

## Input

Knowledge Graphs  
without semantics



Knowledge Graphs  
with semantics



### Discovering Patterns

- Uploading the KG (RDF triples) for rule mining system
- Horn rules are of the form Body  $\rightarrow$  Head
- Saving the logical rules in local system



### Applying Entailment Regimes

- Applying entailment regimes to the KG to enrich the mined rules
- Computing metrics for enriched mined rules



Discovering Patterns



### Exploring Patterns

- SPARQL queries over KGs are used to evaluate the mined logical rules
- Graphs plotting the distributions



### Categorizing Discovered Patterns



- Adhering to clinical guidelines
- Inaccuracy in data
- Potential missing relationships

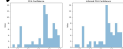
Analyzing Patterns

## Output

Distribution of PCA  
for Definitions in Head



Null Hypothesis Test



Demonstration of Analysis

