pokitdok

Data Science in Industry

Denise Gosnell, PhD

Who is PokitDok?

Kite Surfers

Neuroscientists

Mathematicians

pokitdok

What is PokitDok?

PokitDok is a platform for the **business of health** supporting <u>transparent</u> and real time **healthcare transactions** from benefits to <u>payment</u>

pokitdok

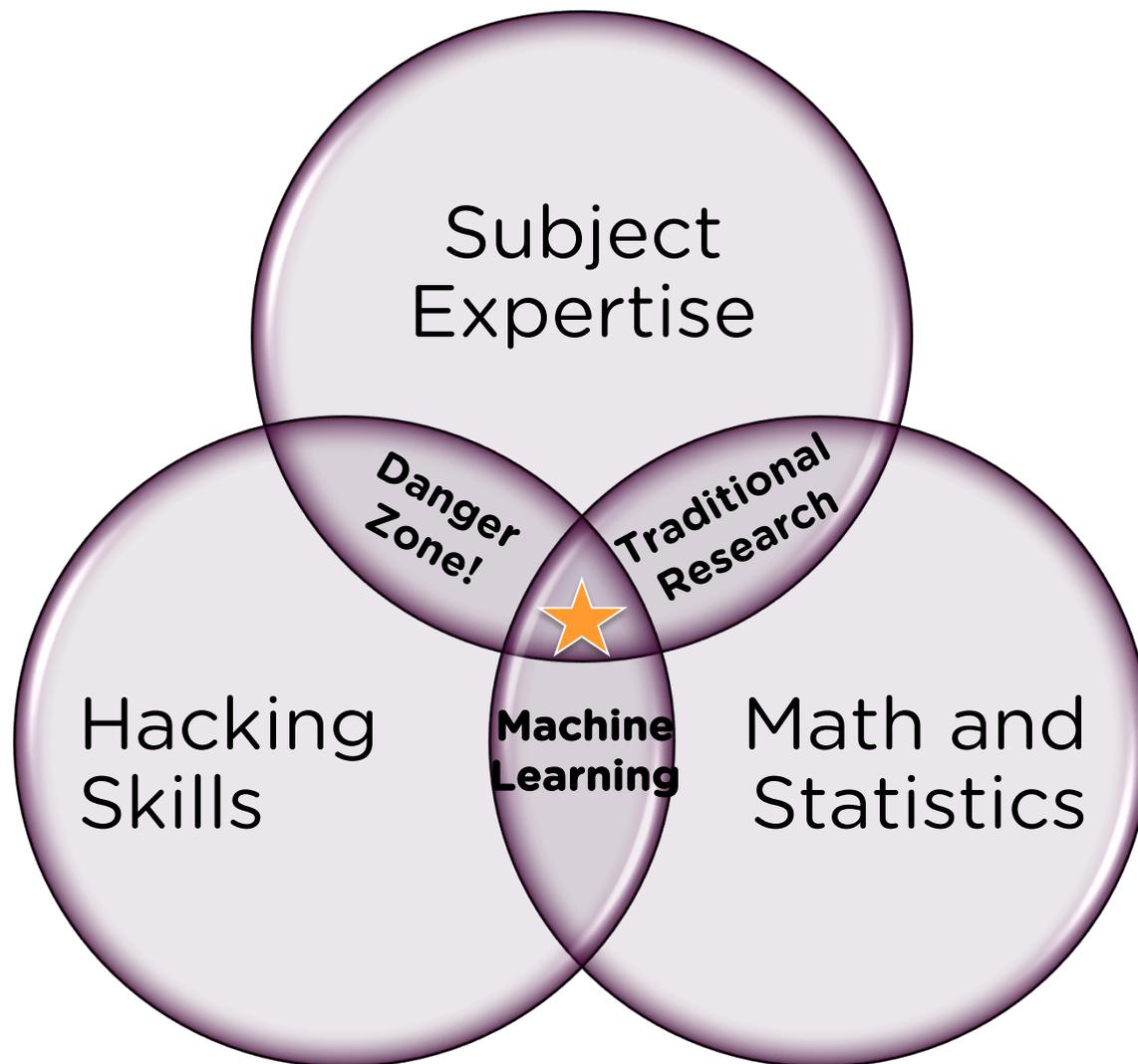# What is PokitDok?

