

Introduction to Chapter 55

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State of DPH Data in January 2015

- 300+ data mostly unlinked systems
- Access to data guided by “manual” IRB/24A process
- Few applicants understand data access rules
- No audit of actual usage
- No direct public access to data
- Little ability to answer complex public health questions

DPH Vision for a Virtual Data Warehouse

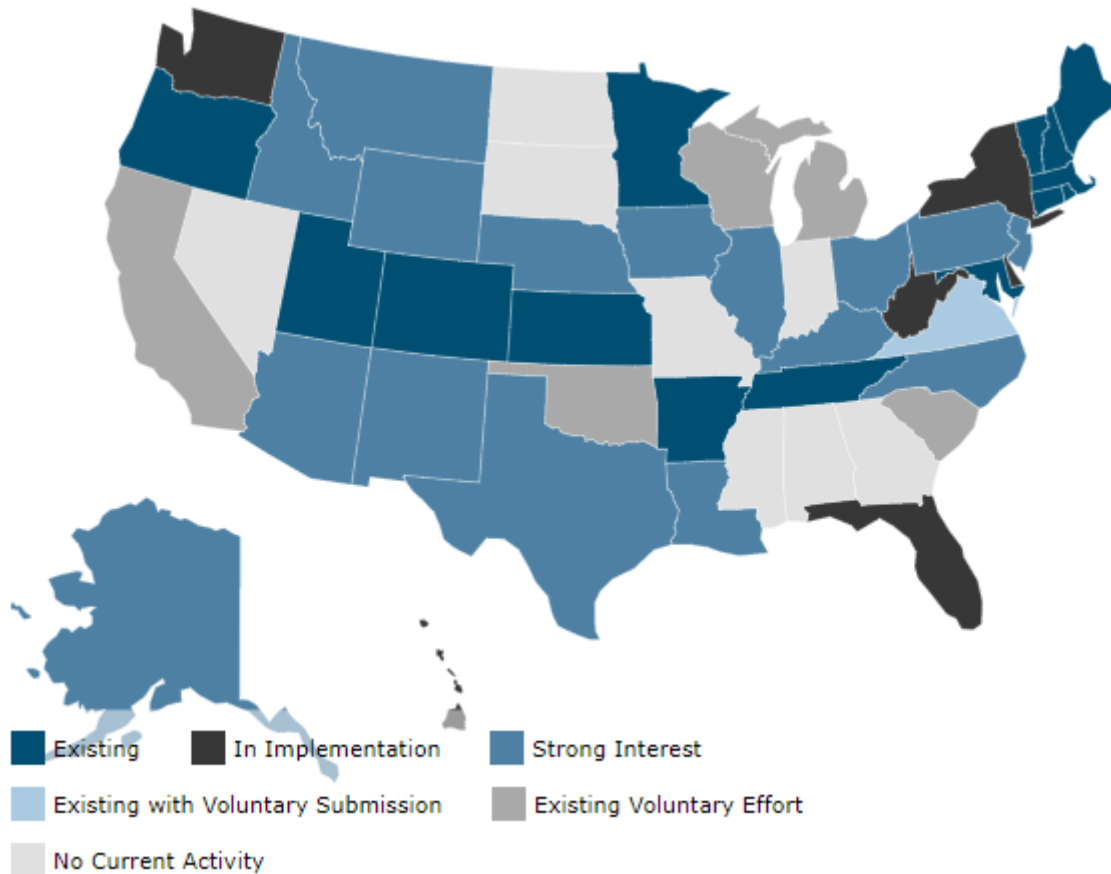
An **accessible**, **secure**, and **timely** linkage of data that supports MA public health program planning and evaluation, as well as research and collaboration with external partners, without sharing the original datasets.

