

## Research Challenges and Solution

**OHDSI offers a great potential in conducting scientific research based upon statistical evidence provided by collaborators.**

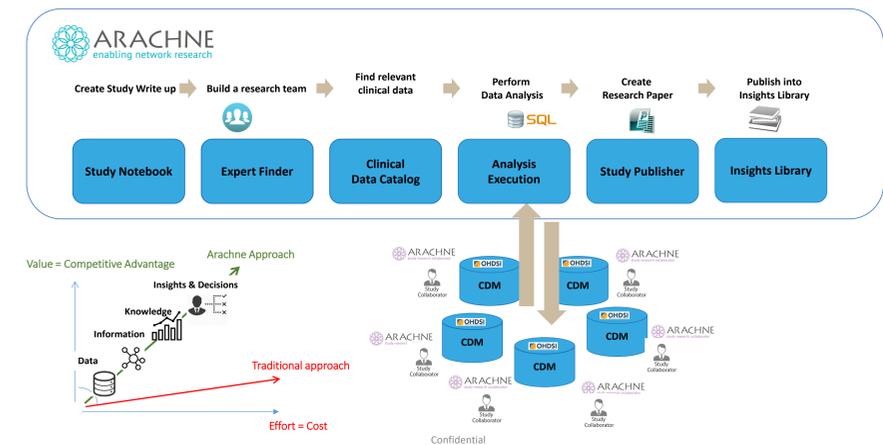
- But, the following need to be overcome:
- Lack of a consistent approach in conducting observational research
- Lack of a trusted environment to enable study workflow
- Lack of an environment allowing to conduct collaborative, federated research
- Siloed, locked down and scattered patient health data sources
- Lack of easy and secure data access
- Regulatory compliance risks
- Lack of consistent analytical tools and standards

ARACHNE addresses these challenges and enables effective Healthcare Research

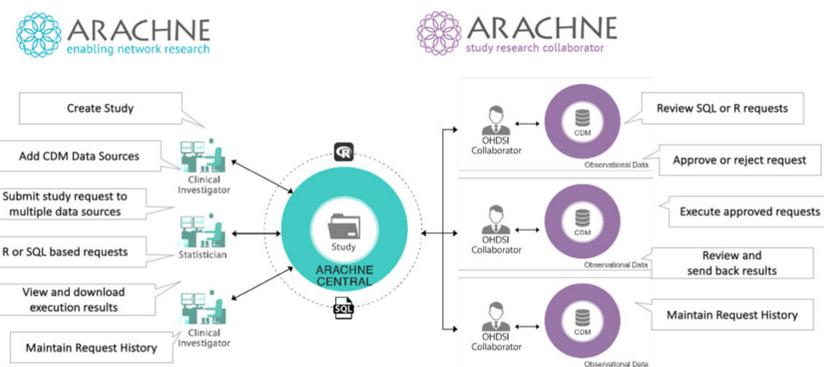
## Business Questions

- Epidemiologist**
  - "What is the cause and conditions of the disease and the most effective treatment in a certain population?"
  - "Are there any unmet medical need in a certain disease area?"
  - "Are there previously unknown effective indications (drug repositioning)?"
- Pharma Clinical Trial Manager**
  - "What are the optimal investigator sites for a clinical trial?"
  - "What is the optimal set of inclusion or exclusion criteria for patient enrollment and effect size?"
- Pharma Safety**
  - "Is spontaneous report about perceived adverse real? And what is the sub-population I am observing it in?"
  - "What is the drug effectiveness and safety in real world after commercial launch in contrast to controlled clinical trial?"
- Pharma Marketing**
  - "What is the comparative effectiveness and safety of a drug against competitor's drug?"
  - "What is the competitive drug pricing based on effectiveness in certain market?"

## Process Flow



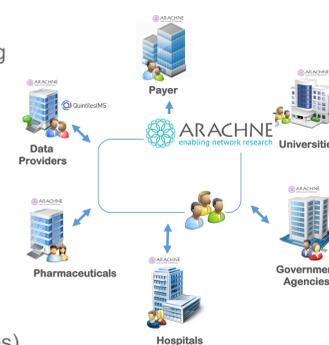
## Key Features



## Research Network

**Conduct federated collaborative research studies across healthcare organizations, data owners and researches**

- Study lifecycle and workflow management
- Discover federated data sets in RWE data catalog
- Build study team
- Federated analysis across organizational boundaries
- Secure, compliant and trusted data access
- Data access and execution controls
- Exchange and store analysis results
- Elastic, parallel and remote job execution
- Support for R, SQL and complex packages
- Integration with OHDSI Platforms (ATLAS, Achilles)
- Support for OHDSI OMOP CDM



## Product Roadmap

