BOB Shire project

**Shiny App:**

1. Interface:

First interface: selection of insurance company by group (three: only cover restasis; only cover xiidra; cover both xiidra and restasis)

Second interface: selection of specific insurance coverage can do by search

Third: selection of plots (outcomes); two options which is Date or Geography

2. Outcome(plots):

Date:

A line chart with x-axis by quarters of years, with two lines representing the change of xiidra and restasis prescription, in each insurance company (or coverage plan) selected on the interface.

Geography:

One map graph on the number of Xiidra prescription of each state, color the top three states that contribute the most number of xiidra prescription, and not color the other states to emphasize the difference.

A slide bar, with 6 quarter that can be drag on, is place at the bottom of map graph. Each time we drag the slider, the map of the states with color of three states changes. Essentially, there are six map graphs in total to show the change of the top three states that contribute the most number of xiidra prescriptions by quarters.

**What we still need to request:**

NPI data request addition column of address corresponding to Shire ID. We only know 12127 distinct physician’s locations from sales call dataset, but in new patient dataset, we have more than 70000 unique physicians. Once these are joined, only about one sixth of the physician is taken into account of the analysis.

More detailed information about BOB: for each insurance company, we need to know more about their coverage plan, deductible, price and more so that we can group BOB