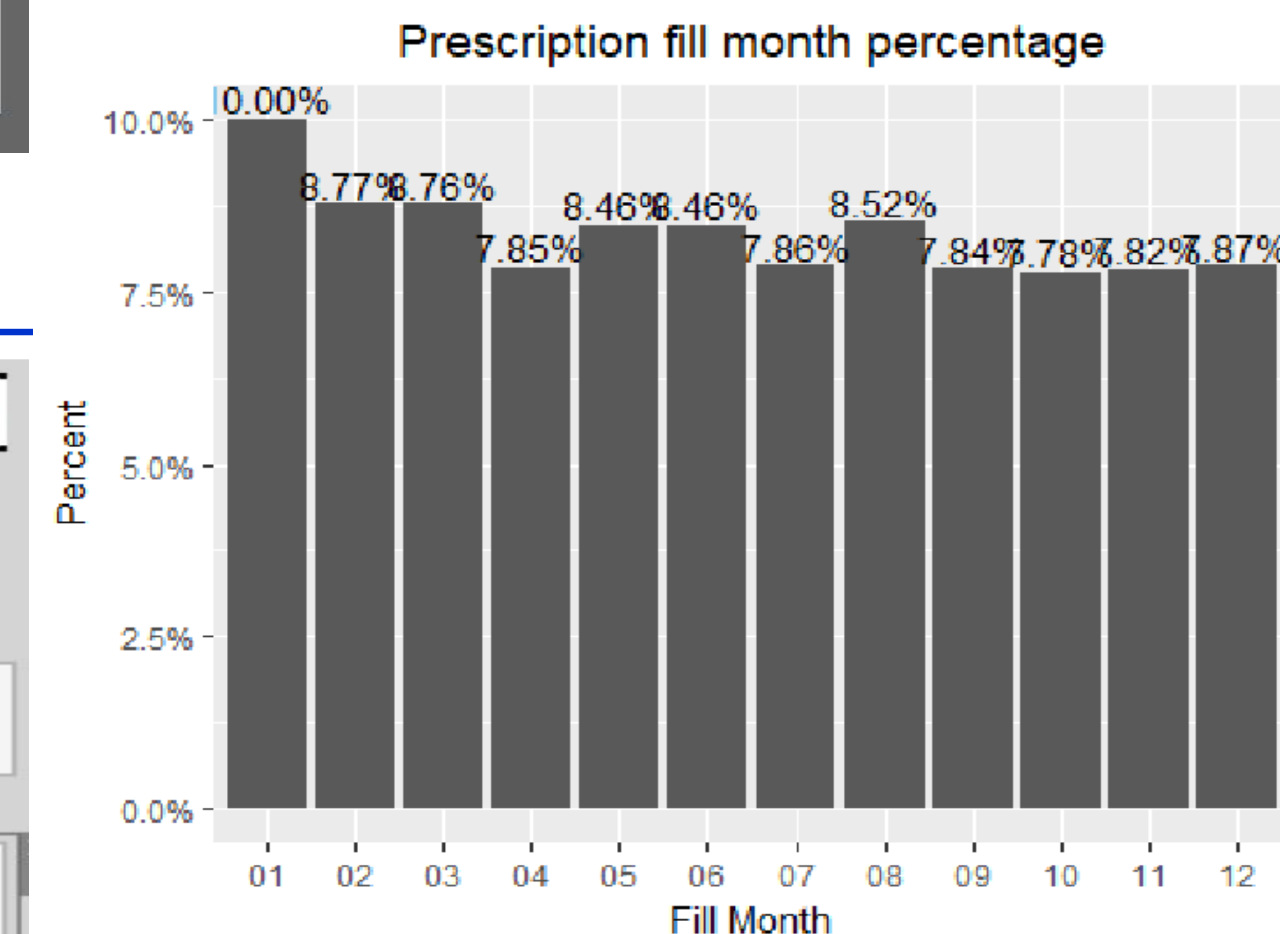


Figure 2: Percentage distribution of Opioid prescriptions for each month.

Acknowledgements:

We would like to thank the following individuals without whose support this internship would not have been possible:
Chris Bailey, Manager, Data Analytics, Affinia health..
Keo Phonthisavath, Senior Data Analyst, Affinia health..
Data Analytics team, Affinia health.

Drug class Prescription percentage

