VIPER
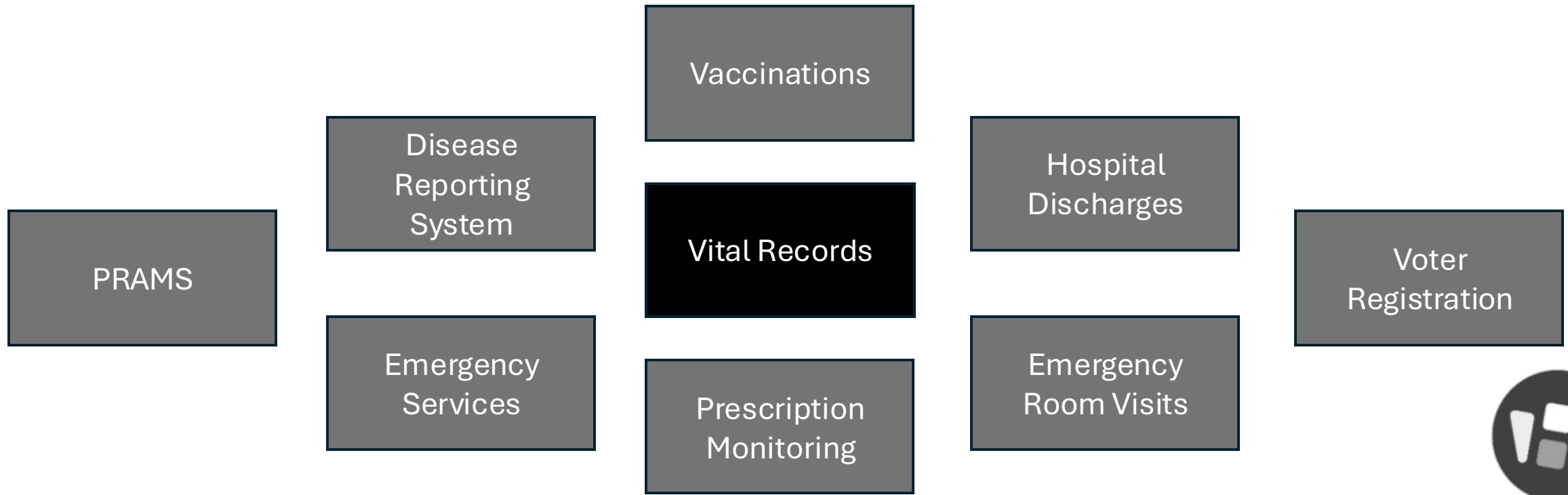
Vital Information Person-Event Repository

Sean Coffinger, Health Statistics Manager, WA State DOH
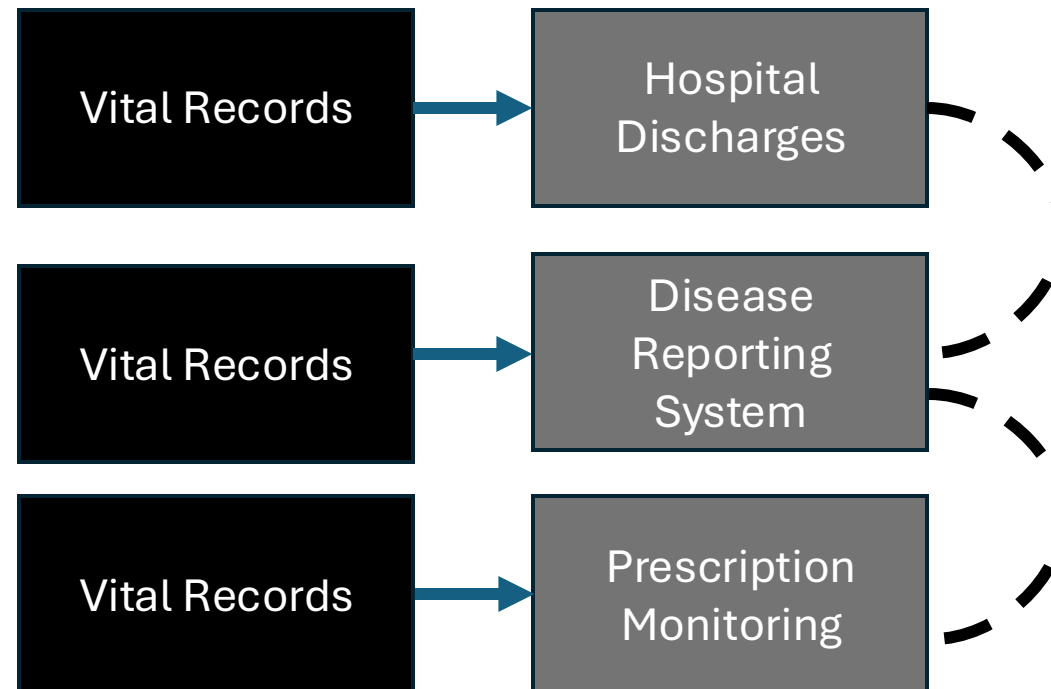
Vital Information Person-Event Repository

