



PUBLIC HEALTH INFORMATION NETWORK

Connecting For The Public's Health

**2nd Annual Public Health Information
Network Stakeholders' Conference**

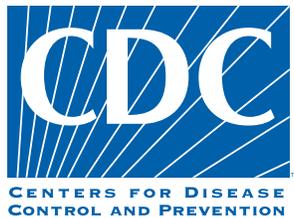
**Hilton Atlanta Hotel
Atlanta, Georgia
May 24-27, 2004**

Program Book

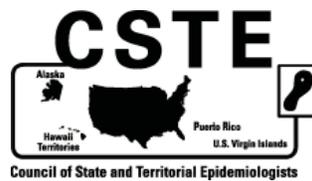


2nd Annual Public Health Information Network Stakeholders' Conference

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National Association
for Public Health
Information Technology

Program Planning Committee

2nd Annual Public Health Information Network Stakeholders' Conference "Connecting for the Public's Health"

John Abellera

*Associate Research Analyst
Council of State and
Territorial Epidemiologists
Atlanta, GA*

Timothy Broadbent

*Acting Deputy
Integrated Health Information Systems
Centers for Disease Control and Prevention
Atlanta, GA*

Claire Broome

*Senior Advisor to the Director for
Integrated Health Information Systems
Centers for Disease Control and Prevention
Atlanta, GA*

Laura A. Conn, Conference Co-Chair

*Health Scientist
Information Resources Management Office
Centers for Disease Control and Prevention
Atlanta, GA*

Ivan Gotham

*Director
Bureau of Health Network
Systems Management
New York State Health Department
Albany, NY*

Doug Hamaker

*NEDSS Coordinator
Texas Department of Health
Austin, TX*

Samata Kodollikar

*Policy Analyst, Informatics
Association of State and Territorial
Health Officials
Washington, DC*

Carolyn Leep

*Program Manager
National Association of County and City
Health Officials
Washington, DC*

John Loonsk

*Associate Director of Informatics
Information Resources Management Office
Centers for Disease Control and Prevention
Atlanta, GA*

Sherri McDonald

*Director
Thurston County Public Health and
Social Services
Olympia, WA*

Sunanda McGarvey

*Business Analyst/Project Manager
Contractor to Information Resources
Management Office
Centers for Disease Control and Prevention
Atlanta, GA*

Denton Peterson

*Director
Information Systems and
Technology Management
Minnesota Department of Health
St. Paul, MN*

Program Planning Committee

Alana Knudson-Buresh

*Senior Health Informatics Analyst
National Association of Health
Data Organizations
Salt Lake City, UT*

Mary Shaffran

*Director
Informatics Policy
Association of State and Territorial
Health Officials
Washington, DC*

Audrey Shiu

*Program Assistant
National Association of County and
City Officials
Washington, DC*

Perry Smith

*State Epidemiologist and
Director of the Division of Epidemiology
New York State Department of Health*

Thomas G. Savel

*Public Health Informatics Fellow
National Center on Birth Defects and
Developmental Disabilities
Centers for Disease Control and Prevention
Atlanta, GA*

Wendolyn Thomas

*Executive Assistant
Integrated Health Information Systems
Centers for Disease Control and Prevention
Atlanta, GA*

Patina Zarcone, *Conference Co-Chair
Informatics and LIM Systems Manager
Association of Public Health Laboratories
Washington, DC*

Monday, May 24, 2004

Time	Session Title	
9:00 am -5:00 pm	Registration	Grand Salon Foyer
3:00-7:00 pm	Exhibits	Galleria Exhibit Hall
1:00-3:00 pm	Plenary Session #1	Grand Ballroom

- **Welcome and PHIN Accomplishments** - *Claire Broome, Director, Integrated Health Information Systems, CDC*
- **PHIN Video**
- **A State's View of PHIN** - *Rice Leach, Commissioner, Kentucky Department for Public Health*
- **PHIN - Moving Forward** - *John Loonsk, Associate Director for Informatics, CDC*

Keynote Speaker: *Dr. Uwe Reinhardt*

3:00-3:30 pm	Break	Galleria Exhibit Hall
3:30-5:00 pm	Concurrent Session #1	

1.A Outbreak Management Functions

Salon A

This session focuses on identification and discussion of the various activities involved in outbreak management. Panel presentations will give perspectives from the federal, state and local levels. These varying points of view will discuss the commonalities and differences on such activities as: case management; contact tracing; incident management; and treatment tracking.

Participants will gain a greater knowledge of outbreak activities and an understanding of the variations in these activities at the local, state and federal level.

Moderator: *Tim Morris, Technical Project Lead for Preparedness Systems, Information Resources Management Office, CDC*

- Speakers:**
- **SARS in the City: The Toronto Public Health Experience** - *Bonnie Henry, Associate Officer of Health, City of Toronto*
 - **Field Investigations: CDC Perspective On Outbreak Investigations** - *Mehran Massoudi, Surveillance Lead, SARS Task Force, National Center for Infectious Diseases, CDC*
 - **Field Investigations: A State Perspective on Outbreak Investigations** - *Marion Kainer, Medical Epidemiologist/ Infectious Diseases Physician, Tennessee Department of Health*
 - **Local Management of Global Outbreaks: Changing Rules for a Global Economy** - *Seth Foldy, Associate Clinical Professor, Medical College of Wisconsin*

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Time	Session Title
3:30-5:00 pm	Concurrent Session # 1

1.B Overview of Early Event Detection

Salon B

The pressures of bioterrorism and rapidly developing natural disease outbreaks has put an emphasis on detecting events as early as possible. In this early detection session, an overview of different approaches and technologies for early detection will be discussed.

Moderator: *John Loonsk, Associate Director for Informatics, CDC*

- Speakers:**
- **Functional Requirements and Specifications for Early Event Detection** - *John Loonsk, Associate Director for Informatics, CDC*
 - **Information Integration for Early Event Detection** - *Farzad Mostashari, Assistant Commissioner, New York City Department of Health and Mental Hygiene*
 - **Early Event Detection and Managed Care Systems** - *Martin Kulldorff, Associate Professor, Department of Ambulatory Care and Prevention, Harvard Medical School and Harvard Pilgrim Health Care*

1.C Countermeasure Administration and Integrated Data Management

Salon C

This session will provide an introduction into the concept of countermeasure administration and its use at the federal, state and local levels of public health. It will also provide a look into the need for integration into outbreak management and preparedness systems that are in existence at all levels. Finally, to illustrate the point of system integration, data will be presented from the American Immunization Registries Association (AIRA) Emergency Preparedness and Response Committee survey of state, local and regional immunization registry projects around the nation. This information will include plans for use of registries in emergency preparedness and response planning around the nation, and best practices provided by state, local and regional immunization registries.

Moderator: *Vicki Kipreos, Lead Information Technology Specialist, Information Resources Management Office, CDC*

- Speakers:**
- **Introduction to Countermeasure Administration** - *Vicki Kipreos, Lead Information Technology Specialist, Information Resources Management Office, CDC*
 - **Role of Immunization Registries in Emergency Preparedness and Response Infrastructure** - *Paula Soper, Public Health Consultant, Scientific Technologies Corporation, American Immunization Registry Association*

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Time

Session Title

3:30-5:00 pm

Concurrent Session #1

1.D Alerting and Notification Business Requirements

Fulton, Cobb and Clayton Rooms

The value of information technology to support alerting and communications has been well established. Technology is critical to the proper support of many core public health practice needs. Public health partners have been working together to define how alerting and notification systems can be best implemented and coordinated to support current and future public health needs. A number of protocol issues require discussion and resolution in order for the technology to be designed and implemented in the most efficient and effective way. Federal, state and local public health partners have been working together to discuss and recommend business requirements related to alerting. In this session, the speakers will provide an overview of the results of the discussions that have taken place. The speakers will also address the importance of establishing protocols that make sense and are shared at all levels of the public health system. During the remainder of the session, a facilitated discussion of the business protocols will take place, which will involve the audience members.

Moderator: *William J. Kassler, State Medical Director, New Hampshire Department of Health and Human Services and Chair, ASTHO Public Health Informatics Policy Committee*

- Speakers:**
- **Global User Group Perspective** - *Bob Hall, President, State and Local Health Informatics Consortia*
 - **Health Alerting and Communications Across the Nation** - *Mary Shaffran, Senior Director, Informatics Policy, Association of State and Territorial Health Officials*
 - **Alerting and Notification Business Requirements and Outcomes, A Local Perspective** - *Rebecca Head, Director for Public Health Preparedness, Washtenaw County, Michigan Health Department*
 - **Requirements Gathering Open Discussion** - *Susan Katz, Scribe*

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Time **Session Title**
3:30-5:00 pm **Concurrent Session # 1**

1.E Knowledge Management Lifecycle - Part I

Douglas, Paulding
and Dekalb Rooms

Knowledge management (KM) is broadly defined as the capture, classification, use and re-use of knowledge and experiences. Knowledge management follows a lifecycle that addresses the capture, organization, formation and dissemination of knowledge. There are a number of IT tools used in knowledge management to support these stages such as those for: discovery and aggregation; index, search and retrieval; classification and categorization; collaboration and interaction; and organization and presentation. This KM Lifecycle I session will provide an overview of knowledge management and then focus on the initial stages of organization and capture. Tools used to capture and organize information for public health decision making will also be presented.

Moderator: *Nedra Garrett, Public Health Informatics Project Manager, Information Resources Management Office, CDC*

- Speakers:**
- **Overview of Knowledge Management** - *Nedra Garrett, Public Health Informatics Project Manager, Information Resources Management Office, CDC*
 - **Notifiable Disease Surveillance** - *Tim Doyle, Epidemiologist, Division of Public Health Surveillance and Informatics, Epidemiology Program Office, CDC and Cecil Lynch, Chair, Medical Group Medical Informatics, University of California Davis and Consultant in Informatics, Department of Health Services, Division of Communicable Disease, State of California*
 - **Organization: Vocabulary** - *Mamie Bell, Technical Information Specialist, Information Resources Management Office, CDC*
 - **Capture: Proficiency Testing as Tool in Estimating National Public Health Infrastructure** - *Robert Rej, Laboratory of Molecular Diagnostics, Wadsworth Center, New York State Department of Health*

1.F Security Policies

Newton, Rockdale
and Forsythe Rooms

The HIPAA Privacy Rule was not intended to directly affect the public health community; however it has resulted in significant confusion about when protected health information may be disclosed to Public Health Authorities (PHAs). The confusion is around when and how PHAs may use and share the data they collect for surveillance and research. The guidelines set by the Privacy Rule must be taken into consideration in the development of the PHIN and PHIN compliant systems. This session will strive to: explain when covered entities are also PHAs; describe "PHAs" and how HIPAA permits them to use and disclose the information they collect; discuss the privacy rule in terms of syndromic surveillance; explain the Privacy Rule provisions that apply when surveillance projects become research projects; explain how to de-identify data to comply with the Privacy Rule; and describe how to use limited data sets.

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Concurrent Session # 1

Moderators: *Barry Rhodes, Associate Director for Public Health Systems Research and Development, Information Resources Management Office*
Samata Kodoliar, Policy Analyst, Informatics, Association of State and Territorial Health Officials

Speakers:

- **Privacy Rule, Public Health Authorities, and Surveillance** - *Beverly Dozier, Privacy Rule Coordinator, CDC*
- **Research and the Privacy Rule** - *Lora Kutkat, Office of Science Policy and Planning, Office of the Director, NIH*
- **Protecting Privacy in Syndromic Surveillance** - *Bryant Karras, Assistant Professor Health Services and Biomedical and Health Informatics, University of Washington, Seattle*

6:00-8:00 pm

Reception

Grand Salon West

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Time	Session Title	
7:00 am-5:00 pm	Registration	Grand Salon Foyer
7:00-8:30 am	Continental Breakfast	Galleria Exhibit Hall
8:00 am-6:00 pm	Exhibits	Galleria Exhibit Hall
8:30-10:00 am	Concurrent Session #2	

2.A Detecting Aberrations in Data Patterns

Salon A

Early event detection requires adaptation of data management and analytic procedures that are fundamentally empirical in nature. This session will provide an overview of analytic components used in early event detection and describe specific techniques and work done to help inform aberration detection algorithms through experience in application.

Moderator: *Henry Rolka, Supervisory Statistician, Information Resources Management Office, CDC*

- Speakers:**
- **Overview of Analytic Components of Early Event Detection** - *Henry Rolka, Supervisory Statistician, Information Resources Management Office, CDC*
 - **A Priori Estimation as a Cornerstone of Signal Recognition** - *Tim Aldrich, Department of Epidemiology and Clinical Investigation Sciences, University of Louisville School of Public Health*
 - **Evaluation of ICD-9 Based Influenza-like Illness Surveillance** - *Nicola Marsden-Haug, Walter Reed Army Institute of Research, Silver Spring, MD*
 - **Aberration Algorithms for Early Detection in Washington DC** - *John Davies-Cole, Chief, Bureau of Epidemiology and Health Risk Assessment, District of Columbia Department of Health and Melissa Fraine, Epidemiologist, Atlantic Management Center, Inc.*

2.B Opportunities for Transition and Integration of PHIN-compatible Standards in Registries and Clinical Systems

Salon B

This session will describe similarities and challenges in applying PHIN-compatible standards to existing registries across public health agencies and their partners. Specifically, this session will discuss issues around messaging standards, electronic data reporting, application of NEDSS based systems, and data sharing in disease registries and clinical systems.

