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THE VALUE OF INFORMATION EXCHANGE TO SUPPORT POPULATION HEALTH

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DEDICATED TO GOVERNMENT HEALTH PROGRAMS



Objectives

- Who are we seeking to improve care for?
 - Who is our patient?
 - What impacts the care of patients?
- How can more available data and information help improve patient care?
 - How can providers have this information at hand to inform treatment?
 - Who has the data – who needs the data – how do we share the data?

CMS AIMS:

- **If we find better ways to pay providers, deliver care, and distribute information:**
 - We can receive better care.
 - We can spend our health dollars more wisely.
 - We can have healthier communities, a healthier economy, and a healthier country.

BETTER CARE.
SMARTER SPENDING.
HEALTHIER PEOPLE.

Determinates of Health

Factors influencing health status:

- Personal
- Social
- Economic
- Environmental



The interrelationship among factors determines individual and population health.

<http://www.healthypeople.gov/2020/about/foundation-health-measures/Determinants-of-Health>



Population Health

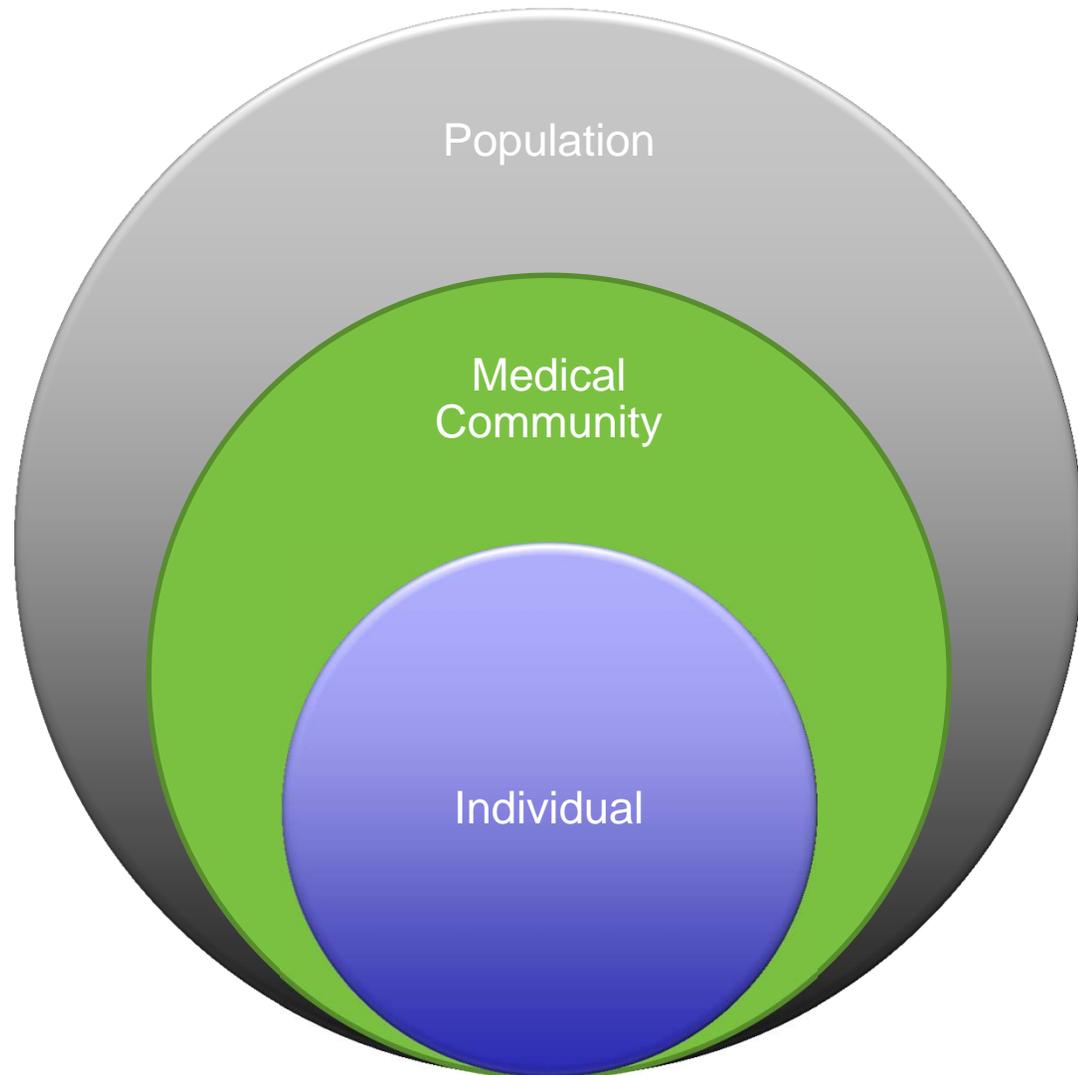
- A total population perspective focused on a geographic area with emphasis on multisector approaches including addressing social determinants of health
- A clinical perspective focused on delivering care to a subpopulation using a health system
- Focusing on what happens between patient visits by assessing data from HIEs or increasing understanding about the patient through increased information
- Investigating linkages or community-based referrals to address health disparities

<http://www.nejm.org/doi/full/10.1056/NEJMp1406838?af=R&rss=currentIssue>

Population Health

Who are the Partners?