- What is VIPER?
  - VIPER is a master person index (MPI) that leverages a vital records (VR)-based "spine"

- What is an MPI?
  - An MPI is an individual entity-level (person) data structure that links multiple data systems
  - VR data is the root of identity, making it a perfect MPI spine candidate
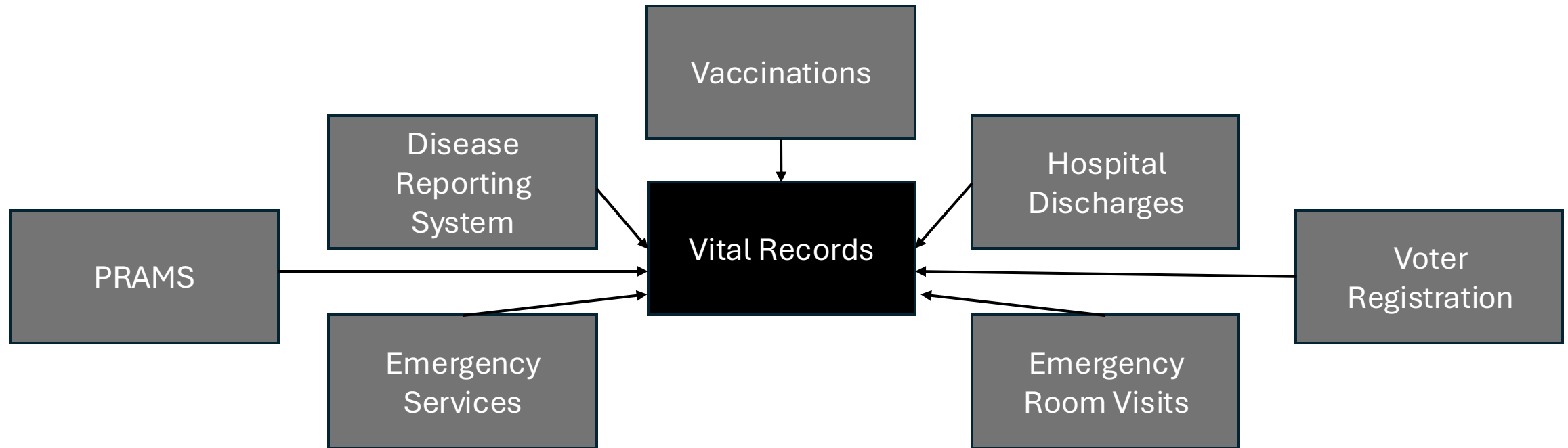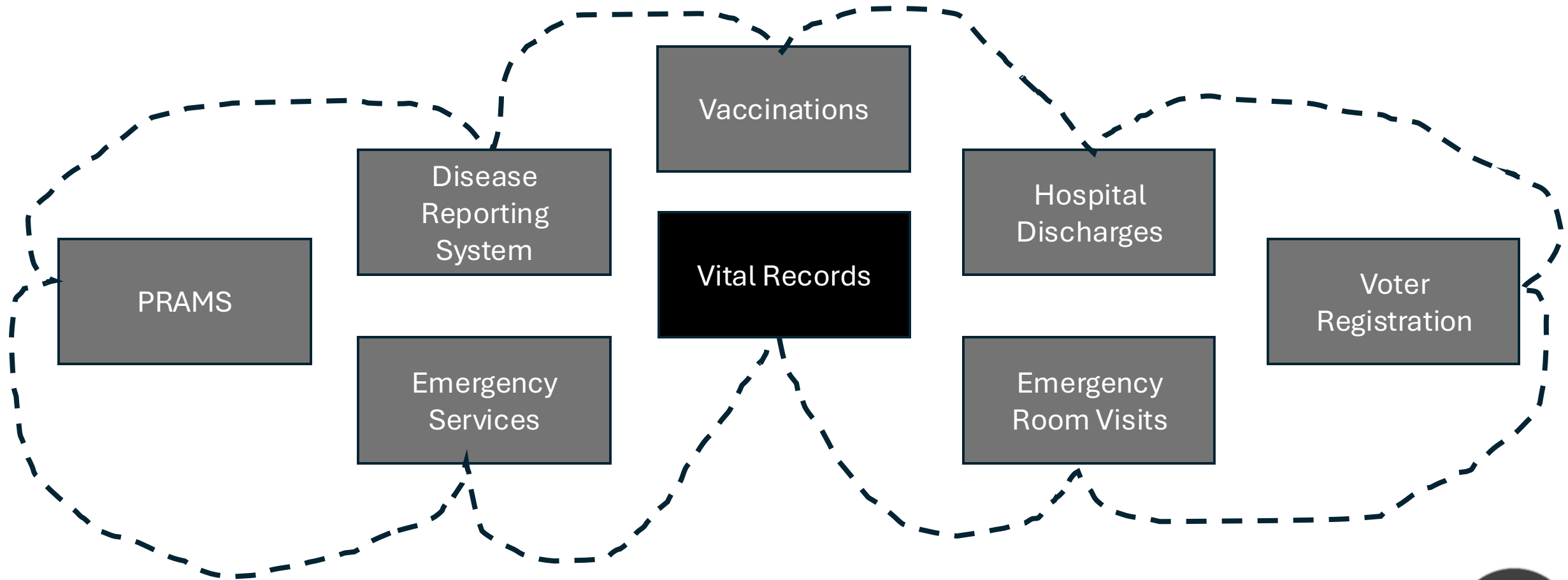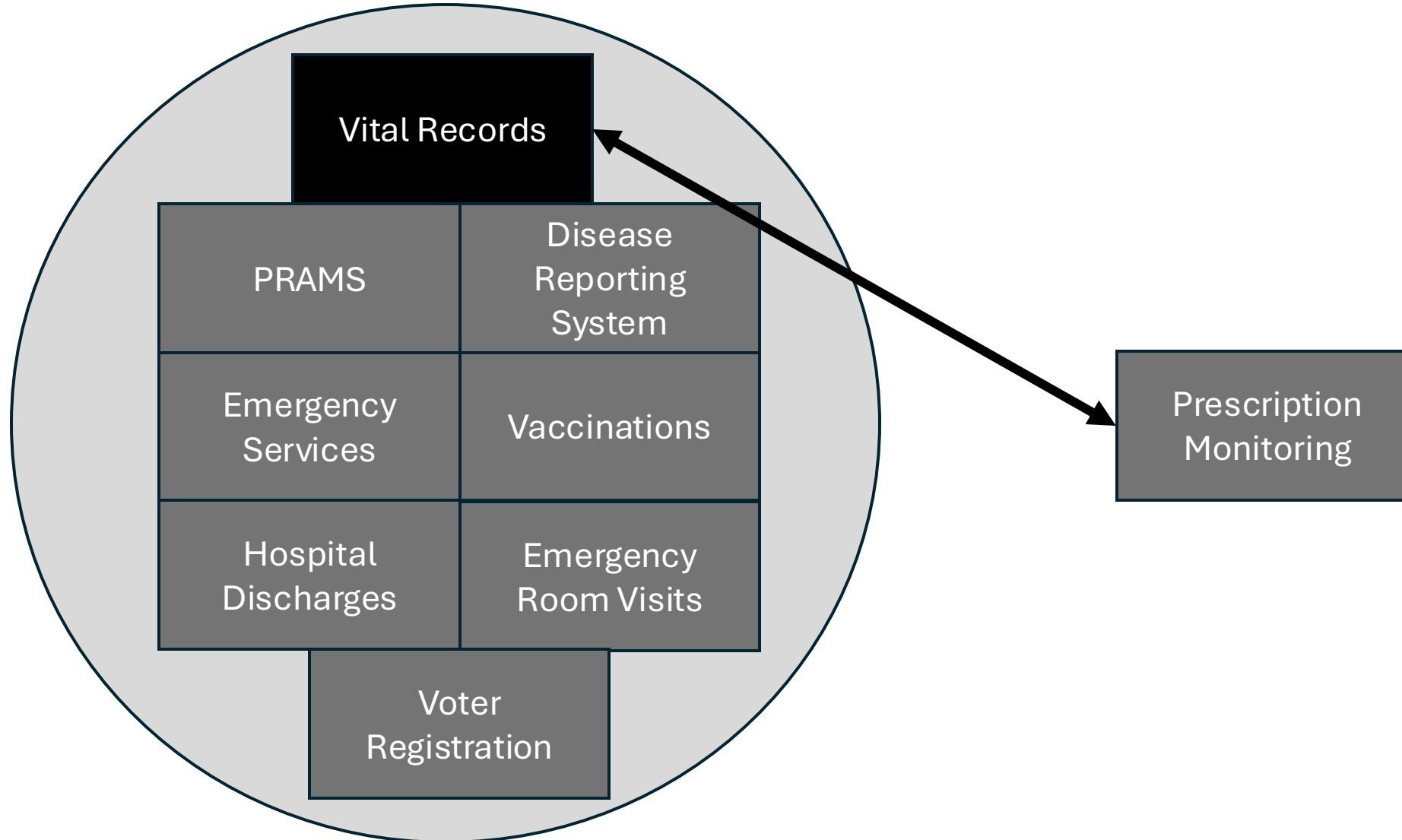
Benefits of VIPER