The **business of health,**
for developers.

**JSON-Based
API Endpoints
& EDI Support**

https://platform.pokitdok.com/

pokit**dok**

4

What about the Data Science?

Data Science Skills:

What do Data Scientists do...?

Get Data ➤ Cleansing ➤ Analysis ➤ Take Action

80% | 20%
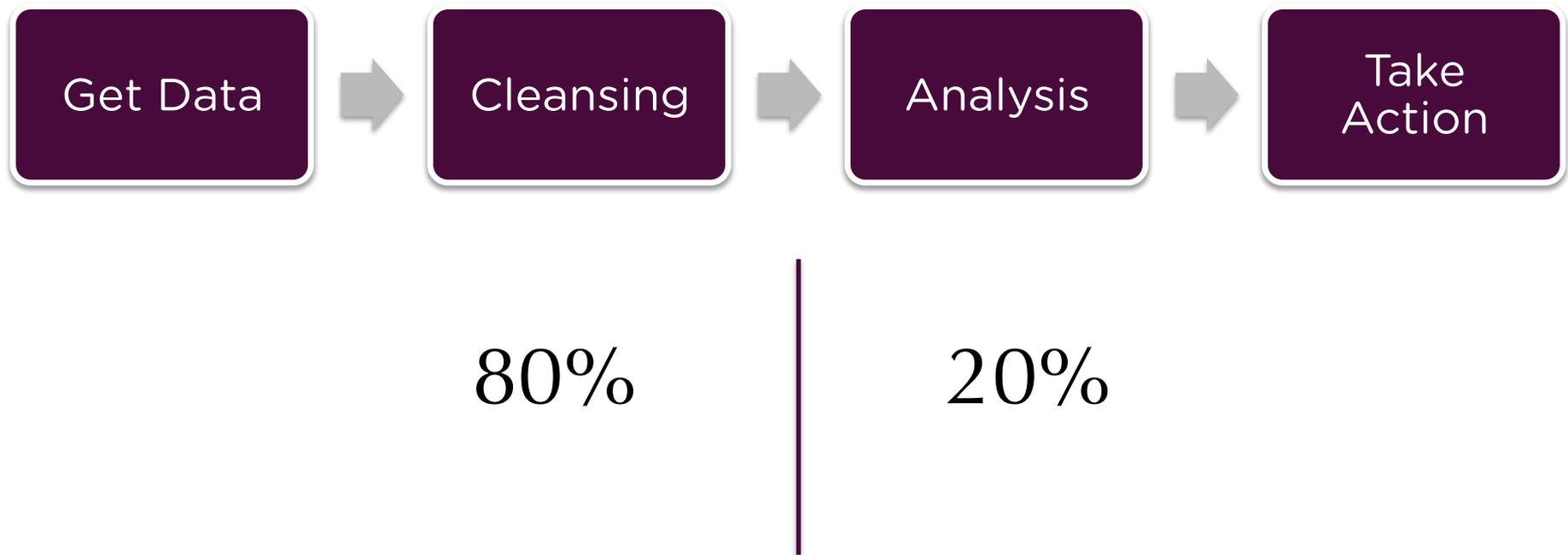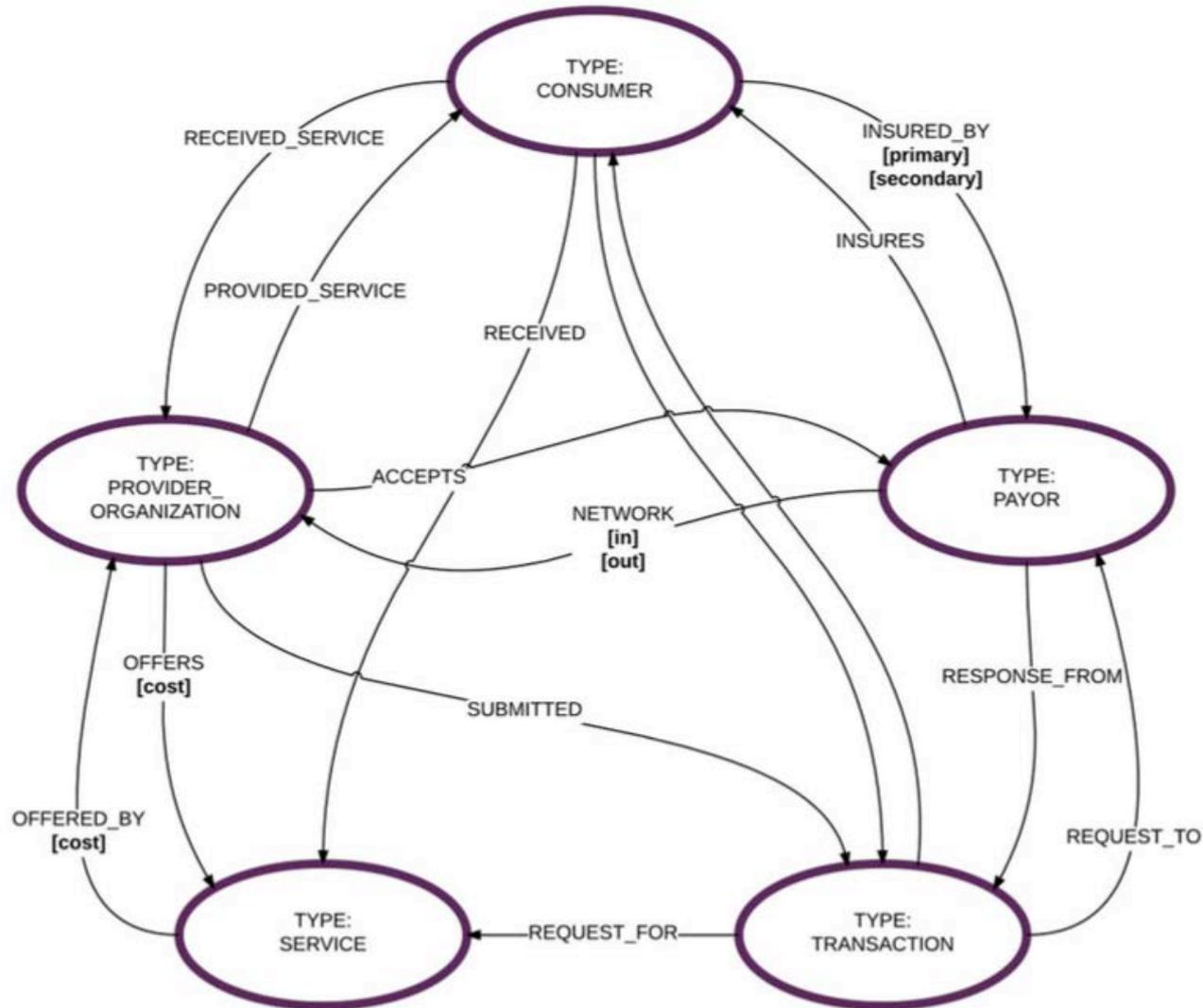
Data Science at PokitDok:

- **Unified Data Access:** Graph model

- **Historical insights:** Persisting and extracting insights from any health transaction

- **Predictive models:** Health exchange risk management and opportunity detection

pokitdok

Unified Data Access:

Unified Data Access:

How many dentists in South Carolina are male?

```
find({'gender':'male',
      'location.state':'SC',
      'specialty_primary' : 'dentistry').count()
```

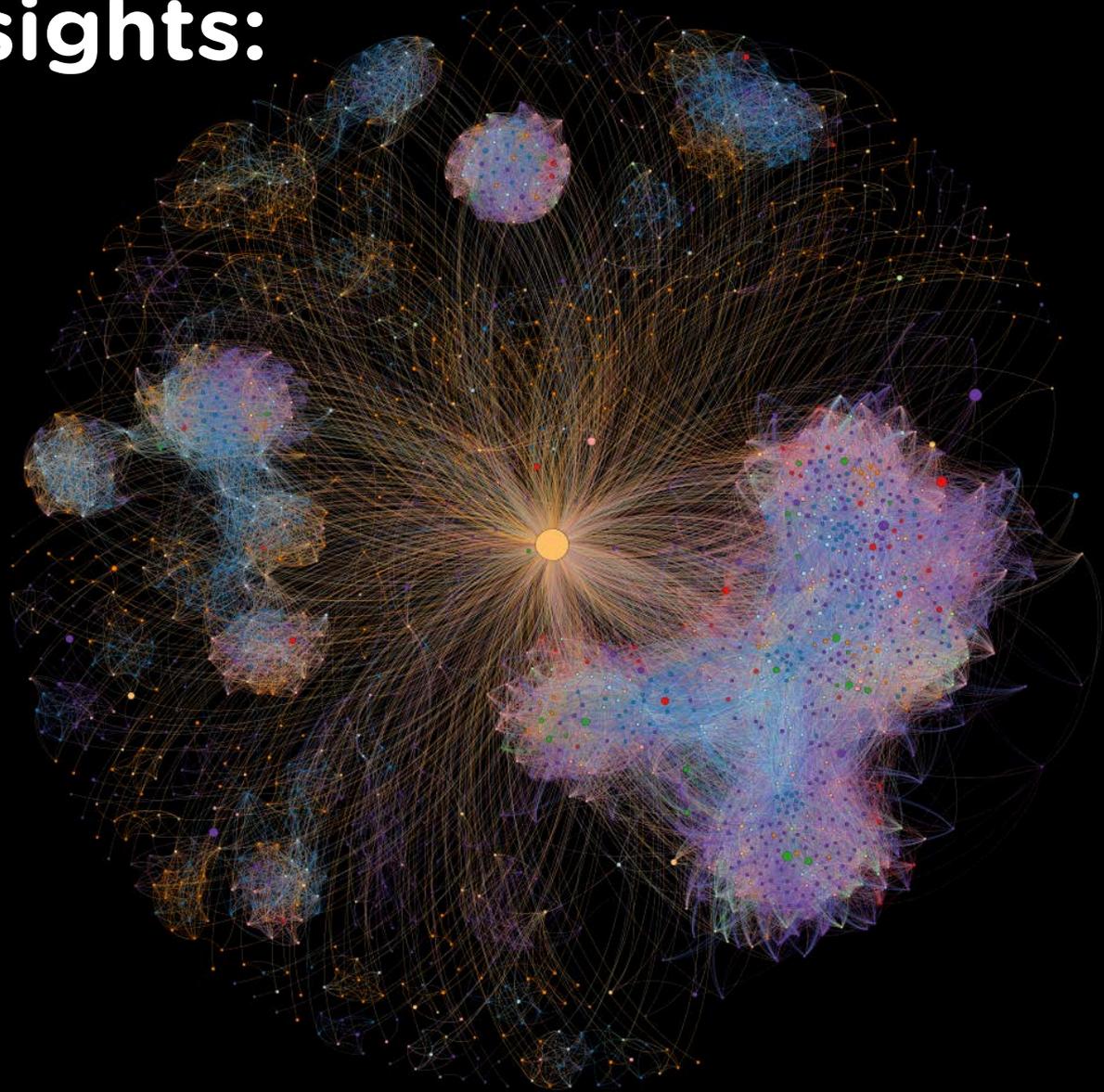What's the price range for cash payment for {CPT code} in {zip code}?

How does that compare with insurance pricing?