- Population
 - Broad Stakeholders
- Medical Community
 - Care continuum
- Individual
 - Clinical providers



<http://www.improvingpopulationhealth.org/PopHealthPhaseIICommissionedPaper.pdf>



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Clinical Providers

Individual Prevention, Diagnosis, and Treatment



Separate and Distinct



Stakeholders

Community Prevention, Diagnosis, and Treatment Across Medical Providers

- Hospital
- Skilled Nursing Facility
- Specialty and Sub-specialty
- Pharmacy
- Home Health
- Diagnostics
- Mental Health
- Managed Care

Coordinated

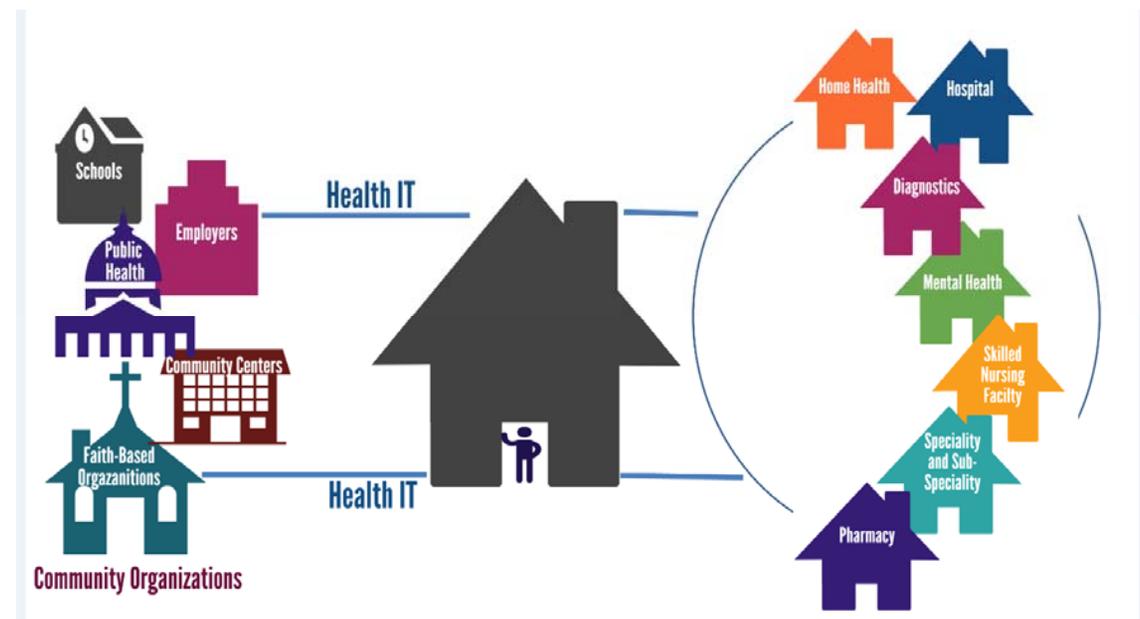


Stakeholders

Population Health Prevention, Diagnosis, and Treatment for All Patients Working Across Community Continuum

Broad Integration

- Social Services
- Faith Organizations
- Education Centers
- Criminal Justice
- Managed Care
- Neighborhood Associations
- Government Agencies
- Employers and Business
- Non-governmental Organizations (NGOs)



Purpose of Public Health:

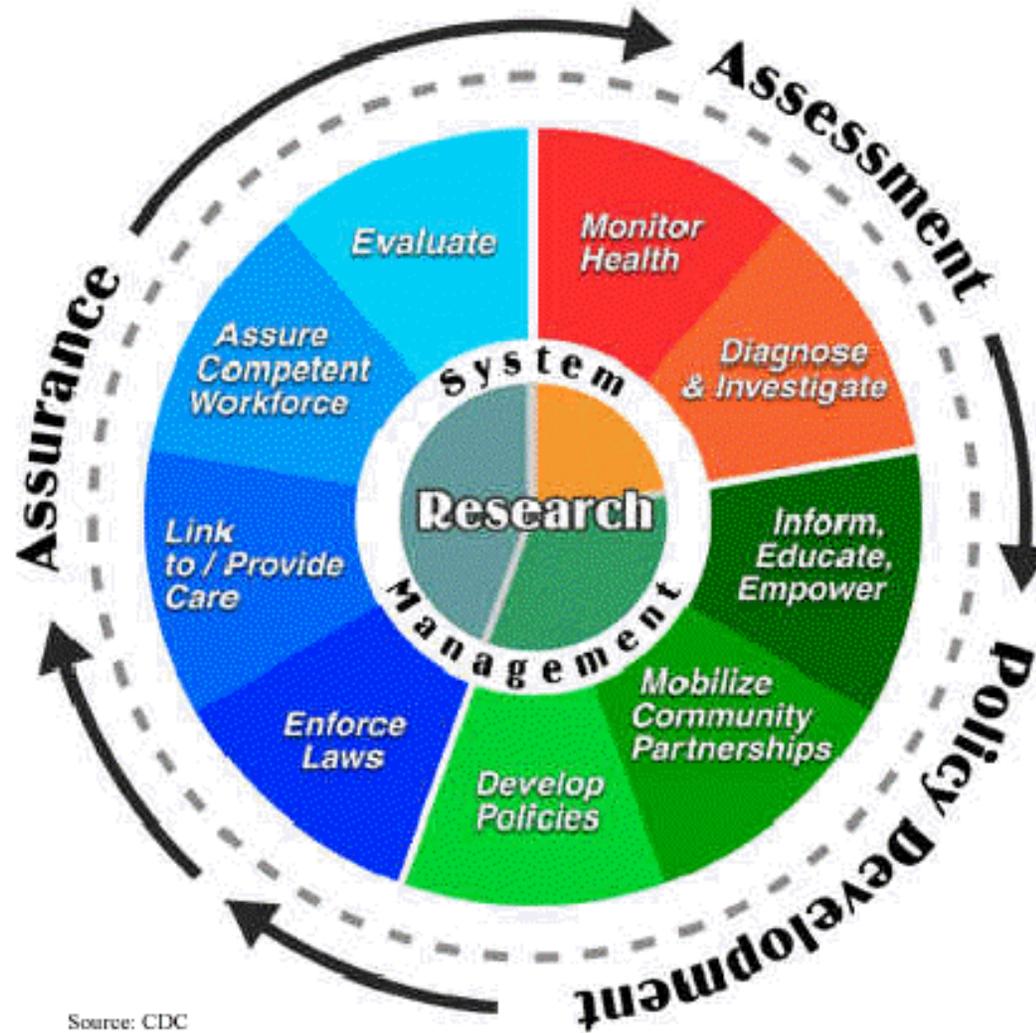
- Prevent epidemics and spread of disease
- Protect against environmental hazards
- Prevent injuries
- Promote and encourage healthy behaviors
- Respond to disasters and assist communities in recovery
- Assure the quality and accessibility of services

Public Health centers on Research and System Management which means the Core Functions always begin with data analysis.

<http://www.cdc.gov/nphpsp/essentialServices.html>



Public Health



Distribution of Information

- How can more available data and information help improve patient care?
 - How can providers have this information at hand to inform treatment?
 - Who has the data – who needs the data – how do we share the data?



Direction of Change

Historical State

- **Key characteristics**
 - Provider-centered
 - Incentives for volume
 - Unsustainable
 - Fragmented Care
- **Systems and Policies**
 - Fee-For-Service Payment Systems

Evolving Future State

- **Key characteristics**
 - Patient-centered
 - Incentives for outcomes
 - Sustainable
 - Coordinated care
- **Systems and Policies**
 - Value-based purchasing
 - Accountable Care Organizations
 - Episode-based payments
 - Medical Homes
 - Quality/cost transparency



What is HIE?

Electronic health information exchange (HIE) allows doctors, nurses, pharmacists, other health care providers and patients to appropriately access and securely share a patient's vital medical information electronically—*improving the speed, quality, safety and cost of patient care.*

Appropriate, timely sharing of vital patient information can better inform decision making at the point of care and allow providers to:

- ✓ Avoid readmissions
- ✓ Avoid medication errors
- ✓ Improve diagnoses
- ✓ Decrease duplicate testing



Getting Started with HIE

Today, there are many models and business approaches emerging to support electronic health information exchange (HIE).

These include:

- Development of regional, local, or state nonprofit or government-sponsored exchange networks.
- Local models advanced by newly formed accountable care organizations.
- Exchange options offered by electronic health records vendors.
- Services provided by national exchange networks.



HIE Benefits

- Provides a vehicle for improving quality and safety of patient care
- Stimulates consumer education and patients' involvement in their own health care
- Increases efficiency by eliminating unnecessary paperwork
- Provides caregivers with clinical decision support tools
- Eliminates redundant or unnecessary testing
- Improves public health reporting and monitoring
- Creates a potential loop for feedback between health-related research and actual practice
- Facilitates efficient deployment of emerging technology and health care services
- Provides the backbone of technical infrastructure for leverage by national and State-level initiatives
- Reduces health related costs



Directed Exchange

The ability to send and receive secure information electronically between care providers to support coordinated care



Example:

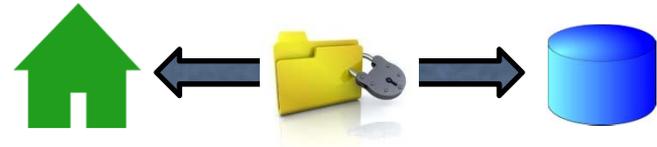
A primary care provider can directly send electronic care summaries that include medications, problems, and lab results to a specialist when referring their patients.

This information helps to inform the visit and prevents the duplication of tests, redundant collection of information from the patient, wasted visits, and medication errors.



