

# Health Technology Work Group Interim Report

## Co-Chairs

Roderick Bremby Commissioner, DSS  
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Department of Energy and Environmental Protection

79 Elm Street, Hartford, CT

Phoenix Auditorium

# Our Charge

- Provide recommendations for consideration by the full Cabinet regarding a fully coordinated and integrated approach to
  - The design and purchase of technology related to health reform
  - An eye towards integrated architecture.
- Collaboration between multiple stakeholders
- Consider the impact of our recommendations on related and ongoing initiatives.

*“This charge is about people...let’s  
not lose sight of this”*

Jeannette de Jesus

Office of Health Reform and Innovation

# National Context HIT in the last 8 Years

Executive Order Creates ONC  
under HHS  
✓ \$139M

2004

ONC Leadership

Leadership in  
HIT

HIT Policies and  
initiatives

EHRs by 2014

Development of a  
National Health  
Information Network  
(NHIN)

HIT Policies and initiatives

Privacy and Security (HISPC)  
Technology Standards (HITSP)  
Certification of EHRs (CCHIT)  
American HI Community (AHIC)

# Context

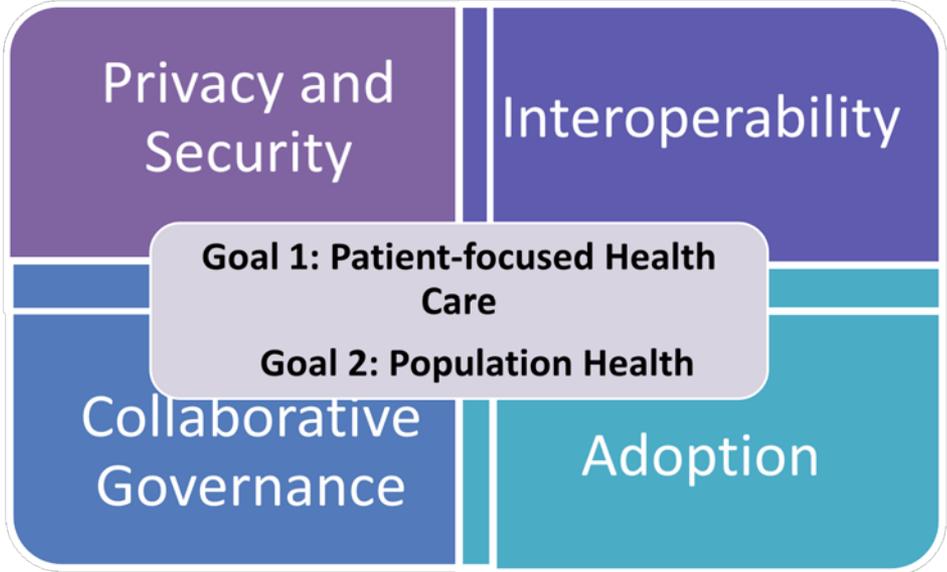
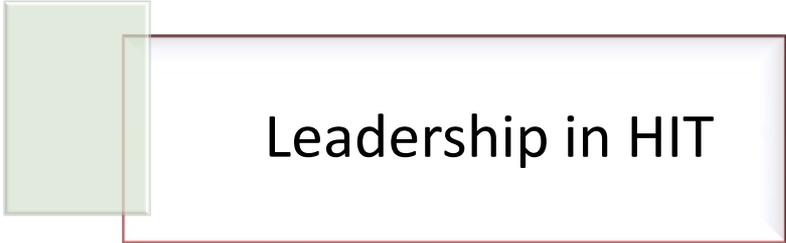
## HIT: The last 8 Years

### Executive Order

- Creates ONC under HHS  
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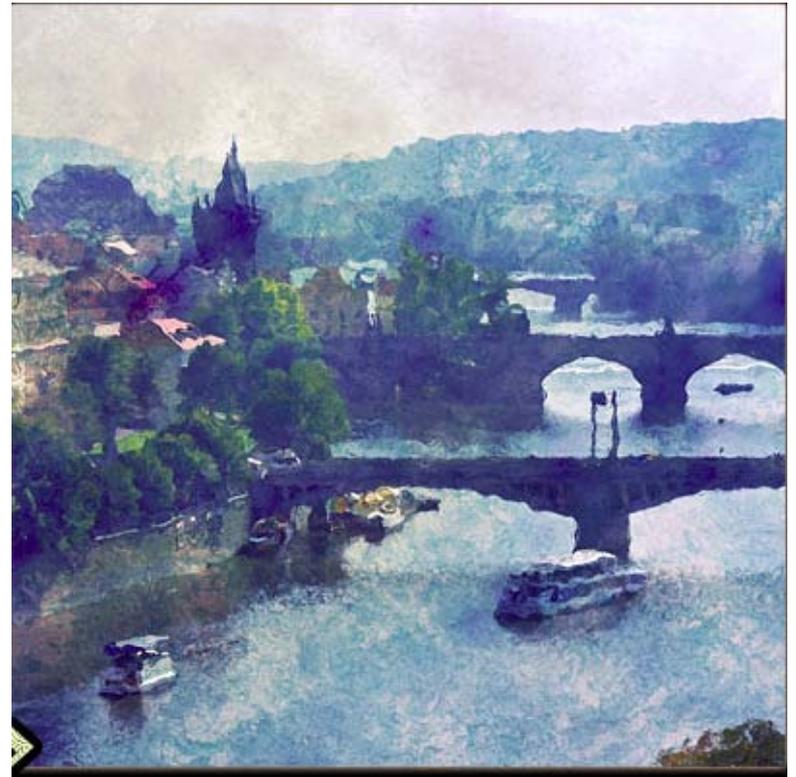
### ARRA