Moderator: *Warren Williams, Supervisory Public Health Analyst, National Immunization Program, CDC*
Martin LaVenture, Public Health Informatics Advisor and Manager, Bureau of Health Protection, Minnesota Department of Health

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8:30-10:00 am

Concurrent Session #2

- Speakers:**
- **Bumps in the PHIN Highway: Examples of Projects from the California Cancer Registry** - *Barry Gordon, Director, C/NET Solutions, California Cancer Registry*
 - **Reporting Pathology Protocols Project** - *Ken Gerlach, Health Scientist, National Center for Chronic Disease Prevention and Health Promotion, CDC*
 - **Building an Immunization Registry as a NEDSS Base System Module** - *Peter Richards, South Carolina Department of Health and Environmental Control and Ken Stuber, CGH Technologies, Inc.*
 - **A PHIN-based, Paperless, Sexually Transmitted Diseases Clinic** - *Art Davidson, Director, Public Health Informatics, Denver Public Health Department*

2.C Outbreak Lifecycle - State, Local, Federal Perspectives on Functions, Processes and Policies

Salon C

The science and procedures involved in epidemiologic investigations are similar regardless of the subject or scope of the investigation. Whether the investigation involves a single community or a multi-jurisdictional outbreak, similar principles are applied. However, there are different tasks performed at each level of public health outbreak investigation and containment. In addition, there are many disciplines involved in the response that produce information that must be integrated and analyzed in aggregate. The purpose of this session is to examine the cross-section of the disciplines involved with the multiple levels of public health through the life of an outbreak investigation. The session will consist of a short presentation to set the framework for discussion followed by break-out sessions in the areas of laboratory information, epidemiology information and analysis, incident management and outbreak containment. The break-outs will examine the subject area with perspectives from multiple levels of public health and identify overlaps and interfaces in processes and functions across levels and with other subject areas. At the end of the session, each group will report back to the larger group on findings.

Moderator: *Tim Morris, Technical Project Lead for Preparedness Systems, Information Resources Management Office, CDC*

- Speakers:**
- **Outbreak Management Across a Spectrum of Real Scenarios** - *Paul Erwin, Regional Director, East Tennessee, Tennessee Department of Health*
 - **Laboratory information** - *James Pearson, DGS Deputy Director for Consolidated Laboratories, Division of Consolidated Laboratory Services, Virginia Department of General Services*
 - **Epidemiologic Analysis** - *Richard Hopkins, Acting Director, Division of Public Health Surveillance and Informatics, Epidemiology Program Office, CDC*
 - **Incident Management** - *Joe Posid, Senior Public Health Advisor, Bioterrorism Preparedness and Response Program, National Center for Infectious Diseases, CDC*

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Concurrent Session #2

- **Outbreak Containment** - *Marty Cicchinelli, Training and Deployment Lead, Information Resources Management Office, CDC*

2.D PHIN Alerting: Directory Exchange and Data Privacy

Salon D

Alerting and emergency communication between public health partners requires coordination of information about organizations, people, and the roles people play in organizations. The Alerts and Communications Users Group has been tasked, among other things, with specifying the technical means for partner organizations to electronically exchange directory information, and to develop data privacy and security guidelines for the exchanged information. This session presents draft versions of these specifications as currently proposed by the user group and provides an open forum for discussion of the proposals. Participants are encouraged to respond to these proposals before they are finalized, over the next few months, into version one specifications.

Moderator: *Mary Shaffran, Senior Director, Informatics Policy, Association of State and Territorial Health Officials*

- Speakers:**
- **Security to Support Data Privacy** - *Lawrence P. Hanrahan, Senior Epidemiologist and Chief, Section of Epidemiology and Informatics, Bureau of Environmental Health, Wisconsin Division of Public Health.*
 - **Directory Exchange Protocol for Alerting** - *Robb Chapman, Information Technology Specialist, Information Resources Management Office, CDC*
 - **Requirements Gathering Open Discussion** - *Calvin Hightower, Scribe*

2.E Management and Distribution of PHIN Vocabularies and Identifiers

Salon E

Distribution, use, and management of standard vocabularies and identifiers are essential for interoperability in public health data exchanges. This session provides an overview and an update of the Public Health Information Network Vocabulary Services (PHIN VS) provisioning system for vocabulary and a status update on the use of object identifiers for PHIN. The session will include a demonstration of the PHIN VS provisioning system.

Moderators: *Dan Pollock, Medical Epidemiologist, Information Resources Management Office, CDC*
Anna Orlova, Consulting Executive Director, Public Health Data Standards Consortium

- Speakers:**
- **PHIN VS Software Services: Vocabulary Provisioning and Management Tools for Public Health Information Systems** - *John Stinn, Contractor to Information Resources Management Office, CDC*

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- **PHIN VS: Demonstration of its Use** - *Emily Crutcher, Contractor to Information Resources Management Office, CDC*
- **Update on Use, Management, and Distribution of Object Identifiers for PHIN** - *Ted Klein, Contractor to Information Resources Management Office, CDC*

2.F Finding our Future in PHIN: The Environmental Public Health Tracking Network (EPHTN)

Forsythe Room

This session will highlight current efforts by state health and environmental agencies to build the National EPHT Network. Federal and state agencies are working together to create a national network that will link health effects, exposure, and environmental hazards data in order to better prepare public health to prevent and control non-infectious diseases that are potentially related to the environment. Speakers in this session will focus on their state tracking demonstration projects that are 1) enhancing existing exposure and health effects surveillance systems, and/or 2) establishing direct electronic data reporting and linkage capabilities within and across health effects, exposure, and environmental data. Emphasis will be placed on joint efforts by state health and environmental agencies to collect and integrate public health and environmental data and create a PHIN-compliant tracking network.

Learning Objectives:

- Demonstrate how the National EPHT Network is being developed to be PHIN-compliant.
- Highlight state environmental public health tracking data linkage demonstration projects.
- Identify health effect, exposure, and environmental hazard data systems demonstrated in state projects.
- Discuss lessons learned while integrating health effect, exposure, and environmental hazard data for use in the National EPHT Network with respect to PHIN.

Moderator: *Judy Qualters, Chief, Environmental Health Tracking Branch, Division of Environmental Hazards and Health Effects, National Center for Environmental Health, CDC*

Speakers:

- **Overview of Environmental Public Health Tracking (EPHT)** - *Judy Qualters, Chief, Environmental Health Tracking Branch, Division of Environmental Hazards and Health Effects, National Center for Environmental Health, CDC*
- **New Mexico Environmental Public Health Tracking (EPHT)** - *Gina Aranda, Database Administrator, Office of Epidemiology, New Mexico Department of Health*

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- **Washington State Environmental Public Health Tracking (EPHT) Network** - *Steven C. MacDonald, Epidemiologist, Office of Epidemiology, Washington State Department of Health*
- **Wisconsin's Childhood Cancer PHIN Program Area Module** - *Lawrence P. Hanrahan, Senior Epidemiologist and Chief, Section of Epidemiology and Informatics, Bureau of Environmental Health, Wisconsin Division of Public Health.*
- **Automated Data Exchange System for Environmental Public Health Tracking Network in New York State: Functions, Specifications, and Applications** - *Linh Le, New York State Department of Health*

2.G Applications for Analysis, Visualization and Reporting of Surveillance Data

Henry Room

This session will describe applications used for analysis and visualization at the state and national levels.

Moderator: *Lesliann Helmus, Surveillance Chief, Division of Surveillance and Investigation, Virginia Department of Health*

- Speakers:**
- **Aberration Detection Applied to Notifiable Disease Data** - *Man-huei Chang, Surveillance Systems Branch, Division of Public Health Surveillance and Informatics, Epidemiology Program Office, Centers for Disease Control and Prevention*
 - **NNDSS Link, System for Examining and Analyzing National Notifiable Disease Surveillance System** - *John Hatmaker, Contractor to Epidemiology Program Office, CDC*
 - **Analysis and Visualization Methods for PA-NEDSS Data: Using Multidimensional Tools and Datasets** - *Steven Kowalewski, Pennsylvania Department of Health*
 - **A Web-Enabled Analysis Tool (WEAT) for the BRFSS** - *Joe Eyerman, Research Triangle Institute*
 - **Identification of Potential High- Risk Profiles from Disclosure-Treated Confidential Surveillance Data via Parallel Analyses by Geographically Distributed Groups of Researchers** - *David Wilson, Research Triangle Institute*

2.H Knowledge Management Life Cycle - Part II

Cherokee Room

Knowledge management (KM) is broadly defined as the capture, classification, use and reuse of knowledge and experiences. Knowledge management follows a lifecycle that addresses the capture, organization, formation and dissemination of knowledge. There are a number of IT tools used in knowledge management to support these stages, such those for: discovery &

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Concurrent Session #2

aggregation; index, search & retrieval; classification & categorization; collaboration & interaction; and organization & presentation. This KM Lifecycle II session will focus on the latter stages of access, formation, dissemination, and collaboration. Tools are being used to form, disseminate and share knowledge through collaboration will also be presented.

Moderator: *Jason Bonander, Lead Information Technologist, Information Resources Management Office, CDC*

- Speakers:**
- **Access: CDC Web Redesign** - *Jason Bonander, Lead Information Technologist, Information Resources Management Office, CDC*
 - **Formation: Building the Bridge from Data to Knowledge Management** - *Kathleen Cook, Lincoln-Lancaster County Health Department*
 - **Dissemination: Leveraging the Clinician Registry to Disseminate Critical Information** - *Dan Baden, Medical Officer, Office of Communications, CDC and Jason Bonander, Lead Information Technologist, Information Resources Management Office, CDC*
 - **Collaboration: All Kids Count Connections: A Community of Practice to Accelerate the Development of Integrating Child Health Information Systems** - *Ellen Wild, Director of Programs, Public Health Informatics Institute*

2.1 Secure Message Transport and Health Department Utilization of PHIN Standard Messages

Walton Room

This discussion will address the issues of how to integrate the PHIN Messaging System (PHIN MS) and PHIN compliant messages into an existing or proposed architecture. General approaches as well as specific examples of how this is done will be presented.

Moderator: *Ivan Gotham, Director, Bureau of Health Network Systems Management, New York State Department of Health*

- Speakers:**
- **Overview of Messaging Architecture, Technical Assistance and Interface Broker Role** – *Barry Rhodes, Associate Director for Public Health Systems Research and Development, Information Resources Management Office, CDC*
 - **A Phased Implementation of PHIN MS in a Small Automated Surveillance Application** – *Bill Lober, Research Assistant Professor, Clinical Informatics Research Group, Department of Medical Education and Biomedical Informatics, University of Washington School of Medicine*
 - **The Texas ELR Data System** – *Doug Hamaker, NEDSS Coordinator, Texas Department of Health*

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8:30-10:00 am

Concurrent Session #2

2.J PHIN 101

Rockdale Room

This session will provide a non-technical overview of the Public Health Information Network and is recommended for individuals from all disciplines who are “new” to the PHIN-concept and/or desire an overarching description of PHIN. This is intended to provide a background for the remainder of the conference program, which will delve into specific PHIN subject areas, technical components and future plans for PHIN.

