

State of Connecticut  
Department of Public Health

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Public Health Information Network  
IT Strategic Plan  
FY 2008 – 2013

## **Introduction**

Strategic planning is the management tool used by the Public Health Information Network (PHIN) workgroup of the Department of Public Health (DPH) to identify common objectives, articulate those objectives in a Strategic Business Plan, and ensure that energies and resources are devoted to achieving those objectives at measurable intervals. A well-defined strategic plan will provide DPH/PHIN with the ability to assess progress in achieving common goals and the ability to modifying the direction in response to a changing environment.

Strategic thinking and planning requires a clear understanding of DPH/PHIN objectives and resources in conjunction with an understanding of the environment in which DPH/PHIN operates and expectations of the users served by DPH/PHIN. A disciplined approach was used by DPH/PHIN in development of a Strategic Business Plan; information was gathered about the present and anticipated environment, experiences were examined and assumptions tested.

Throughout the planning process, the focus of DPH/PHIN was on identifying and articulating those organizational decisions that are most important to achieving success. The DPH/PHIN workgroup gratefully acknowledges the valuable assistance and efforts of staff and earlier planning efforts that provided the foundation.

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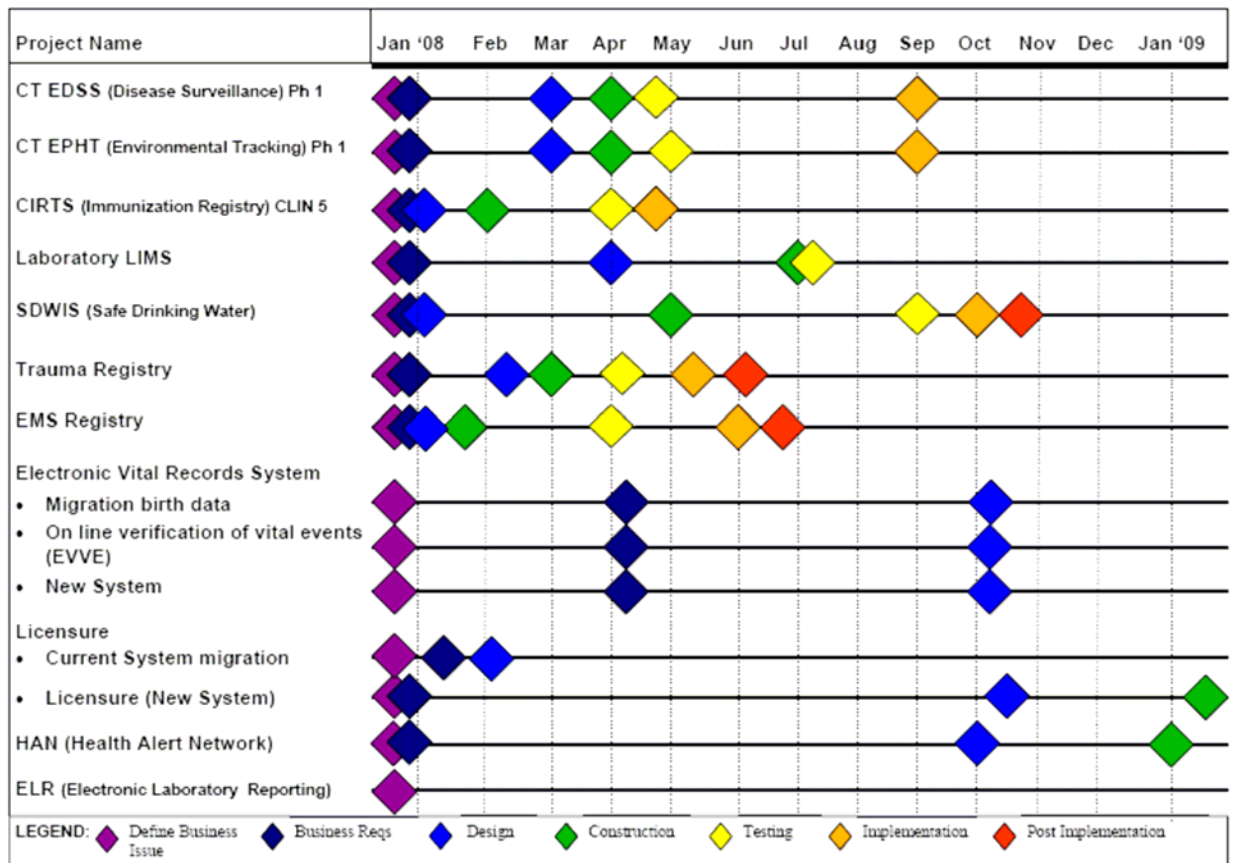
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## Executive Summary