- HITECH: ONC (Permanent Leadership)  
✓ \$2.0B
- CMS: eHR Incentive Payment Program



# Focusing on Developing an Integrated View of “the Big Picture”

- Understand the business requirements that will drive the State HIT architecture
  - A broad view
  - Through the lens of state agencies
  - As HIT relates to the Insurance Exchange



**Purchasers**

State Employees & Retirees

Individual Consumers

**Delivery System**

Hospitals

Clinics

**State Agencies & Other Entities**

CT-DoI

OHA

DCF

**Insurance/payer Organizations**

Private Insurance Companies

Labs

DI

Health Insurance Exchange

Uninsured

VA TRICARE

Sustinet

DDS

Unions

OPM

Gov. Programs

Open Health Insurance Market

Pharmacies

ASOs

VNA

MEDICARE

MEDICAID

Facilities

DPH

DSS

DMHAS

School-based clinic

Ambulance Services

Non-Profit Organizations

Municipalities

Employers- S-M-L

**HITE-CT**

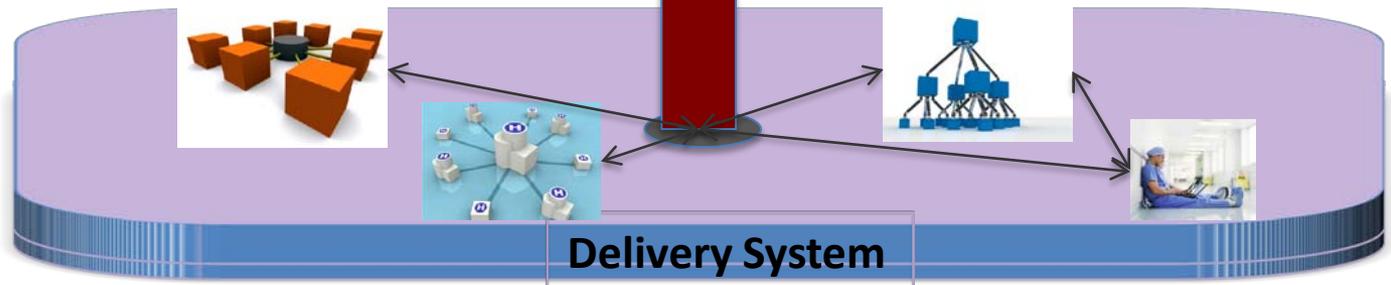
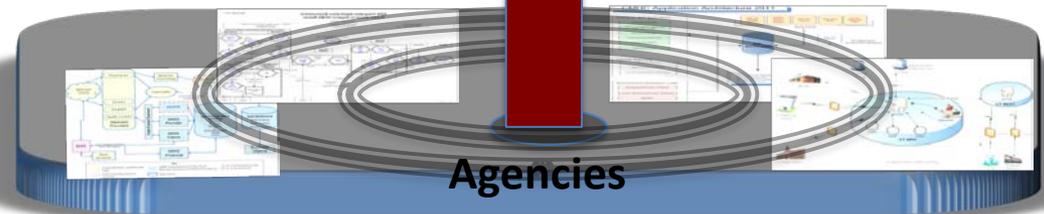
HIE Standard Policies



- Security Standards and Practices
- Privacy Standards and Practices
- Interoperability Standards
- Transaction Standards
- Vocabulary Standards
- Information Content Standards
- Standard Operating Procedures



- Common eligibility system
- Master patient Index
- Technology upgrades, replacement, keepers
- Shared systems (eliminate duplication)
- Standard high security
- Data ownership issues