Moderator: *Timothy Broadbent, Acting Deputy Director, Integrated Health Information Systems, CDC*

- Speakers:**
- **How PHIN supports Core Public Health Activities** - *Tim Broadbent, Acting Deputy Director, Integrated Health Information Systems, CDC and Sunanda McGarvey, Contractor to Information Resources Management Office, CDC*
 - **Critical Planning Points and Activities between PHIN and the Healthcare Sector** - *Jac Davies, Director of Program Development, Inland Northwest Health Services*

10:00-10:30 am

Break

Galleria Exhibit Hall

10:30 am -12:00 pm

Plenary Session #2

Grand Ballroom

Partners in PHIN

- Speakers:**
- **Public Health and the National Health Information Infrastructure** – *Bob Kambic, Senior Informatician, National Health Information Infrastructure, Department of Health and Human Services*
 - **PHIN and APHL** - *Scott Becker, Executive Director, Association of Public Health Laboratories*
 - **PHIN and ASTHO** - *William J. Kassler, State Medical Director, New Hampshire Department of Health and Human Services and Chair, ASTHO Public Health Informatics Policy Committee*
 - **PHIN and CSTE** - *Pat McConnon (invited), Executive Director, Council of State and Territorial Epidemiologists*
 - **PHIN and NACCHO** - *Seth Foldy, Associate Clinical Professor, Medical College of Wisconsin*
 - **PHIN and NADHO** - *Denise Love, Executive Director, National Association of Health Data Organizations*

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Time Session Title

10:30 am -12:00 pm **Plenary Session #2**

- **PHIN and NAPHIT** - *Greg Fay, Chief Information Office and Chief, Bureau of Information Management, Iowa Department of Public Health and President-elect, National Association for Public Health Information Technology*
- **PHIN and NAPHSIS** - *Barry Nangle, Director, Center for Health Data, Utah Department of Health*

12:00-1:30 pm **Lunch - On Your Own**

12:30-2:00 pm **Poster Session #1**

Galleria Exhibit Hall

- PS1.A **Applying Business Modeling Methods and Techniques to Information Flows Between the Public Health and Health Care Sectors** - *Paul Conway, Infostructure Development Division, Health Canada*
- PS1.B **Public Health Information Network (PHIN) for the Immunization Registry** - *George de la Torre, Consultant, Systems Architect, Connecticut Department of Public Health*
- PS1.C **Informatics Based Surveillance System Assessment: Public Health Laboratory Information System (PHLIS)** - *Vibha Kumar, MD, Public Health Informatics Fellow, Office of Science and Extramural Research/PHPPPO, Centers for Disease Control and Prevention*
- PS1.D **The Map to LOINC Project** - *Agha N. Khan¹, Dorothy Russell², Catherine Moore³, Arnulfo C. Rosario Jr.¹, Stanley P. Griffith³, Jeanne Bertolli¹*. *Centers for Disease Control and Prevention, Atlanta, Georgia; 2. Cimarron Medical Informatics, Tucson, Arizona; 3. Indian Health Service, Albuquerque, New Mexico*
- PS1.E **ESRI Developed Integrated GIS** - *Tom Fletcher, Emergency Management Coordinator, San Antonio Metropolitan Health District, San Antonio, Texas with assistance from Environmental Systems Research Institute Regional Office, San Antonio Texas*
- PS1.F **An Evaluation of SNOMED CT as a Standardized Vocabulary for Organisms Associated with Nosocomial Infections** - *Wenkai Li, MD, MAS, MS, Public Health Fellow, Division of Healthcare Quality Promotion, National Center for Infectious Diseases, Centers for Disease Control and Prevention*

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Time Session Title

12:30-2:00 pm Poster Session # 1

- PS1.G **Human Genomics and Public Health: Examining the Integration of Human Genomic Data Into the National Electronic Disease Surveillance System (NEDSS)** - *Thomas G. Savel, MD; Bruce Lin, MPH; Mary Lou Lindegren, MD; Andrew R. Autry, PhD; Muin J. Khoury, MD, PhD, Public Health Informatics Fellowship Program, Division of Public Health Surveillance and Informatics, Epidemiology Program Office, Centers for Disease Control and Prevention ; National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention; Office of Genomics and Disease Prevention, Centers for Disease Control and Prevention*

- PS1.H **Data Visualization and GIS in the Washington DC Automated Disease Surveillance System (WADSS)** - *John Larson; Mark Bramer; Melissa Fraine, MPH; Laura Dietsch, MPH; John O. Davies-Cole, Ph.D., MPH; Chevelle Glymph, MPH; Kimberly Russell; Tim Costello; Jason Porter, District of Columbia Department of Health*

- PS1.I **Policy Coordination and Automated Communication of Critical Events** - *Yves Lussier, Columbia University and Rose Williams, Thomas J. Watson, Research Center, IBM*

1:30-3:00 pm Concurrent Session #3

3.A Integration of Lab Data into Public Health Systems

Salon A

How do we make critical Public Health Laboratory data available real time for preparedness, environmental health, emerging diseases, and food safety?

We are very aware that what's in our food, in animals, and in our environment can affect public health. We need to respond to outbreaks immediately; this is even more urgent given the possibility of a terrorist event. Our laboratory information systems must exchange laboratory results real time with their surveillance partners at state health departments, and federal environmental, food safety, and public health preparedness agencies.

How can federal agencies support data system standards that enable laboratory information management systems in public health laboratories to connect easily with the appropriate partners at critical junctures, to support rapid and directed response to public health threats?

This session brings together leaders from a number of state laboratories and health departments that manage public health laboratory systems, and federal partners to provide a forum to discuss integration of laboratory results into public health systems to promote improved public health outcomes. Results of this session will be presented at the closing plenary on May 27, 2004.

Moderator: *Steve Hinrichs, Director, Center for BioSecurity and Director, Nebraska Public Health Laboratory*

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1:30-3:00 pm

Concurrent Session #3

Discussants:

- **State Public Health Laboratory** - *Jack Krueger, Chief of Laboratory Operations, Health and Environmental Testing, Maine Department of Human Services and Steve Hinrichs, Director, Center for BioSecurity and Director, Nebraska Public Health Laboratory*
- **Epidemiology** - *Claire Broome, Director, Integrated Health Information Systems, CDC*
- **Local Public Health** - *Alan Melnick, Health Officer, Clackamas County Public Health Division, Oregon*
- **Veterinary Medicine** - *James Case, University of California at Davis*
- **Food and Drug Administration** - *Gerald Anderson, Senior Resource Management Advisor, Office of Regulatory Affairs, Office of Resources Management, FDA*

3.B Collaborating Across Healthcare to Improve Education: Online Learning Using SCORM and MedBiquitous Standards

Salon B

The Advanced Distributed (ADL) Initiative continues to advance the state of art for online learning with the release of SCORM 2004, a suite of standards upon which MedBiquitous is building. The MedBequitous Consortium is focused on creating a technology blueprint for clinician education. Based on XML and Web services standards, this blueprint will seamlessly connect leading entities in clinician education and certification. Solutions based on this common blueprint provide a scalable way for educators to support and serve their constituents.

Moderator: *Nancy Gathany, Instructional Design and Development, Team Lead, Public Health Practice Program Office, CDC*

Speakers:

- **Collaborating Across Healthcare to Improve Education: Online Learning Using SCORM and MedBiquitous Standards** - *Paul Jesukiewicz, Executive Director, Advanced Distributed Learning Collaboratory, and Peter Greene, Executive Director of MedBiquitous, and Valerie Smothers, Director of Communication of MedBiquitous*

3.C Secure Communications

Salon C

This session will provide an overview of currently available systems being used by public health professional at Federal, State and Local levels to communicate and exchange surveillance data. This presentation discusses current study performed by CDC EPI-X members on data collected during the SARS and Monkeypox outbreak periods. The results of this study provide unique

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data to assist the PHIN Alerts and Communication Work Group to further define and establish standards for secure communications among public health professionals.

An overview of EpiCom, the Florida Department of Health's (FDOH) outbreak communication and emergency notification system will be discussed. The presenters will provide a brief history of the system's development starting in 2001, when FDOH received supplemental funding from the CDC Bioterrorism grant. Various EpiCom objectives and mission will be discussed such as how the system provides a secure, moderated information exchange for reporting and tracking outbreaks and to alert public health officials to those events. How EpiCom facilitate the exchange of accurate information and recognize connections between outbreaks and other events. A brief description of the technical specifications of the EpiCom system which includes a web application and telephonic alerting system will be outline and presented.

In addition, a summary of the implementation of the Colorado's Health Emergency Line for the Public (COHELP) initiative will be presented. This project demonstrates a framework for collaboration between state and local health departments and medical call centers in order to provide health information and exchange surveillance data regarding disease outbreaks and public health emergencies. It involves all five areas key components of PHIN and provides a model that is exportable to other health agencies trying to accomplish similar response and preparedness activities.

Moderator: *Bob O'Doherty, Chief Information Officer, Colorado Department of Public Health and Environment*

- Speakers:**
- **Epi-X State-Based Emergency Notification Proficiency Testing** - *Janet Fath, Office of Scientific and Health Communications, Epidemiology Program Office, Centers for Disease Control*
 - **The Epidemic Information Exchange: Growing the Partnership by Sharing Information, Epi-X: Secure Communications During Public Health Emergencies** - *Rossanne Philen, Office of Scientific and Health Communications, Epidemiology Program Office, Centers for Disease Control*
 - **EpiCom: Florida's Surveillance, Outbreak Communication and Alerting System** - *Don Ward, Acting Chief, Bureau of Epidemiology, Florida Department of Health*
 - **Standardized Preparedness Response System for Colorado** - *Greg Bogdan, Research Director and Medical Toxicology Coordinator, Rocky Mountain Poison and Drug Center, Denver Health*

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3.D CDC Controlled Health Thesaurus: Development and Distribution

Salon D

The Controlled Health Thesaurus developed for the CDC web site is a public health vocabulary resource maintained and distributed as part of the Public Health Information Network (PHIN). This session provides an overview and update of thesaurus content and a presentation and demonstration of content distribution through the PHIN Vocabulary Services (PHIN VS) provisioning system.

Moderator: *David Dobbs, Contractor to Information Resources Management Office, CDC*

- Speakers:**
- **Overview, Update of CDC's Web Thesaurus** - *Mamie Bell, Technical Information Specialist, Information Resources Management Office, CDC*
 - **Distribution of Thesaurus Content Using the PHIN Vocabulary Services Provisioning System** - *John Stinn, Contractor to Information Resources Management Office, CDC*

3.E PHIN Logical Data Model: An Overview and Practical Application

Salon E

The Public Health Information Network Logical Data Model (PHIN LDM) provides a set of technology neutral specifications to facilitate database modeling and schema design supporting the development of PHIN compliant systems. The PHIN LDM serves as a bridge between the subject matter expert's view and the system developer's view of the information requirements for public health. This session will introduce the PHIN Logical Data Model and describe its practical application in system development.

Moderator: *Dan Pollock, Medical Epidemiologist, Information Resources Management Office, CDC*

- Speakers:**
- **The PHIN Logical Data Model: An Introduction and Overview** - *Dale Nelson, Contractor to Information Resources Management Office, CDC*
 - **Working with the PHIN Logical Data Model: How to Use It** - *Kristi Eckerson, Contractor to Information Resources Management Office, CDC*
 - **Practical implementation of the PHIN Logical Data Model: Developing a Physical Database** - *Aaron Miller, Contractor to Information Resources Management Office, CDC*

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3.F Health and Environment Linked for Information Exchange, Atlanta (Helix-Atlanta): Building Bridges for Environmental Public Health Surveillance with the Public Health Information Network

Walton Room

The Centers for Disease Control and Prevention recently launched HELIX-Atlanta, an effort to establish a sustainable and shared network of integrated environmental monitoring and public health information systems in the Metropolitan Atlanta area so that action can be taken to prevent and control environmentally related health effects. Among many multidisciplinary partners, HELIX-Atlanta is working with the Environmental Protection Agency (EPA) and the National Aeronautics and Space Administration (NASA), who both offer environmental data. HELIX-Atlanta is part of the National Environmental Public Health Tracking Network which is part of PHIN. The speakers will address the steps HELIX-Atlanta is taking to become PHIN-compliant and identify the information that is essential to support environmental public health surveillance for PHIN. These steps will encompass the integration needs of both EPA and NASA for environmental public health data.

Learning Objectives:

After attending this session, the participant will be able to:

- Understand environmental public health tracking and the primary objectives and concepts of HELIX-Atlanta.
- Identify the challenges, gaps, and processes for establishing a PHIN-compliant integrated environmental public health tracking network in Metro Atlanta.
- Understand the roles of EPA and NASA in HELIX-Atlanta, their data contributions, associated standards, and integration needs.

Moderator: *Amanda Sue Niskar, Epidemiologist, Environmental Health Tracking Branch, National Center for Environmental Health, CDC*

- Speakers:**
- **Developing HELIX-Atlanta with PHIN** - *Gabriel Rainisch, HELIX-Atlanta Assistant Coordinator, Environmental Public Health Tracking Branch, National Center for Environmental Health, CDC*
 - **The State EPA Environmental Exchange Network** - *Pat Garvey, U.S. Environmental Protection Agency Headquarters*
 - **NASA Data Products for HELIX-Atlanta** - *Doug Rickman, NASA*

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Concurrent Session #3

3.G NEDSS Base System Hands-On Demonstrations

Fulton Room

This session provides hands-on demonstration of the NEDSS Base System in an informal interactive setting.

Demonstration Leader:

Jim Kauflin, Contractor to Integrated Health Information Systems, CDC

3:00-3:30 pm

Break

Galleria Exhibit Hall

3:30-5:00 pm

Concurrent Session #4

4.A Implementing Integrated Public Health Surveillance Systems: Paradigm Shifts in the Ways Local and State Health Departments Work

Salon A

Topics to be discussed include changes in regulatory control, emphasis on user training and outreach, and additional business process redesign.

