

# SCANNER

## Lessons from the Field: SCANNER

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resilient  
network systems



## Scalable Distributed Research Network

SCANNER = SCAlable National Network for Effectiveness Research

## Principal Investigator

Lucila Ohno-Machado, MD, PhD

## Project Dates

Sept. 30, 2010 – Sept. 29, 2013

## Overall Goal

Develop a scalable, flexible, secure, distributed network infrastructure to enable near real-time comparative effectiveness research (CER) among multiple sites

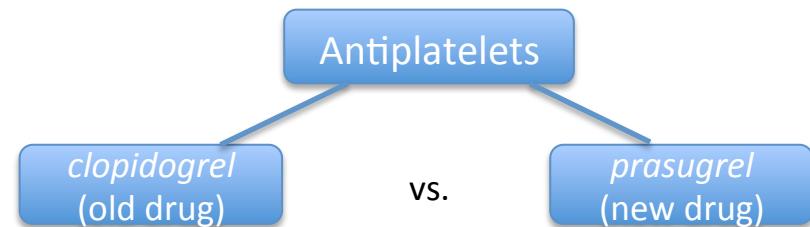
- Compare risk of bleeding from medications prescribed for cardiovascular conditions
- Sharing summary data

## USE CASES

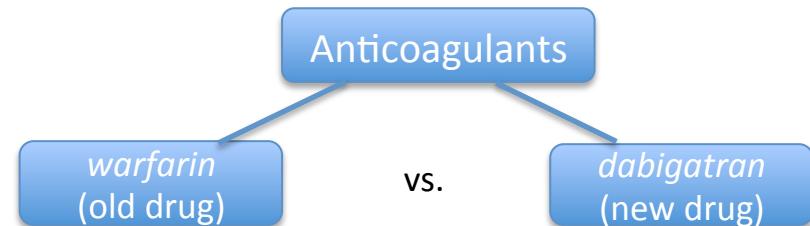
### Conditions

Acute Coronary Syndrome (ACS) with Drug Eluting Stents (DES)

### Comparisons



Atrial Fibrillation (AF) or Venous Thromboembolism (VTE)



- Compare care management of patients with diabetes or hypertension
- Sharing limited data

## USE CASES

### Conditions

Diabetes

Physician  
only

### Comparisons

Physician  
+  
Pharmacist

vs.

