

# **Emerging and Innovative Sources of Health Data**

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# My definition of traditional

- Administrative claims data aggregated from
  - hospital-based (BIDMC)
  - payer-based (BCBS)
  - physician organizations (BIDPO)
  - health data consortia (MHDC)

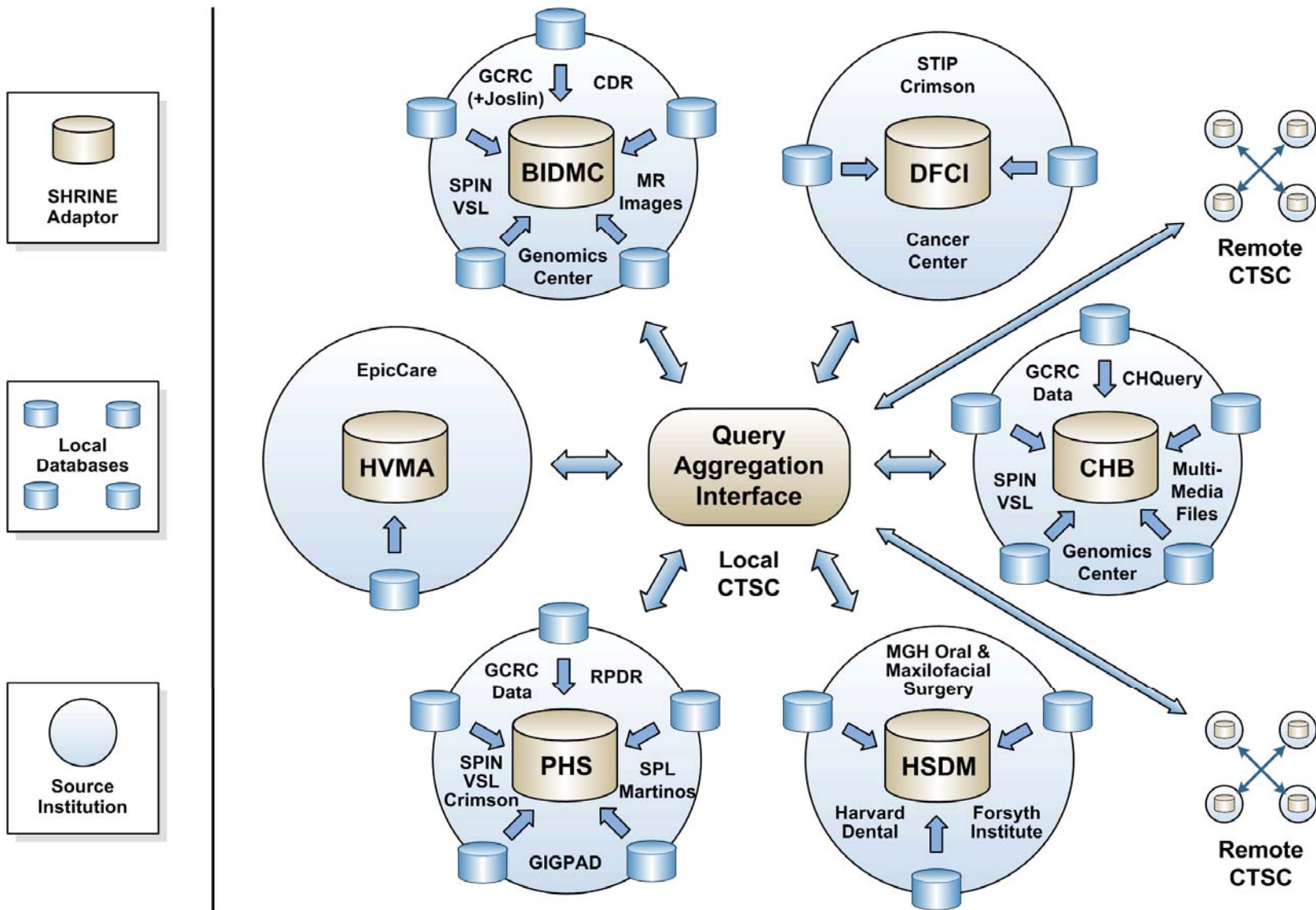
# Non-traditional and emerging data sources

- Datamarts from hospital-hosted EHRs and Departmental systems
- Regional aggregated databases from regional healthcare IT extension centers (MAeHC)
- RHIOs - lab aggregation for payers, clinical summaries, eRx
- Surescripts/Rx Hub
- Labs compliant with HITSP standards
- Social Security Administration/Megahit
- Centers for Disease Control/Biosense

# Non-traditional and emerging data sources

- Medical societies (Mass Medical Society)
- Departments of Public Health
- Consumer Healthcare Devices (Continua)
- PHRs - tethered, payer, employer-sponsored and vendor-based
  - Comments about Google Health and Health Vault
  - Comments about patient entered data
- Google Trends
- Aegis
- Catalyst/Shrine

# SHRINE – Shared Health Research Information Network



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i2b2 Query & Analysis Tool

Find Patients      Analysis Tools      Logout

Concepts

- Standard Query Items
  - Encounter detail
  - Demographic detail
    - Age
    - Country
    - Gender
    - Zip codes
  - Diagnosis
  - Laboratory tests
  - Microbiology
  - Medications
  - Procedures
  - Transfusion services

Databases

- Harvard Medical School
  - BIDMC
  - CHB
  - DFCI
  - HSDM
  - HVMA
  - PHS
- UCSF Medical Center
- Univ. of Massachusetts

Query: Untitled

Groups must all occur in the same visit      Sensitivity      Specificity

Group 1: 45-54 years old, 55-64 years old (one or more of these)

Group 2: Morbid obesity (one or more of these)

Group 3: Male (none of these)

AND      AND

Databases: Local Database, Selected Databases (CHB, DFCI), Find All Databases

New Group      3 Groups      Run Query

Item Info      Runtime Options      Query Status      Request Details

BIDMC	CHB	DFCI	HSDM	HVMA	PHS
2619	OFFLINE	712	Running... Progress	2280	3025

Done      Internet

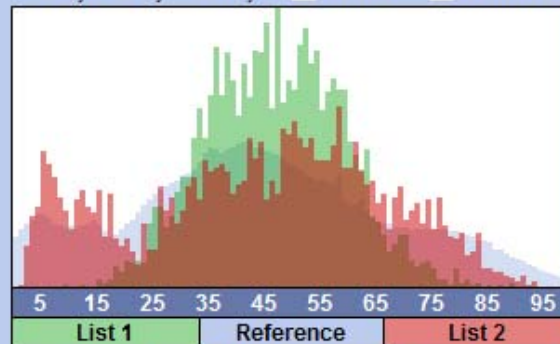
## Plugin Viewer

## Two List Demographics Comparison

Number of patients in Morbid Obesity = 2829

Number of patients in Allergic Asthma = 2407

## Age Comparison

 1y  5y  10y  means  reference

Reference list includes all patients in the database.

	List1	List2
Mean	46.52	43.77
StDev	12.21	21.97
n	2829	2407

z-score = 5.467

p-value = 0