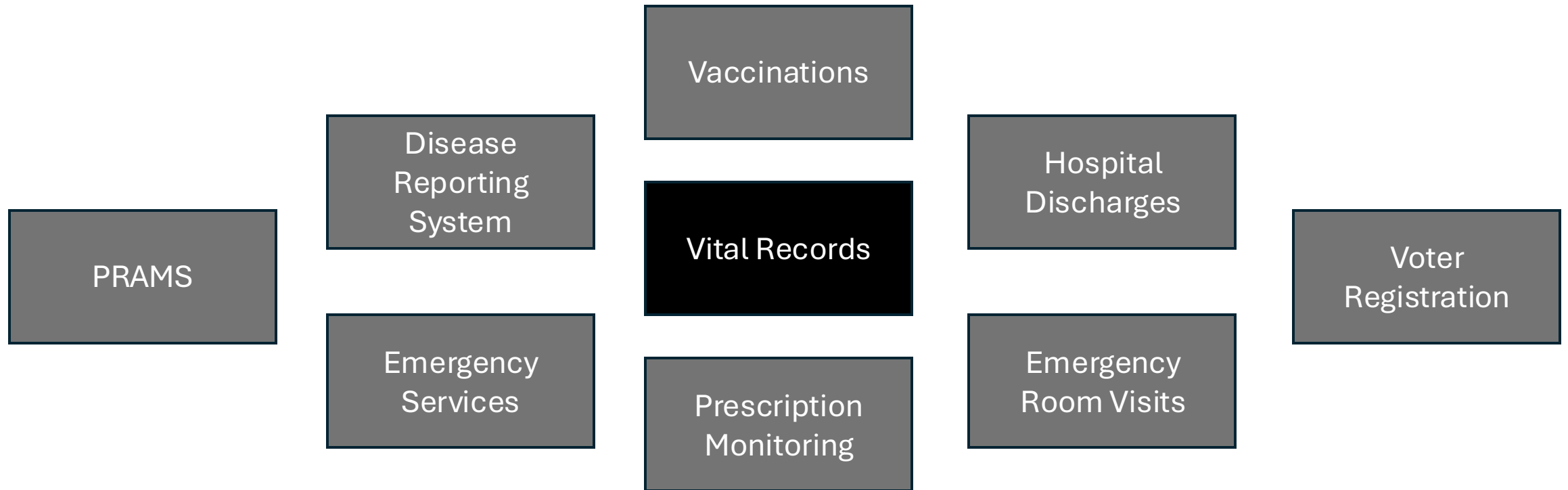- Before MPI...