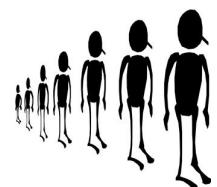
Hypertension

Physician  
only

Physician  
+  
Pharmacist

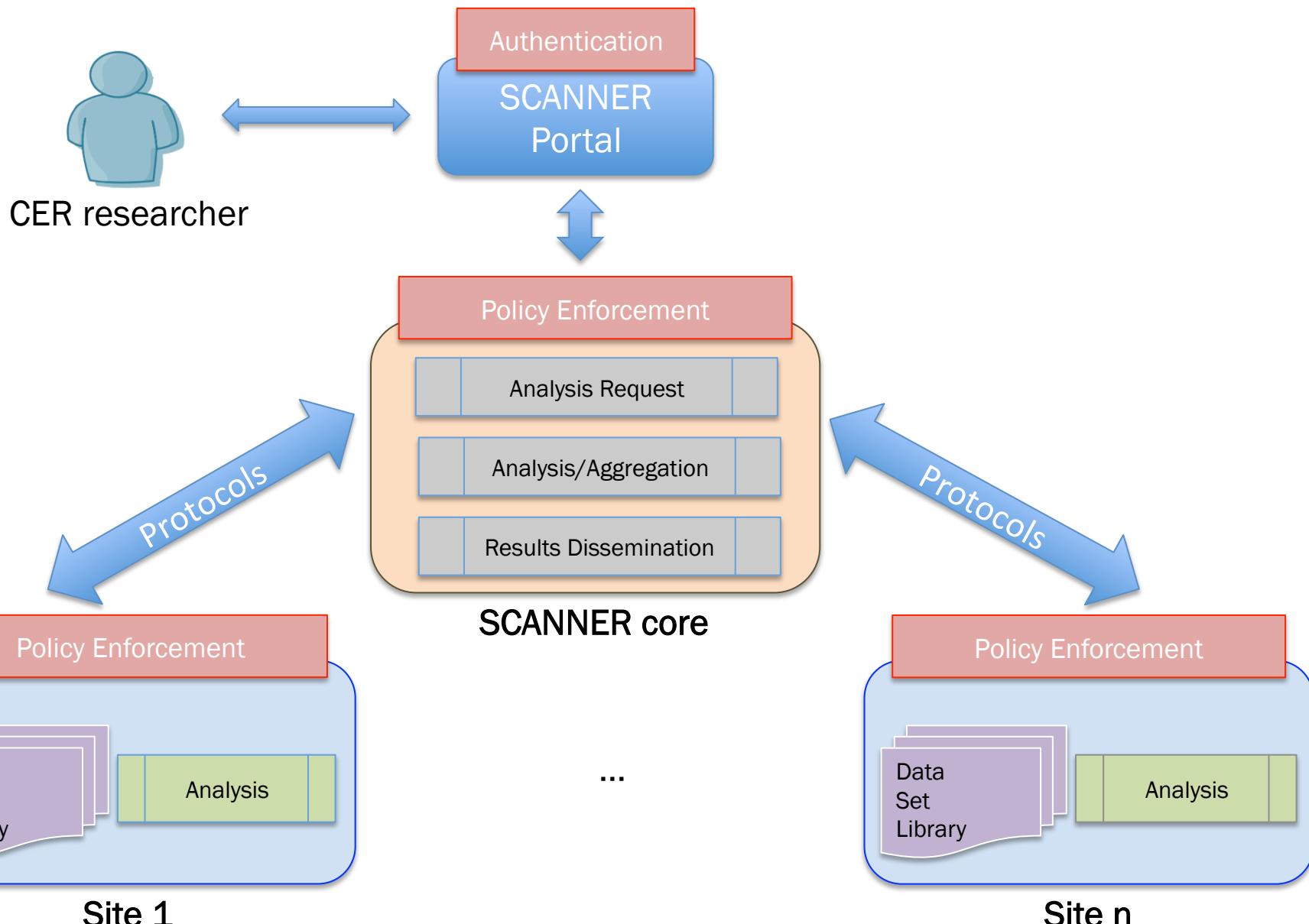
vs.

- Low-income groups
- Minority groups
  - › Hispanic/Mexican American or Latino
  - › American Indian/Alaska Native
  - › Asian
  - › Native Hawaiian or other Pacific Islander
  - › Black or African American
- Women
- Elderly
- Individuals with special health care needs
  - › Those with disabilities
  - › Those who need chronic care
  - › Those who live in inner-city areas
  - › Those who live in rural areas