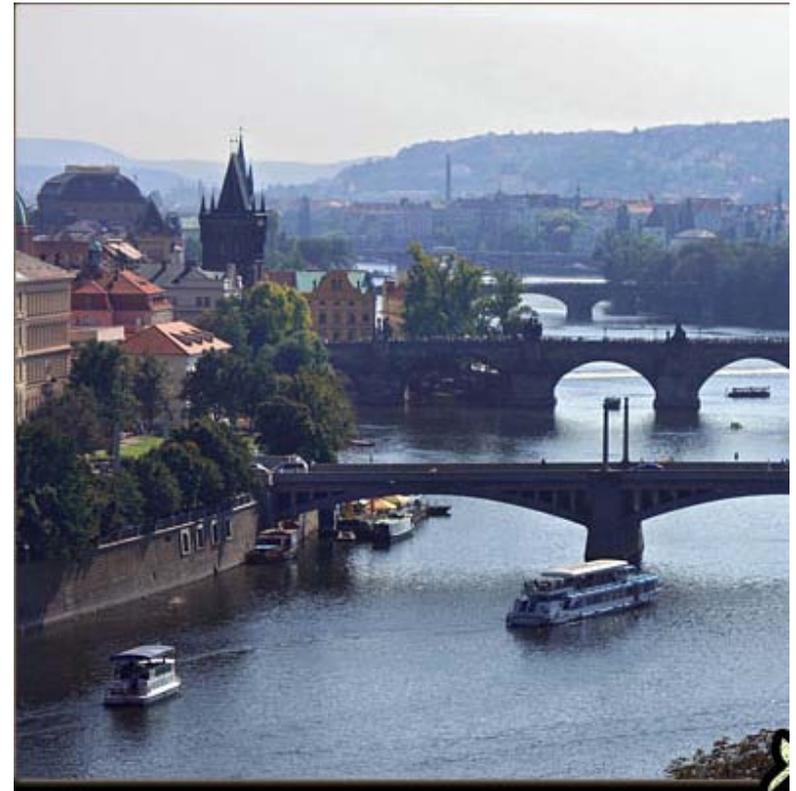


2/14/2012

V. Villagra-HIIMG

# Focusing on Developing an Integrated View of “the Big Picture”

- Understand the strategic plan for the development, adoption and use of HIT
  - **Adoption of eHRs by providers**
    - Meaningful Use
    - Incentives (Physicians: up to \$151K between 2011-2016)
  - **Development of the HIE infrastructure** (intra and inter-state)
    - New systems
    - Re-tooling, upgrading or replacing existing systems to conform to new requirements
  - **Development of the HIT Work Force**



# Sources of Information

- Agency members of the Work Group
- Office of Health Reform and Innovation
  - 4 other Workgroups
  - Health Equity initiative
- Health Insurance Exchange Committees
- Sustinet Advisory Committees: Health Technology Advisory + 4 others and 3 Task Forces
- External sources

	Inventory*	Integration	New Tools	Value to Consumers (Utilities)
<b>Business Drivers</b>	Perspective of the Agencies <ul style="list-style-type: none"> <li>• Current initiatives</li> <li>• Future drivers (CMS requirements)</li> <li>• Perspective of the Exchange</li> <li>• Delivery System</li> <li>• Consumers</li> </ul>	<ul style="list-style-type: none"> <li>• Overlaps /duplication</li> <li>• Gaps</li> <li>• Synergies</li> <li>• Organizational efficiencies</li> <li>• Insurance Exchange and others' requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Emerging models of care</li> <li>• Delivery system redesign</li> </ul>	<ul style="list-style-type: none"> <li>• Informed choices</li> <li>• Decision support</li> <li>• Efficient navigation of the HC system</li> <li>• Efficient customer service</li> </ul>
<b>Technology</b>	Already in place <ul style="list-style-type: none"> <li>• Agencies</li> <li>• Delivery system               <ul style="list-style-type: none"> <li>• Hospitals</li> <li>• Clinics</li> <li>• Facilities</li> <li>• Others</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Cross agencies upgrades</li> <li>• Insurance Exchange technical requirements</li> <li>• Roles of HITE- CT and REC: Strategic Plan and current activities</li> </ul>	<ul style="list-style-type: none"> <li>• Distributed               <ul style="list-style-type: none"> <li>○ mHealth</li> <li>○ TeleHealth</li> </ul> </li> <li>• Shared REsources               <ul style="list-style-type: none"> <li>○ Community resources</li> <li>○ Regional hubs</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Affordability</li> <li>• User friendliness</li> <li>• Portability (anytime anywhere)</li> </ul>
<b>Policies</b>	HI exchange <ul style="list-style-type: none"> <li>• Privacy and security</li> <li>• Data quality</li> <li>• Data uses               <ul style="list-style-type: none"> <li>• "Break the glass" rules</li> <li>• Derivatives</li> </ul> </li> <li>• Development of a qualified HIT work force</li> <li>• Health equity</li> </ul>	<ul style="list-style-type: none"> <li>• Eliminate barriers</li> <li>• Enabling policies</li> <li>• Cross agency policies               <ul style="list-style-type: none"> <li>• Master Patient Index (maintaining identity through the system)</li> <li>• Common Nomenclature</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Access</li> <li>• Equity</li> <li>• Affordability</li> <li>• Transparency</li> <li>• Accountability</li> <li>• Shared services</li> </ul>	<ul style="list-style-type: none"> <li>• Respect for consumer/patient values</li> <li>• Control of personal health information</li> <li>• Privacy</li> <li>• Value add tools and services</li> </ul>

\*OPM/BEST started an overall application inventory (including non-health care related). Inventory was due in November, 2011 It will not contain the level of detail we need to identify cross-connection of systems.