- 3/17/2015

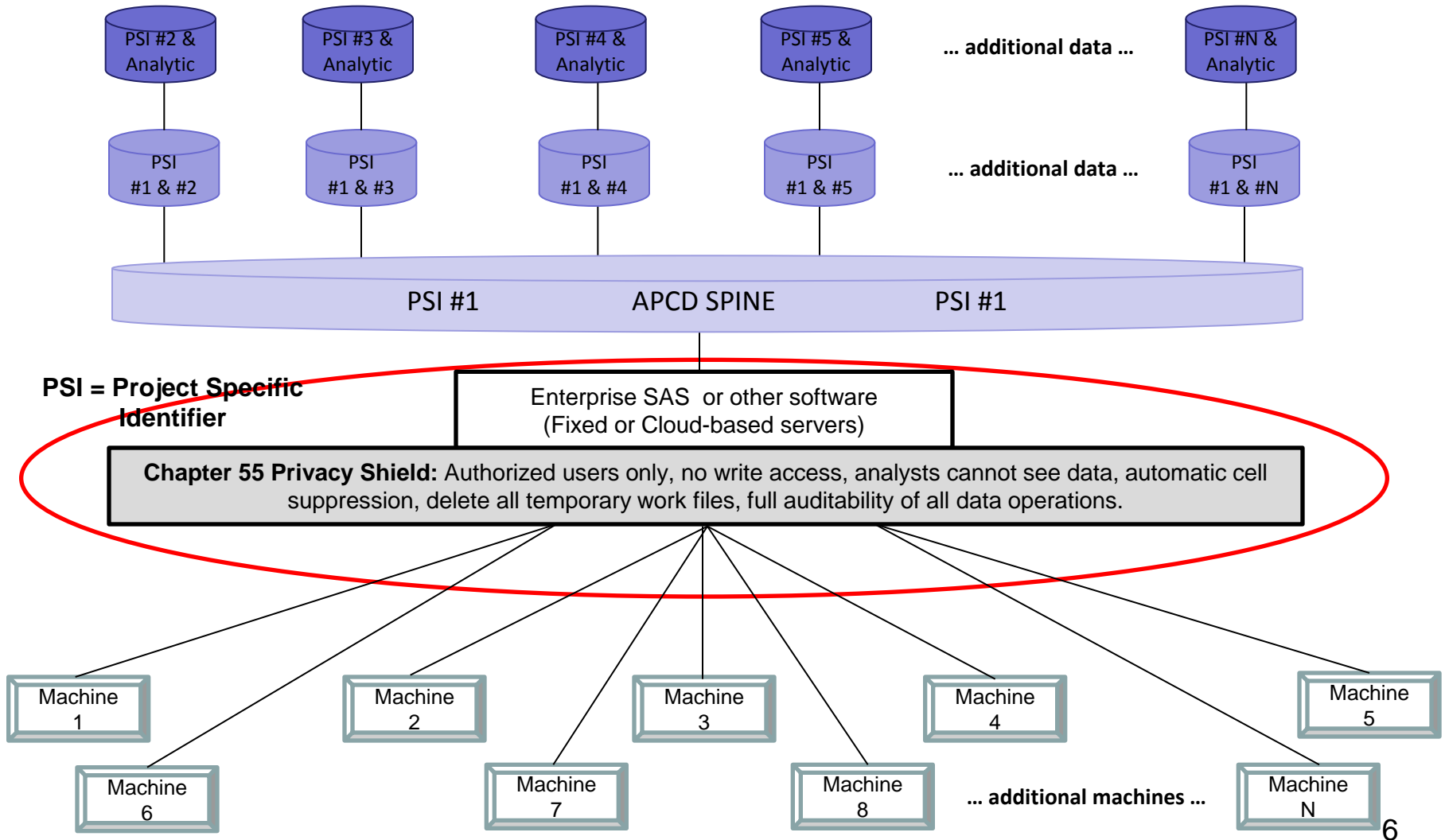
Chapter 55 Legislation (August 2015)

- Signed into law in August 2015
- Requires a comprehensive report to the state Legislature and cross-agency collaboration to examine trends in opioid-related deaths and address 7 specific questions
- Specifies major data sets across government
- Overcomes legal barriers for use of some data