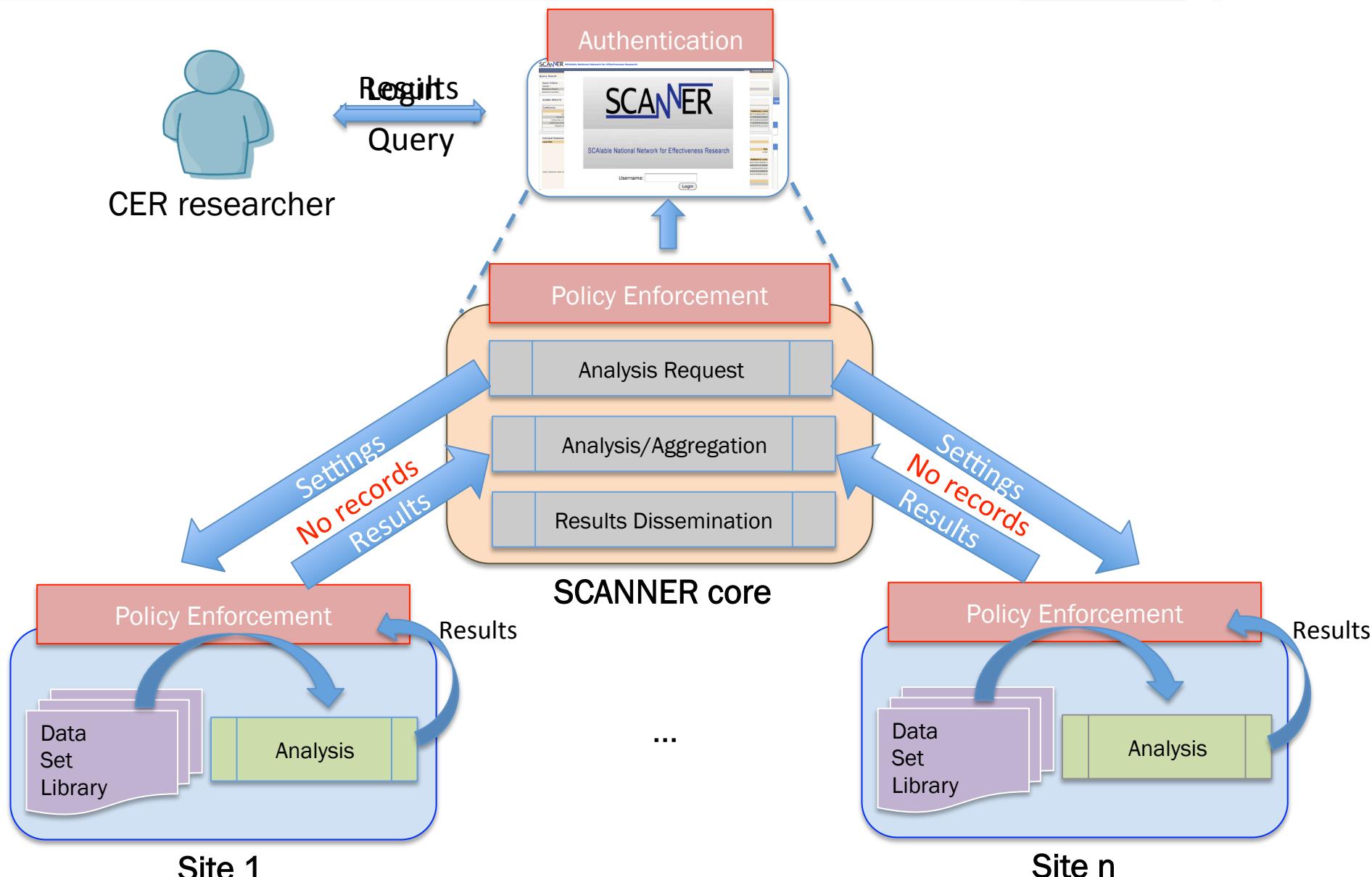
# SCANNER at a Glance

SCANNER



# How SCANNER Works

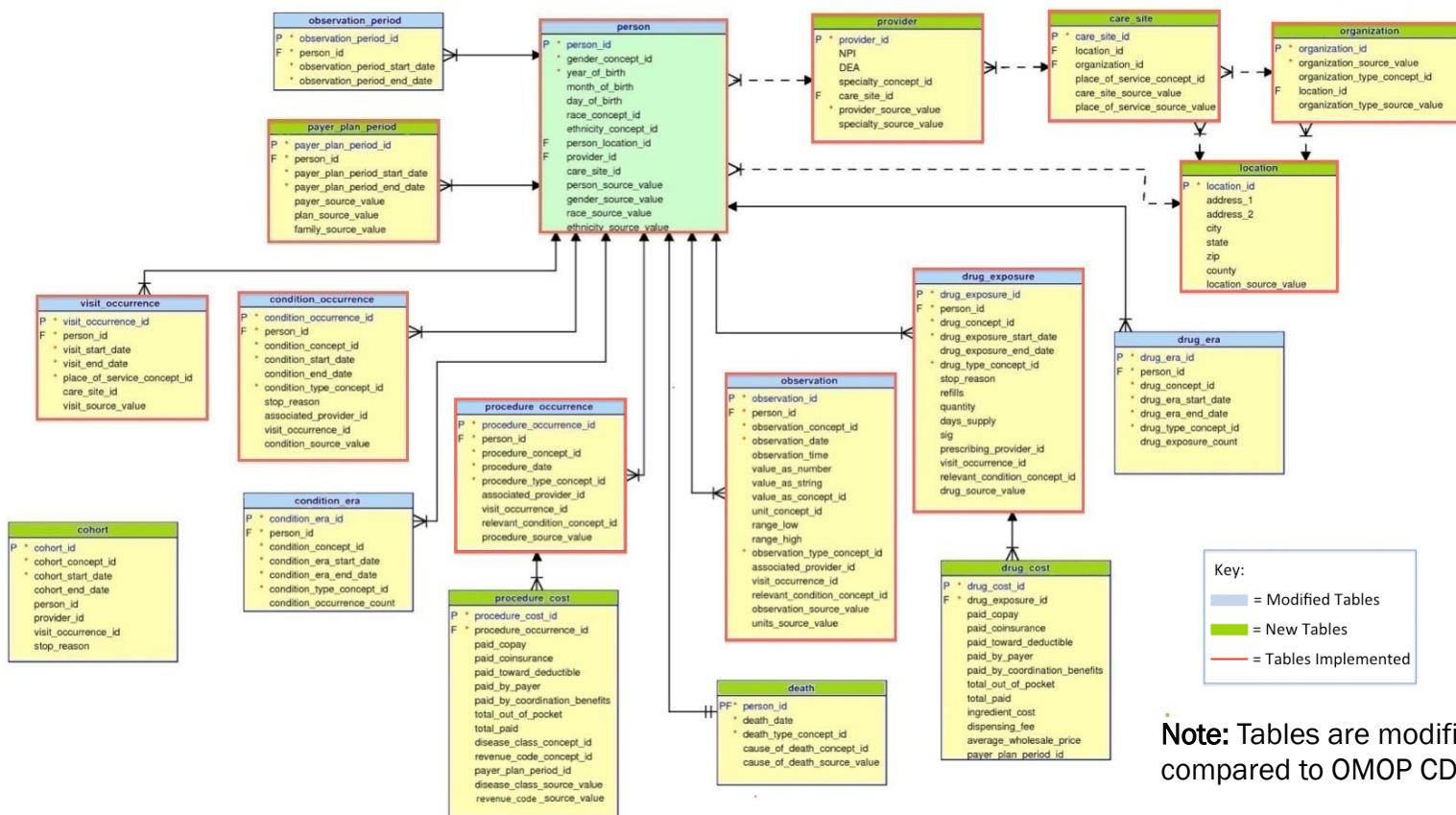
SCANNER



# Common Data Model (CDM)

SCANNER

- Using CDM from the Foundation for the NIH
  - Observational Medical Outcomes Partnership (OMOP)
- Collaborated with SAFTINet researchers and OMOP staff to recommend changes

