PHIN Status and Update
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

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

Obtain PHIN Certification

OR

Use CDC Solution
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!