Linking Data: The Spine



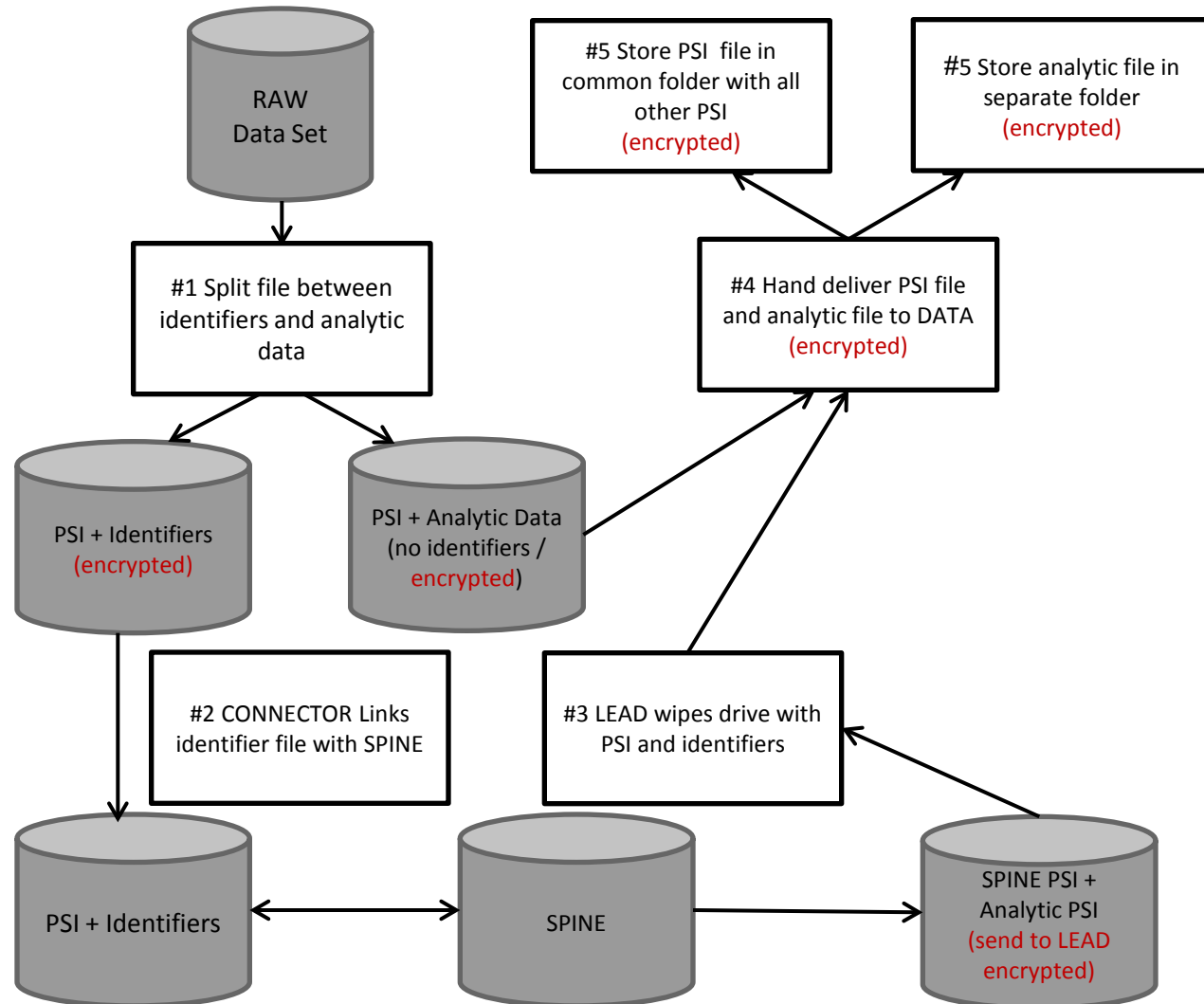
Chapter 55: Secure Data Access



Chapter 55: Secure Data Handling

Legend

PSI = Project Specific Identifier
LEADER = Project leader
CONNECTOR = Separate Linkage Agent
DATA = Secure Data Center
SPINE = Large data set