# Inventory of Existing Technologies (Selected examples)

- Agencies reviewed
  - CT Health Information Technology Exchange ✓
  - CT Health Insurance Exchange
  - CT Departments of Social Services ✓
  - Mental Health and Addiction Services ✓
  - Developmental Services ✓
  - CT Insurance Department
  - University of CT School of Pharmacy
  - Children and Families
  - Correctional Managed Health Care System ✓
  - Public Health ✓
- Eight (8) Meetings since September 2011

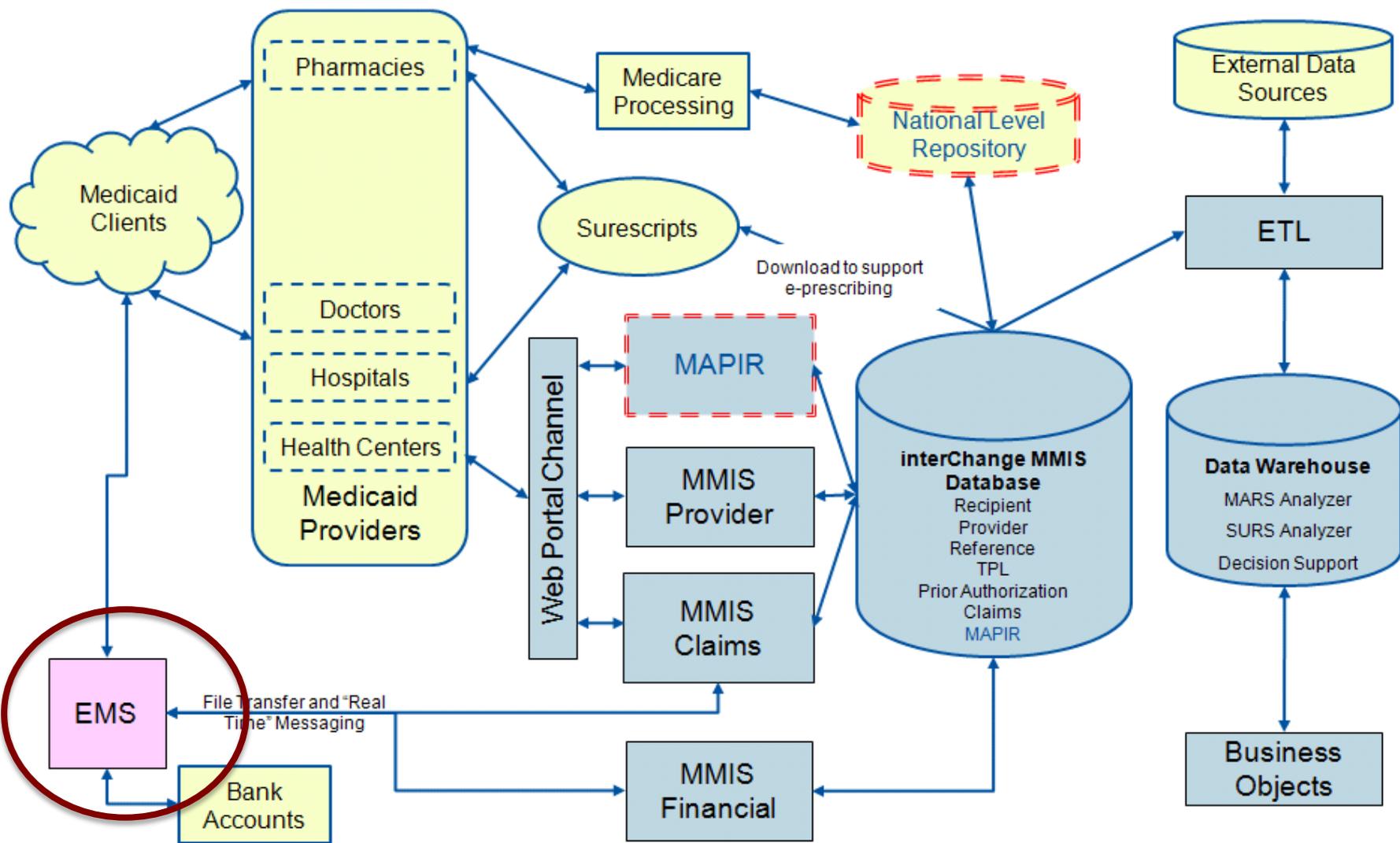
# Recommendations

- Used the inventory as “case studies” to generate broad recommendations because most issues cut across all agencies
- Focused on
  - Integrated architecture
  - Process and operational efficiencies
  - Service excellence to internal and external customers

# Inventory-DSS

The Information Technology Services supports

- ~ 90 Programs
- Approximately 750,000 customers
- Two major systems
  - Eligibility Management System (EMS)
  - Connecticut Child Support Enforcement Systems (CCSES)
- PC Microsystems: Supports 50+ PC LANs and stand alone PC applications



# Inventory-DSS

- Current and Future Upgrades
  - Modernization of Customer Service Delivery Project” (Doloitte)
    - Began in Sept. 2008
    - Wraps modern technology around EMS
    - Improves access, service quality and efficiencies
  - Evaluation (Mercer) of **DSS Eligibility (EMS)** and **Insurance Exchange** IT interfaces to meet guidance and conditions from CMS: As architected “...EMS is not a viable eligibility and enrollment solution for the Exchange”

# Recommendations

- Upgrade or replace the EMS system to conform to CMS Exchange requirements
- Expand the scope of the EMS upgrade to meet the business needs of all the agencies (single eligibility system)
- Take advantage of the 90/10 federal dollars. (DSS is working with Gartner to plan for this opportunity)