Benefits of VIPER
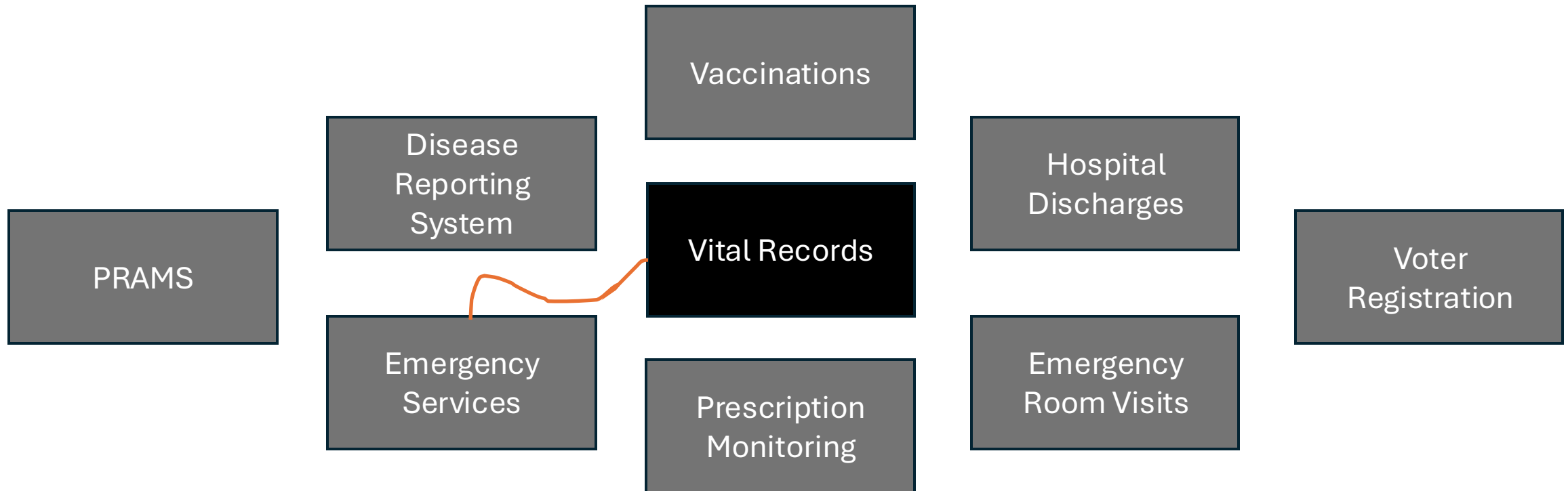
Benefits of VIPER

Benefits of VIPER

Benefits of VIPER

Benefits of VIPER

Challenges of VIPER

Challenges of VIPER

Challenges of VIPER

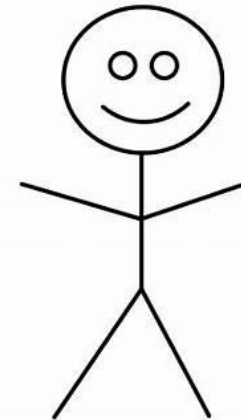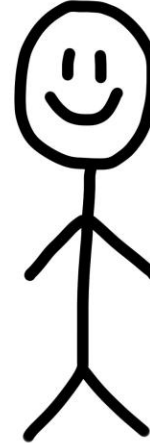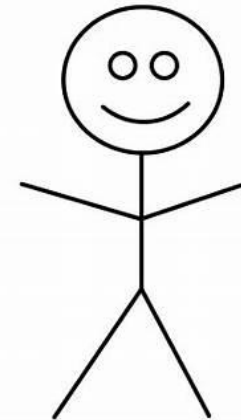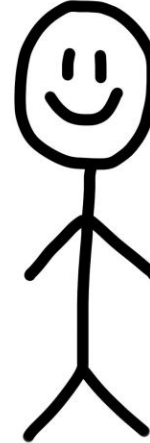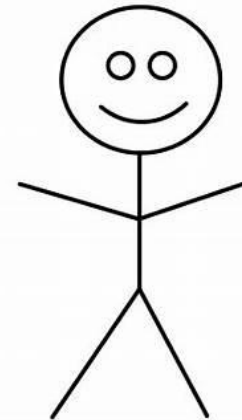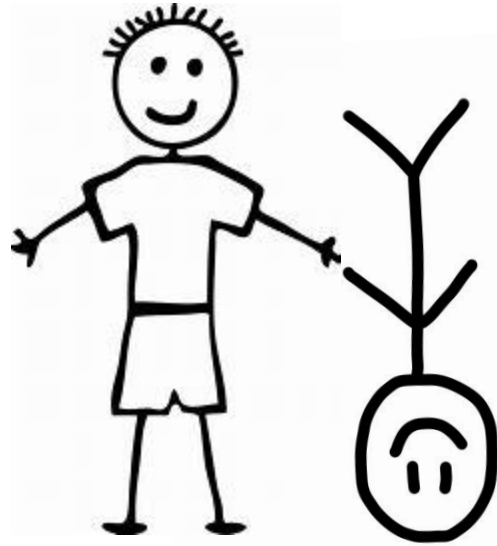# Challenges of VIPER