Query-Based Exchange

The ability for providers to find and/or request information on a patient from other providers, often used for unplanned care



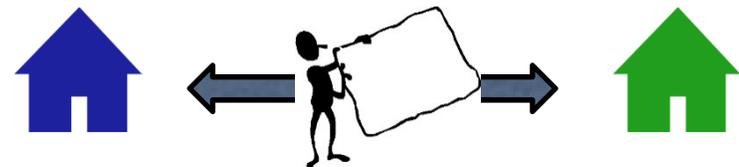
Example:

Emergency room physicians who can utilize query-based exchange to access patient information—such as medications, recent radiology images, and problem lists—might adjust treatment plans to avoid adverse medication reactions or duplicative testing.



Consumer-Mediated Exchange

The ability for patients to aggregate and control the use of their health information among providers



When in control of their own health information, patients can actively participate in their care coordination by:

- Providing other providers with their health information
- Identifying and correcting wrong or missing health information
- Identifying and correcting incorrect billing information
- Tracking and monitoring their own health



ADT Messages as the Cornerstone of Exchange

ADT messages are reemerging as the go-to data source for care coordination efforts across states. Ubiquitous in hospital information systems, hospitals exchange thousands of ADT messages (both internally and externally) every single day. These messages communicate that

- a patient’s “state” (admitted, discharged, or transferred) has changed, or
- his or her personal or demographic information (such as the patient’s name, insurance, next of kin, attending doctor, etc) has been updated.

These seemingly simple and ever-present messages contain a wealth of information, and are invaluable tools to help health care providers better coordinate a patient’s care.



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How is the Chesapeake Regional Information System for Our Patients (CRISP) Using ADT Messages?

With electronic connections to all 46 hospitals in the state, Maryland's state-designated entity for HIE, CRISP, is harnessing this basic data from ADT messages to help providers better coordinate patient care.



Real-time Electronic Notification Services

Launched last August, CRISP's Encounter Notification System (ENS) provides real-time electronic notifications when patients are admitted to, discharged from, or transferred within a hospital.

This tool enables family doctors/internists/geriatricians and their counterparts in the hospital to:

- coordinate his care and help him follow his discharge instructions,
- understand his care plans, and
- receive follow-up care with his primary care provider.

Real-time Electronic Notification Services

CRISP works closely with providers to set up these encounter notifications:

- Physicians and care coordinators hand select the patients they have a treatment relationship with and about whom they want to receive alerts.
- Physicians and care coordinators submit that list of patients (or “patient panel”) to CRISP.
- CRISP loads the patient panels into their ENS, generating a subscription list for each physician or care coordinator.



ADT Messages Also Provide Data for Geospatial Mapping

Copies of real-time ADT messages are sent to CRISP's custom-built database, called the Encounter Reporting Service (ERS), where data from ADT messages can be extracted for various time periods and processed through scripting logic to produce consolidated reports that contain information about:

- inpatient encounters,
- 72-hour emergency department “bounce backs,” or
- 30-day hospital readmissions.



Big Impact with the Basics

CRISP's notification and reporting services grew out of a basic, common message type. The simplicity of ADT messages can sometimes mask their importance to coordination of care efforts.

CRISP has demonstrated how this basic building block of health information exchange holds the potential to provide big value for providers and patients.



Health Information Organizations (HIOs)

New Jersey's model for the secure, statewide electronic exchange of health information is a "network of networks" model.

This approach is intended to build upon the investments and existing exchange capabilities of the State's numerous regional HIOs, each with its own network of member hospitals, physicians, and other healthcare providers.

New Jersey's HIOs vary widely in the geography they cover, their size, and their membership.



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Regional Extension Center

NJ-HITEC

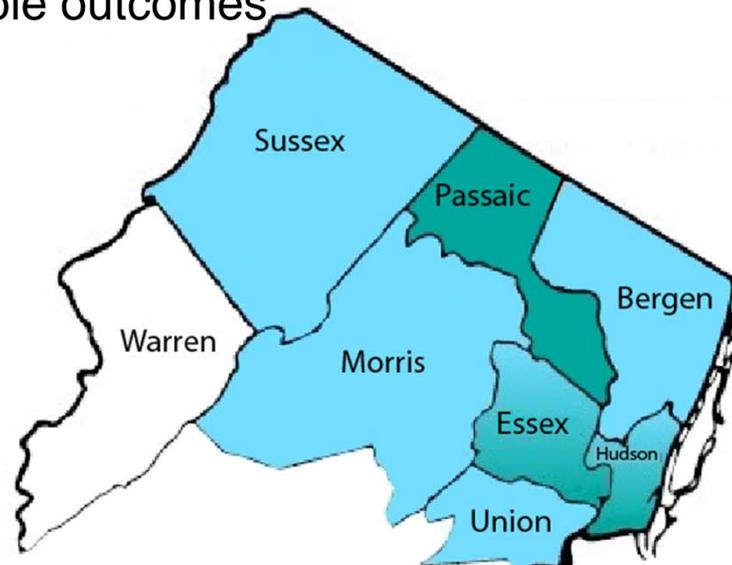
New Jersey – Health Information Technology Extension Center (NJ-HITEC) is a federally recognized Regional Extension Center located on the campus of the New Jersey Institute of Technology.