# Inventory- DPH

## DPH IT Landscape At a Glance



100 Applications



CT Towns



CT Healthcare Facilities



Laboratories

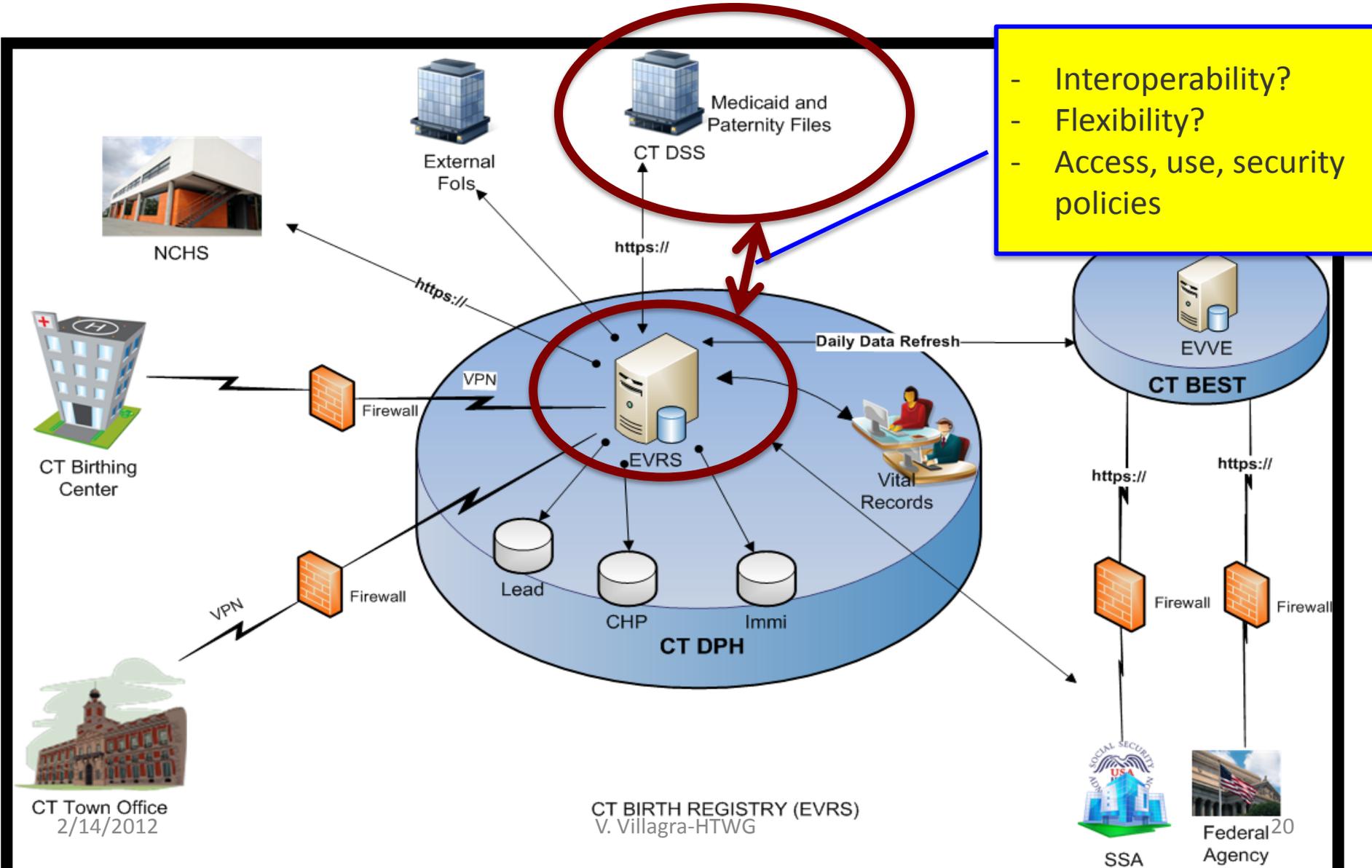


National Cancer Institute  
at the National Institutes of Health

# Inventory- DPH

- Electronic Vital Records System (EVRS)
- Statewide WIC Information System (SWIS)
- Laboratory Information Management System (LIMS)
- CT Immunization Registry and Tracking System (CIRTS)
- Public Health Information Network Messaging (PHINMS) – Electronic Laboratory Reporting (ELR)

# Inventory-DPH



CT Town Office  
2/14/2012

CT BIRTH REGISTRY (EVRS)  
V. Villagra-HTWG

SSA  
Federal Agency<sup>20</sup>

# Inventory- DPH

## What does HITECH mean for Providers and DPH?

- In order to become “meaningful users”, providers must meet one of the following three Public Health measures -
  1. Submit electronic data to CT DPH Immunization Registry
  2. Submit electronic Syndromic data to CT DPH Systems
  3. Provide electronic Reportable Lab Results to CT DPH Systems