Moderator: *Scott Danos, Lead Public Health Analyst, National Center for HIV, STD, and TB Prevention, CDC*

- Speakers:**
- **Paradigm Shift?: How NEDSS has Changed How We Do Acute Disease Surveillance** - *Jerry Gibson, State Epidemiologist and Director, South Carolina Department of Health and Environmental Control*
 - **Use of the PA-NEDSS System in managing a large-scale Hepatitis A Outbreak: state and local perspectives** - *Kirsten Waller, Surveillance Section Leader, Bureau of Epidemiology, Pennsylvania Department of Health*
 - **Where the Rubber Meets the Road: Decentralizing Public Health Reporting in Tennessee** - *Beth Collier, Regional Communicable Disease Director, Tennessee Department of Health, Mid-Cumberland Region*
 - **Quality Improvement in Public Health through Automation: The Impact of NEDSS on State & Local Public Health Surveillance** - *Tom Safranek, State Epidemiologist, Nebraska Department of Health and Human Services*

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3:30-5:00 pm

Concurrent Session #4

4.B Integrated Outbreak Management

Salon B

The goal of the Integrated Outbreak Management session is to gain a better understanding of the data flow and system process relationships between local, state, and federal outbreak management components. The session will include an overview of integrated outbreak management and the intent of the breakout discussion groups. The goal for each breakout session is to allow representatives from local, state, and federal entities to discuss cross-component data flows and system processes. Discussions will be facilitated to ensure focus on key integration points and concepts of process, data sources, systems, and information flow. Each discussion group will be chartered with developing a diagram that includes and depicts the relationships at each component level (local, state, and federal). At the end of the team discussions, each team will present their understanding of these information flow relationships and any barriers to achieving integration during a serious outbreak.

Moderator: *Tim Morris, Technical Project Lead for Preparedness Systems, Information Resources Management Office, CDC*

- Facilitators:**
- **Data Sources** - *Kyle Enger, Vaccine Preventable Disease Epidemiologist, Division of Immunization, Michigan Department of Community Health*
 - **Information Flow** - *Marion Kainer, Medical Epidemiologist/ Infectious Diseases Physician, Tennessee Department of Health*
 - **Processes** - *Cindy Smith, Contractor to Information Resources Management Office, CDC*
 - **Systems** - *Tim Morris, Technical Project Lead for Preparedness Systems, Information Resources Management Office, CDC*

4.C Laboratory Information Management System Requirements

Salon C

The presentations in this session will benefit all public health laboratory directors, managers, and IT staff that are evaluating their LIMS system needs. One of the sessions will focus on the requirements document developed by a number of state laboratories in collaboration with the Association of Public Health Laboratories (APHL) and the Public Health Informatics Institute (PHII). The work of the collaborative team can help public health laboratories and their partners achieve a better understanding of requirements for a public health LIMS. Other topics include information on LIMS architectural requirements, acquisition of a commercial LIMS, implementation of a LIMS and ongoing support and maintenance. While these presentations address public health laboratories, any public health partner will gain greater understanding of the direction of public health laboratory information systems.

Moderator: *Doug Drabkowski, Director of Strategic Initiatives and Research, Association of Public Health Laboratories*

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- Speakers:**
- **Collaborative Approach to Public Health Laboratory PHIN Compliant LIMS Design** - Anita Renahan-White, Project Director, The Public Health Informatics Institute and Pete Kitch, President, KIPHS Inc. and Gary Jones, IS Manager, Minnesota Department of Health
 - **Update on Commercial LIMS Implementation in a Complex Public Health Lab Environment at NCID/CDC** - Dale Nordenberg, Associate Director for Informatics, National Center for Infectious Diseases, CDC
 - **PHL-LIMS Functional Implementation** - Robert Bostrom, Director of the Office of Sample and Data Management in the Kansas Division of Health and Environmental Laboratories

4.D Data Source Considerations in Early Event Detection

Salon D

This session will provide an overview of the challenges for using traditional and nontraditional data sources to support early event detection.

Moderator: TBD

- Speakers:**
- **Meeting Challenges in the Use of Nontraditional Data Sources in Public Health Monitoring** - Yevgenly Elbert, Walter Reed Army Institute for Research
 - **Linking Non-Traditional Data to the Washington Automated Disease Surveillance System (WADSS): Poison Control and EMS Data** - John Davies-Cole, Chief, Bureau of Epidemiology & Health Risk Assessment, District of Columbia Department of Health and Marion A. Porter, Sierra Systems
 - **Prescription Medication Use during Gastrointestinal Respiratory Outbreaks at Military Treatment Facilities** - Shilpa Hakre, Walter Reed Army Institute for Research
 - **Evaluation of ESSENCE: An ICD-9 Code Based Syndromic Surveillance System** - Virginia Foster, Senior Epidemiologist, Walter Reed Army Institute for Research
 - **Standards for Early Processing and Display Stages for Over-the-Counter Pharmaceutical Data** - Steve Magruder, Johns Hopkins University, Applied Physics Laboratory

4.E Use of SNOMED in Public Health

Salon E

The Systematized Nomenclature of Medicine (SNOMED) is an advanced, highly robust terminology coding system that is used increasingly in public health systems and data exchanges. Beginning in May 2004, the National Library of Medicine (NLM) will distribute SNOMED Clinical Terms (SNOMED CT) for use in the U.S. without charge. This session will provide an overview

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Concurrent Session #4

of SNOMED's usefulness for public health and an outline of how to access SNOMED through the NLM's Unified Medical Language System.

Moderators: *Dan Pollock, Medical Epidemiologist, Information Resources Management Office, CDC*
Rita Altamore, Epidemiologist, Washington State Health Department

Speakers:

- **An Introduction to Using SNOMED in Public Health** - *Jerry Sable, Contractor to Information Resources Management Office, CDC*
- **Access to SNOMED Through the National Library of Medicine's Unified Medical Language System** - *Kin Wah Fung, UMLS Team, National Library of Medicine*

4.F Geographic Information Systems (GIS) Applications

Walton Room

Speakers will discuss the NEDSS vision for GIS; using NEDSS GIS systems for decision-support; creating a spatial data warehouse using PHIN standards and specifications; using NEDSS GIS data for program operations while maintaining confidentiality; jurisdiction reassignment of morbidity after conducting GIS quality-control; and adding value to GIS data by managing user entered NEDSS data.

Moderator: *Jeff Stover, Virginia Department of Health*

Speakers:

- **New York State Department of Health Spatial Data Warehouse: A Case Study of Enterprise Geographic Information System for Public Health Information Network** - *Linh Le, Research Scientist, Public Health Preparedness and Response for Bioterrorism Project, New York State Department of Health*
- **Adding Value to NEDSS GIS Data at the Program-Level by Managing User-Entered Data** - *Todd Gerber, Research Scientist, New York State Department of Health*
- **Enhancing Surveillance Data via GIS-related Jurisdictional Morbidity Re-assignment, Case Report Visualization and Inherent Confidentiality Issues** - *Jeff Stover, Virginia Department of Health*

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4.G Technical Roundtable on HL7 2.X Messaging, Implementation Guides and Strategic Direction for HL7 2.X

Cherokee Room

This session will feature facilitated discussions on the use of HL7 version 2 implementation guides, business reasons to upgrade from earlier versions of the HL7 v2 standard to version 2.5, XML encoding of HL7 v2 - technology that supports it and the benefits of using XML encoding.

Moderator: *Mary Hamilton, Contractor to Information Resources Management Office, CDC*

Discussion Leaders:

- *Mary Hamilton, Contractor to Information Resources Management Office, CDC*
- *J.A. Magnuson, Health Informatics Scientist, Oregon Health Services*

4.H Best Practices in Managing IT Systems

Henry Room

Project Management has grown from completing a sequence of steps to a professional discipline that employs practices and procedures to achieve higher quality results, reduce risk, manage cost, and keep the project on schedule, scope, and budget. Public Health projects introduce additional complexities including multiple vendors, governmental restrictions, tight funding, and challenging goals. Employing sound Project Management practices and procedures will help you control these variables. This talk will also introduce you to project management concepts and present techniques and tools for delivering quality solutions on time and within estimates, that meet the true needs of the user community.

Where Project Management focuses on a specific project, Program Management tackles the complex challenges of how organizations effectively manage their breadth of projects. Program Management provides the practices, tools, and procedures to support decision makers as they manage their portfolio of investments. Challenges such as how to coordinate inter-related projects, what information should be regularly reported to management, and how to keep the overall program vision and the implementation of projects aligned are areas that Program Management seeks to address. This talk will introduce you to the basics of Program Management and present best practices, procedures, and tools of the trade.

Moderator: *Marc Overcash, Lead IT Specialist, Information Resources Management Office, CDC*

- Speakers:**
- **Effective Project Management for Public Health IT Initiatives** - *Tom Brinks, Contractor to Information Resources Management Office, CDC*
 - **Program Management: Managing Multiple Projects in a Complex Environment** - *Scott Lieberman, Contractor to Information Resources Management Office, CDC*

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Evening Session – Concurrent Session #5

5.A Requirements for a Public Health Knowledge Management Portal

Salon D

Public health information needs vary greatly due to the span of public health services, activities, roles, and urgency at the state, local and federal levels. Because of the deluge of information available, it can be a challenge to ensure the right information is available to the right audience at the right time for decision making. A portal is one example of a Knowledge Management (KM) tool that enables the organization and aggregation of information, resources, tools and applications in one place in a familiar browser-based environment. This session will focus on identifying requirements for public health KM from key stakeholders to include state, local and partner organizations.

Facilitator:

Nancy Tosta, Vice President, Ross and Associates Environmental Consulting Ltd.

5.B Clinic on using PHIN Messaging System

Salon E

This session will provide a technical overview of the PHIN Messaging System, PHIN MS, the PHIN component which provides secure, bi-directional, point to point message transport using ebXML. The session will present a general overview of electronic messaging with PHIN MS in addition to installation and configuration of the PHIN MS sender and receiver components. The session shall be a forum for information technology professionals to discuss aspects of messaging system design and the role of PHIN MS in electronic message exchange.

Demonstration Leader:

John Thomas, Contractor to Information Resources Management Office, CDC

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7:00 am -5:00 pm	Registration	Grand Salon Foyer
7:00-8:30 am	Continental Breakfast	Galleria Exhibit Hall
8:00 am -6:00 pm	Exhibits	Galleria Exhibit Hall
8:30-10:00 am	Concurrent Session #6	

6.A Use of Countermeasure Administration Data in State Preparedness

Salon A

This session will provide presentations from three state health departments that demonstrate their use of state-developed systems. These systems are used for preparedness and countermeasure administration data collection. State capacity to conduct data exchange with CDC will also be discussed and presentations will show implementation of PHIN vocabulary standards that were required during the smallpox vaccination campaign. Future plans for expansion to other countermeasures will also be discussed.

Moderator: *Vicki Kipreos - Lead Information Technology Specialist, Information Resources Management Office, CDC*

- Speakers:**
- **Delaware State Registry and Smallpox Integration** - *Samuel Rodgers, Data Analyst, Immunization Program, Information Management Systems, State of Delaware Division of Public Health*
 - **The New York State Communicable Disease Electronic Surveillance System** - *Perry Smith, State Epidemiologist and Director of the Division of Epidemiology, New York State Department of Health*
 - **Isolation and Quarantine: Monitoring in the Age of Technology** - *Kathy Como-Sabeti, Epidemiologist, Emerging Infections Program, Minnesota Department of Health*

6.B Integrating Laboratory Systems Within an Organization

Salon B

This session will focus on approaches for integrating laboratory information across the enterprise. Architectures for supporting enterprise services for specimen accessioning, messaging, vocabulary, and security will be presented along with the PHIN standards for each. Speakers will present details of two specific enterprise-level projects; CDC's Specimen Tracking and Results Reporting System (STARRS) and the central laboratory results repository project in the Florida Department of Public Health.

Moderator: *Tim Morris, Technical Project Lead for Preparedness Systems, Information Resources Management Office, CDC*

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Concurrent Session #6

- Speakers:**
- **PHIN and Enterprise Integration Requirements** - *David Groves, Contractor to Information Resources Management Office, CDC*
 - **CDC Specimen Tracking and Results Reporting System (STARRS): A Demonstration** - *Brian Levine, Contractor to Information Resources Management Office, CDC*
 - **Implementation of PHIN Standards within Florida's PHL Infrastructure** - *Clifford Knight, Director of Informatics and Facilities for the Florida Bureau of Laboratories*

6.C Early Event Detection Systems

Salon C

This session will be to introduce operational ideas for early detection in nontraditional surveillance settings. Extensions to extant systems will be presented as well as an overview of the BioSense system.

Moderators: *John Loonsk, Associate Director for Informatics, CDC*

- Speakers:**
- **Biosense Overview and Demonstration** - *David Walker, Public Health Analyst, Information Resources Management Office, CDC*
 - **BioWatch** - *Peter Estacio, Department of Homeland Security*
 - **Population Health Monitoring System Evaluation for BioNet** - *Julie A. Pavlin, Chief, Field Studies Department, Walter Reed Army Institute of Research*

6.D National Electronic Disease Surveillance System (NEDSS) Base System Deployment, Implementation, and Support Activities

Fulton, Cobb, and Clayton Rooms

Speakers will discuss NBS deployment successes and challenges in these presentations.

