3.3 Trillion spent on health care

750 billion overspent

Important Opportunity to save over 1 billion

Providers, consumer, payor

Payor: employer, insurance, etc

Providers set high prices

BNFT has impact in consumer and payor levels

Overspent driven by consumers and payors

Can influence utilization

Necessary spent

Important Overspent

Payor designs plans

If employers offer best plans, can reduce cost

Where does plan design

Deductible, premium, HAS (health savings account), metal levels

Outcome: End result likelihood of hospitalization

Behaviors: blood work, preventive doctor, taking prescriptions, imaging

HAS:

Not taxed, money that you can save for health care

How do plan designs influence behaviors which influence hospitalization

Test this hypothesis

Try with both approaches

Also confounders: family size, income, chronic conditions, pregnancies, public plan???, premium?

Want to recommend plan designs to clients with argument these plans will save you money

Just look at employer sponsored plans?

Try both versions (with and without)

Metal levels:

Plans have actuarial values

Estimate of coverage that plan is supposed to cover of your expected health costs

70% is bronze

80% is gold, etc

Going to be highly predictive of deductible

Premium, HSA, and metal are going to be the biggest ones

For now look at impact on behaviors

Most variables are categorical

Hospitalization conditioned on deductible

Want to be able to convince people

For confounders, try using as a variable and with confounding corrector

If can't find link about impact, also useful result

Don't force relationship

Important If find cool papers and stuff, send to seth etc

Given data not random representation of US

Have to adjust

For under-represented group, have higher weight to account

Important Can use the weights in modelling

Only going to work for expected value

Can't get p-values and stuff

Bootstrap sampling will get around that

If can find packages that support weighted samples, good to go

Ranger!

Sample code says which var is the weight

Have to account for survey design

Sometimes people have multiple plans in one year

Choose the one they had the longest