NJ-HITEC assists New Jersey primary care providers in the successful adoption, implementation and use of electronic health records systems and to become meaningful users of those healthcare technologies, in order to deliver quality care improvements to New Jersey residents throughout the state. <http://www.njhitec.org/>

Highlander HDN

Highlander HIE Snapshot:

- Improving care to the significant Medicaid population served by the participating entities and providers in the greater Newark area
- Facilitating HIE will improve quality, coordination of care, reduce costs, and result in measurable outcomes



Hospitals:

- Newark Beth Israel Medical Center
- East Orange General Hospital
- Meadowlands Hospital Medical Center
- Jersey City Medical Center
- University Hospital
- St. Michael's Medical Center

Federally Qualified Health Centers:

- Newark Community Health Centers, Inc.
- Newark Homeless Health Care
- Horizon Health Center
- North Horizon Community Action Corporation Health Center
- Metropolitan Family Health Network

Home Health:

- Visiting Nurse Association on Central Jersey

Behavioral Health:

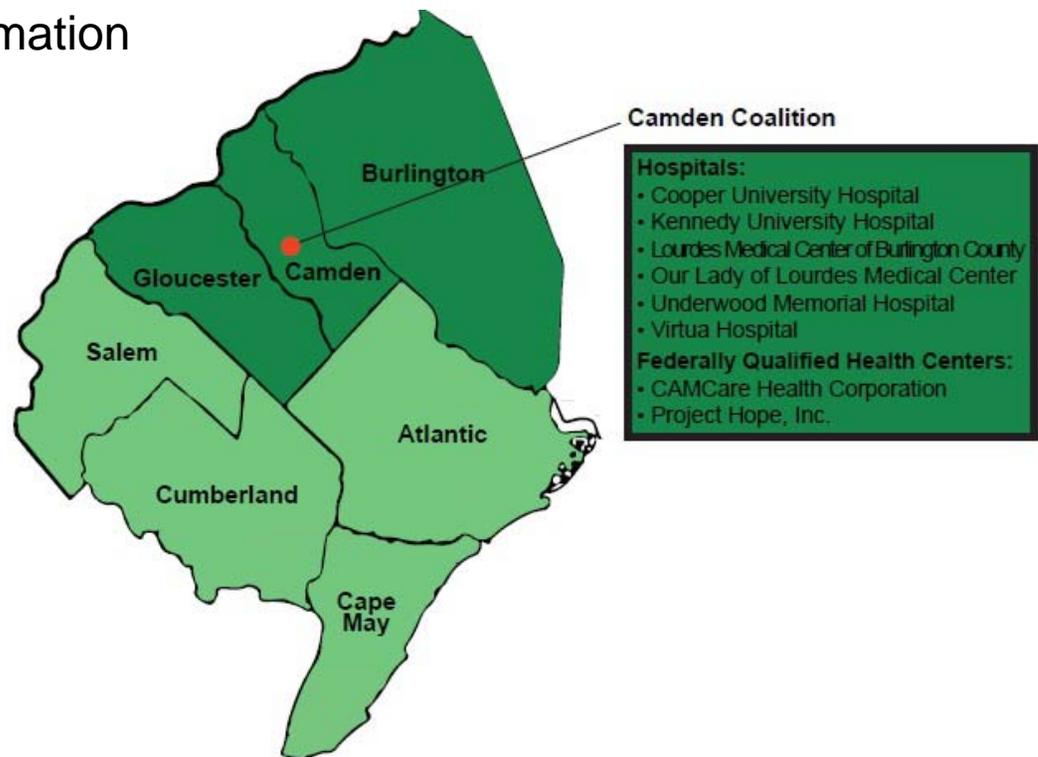
- Mental Health Association of Essex County

<http://www.njhitech.org/services/hie/nj/>

Camden HIE

Camden HIE Snapshot:

- Governed by Camden Coalition of Healthcare Providers
- HIE used as a tool to provide more coordinated care, drive improved patient outcomes, and “bend the cost curve”
- Currently used by 100+ Camden healthcare providers to access patient information



<http://www.njhitech.org/services/hie/nj/>

Jersey Health Connect

Jersey Health Connect Snapshot:

- New Jersey's largest HIO
- Focused Personal Health Record roll-out to give patients access to their own health data

Hospitals:

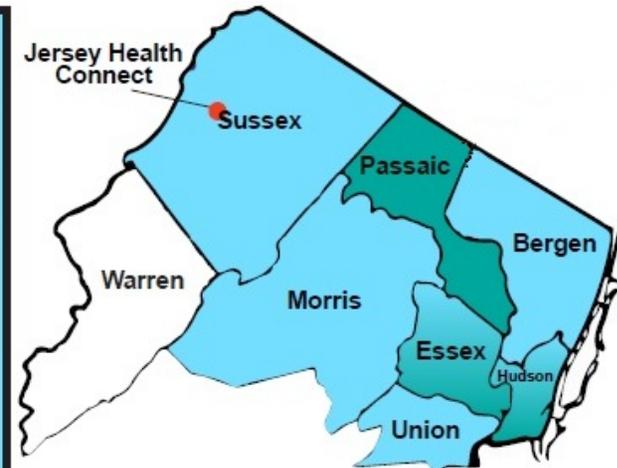
- CentraState Medical Center
- Children's Specialized Hospital
- Clara Maass Medical Center
- Hackensack University Medical Center
- Holy Name Hospital
- Hunterdon Medical Center
- JFK Medical Center
- Morristown Memorial Hospital
- Newton Memorial Hospital
- Overlook Hospital
- Robert Wood Johnson University Hospital (NewBrunswick, Hamilton, Rahway)
- Saint Barnabas Medical Center
- Saint Clare's Hospital (Denville, Dover Sussex)
- Saint Peter's University Hospital
- Somerset Medical Center
- Trinitas Regional Medical Center

Physicians:

- Summit Medical Group
- Central Jersey HIE Project

Long Term Care:

- Parker

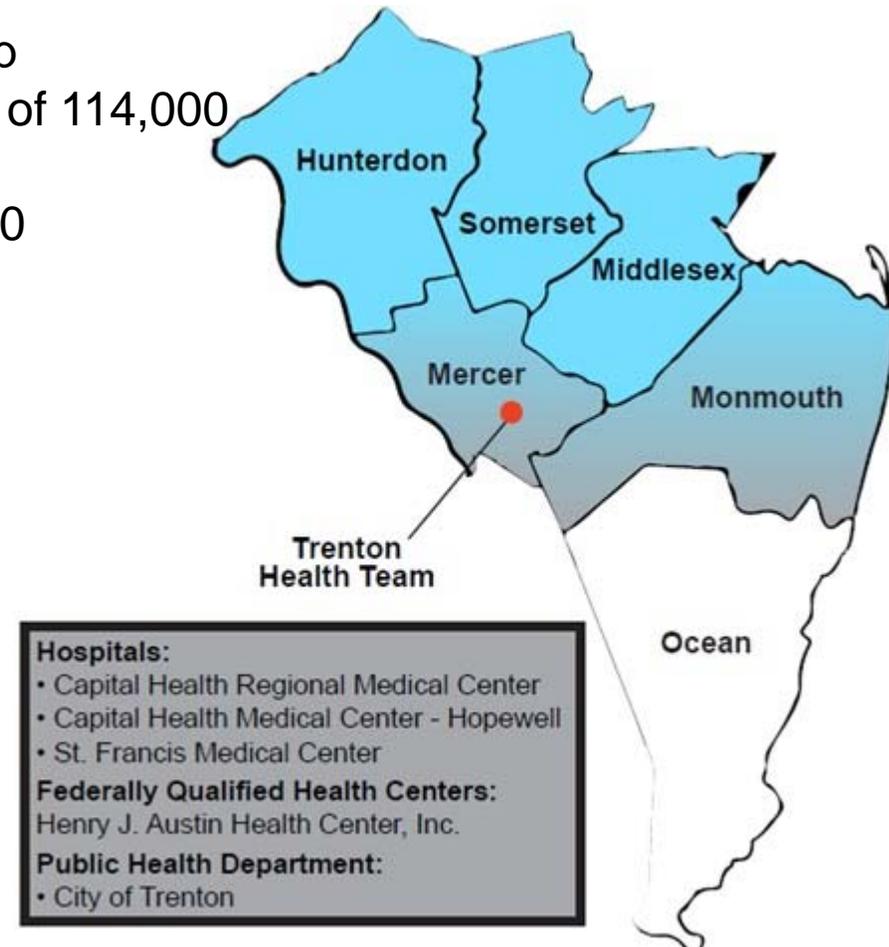


<http://www.njhitech.org/services/hie/nj/>

Trenton Health Team

Trenton Health Team Snapshot:

- Built on strong community partnership
- Focused on concentrated geography of 114,000 people within the City of Trenton
- Immediate aim is to address the 1,800 high-cost/high-utilizers

