

PHIN Status and Update



PUBLIC HEALTH INFORMATION NETWORK



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Agenda

- What is PHIN
- PHIN Preparedness
- Current Status:
 - EED
 - BioSense
 - Call Triage Service
 - Case Reporting
 - Outbreak Management
 - OMS
 - Connecting Laboratory Systems
 - LRN Results Messenger



Agenda cont.

- Countermeasure and Response Administration
 - CRA, Flu Vaccine Finder/ SPARx
- Partner Communications and Alerting
 - Alerting Service
 - Epi-X
- Cross Functional Components
 - PHIN MS
 - PHIN VADS
 - Directory Exchange
- Surveillance
- NHIN



What is PHIN?

An interoperable dual use network

A common framework to support public health activities through implementing and coordinating systems to operate across functions and organizations through the use of data and technical standards that will:

- transform *routine* public health practice
- advance *preparedness* capabilities



Moving into the Third Year of PHIN

- Year 1 – Proposed a standards-based public health network
- Year 2 – Used the first PHIN funding to focus on the functions of public health preparedness
- Year 3 – Will expand beyond preparedness



Public Health Information Network - Setting

Event Detection &
Monitoring

Analysis

Information
Resources and
Knowledge
management

Alerting and
Communications

Response



Federal Health
Architecture &
Consolidated
Health Informatics,
National Health
Information
Infrastructure



Public Health Information Network - Preparedness

Early Event Detection

Outbreak
Management

Connecting Laboratory
Systems

Countermeasure and
Response
Administration

Partner
Communications and
Alerting



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PHIN Preparedness

Public health events have demonstrated the value of information systems to public health activities.

For example:

- Anthrax: consistent exchange of data
- West Nile and MonkeyPox: vector and conveyance tracking
- SARS: communicable disease contact tracing
- Smallpox program: value of data management in response administration
- All: communication and incident coordination

Until now our only systems expectations have been for public health to have e-mail and fax capabilities.



PHIN Preparedness - Process

1. Review **functional requirements** for systems to support public health preparedness – developed in conjunction with ASTHO, NACCHO, APHL, CSTE
 - 6 Functional requirements documents at www.cdc.gov/phin
 - 6 regional conferences with ASTHO, NACCHO, APHL, CSTE
 - Required in 2005 Preparedness cooperative agreement
2. Review **industry standard-based specifications**
 - 42 PHIN message implementation guides
 - 12 Key performance measures at www.cdc.gov/phin
 - Guides and technical specifications at www.cdc.gov/phin
3. Perform PHIN Preparedness **self-testing** using the requirements and the self assessment tools
4. Determine your **jurisdiction's strategy** of how to meet the requirements:
 - Use existing systems
 - Develop/enhance systems
 - Use CDC developed systems (Note: It may be necessary to use CDC developed system in the interim until jurisdiction system meets preparedness requirements.)
5. Obtain PHIN Preparedness **certification** for functional coverage and core capabilities
6. **Exercise** the systems that you have or have access to so that the systems and personnel are prepared to use them



This Past Year - PHIN Preparedness

- **Defined preparedness systems needs**
 - Early Event Detection, Outbreak Management, Connecting Lab Systems, Partner Communications and Alerting, Countermeasure and Response Administration
- **Developed specifications (standards-based) to make the systems work together**
 - HL7 implementation guides, alerting and directory exchange and key performance measures
- **Completed 10 certified systems and functions that meet these functional needs**
 - CDC developed systems and components to support those who need them
- **Established preparedness certification process**
 - Self-testing materials and message validation
 - External certification



Early Event Detection

Need to detect events early, determine their size, localize them, determine spread, and provide situational awareness

BioSense

- Views exist for all states, BioWatch cities, and several additional “regions”
- Received over 720 million records to date
- Data acquisition expanding to include additional national, regional, and local sources
- BioSense collaborates with other federal agencies and “independent” EED systems



Early Event Detection cont.

