

A Comparison of Hospitalized Patients between the U.S. and China

Ideas, Opportunities and Challenges

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A comparison of two countries

- The 1st largest economy
 - The 3rd in geographical size
 - The 3rd in population
 - Diversity in ethnicity
 - Private insurance market
- The 2nd largest economy
 - The 4th in geographical size
 - The 1st in population
 - Homogeneous ethnicity
 - Government led insurance





**Politics are tricky,
but research is interesting**

Hospitalized Patient Data

HCUP by the AHRQ

- Nationwide Inpatient Sample (NIS) → \$100 per year
- Nationwide Emergency Department Sample(NEDS) → \$150 per year
- State Inpatient Database (SID) → \$50~600 per year
- State Ambulatory Surgery and Service Databases (SASD) → \$50~600 per year
- State Emergency Department Database (SEDD) → \$50~600 per year

Shanxi Chinese patient data (2013-2017)



Rural & urban patients

Acute Myocardial Infarction (AMI) patients:

High risk of death, very urgent (need treatment within 30 minutes), high prevalence

Rural

- Less medical facilities
- More transportation time
- Less advanced medical equipment and doctors
- Less disease severity (We suspect)

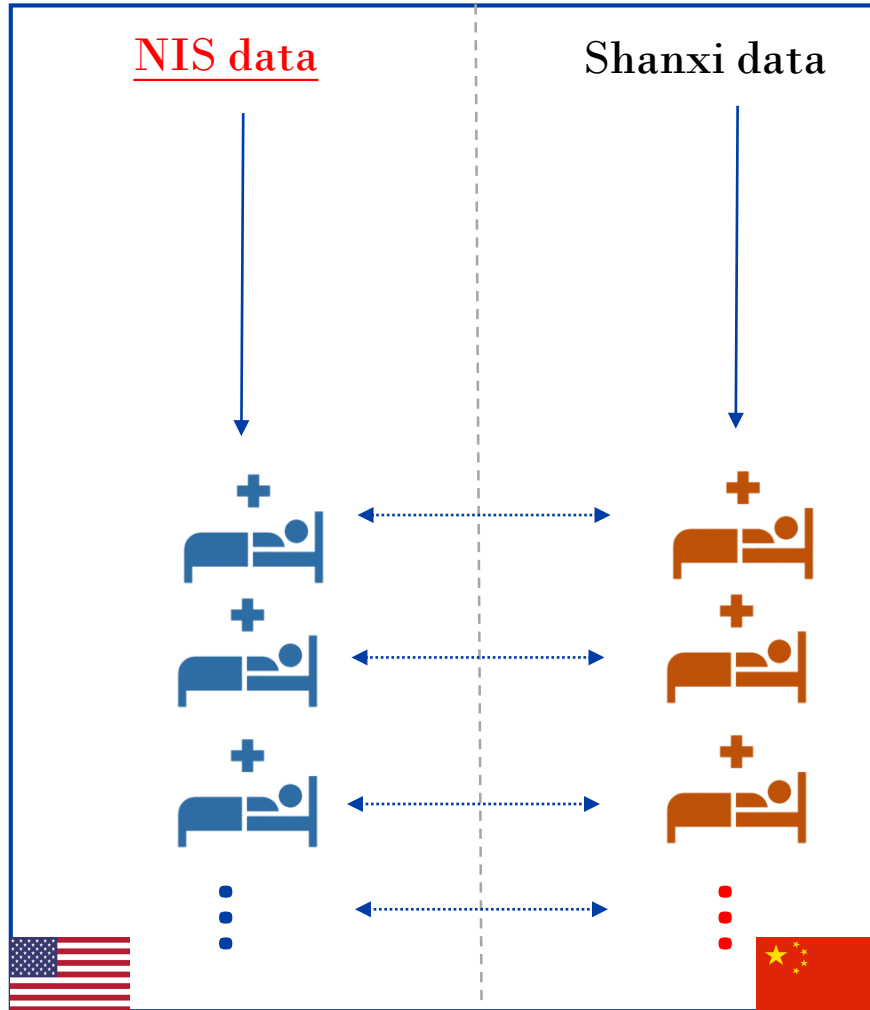
Urban

- More medical facilities
- Less transportation time
- advanced medical equipment and doctors
- Higher disease severity (pollution, stressful life...)

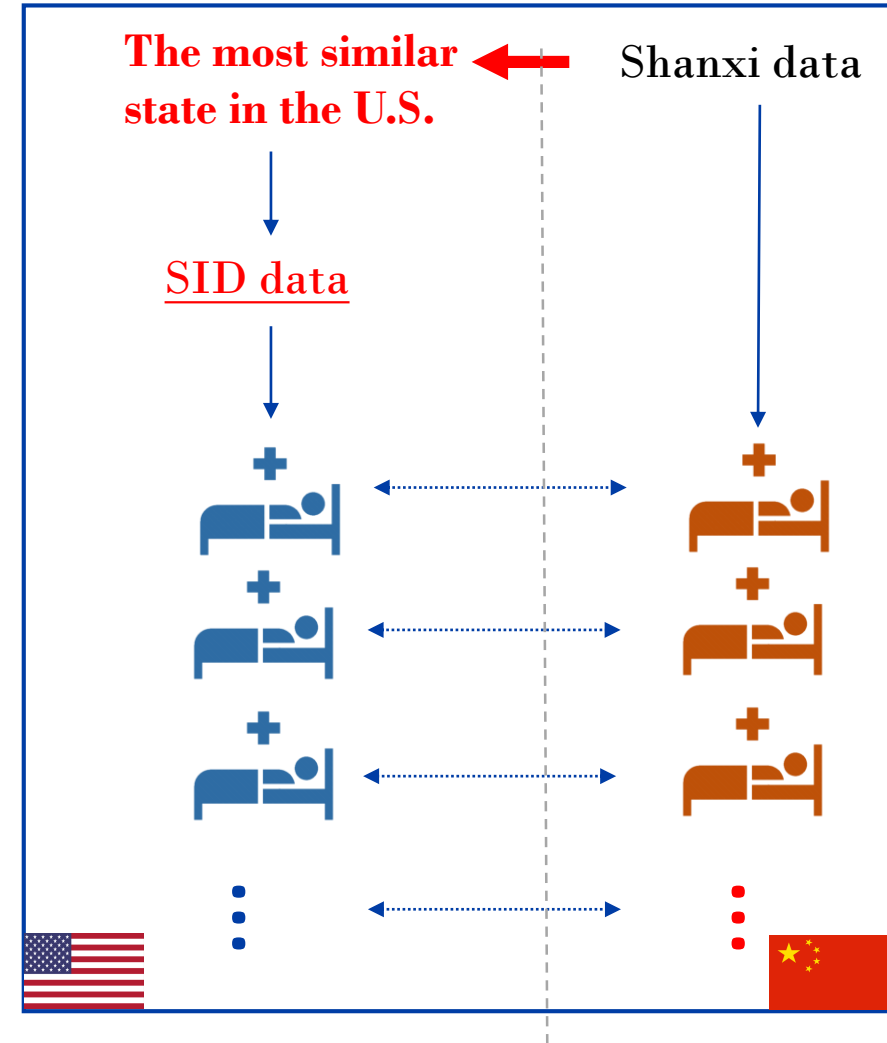
National data V.S. Provincial data?

Two matching methods

One stage matching



Two-stage matching



Challenges

- How to address the importance of this topic?
- NIS or SID data?
- What other topics are interesting?