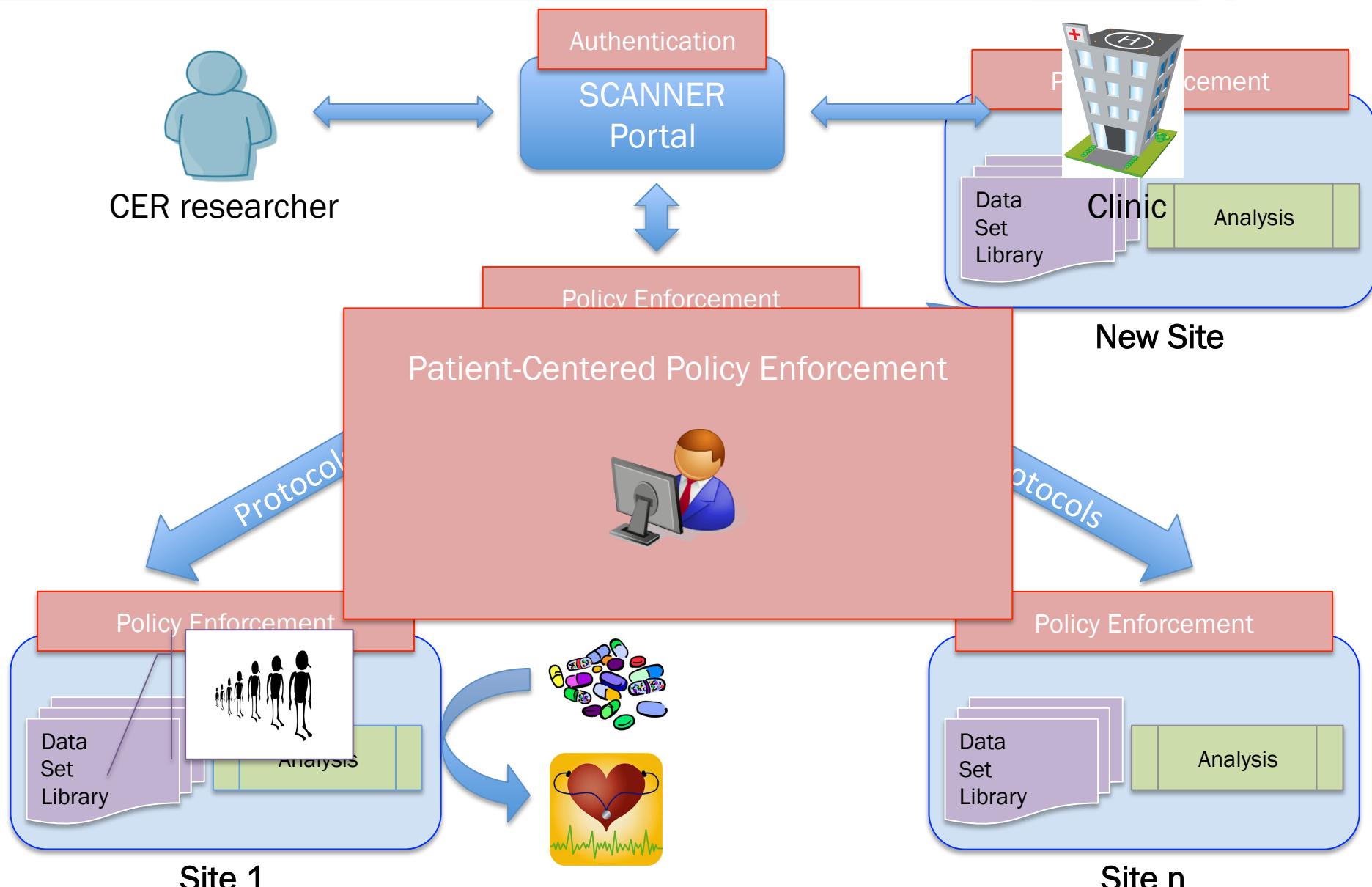


- Data Network Architecture
  - › Design for overall network is a challenge
- Data Standards and Interoperability
  - › Selection of the CDM is important
  - › Distributed sites must maintain complete consistency
- Governance
  - › Policy features must address federal, state, and institutional requirements
  - › Detailed requirements planning supports the operationalization of appropriate policies



# SCANNER and PCORI

SCANNER



# Partners



Brigham and Women's Hospital (BWH)



Charles Drew University of Medicine and Science



RAND Corporation



Resilient Network Systems



San Francisco State University (SFSU)



Vanderbilt University Medical Center & TVHS Veterans Administration Hospital (TVHS VA)



UC Irvine



UC San Diego

# Thank you! Questions?

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<http://scanner.ucsd.edu/>