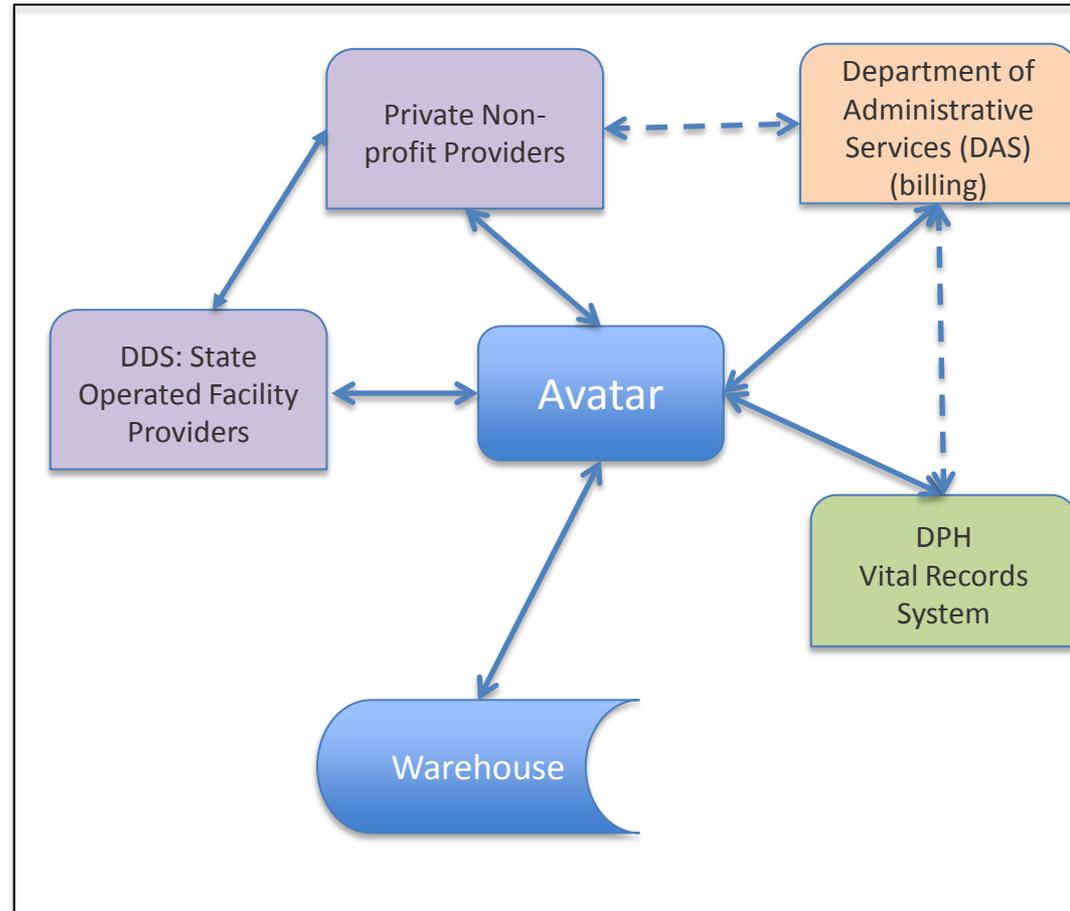
# Recommendations

Upgrade, as necessary the interoperability capability of the three MU Provider-DPH interfaces required to meet MU criteria and HITE-CT standards

- Laboratory Information Management System (LIMS)
- CT Immunization Registry and Tracking System (CIRTS)
- Public Health Information Network Messaging (PHINMS)

# Inventory-DMHAS

- **Data Performance System (DDaP)**
  - Is a web-based data entry and upload application
  - Captures and stores the Private Non-Profit Provider (PNP) data
  - Used for state and federal reporting and PNP performance management.