Call Triage Service

- Proof of Concept Instance

NEDSS Base System – Case Reporting

- Case Reporting in HL7 V3 format
- Conversion of the NETSS message format to HL7 V3 (NEDSS)
- CDS preparations for receiving V3 message format from NBS



Outbreak Management

Need to trace the connection between an agent in a person, animal or place and the exposed individuals

OMS

- Data Import
- Field Specimen Collection
- Replication Admin
- Questionnaire Printing
- Procedure Treatment/Vaccination
- Messaging



Connecting Laboratory Systems

Must electronically share lab results and test orders with organizations involved in public health

LRN Results Messenger Version 2

- Shipment, subject, sample, test results data entry
- Ability to report test results for samples using LRN assays to CDC
- SMS - Specimen Management System - data import
- Standard message content (vocabulary & HL7 standards)
- Data exchange available via PHIN MS



Partner Communications and Alerting

Need to support communication and incident coordination

Alerting Service

- PHIN PCA Compliant Alerting Application
- Directory Maintenance Capability
- Secure Website Application - future

Epi-X

- Integrating with PH Directory
- Integrating with Alerting Service



Countermeasure / Response Administration

Must manage countermeasure administration

Countermeasure and Response Application

- Patient, treatment, organization, user data entry
- Support for Smallpox and IND Flu campaigns
- Single sign on through SDN
- Message send and receive as defined in PHIN requirements

Flu Vaccine Finder / SPARx

- Connect commercial data providers to gain access to location of countermeasures



Cross Functional Components

Technical and operational components that cross the boundaries of functional areas

PHIN MS

- V2.5 already in production

PHIN VADS

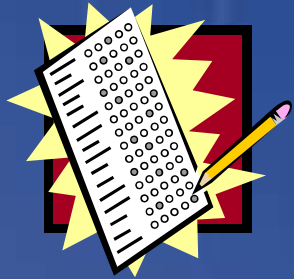
- V1.3 populated with KPM vocabulary

Directory Exchange Schema

- Exchange schema already defined
- V1.0 implementation guide for directory exchange
- Example Data Mining Specification language (DMSL) parsing tools



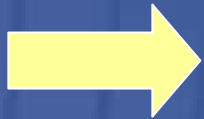
PHIN Preparedness Certification



Self-Assessment of Functional Area Requirements & Key Performance Measures

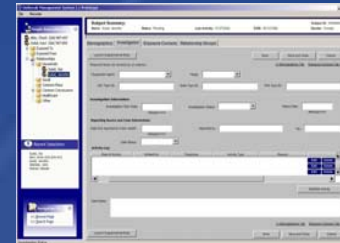


Determine Approach

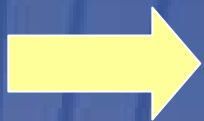


Build/Buy Application for Functional Area

OR



Use CDC Solution



Obtain PHIN Certification



Teams and Roles

- Technical Assistance
 - Self-assessment
 - Interpreting requirements
 - Understanding implementation guides and specifications
- Certification Team
 - Provide functional self-assessment and message validation tools
 - Conduct formal certification for functional areas and KPMs



Additional Updates - Surveillance

- 10 States currently using NBS release 1.1.3
- NBS Release 1.1.4 is now being deployed
 - updated Foodborne & Diarrheal Disease functionality
 - user interface enhancements
- Eight other states are (currently) scheduled for the NBS in the coming months
- Three new PAMs (TB Surveillance, Lead, and Varicella) in development. Beta versions - November, 2005
- NBS release 1.1.5 to include data exchange functionality with CDC Outbreak Management System (OMS)



Additional Updates - NHIN

Presidents Goals

- Informing clinical practice
- Interconnecting clinicians
- Personalizing care
- Enhancing population health
- American Health Information Community (AHIC)—
17 members, lead by Secretary Leavitt
- 4 RFPS
 - Standards harmonization
 - EHR certification
 - Investigate privacy barriers
 - Implement and test NHINs



Any questions or comments?

Thank You!



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