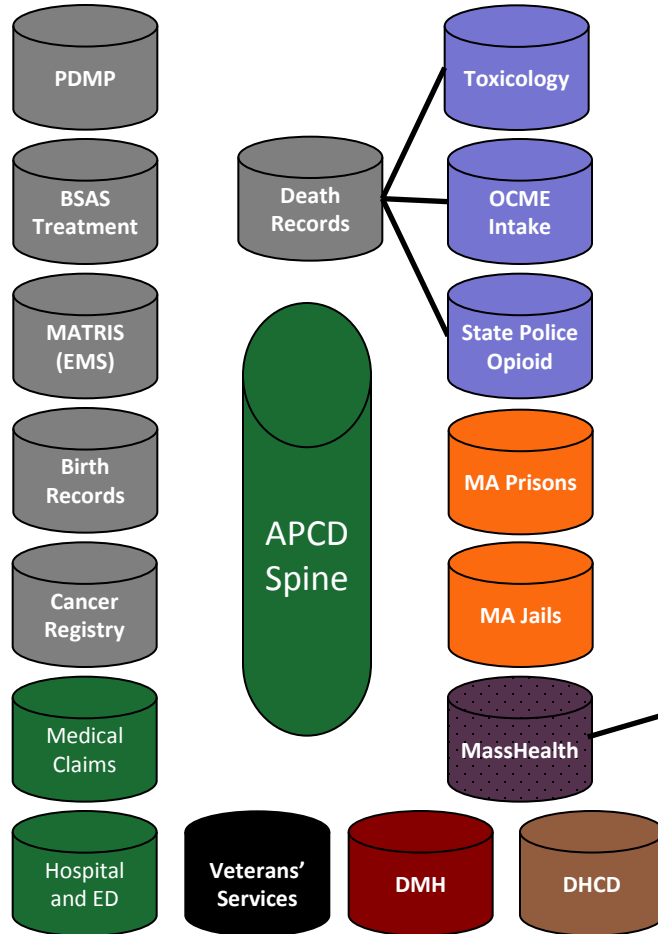


Chapter 55 Data Mapping

Data Sources

-  Public Health
-  Medical Claims & Hospital
-  MassHealth
-  Mental Health
-  Public Safety
-  Jails & Prisons
-  Other Law Enforcement
-  DHCD (Homelessness)
-  Veterans' Services
-  Service Flags
-  Aggregate (Town, Zip, etc.)

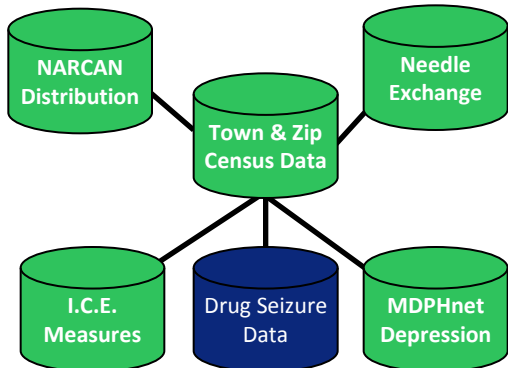
Chapter 55 Data Structure



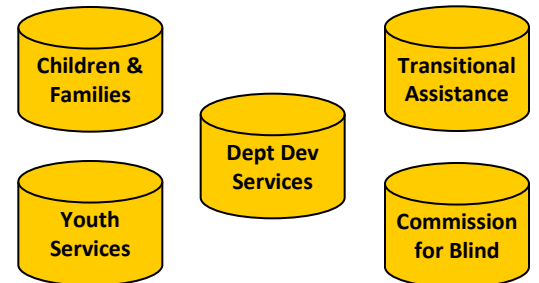
System Attributes

- Linkage at individual level
- Longitudinal (5 year history)
- Data encrypted in transit & at rest
- Limited data sets unlinked at rest
- Linking and analytics “on the fly”
- No residual files after query completed
- Analysts can't see data
- Automatic cell suppression

Community Level Data



Service Indicator Flags



Chapter 55: Partners Coming Together

Academic

- Brandeis University
- Boston University
- Brown University
- Harvard Medical School
- Harvard School of Public Health
- Massachusetts College of Pharmacy and Health Sciences
- Massachusetts Institute of Technology
- Northeastern University
- Tufts University
- University of Massachusetts Amherst
- University of Massachusetts Boston
- University of Massachusetts Medical School

Hospitals & Private Industry

- Baystate Health
- Beth Israel Deaconess Medical Center
- Boston Medical Center
- Brigham & Women's Hospital
- Children's Hospital
- GE
- IBM
- Liberty Mutual
- Massachusetts General Hospital
- Massachusetts League of Community Health Centers
- McKinsey & Company
- The MITRE Corporation
- Partners Healthcare
- PwC
- Rand Corporation

State and Federal Government Agencies

- Boston Public Health Commission
- Center for Health Information and Analysis
- Department of Housing and Community Development
- Department of Mental Health
- Department of Correction
- Department of Public Health
- Executive Office of Health and Human Services
- Executive Office of Public Safety and Security
- Federal Bureau of Investigation
- High Intensity Drug Trafficking Area (NE)
- Health Policy Commission
- Massachusetts Sheriffs' Association
- MassIT
- Office of the Chief Medical Examiner
- State Auditor's Office

Chapter 55 Progress

- 1st report September 2016 (fatal overdose)
 - 7 statutorily mandated questions
 - 4 additional analytic projects
- 2nd report August 2017 (fatal and nonfatal overdose)
 - 34 active projects (internal and external to DPH)
 - 13 sections covering baseline statistics, timelines and influences, and at-risk populations
- Future reports
 - public health priorities set by the Commissioner

Thank You

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