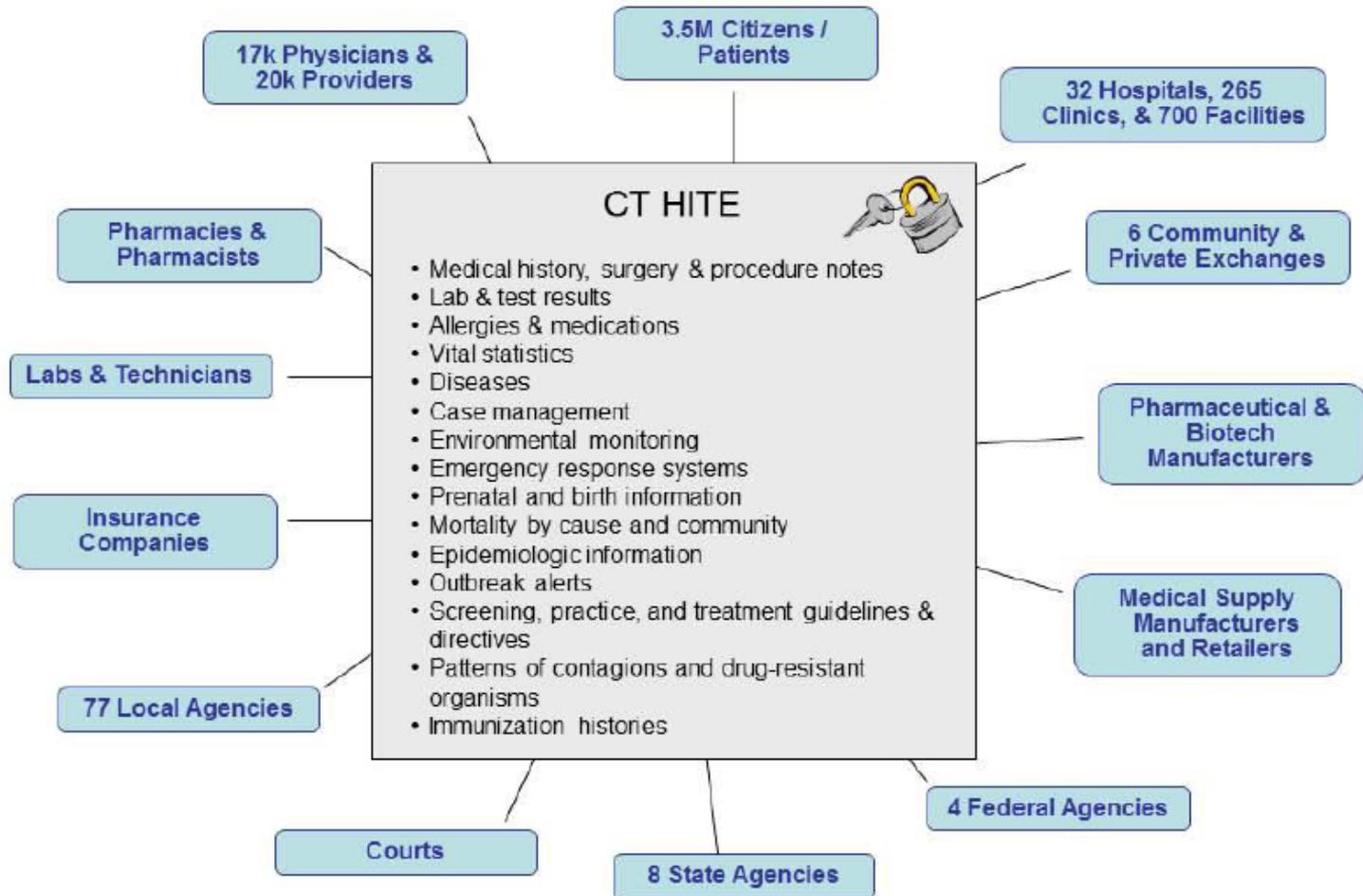


In spite of sharing common application DDS, DPH and DAS have different inter-agency partitions with limited direct connectivity with each other.

# Recommendations

- Seek funding to support a continuously operating forum where all users of HIT can
  - Meet regularly
  - Maintain current their knowledge about new and emerging HI technologies.
  - Share best practices
  - Integrate existing technologies across agencies (e.g: Avatar)
  - Have operational capabilities: e.g.: create committees and sub-committees to develop shared plans, acquire and test new ideas/technologies

# Inventory- HITE-CT Stakeholders



# Inventory- HITE-CT

## Current State HIE CT

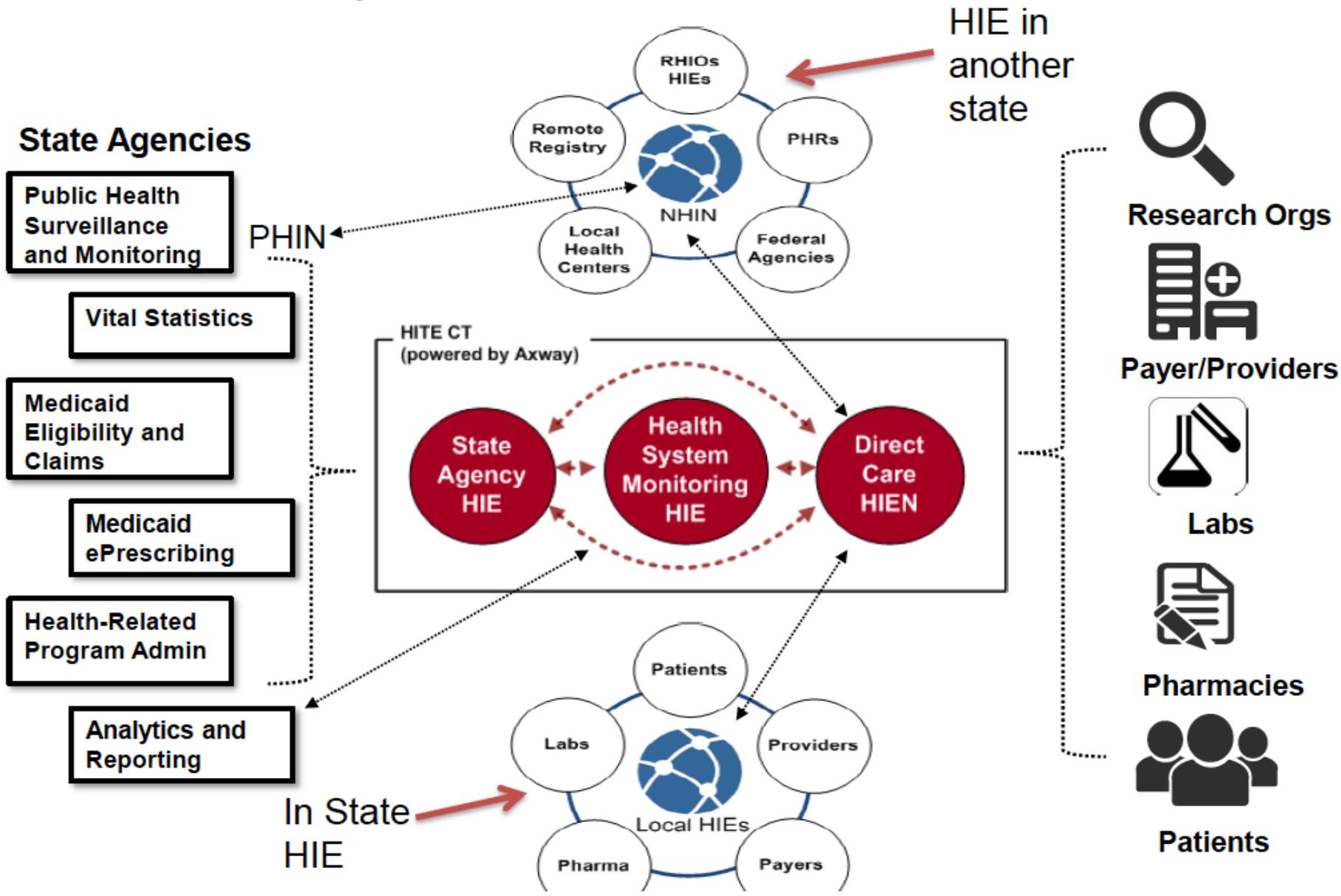
- 35- 40% Primary Care and specialists have EHR's (> 30 types), 30 hospitals (Large # of CIS)
  - Some connect to Labs, Hospital networks usually one way interface – none to state level HIE
  - Many are newly adopting / plan to adopt EHR's which will meet Meaningful Use standards
- Several Regional HIE's exist, are forming or potential
  - Danbury, Hartford HealthCare, Middlesex, Yale, CCMC, VA
  - HIE's do not readily interface with each other
- No HIE's cross State Line except VA