The DPH/PHIN workgroup began the strategic planning process in January of 2007. Twenty DPH staff members conducted a comprehensive evaluation of over 100 DPH applications. Each application was scored for three (3) factors: criticality, IT support and EWTA compliance. In May of 2007, the DPH/PHIN workgroup presented findings and recommendations to the DPH Executive Leadership Team (ELT). Two applications, Licensing and Vital Records, were identified and funded as priority items for migration to a supported, web-based environment. A governance structure for intake and prioritizing of IT projects was proposed to ensure that IT projects align with DPH business drivers.

The DPH/PHIN workgroup continues efforts to migrate critical DPH applications to a supported environment. DPH continues review of a governance model. As of February, the DPH/PHIN workgroup is working on thirteen projects.

Overview of Phase Status of PHIN-related Projects (Feb 2008)



## **Mission Statement: (PHIN)**

*We are a community and network of organizations and individual using standards and best practices to support public health while protecting the confidentiality of individuals.*

## **Mission Statement: (PHIN IT)**

*To develop a network of IT systems using standards and best practices to support public health functions.*

The PHIN IT mission acknowledges the far-reaching customers of the PHIN applications. At a minimum, customers include:

- US (potentially global)
- Public health partners
- Users of the PH systems
- CDC and other federal partners
- CT local health directors
- Other state agencies
- Health care providers
- Health and human services
- State residents
- Researchers
- Other states
- Legislature
- Congress

PHIN is a national initiative under the stewardship of the Centers for Disease Control (CDC) to improve the capacity of public health to use and exchange information electronically by promoting the use of standards and defining technical requirements. The standards and technical requirements are determined by best practices related to efficient, effective, and interoperable public health information systems that support both routine public health activities and emergency preparedness and response.

Unique identifiers for health practitioners are central to PHIN standards along with requirements for confidentiality and privacy controls that are inherent to public health data. Establishing PHIN systems and the interoperability standards required of PHIN compliant systems will provide CT DPH with the tools required for detailed analysis of public health data. PHIN-compliant systems will result in improved efficiencies in identifying outbreaks of infectious and non-infectious diseases. PHIN-compliant systems will improve the ability to analyze public health data across a broader spectrum thus allowing early detection of public health issues. This

affords DPH the opportunity to develop policy related to the emerging issue and implement prevention and control measures. Secondary uses of public health data emerges as an issue to be addressed by DPH policy makers.

Public Health, including PHIN, is unique in that policies and interventions are directed at the group level but tracked and monitored at both the individual and group level. DPH and PHIN systems are the repository of detailed, private information on the public and their health information. Data can be and is collected without a persons consent. PHIN is funded with federal dollars. Education and information are a goal.

## **Value Statement**

*Core values are integral to developing and delivering the functionality required of PHIN applications and architecture.*

- PHIN IT relies on a team approach for project and planning.
- All team members are valued and respected.
- Focus on creating the community and network across business units through collaboration and communication.
- Professional and knowledgeable team members.

## **Vision Statement**

*PHIN IT will create and integrate surveillance and information systems using system development methodology and best practices. PHIN IT will acquire and sustain the resources and training necessary to support the use of SDM and best practices as well as PHIN applications and infrastructure*

PHIN encompasses the following core principles:

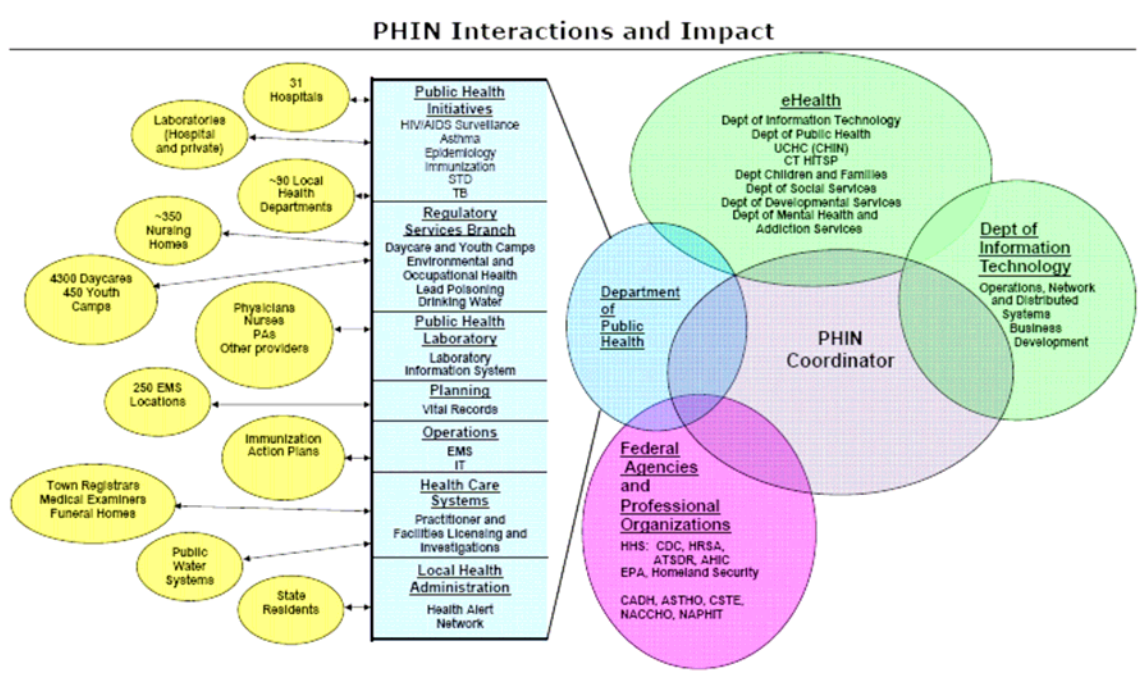
- Building collaboration between public health practitioners at all jurisdictional levels, their representative professional organizations, and other stakeholders, including the public;
- Improving the ability of public health to provide the essential services identified as core public health responsibilities –
  - Defining system (IT) and content standards (vocabulary);
  - Refining business processes to reduce variability and enhance interoperability;
- Identification, development, and propagation of best practices for public health business processes as well as IT systems;
- Alignment of public health within the overarching objectives of the National Health Information Network (NHIN) including adoption of standards and certification of systems; and

- Leadership in extension of best practices to other public health activities
  - Define roles and responsibilities so jurisdictions can meet PHIN obligations.

## Profile and History

The Public Health Information Network (PHIN) is a partnership of the community of stakeholders involved with various public health services at all jurisdictional levels (federal, state, local government as well as private healthcare entities). This community acts collaboratively to develop the criteria for functionality, security, and interoperability so that public health IT systems can be modernized to meet current and emerging threats.

The PHIN impact on branches of the Connecticut Department of Public Health is significant as evinced in the visual representation of PHIN interactions and impacts.



## Current Position:

Integral to the PHIN IT planning process, the PHIN workgroup conducted a SWOT (**S**trengths, **W**eaknesses, **O**pportunities, and **T**hreats) assessment.

### *Strengths*

PHIN IT believes its greatest strength is the collaborative effort of DoIT and DPH. This collaboration is critical in evaluating and deploying applications on the PHIN environment

hosted at DoIT. DPH business partners to the PHIN workgroup bring significant public health experience and an institutional history on the business of public health. DoIT business partners to the PHIN workgroup bring access to a broad range of technical experience and knowledge of technical solutions. The DPH/DoIT collaborative effort provides long-term vision for DPH and the PHIN platform hosted at DoIT. In addition, the PHIN workgroup is willing to try new techniques and new approaches to “get the job done”. Additional assets include an ability to recognize faults, acknowledge lessons learned and communicate with partners.

### ***Weaknesses***

The most significant weakness is that business users fail to understand that IT requires business-related decisions. Success of a project depends on critical input from business users throughout the project. Business users must allocate the time and effort necessary to ensure the success of the project.

PHIN IT is hindered by limited strategic planning or vision at the Agency program level. Prioritizing deployment of applications to the PHIN platform with limited funds and resources is more difficult when agency business drivers and long-term objectives are vaguely defined.

Additional weaknesses include:

- Users identify the IT solutions
- Out-dated technology and systems
- Limited support staff for applications and infrastructure
- Failure to perform results in funds eliminated
- Out-dated skill sets of employees

### ***Opportunities***

The PHIN platform and governance model offers DPH an opportunity to revolutionize the way it does business but buy-in of DPH decision makers is required. Actions should be taken to improve communication with DPH leadership and better marketing of PHIN successes

### ***Threats***

The federal government is often the largest user of data generated by PHIN applications. In an effort to standardize across state, local and tribal jurisdictions, the federal government will frequently develop an application through an outside vendor and mandate that states use that application. In most cases, the federal applications do not meet DoIT Enterprise Wide Technical Architecture (EWTA) standards. Vendors have no incentive to change to meet EWTA standards as their product meets federal standards. This disconnect between national and state standards causes lengthy discussions regarding “acceptance” of the architecture and may extend a project timeline.