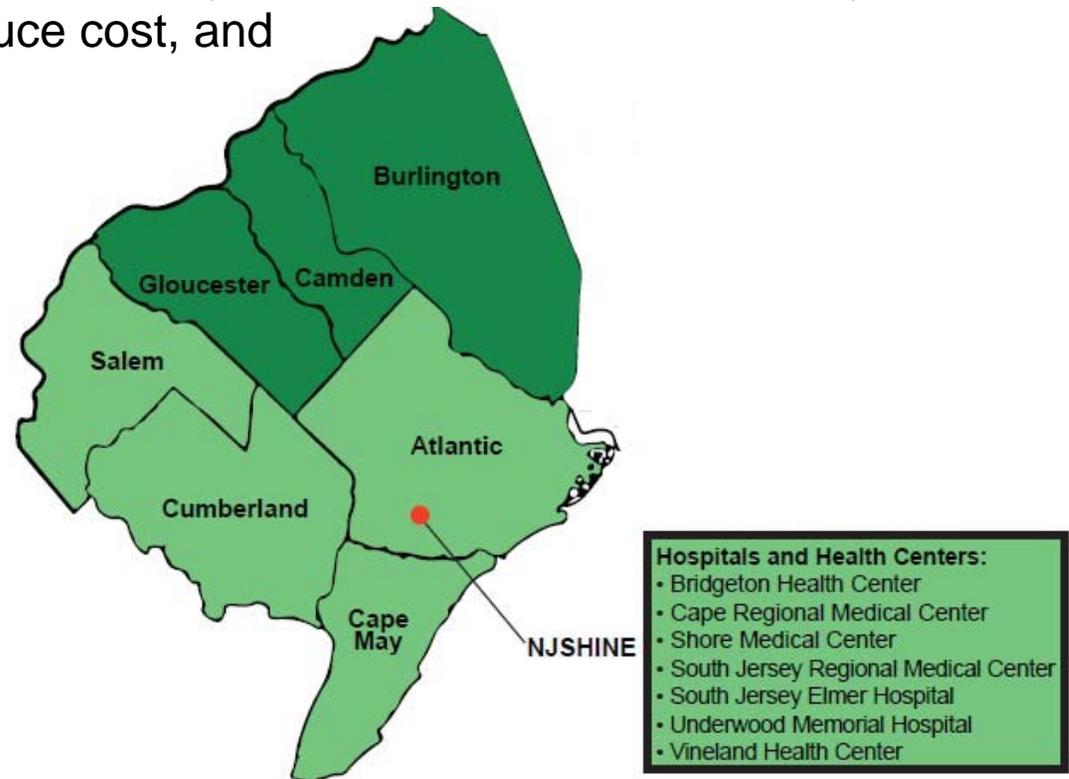


<http://www.njhitech.org/services/hie/nj/>

NJ SHINE

NJ SHINE

- Received a \$1 million grant from New Jersey Department of Health
- Will serve a 7-county area: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Salem
- Mission is to facilitate HIE, improve quality of care, support patient safety, facilitate care coordination, reduce cost, and improve patient outcomes



<http://www.njhitech.org/services/hie/nj/>



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New Jersey Health Information Network (NJHIN)

The New Jersey Health Information Network (NJHIN) will provide the technology infrastructure to facilitate the electronic exchange of patient health information in New Jersey among health information organizations and State health data sources.

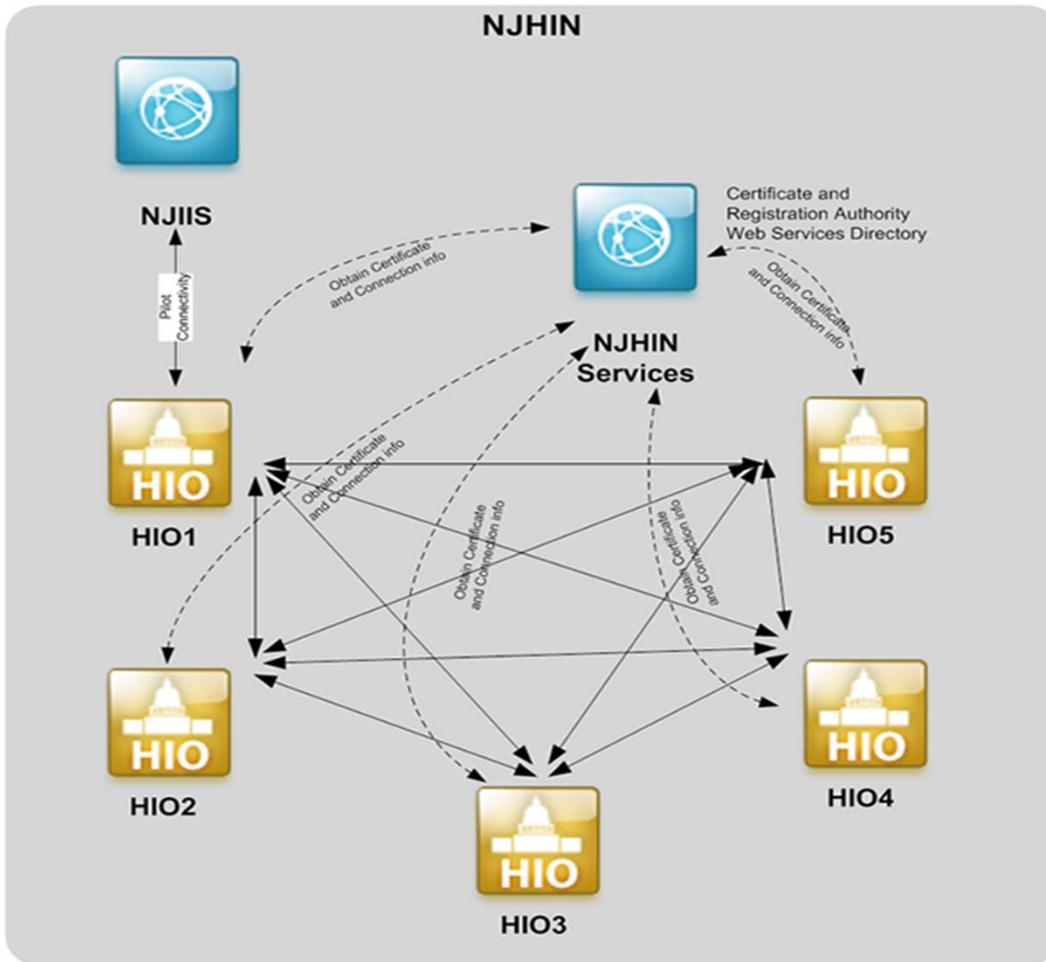
It is anticipated that NJHIN will be the authoritative method for exchanging health information among health information organizations (HIOs) and State agencies within New Jersey, and the primary vehicle for New Jersey to eventually exchange health information nationally with the eHealth Exchange.