# Inventory: HITE-CT

## HIE Standard Policies

- Establishes practices for information exchange in the areas of
  - Security Standards and Practices
  - Privacy Standards and Practices
  - Interoperability Standards
  - Transaction Standards
  - Vocabulary Standards
  - Information Content Standards
  - Standard Operating Procedures

# Health Systems Infrastructure - Vision



# Integrated HIE Architecture



## Community Management

Centralized Member Enrollment, Campaign Management, End Point and Hub Provisioning, Automated On boarding, and Trust Credentialing.



## Trust Services

Identity and Role Provisioning, Certificate Management, Trust Validation, and Federation Authentication, and Profile Self Management



## Policy Compliance

Privacy and Consent Policy Management, Data Loss Prevention, Audit and Reporting (ATNA), and Executive Dashboards



## Data Exchange

ONC Standards (IHE Profiles), Secure Data Transfers, Ad Hoc, Direct Mail, Policy-Based, Translation and Mapping Services, Publish and Subscribe.



## Location Services

State Master Patient and Provider Index Service, Remote Record Locator Services, Archiving and Retrieval.

# Recommendations

- Support the leadership role of HITE-CTs in developing standard policies for
  - Interoperability
  - Privacy
  - Security
  - Vocabulary
  - Transactions
  - Information content
  - Standard operating procedures

# Recommendations

- Prioritize which of the agencies' IT systems are most critical to support health reform initiatives
- Develop a Master Patient Index
  - Maintain identity throughout the system
  - Build comprehensive longitudinal health records

# Recommendations

- Accelerate the adoption of eHRs by all providers:
  - Seek and disseminate information about affordable electronic health record alternatives to proprietary systems, specifically open source electronic health records
  - Develop a surveillance system for early identification of unintended widening the “digital divide” among providers based on lack of access to capital or other barriers.
- Develop standards/definitions pertinent to
  - Data quality (coded, text, etc.)
  - Rules for data access and use (including derivative products and services)
  - Data ownership

# Recommendations

- Develop tools and systems to support care coordination activities across providers, settings and “layers” of the health system
- Develop a system to support consumer/patient self-management knowledge and skills
- Develop technology systems that facilitate peer-peer support activities
- Develop technology systems that facilitate shared medical decision making

# Recommendations

- Data elements, database configuration and consumer portal software should facilitate health plan comparisons based price, benefits design and features that enhance access, promote better health and meets patient personal needs such as access to
  - High-quality (evidence based) health information
  - Decision support tools and services
  - Health Risk Assessment and predictive tools (health and cost)
  - Effective behavior change programs
  - Self-management tools (e.g self-monitoring)
  - Peer and professional health support systems
  - Incentives/reward programs for adherence to preventive health recommendations, early detection programs, chronic and acute care management, compliance and other value-based benefits.

# Recommendations from Sustinet Committees and Task Forces carried forward by the HTWF

## – Preventive Services

- Enable community-based preventive services (immunizations, lab tests, screenings). This will require electronic connectivity with Medical Homes

## – Health Disparities Committee

- Intake systems must capture race and ethnicity data
- Data should support disparities reporting needs and management of incentives and penalties
- Establish a disparities baseline using existing data

# Approach going forward

- Complete inventory of existing technologies
- Refine understanding of “the big picture”
- Status of work force development
- Recommendations for maximizing the value to consumers of new HITs
- Learn from experience in other states: Massachusetts, Colorado, Michigan, Ohio
- Seek Input from consultants involved in HIT to complement our work.

# HTWG Objectives for 2012

1. Develop recommendations to create a permanent convening forum for all the State HIT stakeholders
2. Develop recommendations to harmonize private and public health information exchange systems (statewide integrated architecture)
3. Develop recommendations to maximize the value of the State's HIT investment to consumers and patients

Thank you