Moderator: *John Abellera, Associate Research Analyst, Council of State and Territorial Epidemiologists*

- Speakers:**
- **Pioneering the NEDSS Base System in Nebraska: Expanding the Frontiers of Public Health** - *Tom Safranek, State Epidemiologist, Nebraska Department of Health and Human Services*
 - **Implementing the NEDSS Base System: Lessons Learned** - *Jerry Gibson, State Epidemiologist and Director, South Carolina Department of Health and Environmental Control*
 - **Texas' Experience with NBS Performance Testing** - *Doug Hamaker, NEDSS Coordinator, Texas Department of Health and Bryan Sultanik, NEDSS Project Technical Lead, Texas Department of Health*

Time Session Title

8:30-10:00 am

Concurrent Session #6

6.E Getting the Message (and Sending It, Too): Perspectives on ELR from Health Departments and Laboratories

Salon D

Speakers in this panel will present perspectives from health departments and clinical laboratories on the implementation of electronic laboratory-based reporting (ELR) in the United States. The talks will provide updates on the implementation of standards-based messaging and outline strategies for continuing progress in ELR.

Moderators: *Robert W. Pinner, Director, Office of Surveillance, National Center for Infectious Diseases, CDC*
JA Magnuson, Health Informatics Scientist, Oregon Health Services

Speakers:

- **Electronic Laboratory Reporting National Snapshot Survey** - *JA Magnuson, Health Informatics Scientist, Oregon Health Services*
- **PA ELR: Planning and Implementing an Enterprise-Level Electronic Laboratory Reporting System** - *Kirsten Waller, Bureau of Epidemiology, Pennsylvania Department of Health*
- **In Quest of ELR** - *Eileen Koski, Director, Informatics Research, Quest Diagnostics*
- **With Mayo** - *Mary Erath, Technical Resource Specialist, Mayo Reference Services, Inc.*

6.F Workforce Development

Salon E

Public Health Informatics is defined as the systematic application of informatics, computer science and technology to public health practice, research and learning. Public Health informatics competencies have been constructed to accommodate training at various levels to include specialized informatics training programs and general informatics training for public health officials. With the recent focus on IT systems to support bioterrorism preparedness and response, it is necessary to address the need for trained Informatics professionals who can design, develop and implement these systems. The presentations will address Public Health Informatics competencies, an applied training program perspective as well as an approach to training the public health workforce.

Moderator: *Nedra Garrett, Public Health Informatics Project Manager, Information Resources Management Office, CDC*

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- Speakers:**
- **Applying Public Health Informatics Competencies to an Applied Training Program** - *Janise Richards, Director, Public Health Informatics Fellowship, Epidemiology Program Office, CDC*
 - **Public Health Informatics at Work (in PHIN)** - *CDC Public Health Informatics Fellows*
 - **Informatics Training and the Public Health Workforce** - *David Ross, Director, All Kids Count*

10:00-10:30 am

Break

Galleria Exhibit Hall

10:30 am-12:00 pm

Concurrent Session #7

7.A Child Health Information Systems

Salon A

These sessions will present various experiences building integrated child health information systems. Principles, lessons learned, and functions of an integrated system will be outlined by states that have implemented integrated child health information systems.

Moderators: *Warren Williams, Supervisory Public Health Analyst, National Immunization Program, CDC*
David Ross, Director, All Kids Count

- Speakers:**
- **Child Health Advanced Records Management System (CHARMS): The Utah Approach to Integration** - *Rhoda Nicholas, Chief Information Officer, Utah Department of Health*
 - **Integrating the New York Citywide Immunization Registry and the Childhood Blood Lead Registry** - *Hadi Makki, New York City Department of Health and Mental Hygiene*
 - **Implementing the West Virginia Electronic Disease Surveillance System : Integrating With a State's Electronic Immunization Registry and Leveraging Shareable Tools** - *Robert Fernatt, West Virginia Electronic Disease Surveillance Systems IT Manager*

7.B NEDSS Base System, Release 1.1.3: An Overview of Existing Functionality and Future Plans

Salon B

Topics include: NBS Release 1.1.3 functionality; NEDSS Base System technical architecture re-engineering: What does this mean and what is the impact on future NBS releases; Can non-NBS states use PAM coding, business requirements, Use Cases, other relevant documentation? What are the timelines for new NBS functionality (PAMs)? NBS Versioning: how will it occur and what will it include?

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Moderator: *Timothy Broadbent, Acting Deputy Director, Integrated Health Information Systems, CDC*

Speakers: • **An Overview of Existing NBS Functionality and Future Plans** - *Joseph Reid, Associate Director for Science, Information Resources Management Office, CDC and Timothy Broadbent, Acting Deputy Director, Integrated Health Information Systems, CDC*

7.C Countermeasure Administration in Widespread Events

Salon C

This session will provide a forum for discussion on the effective use and thresholds associated with countermeasure administration during a wide-spread event or outbreak, which could include the use of Class-A agent vaccines and prophylaxis, as well as isolation and quarantine as useful countermeasures. It will also discuss the real-world affects of using an Investigational New Drug (IND) for mass vaccination or prophylaxis, during an emergency or event, and how it changes the needs for data collection and patient care. Also, this session will include discussions on the role that countermeasure administration plays at all levels of public health, including federal, state and local levels.

Moderator: *Vicki Kipreos, Lead Information Technology Specialist, Information Resources Management Office, CDC*

Speakers: • **Overview** - *Marty Cicchinelli, Training and Deployment Lead, Information Resources Management Office, CDC*
• **Use of Countermeasure Administration in Widespread Events – When is it Most Effective?** - *Samuel Rodgers, Data Analyst, Immunization Program, Information Management Systems, State of Delaware Division of Public Health*
• **Investigational New Drugs Data Requirements, How Do These Affect the System Interface? How Do They Affect PHIN Systems?** - *George Bond, Health Director, Buncombe County Health Department*
• **The Role of CMA at the Federal, State, and Local Levels. How Do They Differ?** - *Perry Smith, State Epidemiologist and Director of the Division of Epidemiology, New York State Department of Health*

7.D Creation of Standards Based Messages from Clinical Sources

Salon D

Electronic laboratory reporting is a recognized resource for public health surveillance. However, additional existing electronic data sources, such as emergency department, pharmacy, admission, and test result records, can also provide important data for early detection, health care quality, public health surveillance, and patient safety. This panel will discuss four successful approaches to creating standard HL7 messages from existing clinical data; consider how generalizable these

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Concurrent Session #7

approaches are; and suggest needed solutions to accelerate broader utilization. The panel will also consider technical issues that authorized data users must address.

Moderators: *Claire Broome, Director, Integrated Health Information Systems, CDC*
Ivan Gotham, Director, Bureau of Health Network Systems Management, New York State Health Department

- Discussants:**
- *Bob Esterhay, Associate Professor and Acting Chair, Department of Health Management and Systems Sciences, Center for Deterrence of Biowarfare and Bioterrorism, University of Louisville School of Public Health and Information Sciences*
 - *Marc Overhage, Associate Professor of Medicine, Regenstreif Institute, Indiana University School of Medicine*
 - *James Tolson, Computer Specialist, Division of Healthcare Quality Promotion, National Center for Infectious Diseases, CDC*
 - *Bruno Nardone, Healthcare Collaborative Network, IBM Business Consulting Services*
 - *Bill Rollow, Deputy Director, Quality Improvement Group, Office of Clinical Standards and Quality, CMS*

7.E Security Technologies

Cherokee Room

This session presents security technologies suggested by NIST and appropriate for use in public health for PHIN compliant systems. Two factor authentication methodologies will be presented as well as intrusion detection techniques.

Moderator: **TBD**

- Speakers:**
- **Electronic Authentication for Information Technology Systems** - *Toby Slusher, Project Manager for Secure Data Network, Information Resources Management Office, CDC*
 - **PHIN Systems Security** - *Raja Kailar, Contractor to Information Resources Management Office, CDC*
 - **Intrusion Detection** - *Morgan Alexander, Contractor to Office of the Chief Information Security Officer, CDC*

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7.F Specifications for Interorganizational Alerting: Cascade Protocol and Vocabulary Henry Room

One approach to delivering a health alert across more than one jurisdiction is cascade alerting, wherein an alert is passed from one partner's alerting system to another. The Alerts and Communications Users Group has been tasked, among other things, with defining a technical protocol for cascade alerting, developing controlled vocabularies for this protocol, and defining how such a PHIN-compliant alerting system should handle an incoming cascade alert. This session presents draft versions of these specifications as currently proposed by the work group and provides an open forum for discussion of the proposals. Participants are encouraged to respond to these proposals before they are finalized, over the next several months, into version one specifications.

Moderator: *Phred Pilkington, Health Director, Cabarrus Health Alliance, Kannapolis, North Carolina*

- Speakers:**
- **PHIN Alert Exchange Protocol** - *Tom Russell, Contractor to Information Resources Management Office, CDC*
 - **Vocabulary to Support PHIN Alerting** - *Tim Boorman, WEDSS Infrastructure Manager, Washington State Department of Health*
 - **Requirements Gathering Open Discussion** - *Gilberto Ramirez, Scribe*

7.G Certification Salon E

The Certification session is an opportunity to discuss and provide feedback on PHIN Certification. Session includes the Minnesota Department of Health presenting the benefits of certification and a discussion with the PHIN Certification team on the latest thoughts around the certification process for PHIN compatibility

Moderator: *Marc Overcash, Lead Information Technology Specialist, Information Resources Management Office, CDC*

- Speakers:**
- **The Benefits of PHIN for Certification Programs** - *Susan Wyatt, Environmental Laboratory Certification Program Supervisor, Minnesota Department of Health*
 - **Roadmap to PHIN Certification** - *Don Nestor, Contractor to Information Resources Management Office, CDC*

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7.H Strategies for Directory De-duplication

Walton Room

Electronic directories containing information about organizations, people, and the roles people play in organizations are fundamental to many aspects of PHIN. However, it can be extremely difficult to uniquely and positively identify a given person within the public health workforce who may play multiple simultaneous roles in multiple organizations, who may have multiple identities within different systems and networks, and whose roles and affiliations are likely to change over time. Directory deduplication is a critical function needed by any organization involved in consolidation of legacy directory systems and is no less critical to the overall Public Health Directory effort. This session presents the results of recent deduplication efforts by two PHIN partner organizations and provides a base of experience to those embarking on similar efforts.

Moderator: *Robb Chapman, Information Technology Specialist, Information Resources Management Office, CDC*

Speakers: • **The Challenge of De-duplication in Person-Centric Systems** - *Ellen Wild, Director of Programs, Public Health Informatics Institute*
• **New Functionality in PA-NEDSS: De-duplication of Patients** - *Kirsten Waller, Public Health Physician, Bureau of Epidemiology, Pennsylvania Department of Health*

12:00-1:30 pm

Lunch - On Your Own

12:30-2:00 pm

Poster Session #2

Galleria Exhibit Hall

- PS2.A Daily Emergency Department Surveillance System(DEDSS) - *Brian La Forgia, LINCS/HAN Technology Coordinator, Bergen County Department of Health Services*
- PS2.B Descriptive Analysis of Intensive Care Unit Data to Evaluate Potential Use for Syndromic Monitoring - *Alicia D. Anderson, DVM, MPH, Diplomate ACVPM, Walter Reed Army Institute of Research, Silver Spring, MD*
- PS2.C Data Mining Techniques for Early Detection in Washington, DC - *Melissa Fraine, MPH; Laura Dietsch, MPH; John O. Davies-Cole, Ph.D., MPH; Jason Porter; Chevelle Glymph MPH; Kimberly Russell, District of Columbia Department of Health*
- PS2.D Info-Aid: Monkeypox Response - *Vibha Kumar, MD, Public Health Informatics Fellow, Office of Science and Extramural Research/PHPPPO, Centers for Disease Control and Prevention*

Wednesday, May 26, 2004

Time **Session Title**

12:30-2:00 pm

Poster Session #2

PS2.E Defining the needs of Research Knowledge Management System: A Public Health Informatics Fellow's Perspective - *Dr. Vibha Kumar, Public Health Informatics Fellow, Office of Science and Extramural Research, PHPPO/CDC*

1:30-2:30 pm

Concurrent Session #8

8.A Tools for Outbreak Management - Part 1

Salon A

The purpose of this session is to demonstrate some of the many approaches to outbreak management that have been developed by state and local partners. These applications may allow for management of all the outbreak needs for one disease, or may take a particular aspect of outbreak management, such as quarantine and isolation, and that is applicable to many diseases and conditions.

The session will allow for a brief description of each application, followed by a 20 minute demonstration of each. Time will be allowed for questions and answers on all applications at the end of the session.