John Smith
6/9/1992

Jon David Smith
6/9/1992

Dave Smith
9/6/1992

David Smith-Johnson
9/6/1992

Challenges of VIPER

John Smith
6/9/1992

Jon David Smith
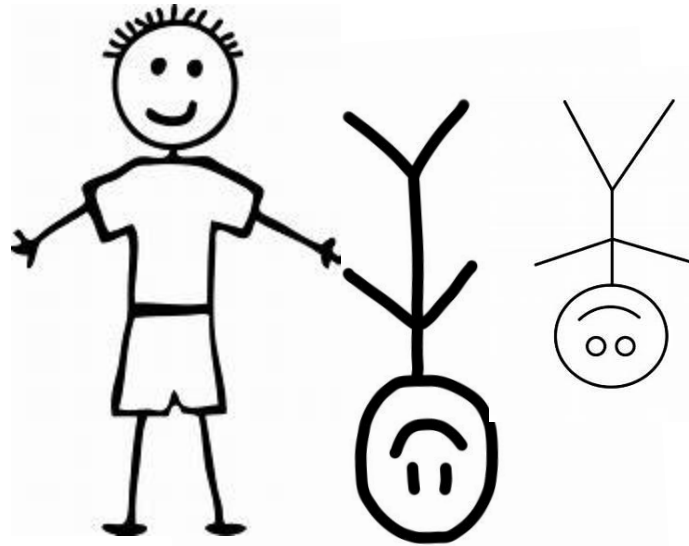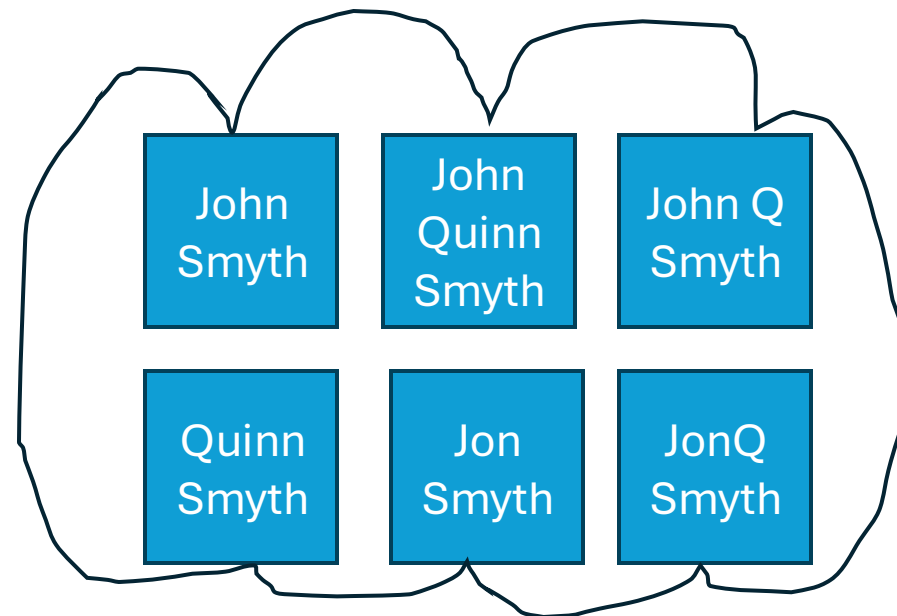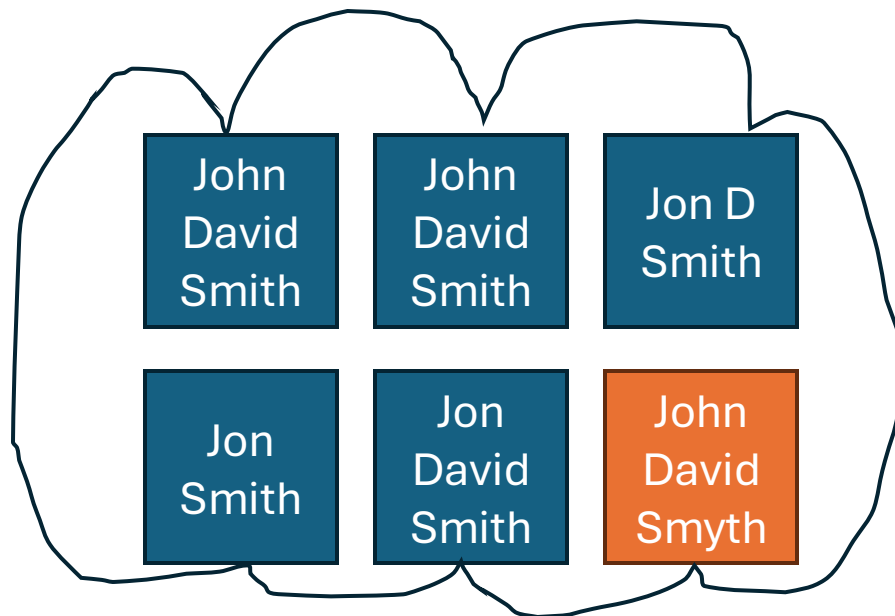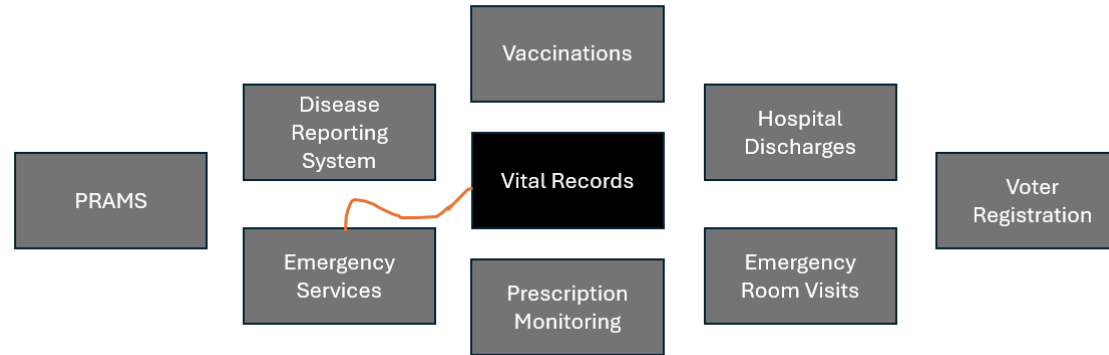6/9/1992

