Why this data?

* Passionate about healthcare, the challenges, the promise of modern healthcare
* Partner is a psychiatry resident

Scenario:

The Center For Medicare and Medicaid Services (CMS) has begun a new initiative to increase oversight of how medical providers are prescribing pharmaceuticals. The goal of this initiative is to reduce the improper use pharmaceuticals in hopes of improving patient outcomes. I have been tasked with looking at the use of antipsychotic drugs. The goal at this stage is to identify any trends or patterns that could guide further investigation.

What are antipsychotics?

* Primarily treat: schizophrenia, bipolar disorder, or psychotic depression
* Side effect profile: high. Diabetes, obesity, lowers white blood cells
* tardive dyskinesia

Questions:

* Are there specialties besides psychiatry that are prescribing them?
* Are there states that have higher prescribing rates total ? for certain specialties?

Limitations of Data:

Part d prescriber data, 25 million rows, 21 columns

Physician database

Population data from census

1. Diagnosis codes / patient Outcomes ?

Because this is introductory analysis this limitation has less impact, however, for deeper analysis, having things like diagnosis codes, patient history could be helpful

1. Provider reporting is not consistent

Sources: <https://www.nimh.nih.gov/health/topics/mental-health-medications/index.shtml#part_149866>