Limited resources, staff and funding, is another frequent obstacle. Budget estimates for a project are often based on legislative estimates. Projects that are not fully funded fail to deliver the



required functionality. Budget reductions will adversely impact applications with fixed maintenance and support costs.

## Goals

PHIN IT goals fall within six categories

- Communicate
- Train
- Project management
- Planning
- Enterprise technology
- Standards and best practice

### *Communicate:*

- PHIN IT will document accomplishments.
- PHIN IT will communicate all planned work and status of existing work
- Develop and disseminate PHIN requirements, standards, and specifications in a collaborative, transparent, and dynamic way
- Facilitate a network of active, engaged participants that draws fully on its collective knowledge (develop a community of practice)

### *Training:*

- PHIN IT will establish a cycle of training and retraining
- PHIN IT will train on SDM and best practices

### *Project Management:*

- Deliver on time and on budget
- Use SDM project methodology for all IT-based projects
- Six projects into production by January 1, 2009
- Document business requirements
- Establish testing methodology QA
- Scale projects for size

### *Planning:*

- Align IT plans with business drivers
- Mitigate risks
- Create PHIN IT strategic plan
- Meet and use security standards
- Leverage dollars, resources, and equipment
- Identify funding opportunities from outside sources
- Find grants to support PHIN IT
- Identify all databases and application in use at DPH and score them.

- We will use teams in identifying annual goals
- Policy will identify prioritizing factors.
- All critical applications in supported technology by 2012.
- Support Emergency Preparedness through the accurate, complete and timely response to Public Health emergencies
- Enhance health and public health research through data aggregation
- Monitor the capability of state and local health departments to exchange information

***Enterprise Technology:***

- Access enterprise GIS to support business needs
- Eliminate excessive agency licenses
- Interoperable systems
- Establish document management
- Enterprise tools for licensing cost and availability
- Support the exchange of critical health information between all levels of public health and healthcare

***Standards and best practice:***

- DPH surveillance standards (race, gender, etc.)
- Certification of systems to outside standards
- We will keep systems in a supported environment
- Back up and recovery of DBs and applications
- Tools – rational, rhapsody, XML, open source, project
- Advance supportive policy
- Provide technical assistance to State and local health departments

**Implementation Strategies:**

DPH goals for PHIN can be aggregated into the following initiatives and projects:

- Documenting PHIN protocol
- Documenting PHIN Governance
- Implementing IBM Rational Suite
- Data aggregation
- GIS

These initiatives would be in addition to the existing PHIN projects:

- CT EDSS (Disease Surveillance)
- CT EPHT (Environmental Tracking)
- CIRTS (Immunization Registry)
- LIMS (Laboratory Information Management)

- SDWIS (Safe Drinking Water)
- Trauma Registry
- EMS Registry
- Electronic Vital Records (Electronic Verification and new EVRS)
- Licensing
- HAN (Health Alert Network)
- ELR (Electronic Laboratory Reporting)















DPH PHIN will implement project tracking in a manner consistent with DoIT project management direction. Current PHIN projects as of April 1, 2008 are represented at a high level as follows

<b>LEGEND:</b>							
		Project On Schedule	Project Possibly Late	Project On Hold	Project Late		Project is Complete
#	Agency Application Project Name	SDM Status	SDM Output needed	Next Task and Due Date	DOIT Staging Installation	DOIT Production Installation	Next 90 day OPS date (6/24/08)
<b>Currently on or pending installation on PHIN platform</b>							
1	CT EDSS (CT Electronic Disease Surveillance System)	3/24/08: Construct	updated project plan	Gap Analysis 4/1/08	initial 3/10/08	tentative: 8/15/08	TBD
2	CT EPHTN (CT Environmental Public Health Tracking Network)	3/24/08: Design	updated project plan	TBD	initial 3/10/08	tentative: 8/15/08	TBD
3	CT Immunization Registry Tracking System (CIRTS)	3/24/08: Construct	updated project plan Final UAT plan Final roll out plan	Updated Project plan 3/25/08 PDFLIB support 3/28/08	Patch on 4/15/08?	tentative: 4/30/08	4/15/2008
4	Safe Drinking Water Information System (SDWIS)	3/24/08: Design	project team TBD updated project plan	Meeting w/ project team 3/31/08	tentative 6/15/08	TBD	6/15/2008
5	Emergency Medical Services (EMS) Registry	3/24/08: Construct	Final UAT plan	4/15/2008	4/28/2008	6/9/2008	6/2/08 to set up production environment
6	Hospital Trauma Registry	3/24/08: Construct	Final UAT plan	Final UAT plan 4/1/08	4/7/2008	5/12/2008	5/7/08 to set up production environment
7	Public Health Information Network (PHIN) Messaging System	3/24/08: Implementation	updated project plan	Updated project plan 5/1/2008	done	5/31/08 to update production	5/31/2008