Moderator: *Marty Cicchinelli, Training and Deployment Lead, Information Resources Management Office, CDC*

Speakers:

- **PHIN Outbreak Management System** - *Tim Morris, Technical Project Lead for Preparedness Systems, Information Resources Management Office, CDC*
- **Merlin: An Innovative Web-Based Approach to Communicable Disease Surveillance** - *Don Ward, Acting Chief, Bureau of Epidemiology, Florida Department of Health*

8.B Future NEDSS Program Area Modules

Salon B

Speakers will discuss new functionality in the NEDSS Base System for STD, TB, HIV, and Lead (adult & childhood) PAMs. Topics include a discussion of the status of these PAMS, and how new functionality will extend the capabilities of the existing system.

Moderator: *Timothy Broadbent, Acting Deputy Director, Integrated Health Information Systems, CDC*

Speakers:

- **Expanding NBS Functionality to Include the STD PAM** - *Scott Danos, Lead Public Health Analyst, National Center for HIV, STD, and TB Prevention, CDC*
- **NBS Lead PAM: Taking NEDSS Beyond Communicable Disease Surveillance** - *Wendy Blumenthal, Health Scientist, National Center for Environmental Health, CDC*

Wednesday, May 26, 2004

Time **Session Title**

1:30-2:30 pm

Concurrent Session #8

- **Tuberculosis (TB) Surveillance: The TB Program Area Module (PAM) Project** - Philip Baptiste, Public Health Analyst, National Center for HIV, STD, and TB Prevention, CDC
- **Tuberculosis Patient Management Project** - Subroto Banerji, Public Health Advisor, National Center for HIV, STD, and TB Prevention, CDC
- **NEDSS HIV PAM Update** - Tonya Martin, Chief Information Officer, National Center for HIV, STD, and TB Prevention, CDC

8.C Codes and Mappings for Public Health Reporting of Laboratory Test Results

Salon C

Standard vocabulary for laboratory test results provides a foundation for interoperability in electronic laboratory reporting. This session is comprised of presentations on three projects that use coded vocabulary: a standard mapping between test results vocabulary and notifiable disease conditions (the PHIN Notifiable Condition Mapping Tables), implementation of standard vocabularies in electronic laboratory results reporting in New York State, and validation of electronic reporting of coded microbiology data reported for surveillance of healthcare-associated infections.

Moderators: Dan Pollock, Medical Epidemiologist, Information Resources Management Office, CDC
Rita Altamore, Epidemiologist, Washington State Health Department

Speakers:

- **PHIN Notifiable Condition Mapping Tables** - Jerry Sable, Contractor to Information Resources Management Office, CDC
- **The Implementation of LOINC/SNOMED in Electronic Laboratory Reporting System** - Hwa-Gan Chang, New York State Department of Health
- **Validation of Electronic Surveillance Healthcare Data** - Ben Kupronis, Epidemiologist, Division of Healthcare Quality Promotion, National Center for Infectious Diseases, CDC

Wednesday, May 26, 2004

Time	Session Title
1:30-2:30 pm	Concurrent Session #8

8.D Partnering for Interoperability - Part I

Salon D

How can public and private sector partners work together to build information systems that work best for the public's health? We are very quickly finding that no one federal, state, or local agency or program has enough resources to build the robust interoperable network that is needed.

This session begins to address how we might work across public health and clinical programs to build such a network. In particular, how can we work across programs that have regular information sharing needs, such as communicable disease reporting, immunization registries, HRSA – Maternal and Child Health activities, preparedness activities with hospitals, and with Centers for Medicare and Medicaid Services.

State, local, and federal approaches, will be presented, in addition to clinical sector perspective. Results of this session will be presented at the closing plenary on May 27, 2004.

Moderators: *Claire Broome, Director, Integrated Health Information Systems, CDC*
Mary Shaffran, Senior Director, Informatics Policy, Association of State Health Officials

- Discussants:**
- *Lawrence Hanrahan, Senior Epidemiologist and Chief, Section of Epidemiology and Informatics, Bureau of Environmental Health, Wisconsin Division of Public Health*
 - *William J. Kassler, State Medical Director, New Hampshire Department of Health and Human Services and Chair, ASTHO Public Health Informatics Policy Committee*
 - *Steve Hinrichs, Director, Center for BioSecurity and Director, Nebraska Public Health Laboratory*
 - *Bill Rollow, Deputy Director, Quality Improvement Group, Office of Clinical Standards and Quality, CMS*
 - *William Sonntag, Chief of Staff, Office of Environmental Information, EPA*
 - *Sherri McDonald, Director, Thurston County Public Health and Social Services, Washington*
 - *Michele A. Lloyd-Puryear, Chief Genetic Services, Maternal and Child Health Bureau, HRSA*
 - *John Vitko, Department of Homeland Security*
 - *Jac Davies, Director of Program Development, Inland Northwest Health Services*
 - *Nancy Voorhees, Chief Operating Officer, Inland Northwest Health Services*

Wednesday, May 26, 2004

Time

Session Title

1:30-2:30 pm

Concurrent Session #8

8.E PHIN and the Rest of the Department, Getting Them to Help Each Other

Salon E

Successful implementation of PHIN in a health department requires that it work with other public health systems. Careful planning and cooperation between PHIN development and the rest of the public health infrastructure can leverage the PHIN investment for a stronger public health infrastructure and benefit PHIN by making more information accessible to the PHIN systems. This session will present a State and Local Public health perspective on steps to make this cooperation work from the perspective of Department-wide IT.

Moderator: *Denton Peterson, Director, Information Systems and Technology Management, Minnesota Department of Health*

Speakers:

- **PHIN and the Business of Local Public Health** - *Kathleen Cook, Lincoln-Lancaster County Health Department, Nebraska*
- **PHIN and the Rest of Your Department** - *Bob O'Doherty, Chief Information Officer, Colorado Department of Public Health and Environment*

2:30-3:30 pm

Concurrent Session #9

9.A Tools for Outbreak Management - Part 2

Salon A

The purpose of this session is to demonstrate some of the many approaches to outbreak management that have been developed by state and local partners. These applications may allow for management of all the outbreak needs for one disease, or may take a particular aspect of outbreak management, such as quarantine and isolation, that is applicable to many diseases and conditions.

The session will allow for a brief description of each application, followed by a 20 minute demonstration of each. Time will be allowed for questions and answers on all applications at the end of the session.

Moderator: *Marty Cicchinelli, Training and Deployment Lead, Information Resources Management Office, CDC*

Speakers:

- **A Data System for Monitoring Persons in Isolation and Quarantine** - *Kathy Como-Sabetti, Epidemiologist, Emerging Infections Program, Minnesota Department of Health*
- **A NEDSS Base System Compatible Tuberculosis Contact Investigation System** - *Peter Richards, South Carolina Department of Health and Environmental Control and Ken Stuber, CGH Technologies, Inc.*

Wednesday, May 26, 2004

Time

Session Title

2:30-3:30 pm

Concurrent Session #9

- **Oregon's Experience With Outbreak Templates: an Integrated System for Use in Questionnaire Development, Data Entry, and Analysis**
William Keene - Senior Epidemiologist, Acute & Communicable Disease Program, Oregon Department of Human Services

9.B PHIN Compliance in Public Health Labs

Salon B

The current landscape for information management and data exchange in public health laboratories includes a wide range of electronic system capacity, infrastructure, data exchange formats, tools and methodologies. The variety of implementations in this domain, as well as in others across public health, are driven by the business need to exchange information with a variety of clients and in many cases laboratories are required to provide similar information to many different clients in different formats. Working towards the implementation of standard data exchange formats and information models will improve efficiency and eliminate some of the duplicative work on multiple interfaces. The "PHIN Compliance in Public Health Laboratories" session will provide the audience with the vision of the PHIN as fully implemented in the laboratory domain, describe the current state of implementation and offer a path for getting to full implementation from the current state. Presentations will focus in the areas above with emphasis on relevant standards, tools and methodologies.

Moderator: *Patina Zarcone, Informatics and LIM Systems Manager, Association of Public Health Laboratories*

- Speakers:**
- **Current State of IT in Labs** - *Steve Hinrichs, Nebraska Public Health Laboratory*
 - **PHIN Requirements for Laboratory Systems** - *Tim Morris, Technical Project Lead for Preparedness Systems, Information Resources Management Office, CDC*

9.C Extending the PHIN Components: Development and Reuse in Application Modules

Salon C

Speakers will describe CDC Application Modules (CAMs) and discuss how these PHIN applications relate to other PHIN surveillance components. The CDC National Health Safety Network (NHSN), the first CAM, will be described and discussed.

Moderators: *Jackalie Blue, Contractor to Information Resources Management Office, CDC*
Joseph Reid, Associate Director for Science, Information Resources Management Office, CDC

Wednesday, May 26, 2004

Time

Session Title

2:30-3:30 pm

Concurrent Session #9

- Speakers:**
- **Using PHIN for Healthcare Surveillance: The National Healthcare Safety Network** - *Teresa Horan, Team Leader, Performance Measurement Team, DHQP, National Center for Infectious Diseases, CDC*
 - **Electronic Surveillance for Monitoring and Preventing Hospital Acquired Infections** - *Jerry Tokars, Acting Chief, Healthcare Outcomes Branch, DHQP, National Center for Infectious Diseases, CDC*
 - **CDC Application Module Services: A Reusable Set of Modules to Accelerate PHIN software development** - *John Stinn, Contractor to Information Resources Management Office, CDC and DB Baksi, Contactor to Information Resources Management Office, CDC*

9.D Partnering for Interoperability - Part II

Salon D

How can public and private sector partners work together to build information systems that work best for the public's health? We are very quickly finding that no one federal, state, or local agency or program has enough resources to build the robust interoperable network that is needed.

This session begins to address how we might work across public health and clinical programs to build such a network. In particular, how can we work across programs that have regular information sharing needs, such as communicable disease reporting, immunization registries, HRSA – Maternal and Child Health activities, preparedness activities with hospitals, and with Centers for Medicare and Medicaid Services.

State, local, and federal approaches, will be presented, in addition to clinical sector perspective. Results of this session will be presented at the closing plenary on May 27, 2004.

Moderators: *Claire Broome - Director, Integrated Health Information Systems, CDC*
Mary Shaffran - Senior Director, Informatics Policy, Association of State Health Officials

- Discussants:**
- *Lawrence Hanrahan, Senior Epidemiologist and Chief, Section of Epidemiology and Informatics, Bureau of Environmental Health, Wisconsin Division of Public Health*
 - *William J. Kassler, State Medical Director, New Hampshire Department of Health and Human Services and Chair, ASTHO Public Health Informatics Policy Committee*
 - *Bill Rollow, Deputy Director, Quality Improvement Group, Office of Clinical Standards and Quality, CMS*
 - *William Sonntag, Chief of Staff, Office of Environmental Information, EPA*

Wednesday, May 26, 2004

Time **Session Title**

2:30-3:30 pm

Concurrent Session #9

- *Sherri McDonald, Director, Thurston County Public Health and Social Services, Washington*
- *Michele A. Lloyd-Puryear, Chief Genetic Services, Maternal and Child Health Bureau, HRSA*
- *John Vitko, Department of Homeland Security*
- *Jac Davies, Director of Program Development, Inland Northwest Health Services*
- *Nancy Voorhees, Chief Operating Officer, Inland Northwest Health Services*
- *Steve Hinrichs, Director, Center for BioSecurity and Director, Nebraska Public Health Laboratory*

9.E Optimizing Use of Existing State Web-based Data Query/Dissemination Tools in the PHIN Environment

Salon E

The objective of this session is to highlight examples of current state interactive tools for analysis/display of population data, emphasizing ways in which they have been, or could be, extended to the NEDSS/PHIN Environment

Moderator: *Alana Knudsen-Buresh, Senior Health Informatics Analyst, National Association of Health Data Organizations*

- Speakers:**
- **Integration Utah's Indicator-Based Information System for Public Health (IBIS-PH) to meet future needs for NEDSS AVR** - *Lois Haggard, Office of Public Health Assessment, Utah Department of Health*
 - **Supporting NEDSS Data Query/Dissemination Using the South Carolina Community Assessment Network** - *Guang Zhao, Director of Biostatistics and Health GIS, South Carolina Department of Health and Environmental Control*
 - **Minnesota Use of SAS IntrNet as a State-wide Solution for Web-based Data** - *John Oswald, Director, Center for Health Statistics, Minnesota Department of Health*

9.F Investigation of Agent Specific Data Collection Requirements to Support Countermeasure Administration

Fulton Room

This session will provide the participants a view of the data that is projected to be collected for countermeasure administration of Class-A agent vaccines and prophylaxis. It will also afford the opportunity to provide input into the common elements and agent-specific elements that are vital to a successful public health response. Through a series of reviews, the participant will be able to provide feedback on the data that should be present to provide a useful system for tracking and monitoring inventory, patients, and programs that will result from a pre- or post-event need for countermeasure administration.