What are the in and out of network providers for a given insurance company?
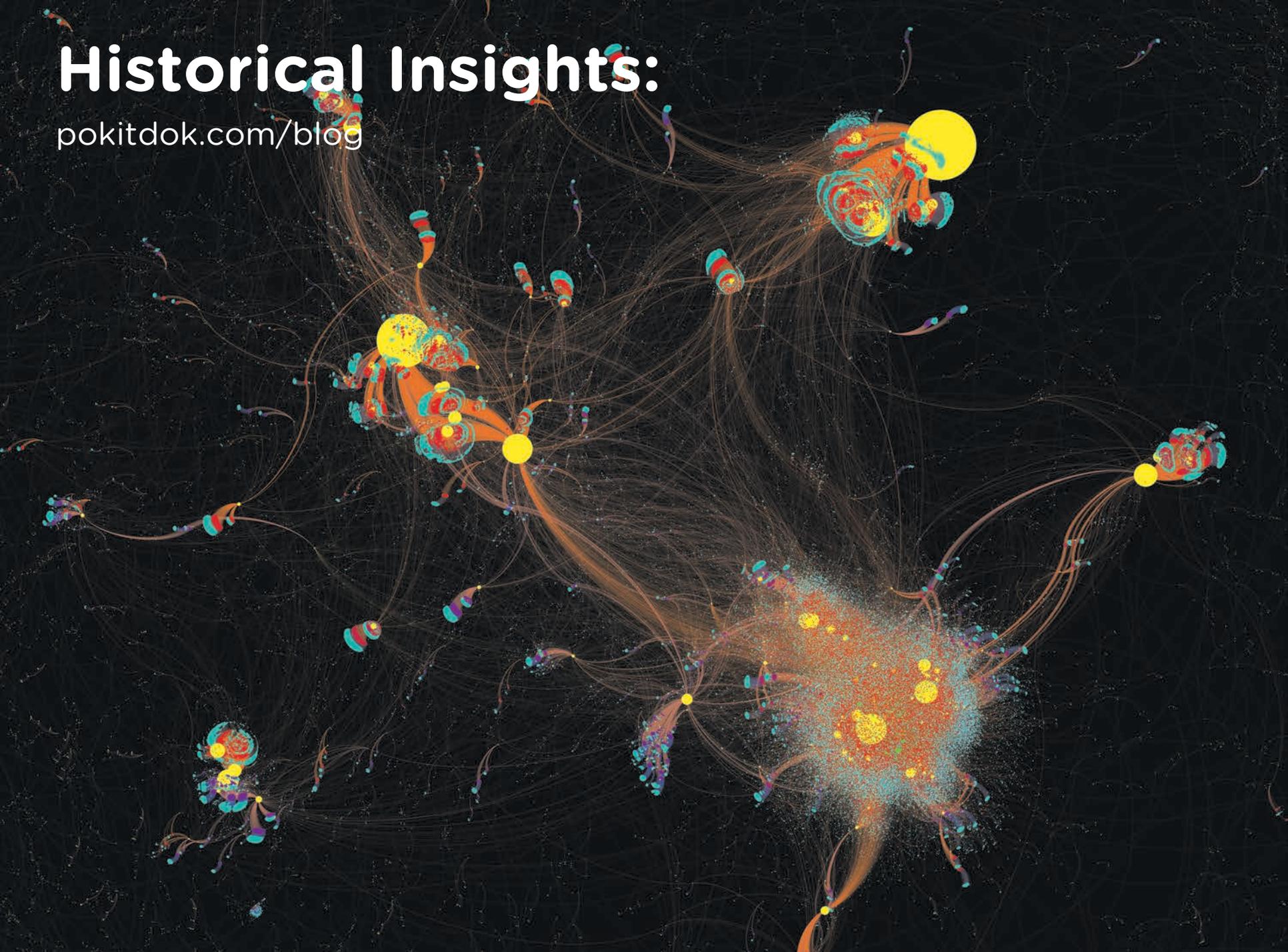
Which payors does MUSC accept?