Phase 1 of the implementation focuses on interconnecting the NJHIN participants with a minimal set of NJHIN core services to establish a secure, trusted partnership.

<http://www.nj.gov/health/njhit/state/njhin/>



New Jersey Health Information Network (NJHIN)



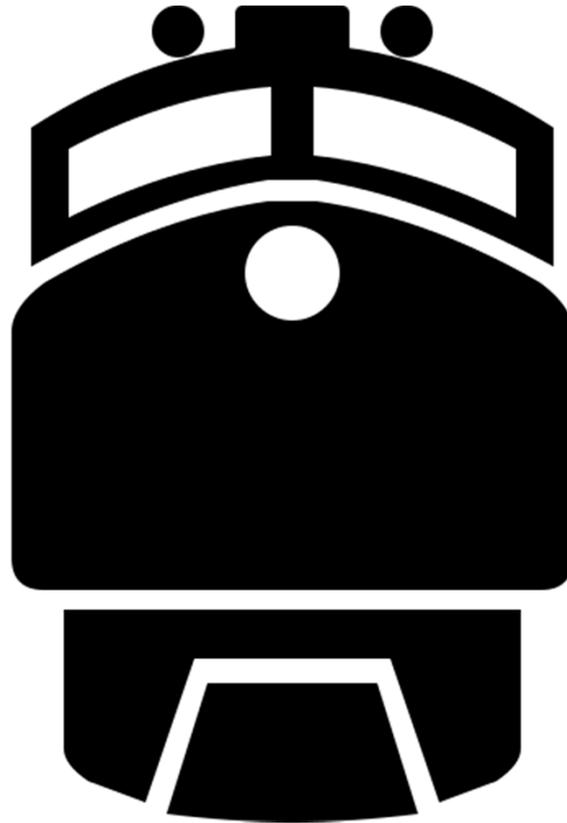
This diagram shows how the HIOs will use NJHIN services to engage in secure health information exchange across their respective communities.

<http://www.nj.gov/health/njhit/state/njhin/>



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Reminder: Train has Left the Station





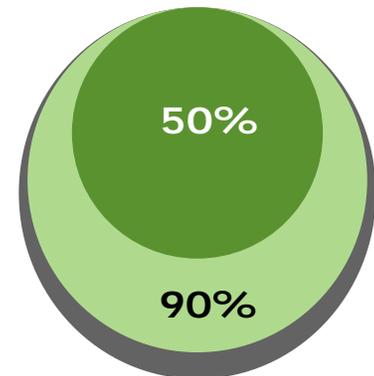
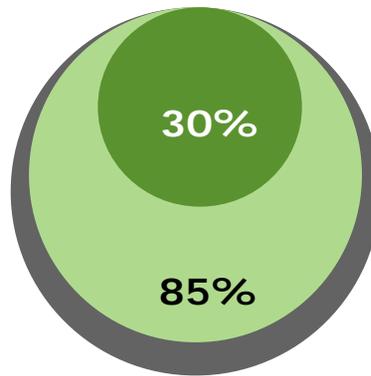
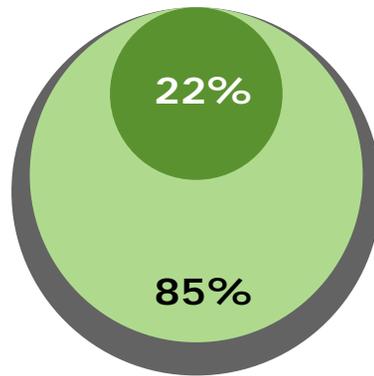
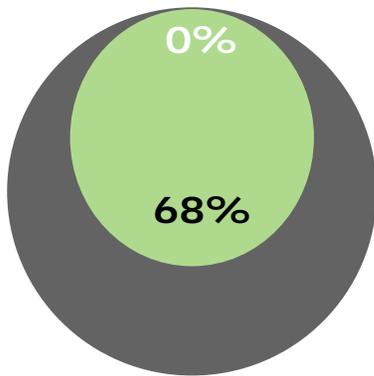
MEDICARE FFS PAYMENT SHIFT TO QUALITY

2011

2014

2016

2018



Historical Performance

Goals

- Alternative payment models
- FFS linked to quality
- All Medicare FFS



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Q&A