Dave Smith
9/6/1992

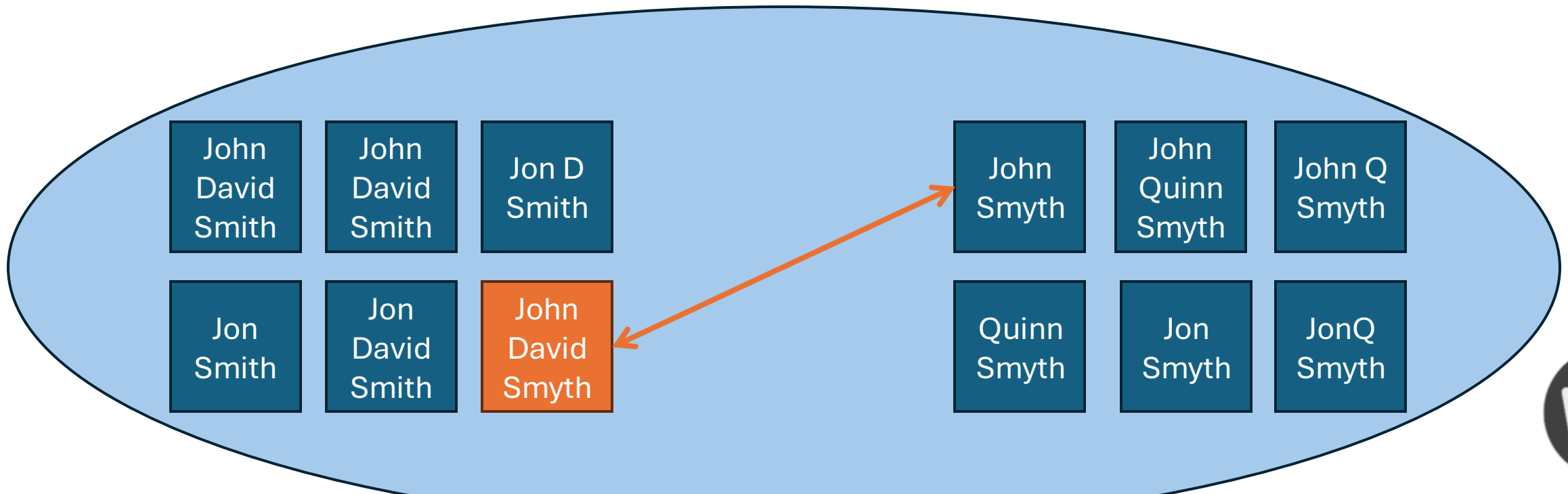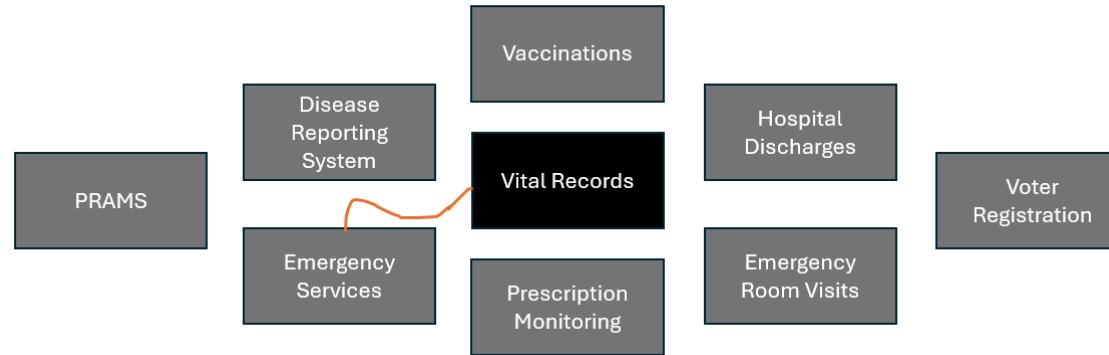David Smith-Johnson
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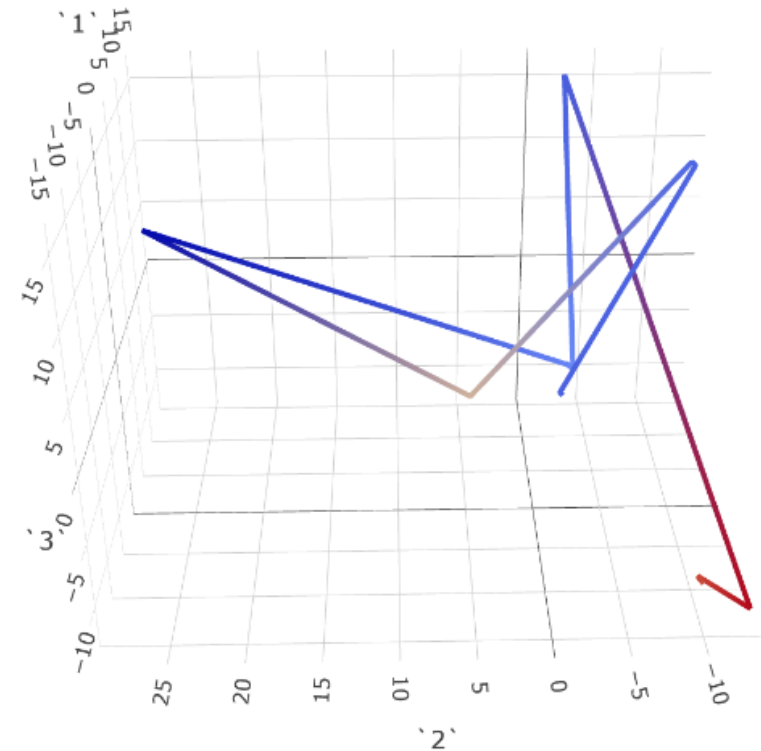# Challenges of VIPER

Challenges of VIPER

Challenges of VIPER

- Large QA Requirement

    - Novel QA Techniques like Hyperdimensional Cluster Detection

    - Cluster separation and link weight considerations (data quality)

    - The cyclical nature of updates can compound errors at an alarming rate

Takeaways

- VIPER provides a robust multi-system integration model that allows for...
  - Novel analytical usages and relational models
  - Data imputation and supplementation
  - More robust linkages with tons of bonus variables
  - Consolidated project to enhance collaborative efforts and standardization of novel methodological development
  - Expedited data sharing practices
- MPIs strengths also make them difficult to build
  - Cyclical nature and high QA requirements