#	Agency Application Project Name	SDM Status	SDM Output needed	Next Task and Due Date	DOIT Staging Installation	DOIT Production Installation	Next 90 day OPS date (6/24/08)
8	Rhapsody/MSS	3/24/08: Construct	updated project plan	Updated project plan 5/1/2008	5/31/2008	5/31/2008	5/31/2008
9	LIMS - Laboratory Information Mgmt System	3/24/08: Business Requirements	project team project plan	Finalize contract 4/15/08? Establish Oracle platform 4/30/08?	TBD	TBD	TBD
<b>Currently at DOIT but not on PHIN platform</b>							
10	Newborn Screening (Hospital data entry)	3/24/08: Design	project plan for upgrade or replacement	project plan 4/30/08			
<b>Future DOIT Deployment/Migration</b>							
11	Licensure System (current) -- migration to Oracle 10G	3/24/08: Design	Updated project plan?		TBD	TBD	TBD
	Licensure System (new)	3/24/08: Business Requirements	Final Business Requirements	Final Business Requirements 4/16/08	12/30/2008	1/12/2010	TBD
12	EVRS (current) -- data migration to DPH Oracle database	3/24/08: Construct	project charter project team	Meeting to review project charter 3/28/08	TBD	TBD	TBD
	Electronic Verification of Vital Events (EVVE)	3/24/08: Design	project charter project team	Meeting to review project charter 3/28/08	TBD	TBD	TBD
	EVRS -- new	3/24/08: Define Business Issue	project charter project team	Meeting to review project charter 3/28/08	TBD	TBD	TBD
13	Health Alert Network (new)	3/24/08: Business Requirements	project team	Response to RFP 5/5/2008	TBD	TBD	TBD

#	Agency Application Project Name	SDM Status	SDM Output needed	Next Task and Due Date	DOIT Staging Installation	DOIT Production Installation	Next 90 day OPS date (6/24/08)
<b>Completed Projects hosted at DOIT</b>							
14	Electronic HIV/AIDS Reporting Systems(eHARS)	3/24/08: Post Implementation			TBD when CDC requires it	done	
15	Health Alert Network (current)	3/24/08: Implementation				done	

Projects that will be explored for 2009 through 2013 include:

- IBM Rationale
- Data aggregation
- Enterprise GIS
- Document management

IBM Rationale has been purchased and is pending implementation. Funding exists for data aggregation. Partial funding exists for enterprise GIS. No funding exists for document management.

## Succession Planning

Succession planning is the process used to ensure the continued effective performance of an organization by making provision for the development of and replacement of key people over time. Succession planning allows for the structured transfer of knowledge from key people in the organization to their successors and ensures that employees are prepared and training for the job and responsibilities of the future. Effective succession plans will reduce the amount of time required to train a new employee while reducing the drain on existing support staff.

Succession planning efforts over the next six months will include:

- Prioritize critical job functions that will require a successor
- Identify potential successors through performance appraisals and executive decisions
- Enroll interested and qualified succession candidates in mentoring or training programs appropriate to the job level

In assessing PHIN team members eligible for retirement, Lois Bryant, IT Manager is currently eligible for retirement; no other DPH PHIN team members are eligible for retirement in the next five years.

## Staffing

The deployment of new applications and the migration of existing applications will alter the profile of technical skill sets required for DPH IT personnel. The proposed implementation strategy includes a cycle of training and retraining. In addition, new skill sets will be required. These include:

One FTE for Electronic Laboratory Reporting and Rhapsody. Responsible for for implementation and support of electronic messaging in Connecticut with Public Health laboratories, private and hospital laboratories, and other health entities.

One FTE for the EVRS project. This position is funded for FY08.

One FTE for IBM Rationale, MS Project, and MS Sharepoint. These tools offer project management tracking, monitoring, sharing, and testing functionality that will enhance DPH's ability to deliver a project on time and within budget that meets business requirements.