Wednesday, May 26, 2004

Time **Session Title**

2:30-3:30 pm

Concurrent Session #9

Moderator: *Vicki Kipreos, Lead Information Technology Specialist, Information Resources Management Office, CDC*

Facilitators: • **Requirements Gathering Open Discussion** - *Joe Baweja, Contractor to Information Resources Management Office, CDC and Betty Baker, Contractor to Information Resources Management Office, CDC*

9.G Strategies for Managing Change in IT Systems

Cobb Room

In this session, presenters will share strategies for managing change in IT systems development. Presentations include a discussion of service oriented architecture and integrated public health infrastructure.

Moderator: **TBD**

Speakers: • **Maximizing PHIN flexibility and Productivity with a Service Oriented Architecture (SOA) strategy** - *George de la Torre, PHIN Portal Project, Connecticut Department of Public Health*
• **Arizona Siren/Medsis Integrated Public Health Infrastructure** - *John Nelson, Health Alert Network Program Manager, Arizona Department of Health Services*

9.H 508 Compliance and Usability

Clayton Room

The sessions will provide overviews and introductions to Human Factors and Accessibility Design, two complementary and critical approaches to the development of application and media technologies. Human Factors design focuses providing structured approaches to design when assessing how people will interact with the technology and testing the effectiveness of the technology with end-users. Accessibility design enables application and media technologies to be accessible by all individuals, including those with disabilities.

Moderator: *Marc Overcash, Lead Information Technology Specialist, Information Resources Management Office, CDC*

Speakers: • **A Human Factors Approach to Developing Usable Health Applications**
- *Chris Hass, American Institutes for Research*
• **Strategies for Accessible Design in Rich Media and Data Environments**
- *Bradley Botkin, WGBH National Center for Accessible Media*
• **Lessons Learned from the SARS Data Exchange** - *Patrick Anderson, Division of Communicable Disease Control, California Department of Health Services*

Wednesday, May 26, 2004

Time	Session Title	
3:30-4:00 pm	Break	Galleria Exhibit Hall
4:00-5:30 pm	Concurrent Session #10	

10.A NEDSS Base System Locally Defined Fields and Collaboratively Defined Fields Salon A

Speakers will discuss how Locally Defined Fields and Collaboratively Defined Fields (LDFs & CDFs) extend the NEDSS Base System and provide flexibility to rapidly adapt to changing public health demands. Topics include: CDC policy and vision regarding LDFs/CDFs, how they can be used to extend functionality to meet local business needs, how CDFs will be managed at CDC, and how LDFs and CDFs can be used to rapidly build Program Area Modules.

Moderator: *Timothy Broadbent, Acting Deputy Director, Integrated Health Information Systems, CDC*

- Speakers:**
- **NEDSS Base System: An Overview of LDF and CDF Functionality** - *Timothy Broadbent, Acting Deputy Director, Integrated Health Information Systems, CDC*
 - **Vermont's LDFs: Local Data Flexibility or Limited Development Functionality?** - *Patsy Tassler, Epidemiologist, Vermont Department of Health*
 - **The CDC Program Assessment of Building the Foodborne and Diarrheal Diseases Program Area Module using CDFs** - *Christopher Braden, Chief, Outbreak Response and Surveillance Unit, Foodborne and Diarrheal Disases Branch, CDC*
 - **Lessons Learned: Defining Criteria for Building CDF's in the NEDSS Base System** - *Debbie Cortez, Contractor to Integrated Health Information Systems, CDC*

10.B Putting PHIN Standards to Work - Part 1 Salon B

Public health laboratories are at a critical juncture with their laboratory information management systems (LIMS). Some must make choices regarding whether to develop systems in-house or purchase a commercial off-the-shelf software solution. Public health laboratories are in a much different place today than one year ago, much of this due to PHIN and the data standards development that provide a roadmap for laboratories to follow to achieve maximum interoperability and seamless data exchange with all partners. "Putting PHIN Standards to Work Part I & II" sessions are a series of case studies, examining the progress of state laboratories toward the implementation of standard data exchange formats and information models. Topics will include the PHIN compliant open source LIMS development, automated electronic laboratory reporting mechanisms, achieving PHIN compliance with COTS solutions and a state's experience with implementing a custom vendor developed solution.

Wednesday, May 26, 2004

Time

Session Title

4:00-5:30 pm

Concurrent Session #10

Moderator: *Patina Zarcone, Informatics and LIM Systems Manager, Association of Public Health Laboratories*

- Speakers:**
- **PHIN Compliant Open Source Development in the Florida PHL** - *Clifford Knight, Director of Informatics and Facilities, Florida Bureau of Laboratories*
 - **Automated Electronic Lab Reporting: Computerized Filtering of Reportable Conditions** - *John Glock, Senior Analyst, Nebraska Public Health Laboratory, University of Nebraska Medical Center*
 - **Implementing a Vendor-Developed System for the Virginia State Newborn Screening Program** - *Willie Andrews, Assistant Bureau Director, Analytical Services, Division of Consolidated Laboratory Services, Virginia Department of Health*

10.C Concepts for Designing Dynamic/Configurable Outbreak Management Systems

Salon C

The information management needs for outbreak investigations are very dynamic, sometimes requiring addition of new variables, concepts and analysis over the life of the investigation. Creating new custom systems for each investigation is costly and usually cannot be done in a sufficient timeframe. To meet immediate needs, many investigators use spreadsheets or other simple tools for data collection but these solutions lack appropriate validation and relational database structures. In an effort to satisfy dynamic information requirements, many system designers have begun creating configurable systems that can manage new concepts and variables without additional coding. This session will introduce the concepts of configurable system design as implemented in several public health systems. The session will consist of a panel of presenters discussing design and implementation approaches for their systems followed by a question answer period.

Moderator: *Marty Cicchinelli, Training and Deployment Lead, Information Resources Management Office, CDC*

- Speakers:**
- **Real-time Data Sharing - Planning for Portability** - *Cecil O. Lynch, Chair, Medical Group Medical Informatics, University of California Davis and Consultant in Informatics, Department of Health Services, Division of Communicable Disease, State of California*
 - **Outbreak Management System: Concepts for Designing Configurable Systems and Using Standard Components for PHIN Data Exchange** - *Tim Morris, Technical Project Lead for Preparedness Systems, Information Resources Management Office, CDC*

Wednesday, May 26, 2004

Time

Session Title

4:00-5:30 pm

Concurrent Session #10

- **A Configurable System for Emergency Response used by New York State** - *John Napoli, Principal Database Programmer Analyst, New York State Department of Health*
- **Outbreak Management through Merlin: Florida's Reporting and Analysis System** - *Don Ward, Acting Chief, Bureau of Epidemiology, Florida Department of Health*

10.D State Alerting Solutions

Salon D

Once the basic alerting infrastructure is in place and the initial alert drills have been conducted, the real challenges of managing a HAN program present themselves. There are many success stories, and some of these will be relayed in this. Some obstacles have also been encountered, and valuable lessons have been learned. These items will also be shared. These include lessons in ongoing collaboration, coordination with other agencies, tools and strategies for maintaining the massive amount of contact information, expanding usage of the HAN beyond bioterrorism, international coordination, local vs. statewide incidents, and setting a sustainable funding strategy.

Moderator: *Martin LaVenture, Public Health Informatics Advisor and Manager, Bureau of Health Protection, Minnesota Department of Health*

- Speakers:**
- **NY State Health Integrated Health Alerting and Notification Systems (IHANS)** - *Debra Sottolano, New York State Department of Health*
 - **Lessons in Running a Real-world HAN Program: Beyond Alert Drills** - *Bill Colville, Health Alert Network Coordinator, Office of Public Health Preparedness, Michigan Department of Community Health*
 - **The Workspace, The Health Alert Network, The Strategic National Stockpile Support System, and the Emergency Communication System** - *David Haberman, Office of Emergency Preparedness, Minnesota Department of Health*

10.E Distance Learning

Salon E

Distance learning, a subset of Knowledge Management, encompasses all learning that takes place at locations remote from the point of instruction. The public health workforce is a dispersed audience, separated by time and space. Distance learning technologies – such as videoconferencing, satellite broadcasts, web-based training, and online collaboration tools and resources – are used to bridge the gap introduced by separation of time and space. It is a key strategy to maintaining competent and prepared clinicians and health professionals. This session describes three prototype implementations of distance learning in international, state health department, and university settings.

Wednesday, May 26, 2004

Time

Session Title

4:00-5:30 pm

Concurrent Session #10

Moderator: *Janise Richards, Director, Public Health Informatics Fellowship, Epidemiology Program Office, CDC*

- Speakers:**
- **Dissemination: World Health Organization's Health InterNetwork: Sharing Electronic Resources** - *Erica Frank, Vice Chair and Associate Professor, Director, Preventive Medicine Residency Program, Education Coordinator, WHO Health InterNetwork*
 - **Implementation of a Competency-based Integrated Learning Management System** - *Colleen Monahan, Director, University of Illinois at Chicago School of Public Health*
 - **Public Health Workforce Skills Development: One State's Approach** - *David Potenziani, University of North Carolina School of Public Health*

10.F Technical Roundtable on HL7 Version 3 Messaging: Experience, Message Handling and Implementation Guide

Cherokee Room

This roundtable will address the issues of "real-world" approaches to HL7 Version 3 message creation and parsing into and out of a PHIN compliant database. Topics to be discussed include tooling, methodologies, message validation, vocabularies and the creation of a simplified transitional format message which can easily be transformed into a valid V3 case notification message. Technical overview as well as state perspectives will be addressed.

Moderators: *Barry Rhodes, Associate Director for Public Health Systems Research and Development, Information Resources Management Office*
Nancy McQuillen, PHIN Data Architect, California Department of Health Services

Discussion Leaders:

- *Bob O'Doherty, Chief Information Officer, Colorado Department of Public Health and Environment*
- *Dale Nelson, Contractor to Information Resources Management Office, CDC*
- *Mead Walker, Contractor to Information Resources Management Office, CDC*

Wednesday, May 26, 2004

Time **Session Title**

4:00-5:30 pm

Concurrent Session #10

10.G Early Event Detection and Emergency Response Systems

DeKalb and
Gwinnett Rooms

This session includes descriptions of applications used for early event detection. It also includes a description of a state based emergency response data system.

Moderator: **TBD**

- Speakers:**
- **Development of the Washington DC Automated Disease Surveillance System** - *John Davies-Cole, Chief, Bureau of Epidemiology and Health Risk Assessment, District of Columbia Department of Health and Marion Porter, Sierra Systems and Jason Porter, Vice President, CIO, Atlantic Management Center, Incorporated*
 - **New York State Health Emergency Response Data System(HERDS)** - *Ivan Gotham, Director, Bureau of Health Network Systems Management, New York State Health Department*
 - **Syndromic Surveillance at the Local Level for Early Detection of Infectious Diseases** - *Reka Holtry, Johns Hopkins University Applied Physics Laboratory*
 - **Integrated Military and Civilian Surveillance using ESSENCE IV** - *Nicola Marsden-Haug, Epidemiologist, Division of Preventive Medicine, Walter Reed Army Institute of Research*

5:30-7:00 pm

Evening Session – Concurrent Session #11

11.A Developing Requirements for Analysis, Visualization and Reporting in the NEDSS Base System and Other NEDSS/PHIN Components

Newton Room

This is a requirements gathering session to solicit input from stakeholders. There will be an introduction to the topic to describe the setting and context followed by questions, answers and comments that will be recorded for use in determining what is needed for Analysis, Visualization and Reporting in the NEDSS Base System and Other NEDSS/PHIN Components

Facilitator:

- *Richard Hopkins, Acting Director, Division of Public Health Surveillance and Informatics, Epidemiology Program Office, CDC*

Wednesday, May 26, 2004

Time

Session Title

5:30-7:00 pm

Evening Session – Concurrent Session #1 1

11.B Hands-on Demonstrations of Outbreak Management Tools

Rockdale Room

This session provides hands-on demonstration of the outbreak management tools described in the sessions, “Tools for Outbreak Management, Part 1 and 2”.

Demonstration Leaders:

- *John Napoli - Principal Database Programmer Analyst, New York State Department of Health*
- *Don Ward - Acting Chief, Bureau of Epidemiology, Florida Department of Health*
- *Kathy Como-Sabetti, Epidemiologist, Emerging Infections Program, Minnesota Department of Health*
- *Peter Richards, South Carolina Department of Health and Environmental Control*
- *Cindy Smith, Contractor to Information Resources Management Office, CDC*

11.C NEDSS Base System Hands-On Demonstrations

Forsythe Room

This session provides hands-on demonstration of the NEDSS Base System in an informal interactive setting.