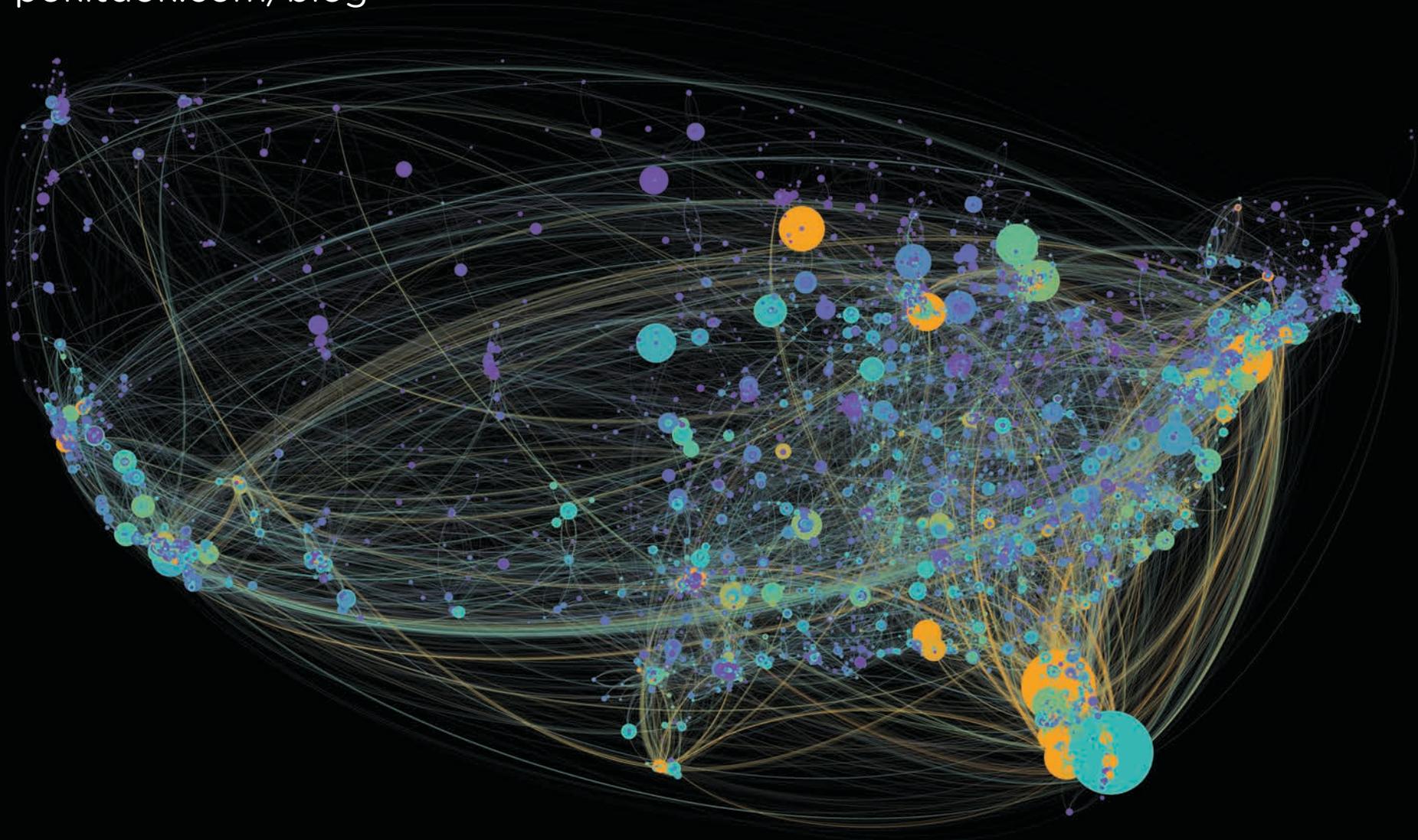pokitdok

Historical Insights:

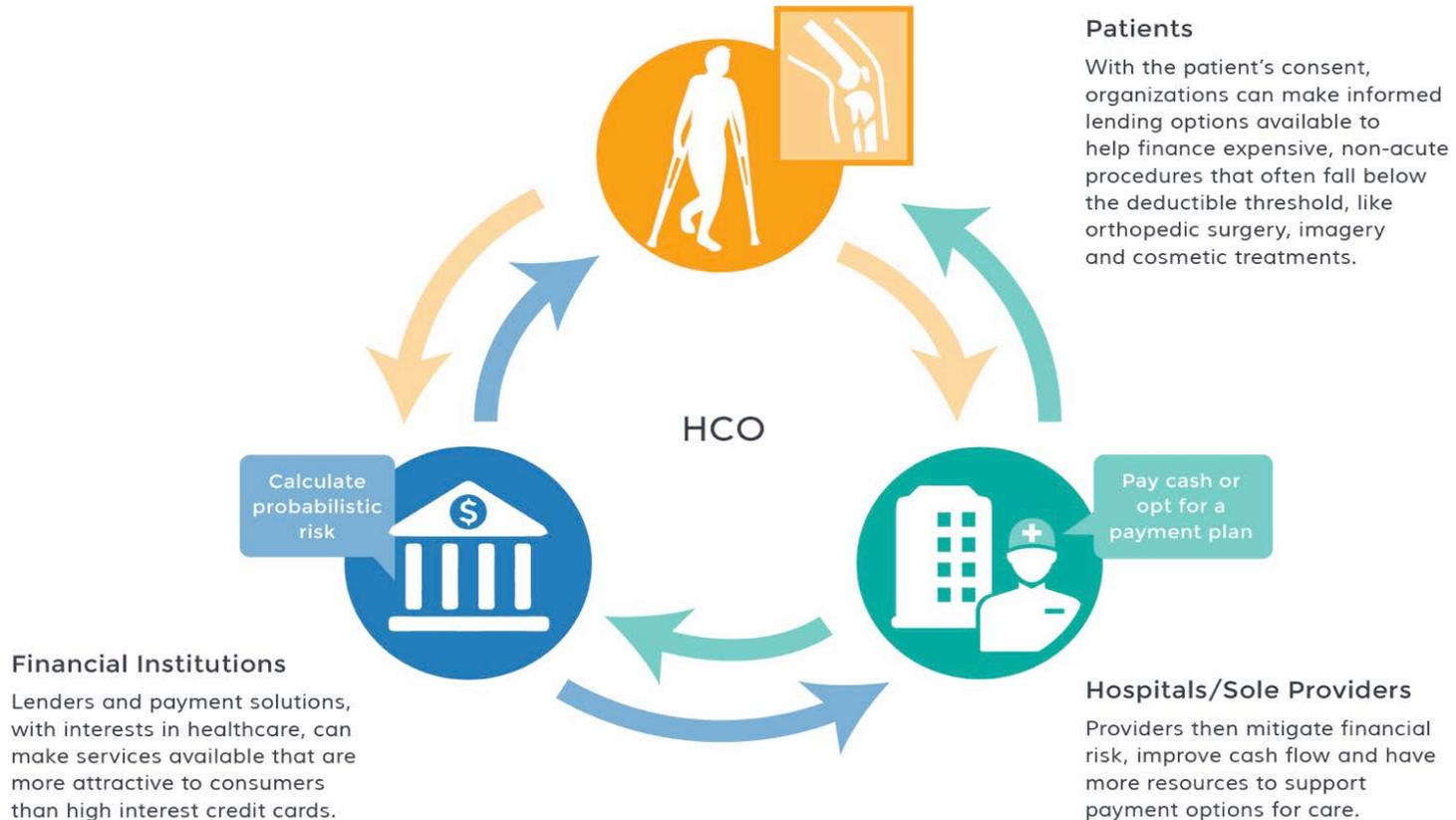pokitdok.com/blog

Historical Insights:

pokitdok.com/blog

Historical Insights:

pokitdok.com/blog

Predictive models: HCO

Health Informed Credit Outcome

Process Claims info via ETL

Process Provider Information via API

Process Consumer Info via API

Process Related Finance Info via API

Create Payor Probabilistic Graph

Create Provider Probabilistic Graph

Create Consumer Probabilistic Graph

Create Financial Probabilistic Graph

Create Health Informed Credit Outcome

Output to API Score is alphameric

Data Science at PokitDok:
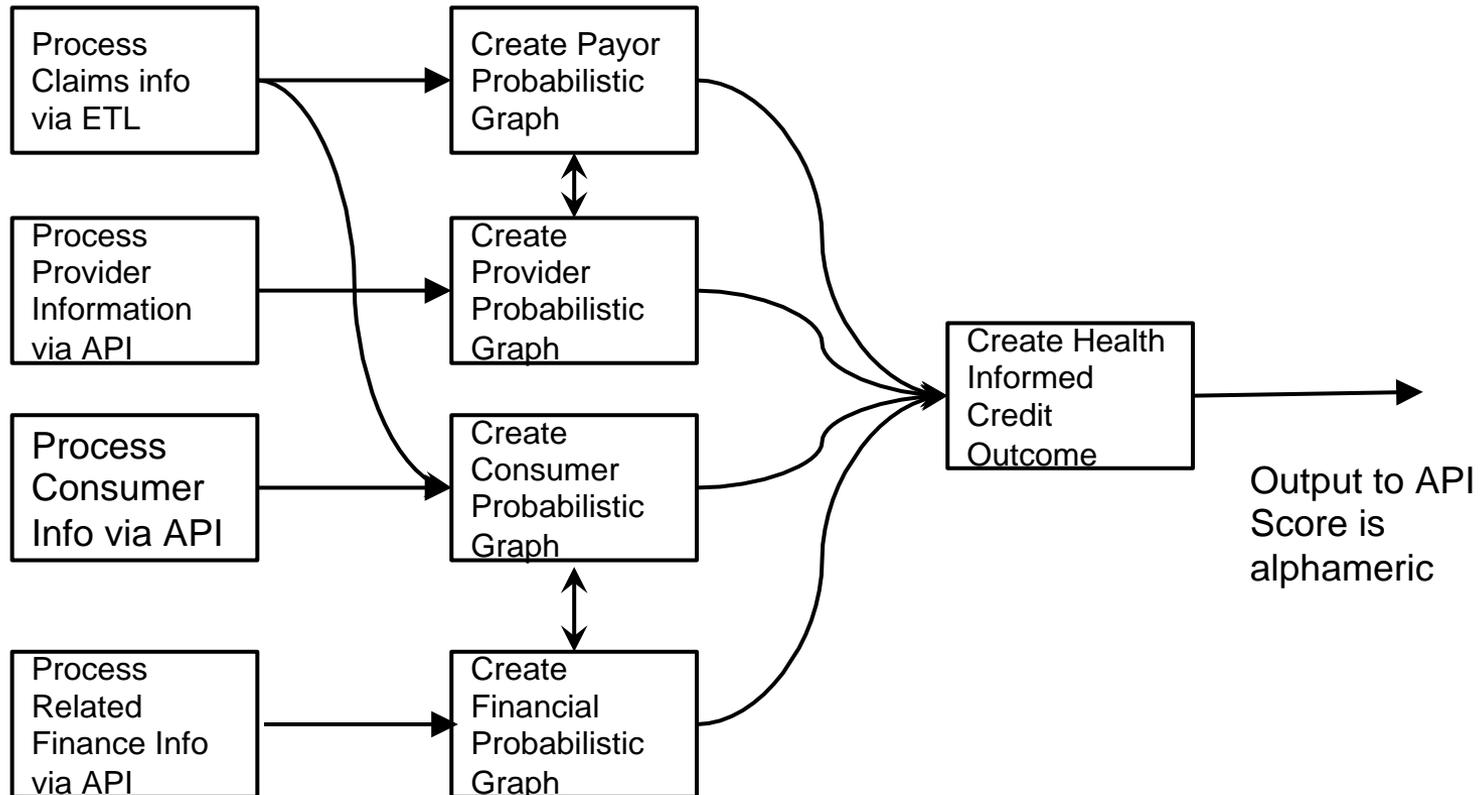
"The most important thing is coding.
Pick a problem.
Go figure it out."

-Ted Tanner, Jr. @tctjr
CTO of PokitDok

pokitdok

My recommendation to you:

1. Start coding
2. Break stuff
3. Repeat

Some places to start:

Python:

    MatPlotLib

    Bokeh

    NetworkX

    NumPy

    SciPy

    PyBrain

    Scikit-learn

    Django

    Pandas

Other:

    Spark

    Titan

    TinkerPop

    iTunesU

    KDNuggets

    ElasticSearch

    Gephi

    Gremlin

    GraphLab

    ...

pokitdok

Knowing what I know now, what would I have done differently?

Always looking for interns and grads.

pokitdok.com/careers

careers@pokitdok.com

pokitdok

Data Science in Industry

Denise Gosnell, PhD