Demonstration Leader:

Jim Kauflin, Contractor to Integrated Health Information Systems, CDC

Thursday, May 27, 2004

Session Title

7:00-10:00 am	Registration	Grand Salon Foyer
7:00-8:30 am	Continental Breakfast	Galleria Exhibit Hall
8:00 am-1:30 pm	Exhibits	Galleria Exhibit Hall
8:30-10:00 am	Concurrent Session #12	

12.A Putting PHIN Standards to Work - Part 2

Salon A

Public health laboratories are at a critical juncture with their laboratory information management systems (LIMS). Some must make choices regarding whether to develop systems in-house or purchase a commercial off-the-shelf software solution. Public health laboratories are in a much different place today than one year ago, much of this due to PHIN and the data standards development that provide a roadmap for laboratories to follow to achieve maximum interoperability and seamless data exchange with all partners. "Putting PHIN Standards to Work Part I & II" sessions are a series of case studies, examining the progress of state laboratories toward the implementation of standard data exchange formats and information models. Topics will include the PHIN compliant open source LIMS development, automated electronic laboratory reporting mechanisms, achieving PHIN compliance with COTS solutions and a state's experience with implementing a custom vendor developed solution.

Moderator: *Robert Rej, Director, Clinical Chemistry, Wadsworth Center, New York State Department of Health*

- Speakers:**
- **Cost Effective Interoperability - Migrating from the Standards Based LIMS Silo** - *Cecil O. Lynch, Chair, Medical Group Medical Informatics, University of California Davis and Consultant in Informatics, Department of Health Services, Division of Communicable Disease, State of California*
 - **Targeting PHIN Compliance through a COTS Package: A Case Study** - *Jon Lipsky, Contractor to National Center for Infectious Diseases, CDC*

12.B Early Event Detection and Consequence Operations Procedures

Salon B

This is a requirements gathering session to solicit input from stakeholders. There will be an introduction to the topic to describe the setting and context followed by questions, answers and comments that will be recorded for use in determining what is needed from automated biosurveillance systems for the evaluation of anomalous data clusters.

Moderator: *Henry Rolka - Supervisory Statistician, Information Resources Management Office, CDC*

Thursday, May 27, 2004

Time **Session Title**

8:30-10:00 am

Concurrent Session #12

- Speakers:**
- **Early Event Detection Requirements** - *David Walker, Public Health Analyst, Information Resources Management Office, CDC*
 - **Consequence Operations Procedures** - *Joe Lombardo, Applied Physics Laboratory, Johns Hopkins University*

12.C Integrating Routine Surveillance and Outbreak Management - Lessons from CDC Developed Systems

Salon C

Experience with outbreaks has shown the importance of information systems that can share and link data and, at times, implement common capabilities (such as a standard electronic input form). In this session, requirements for linking different types of data and tracing relationships between people, places and vectors will be presented from two different projects. A third talk will present initial work on defining integration and common functional needs for systems involved in outbreak management, that will be considered for the PHIN architecture.

Moderator: *John Loonsk, Associate Director for Informatics and Director, Information Resources Management Office, CDC*

- Speakers:**
- **CDC Outbreak Management Requirements and Considerations for the Outbreak Management System** - *Tim Morris, Technical Project Lead for Preparedness Systems, Information Resources Management Office, CDC*
 - **The Outbreak Management Requirements from the NEDSS Base System Work** - *Joseph Reid, Associate Director for Science, Information Resources Management Office, CDC*
 - **Requirements for Integration and Common PHIN Functionality**- *Dixie Baker, Contractor to Information Resources Management Office, CDC*

12.D Redundant Communications

Salon D

Most public health departments lack standards based, modern, interoperable, non-infrastructure dependent communication systems needed to communicate with public health stakeholders, government agencies (including the CDC), and the public during public health emergencies. The ability to have diversified communications technologies is crucial in any emergency situation. These types of technologies are identified within the Cooperative Agreement on Public Health Preparedness and Response for Bioterrorism. The presentation will focus on the implementation of standards based interoperable alternate/redundant technologies needed to support the rapid dissemination of information to public health and clinical communities and the public in the event of failure of traditional communications technologies. Since the majority of these communication technologies are governed by other federal agencies, a key component of the presentation will explore how already established interoperable government/industry standards and specifications can be incorporated into the Public Health Information Network (PHIN).

Thursday, May 27, 2004

Time **Session Title**

8:30-10:00 am

Concurrent Session #12

Moderator: *David Clark, Public Health Analyst, Public Health Practice Program Office, CDC*

- Speakers:**
- **Communications Systems for Public Health Contingencies** - *Ross Merlin, Telecommunications Manager, Department of Homeland Security*
 - **Satellite Communications and National Communication System Services** - *Gabrielle Martinez, Electronics Engineer, Department of Homeland Security,*

12.E Building Surveillance Systems: Solutions to Funding, Staffing, Political Support, Technical Challenges, and Sustainability

Salon E

Speakers will discuss successes and challenges related to the design, development, and implementation of PHIN-compliant, standards-based integrated public health surveillance systems.

Moderator: *John Abellera, Associate Research Analyst, Council of State and Territorial Epidemiologists*

- Speakers:**
- **Critical Success Factors for PHIN-Compliant NEDSS Solutions** - *Melissa Stevens, Utah Department of Health*
 - **Planning and Implementing PA NEDSS: Business Transformation Imperatives** - *Joel Hersh, Director, Bureau of Epidemiology, Pennsylvania Department of Health*
 - **Developing an Operational Standards-Based, Integrated Disease Reporting and Management System, as the Standards Evolve** - *Raymond Aller, Director, Bioterrorism Preparedness and Response, Los Angeles County Public Health*
 - **Electronic Notification and Disease Surveillance in the Commonwealth of Kentucky** - *N. Brennan O'Banion, KYEDSS and KYHAN Program Manager, Kentucky Department for Public Health, Division of Epidemiology and Health Planning*

10:00-10:30 am

Break

Galleria Exhibit Hall

10:30-11:30 am

Closing Plenary

Grand Ballroom

Discussion Panel Report Outs

- Integration of Lab Data Into Public Health Systems
- Partnering for Interoperability

Closing Comments

Poster Abstracts:

PS1.A Applying Business Modeling Methods and Techniques to Information Flows Between the Public Health and Health Care Sectors

Paul Conway, Infostructure Development Division, Health Canada

Effective coordination of public health action relies on standards-based, integrated applications that facilitate the flow of information amongst communities and various levels of governments. HL7 is a standard that facilitates information flow between health applications but lacks a methodology to align business processes with application development. Traditional application development methodologies focus on design for point-in-time functional specifications and user requirements without a full comprehension of the overall business or application effects on other functional business units within the health enterprise. We contend that the most effective way to achieve such comprehension is with system-based models.

The Zachman Framework for Enterprise Architecture is an analytical tool that places substance around the architecture of the enterprise by allowing for comparability of business and application standards of any modeled functional business unit to an enterprise standard. However, Zachman models are snapshots of static system states at specific times while enterprises are complex and are subject to dynamic fluctuations. The Zachman Framework is an effective tool to understand complexity, but is not effective for understanding dynamic complexity; thus, a systems-based methodology is applied as an overlay on the Zachman Framework to illustrate and communicate the various control mechanisms of interaction, feedback and adjustment within the health system.

We will show how system flow models were developed which lead to a comprehensive understanding of the dynamic behavior within the realms of public health, health care and public health surveillance. The resulting models provide numerous drill-down views for analysis of the strategy, structures and decision-rules of each lower-level sub-model. The system models were then overlaid on individual models within the Zachman Framework in order to assess enterprise alignment in both the “vertical” and “horizontal” directions. Vertical alignment determines whether application implementations are aligned with strategic intentions of functional business units, and horizontal alignment determines whether business and application implementations and standards are integrated, interoperable or discontinuous with other functional business units.

Effective public health action requires a flow of timely, high quality information amongst communities and various levels of government. Flow capacity increases with aligned, integrated and interoperable strategic business direction and application development. HL7 provides a protocol specification for information flow but lacks a framework for developing higher-level functional business unit and application integration. The population of the Zachman Framework for Enterprise Architecture, through the utilization of a systems-based methodology, provides an effective analytical tool to assess the degree of business and technical alignment within the various sub-systems of health thereby assisting in the development of standards-based integrated systems and interoperable HL7 messages.

Poster Abstracts:

PS1.B Public Health Information Network (PHIN) for the Immunization Registry

George de la Torre, Consultant, Systems Architect, Connecticut Department of Public Health

Background: Immunization Registries comes in all shapes and color. States and local governments have been relentlessly trying to keep up with advances in technology and Public Health initiatives. PHIN supports public health information technology functions that cross program boundaries.

Objective: To learn how PHIN can provide the framework for all functions that composes an immunization registry and beyond.

Method: Use of visual aids with demonstration of working PHIN immunization registry, also, have active participation from the audience on how PHIN can address their concerns. Discussion will start with a brief survey to determine the focus of the audience.

Benefits

User Benefit Supporting Features

Up-to-date registry information The life-cycle event design capabilities of PHIN provides for storing and tracking of public health workflow requirements.

Up-to-date code support CDC's support of the System Reference Table component of PHIN ensures constant updates of codes, i.e., HL7, LOINC, SNOMED, Race and Ethnicity and NAICS to name a few.

Integration of public health systems not required PHIN provides the foundation for all public health requirements. Thus, bioterrorism, disease surveillance, environmental tracking, lead tracking, immunization and other clinical registries are all supported. PHIN consolidates all public health aspects into one domain.

Economies of scale The NEDSS base system is much more than a surveillance system; it's an implementation of PHIN to build on. Therefore, all the efforts of CDC and other agencies working with the NEDSS base system will benefit all users.

Conclusion: Public Health agencies can leverage PHIN collaborated efforts into their own work environments today. The PHIN standards will provide "best-of-breed" opportunities. For instance, if one agency developed a School Assessment Survey module, then other agencies adhering to PHIN standards could install the same module. This will promote agencies to build on each other accomplishments and allow for more funding options.

Learning Objectives

- 1) Know how immunization registry functions could be implemented.
- 2) Establish a cost-effectiveness approach for development and maintenance
- 3) Recognize the benefits from using standards.
- 4) Learn how the PHIN standards could support the immunization registry.

Poster Abstracts:

PS1.C Informatics Based Surveillance System Assessment: Public Health Laboratory Information System (PHLIS)

Vibha Kumar, MD, Public Health Informatics Fellow, Office of Science and Extramural Research/PHPPPO, Centers for Disease Control and Prevention

Objective: This report presents the assessment of the Public Health Laboratory Information System (PHLIS) from an informatics point of view looking into system's functionality and effectiveness in meeting the needs of its end users.

Method: The methods incorporated interviews with CDC staff members, state and local Health departments and also the literature search to find out the usability of PHLIS.

Results: This assessment revealed technical aspects of the interface, modules, utilities, data transmission, backup, privacy, security and confidentiality and its cost. There are many stakeholders involved with PHLIS. Technical Architecture for client as well as server are an IBM-compatible PC 386 with 4 megabytes of RAM, but a 486 or faster PC as hardware, PC DOS, MS DOS/Windows Version 3.1 or higher, or Windows 95 as software and direct telephone line connection to the PHLIS PC modem are recommended. The stakeholders involved are Center for Disease Control and Prevention (CDC), Council of State and Territorial Public Health Epidemiologists (CSTE), Association of State and Territorial Public Health Laboratory Directors (ASTHL), Food and Drug Administration (FDA) and US Dept. of Agriculture (UDA). The stakeholders who submit data are County Labs, Hospitals and Health Centers and Local and state Health Departments.

PHLIS is a passive surveillance system that relies upon reporting of bacterial, viral and parasitic diseases by clinical laboratories to state health departments which in turn reports to CDC. Food borne diseases are commonly reported to CDC via PHLIS. End-users like clinics, hospitals, laboratories and state use their own system in place for their convenience. It has been found that even though the states submit data to PHLIS but they use the number of isolates reported to CDC mainly to justify funding to state legislature. PHLIS needs direct interface to lab information systems rather than having people key in the data. PHLIS need more feedback and communications with their stakeholders and end-users to report diseases in real time. It needs improvement in its surveillance activities data collection, its management, transfer, analysis and dissemination to CDC. There is a need for standard transactions to get data to CDC. There is no resistance to replace PHLIS into NEDSS.

Discussion: PHLIS is a very stable surveillance system transmitting data electronically from state labs to CDC in a quick and consistent manner. As NEDSS is taking over in near future, no future upgrades are planned. This assessment meets the PHIN/NEDSS standards as the functionality of PHLIS will be integrating into the NBS in near future. Implementation of NEDSS will recommend a standard data architecture and electronic data interchange format to allow computer systems to generate automatic electronic reports that can be sent to local or state health department. Large organizations already have computerized data systems (such as regional laboratories, hospitals, managed care organizations) and would ensure that all cases that are in the provider's data systems are being reported to public health.

Poster Abstracts:

PS1.D The Map to LOINC Project

Agha N. Khan¹, Dorothy Russell², Catherine Moore³, Arnulfo C. Rosario Jr. ¹, Stanley P. Griffith³, Jeanne Bertolli ¹

1. Centers for Disease Control and Prevention, Atlanta, Georgia; 2. Cimarron Medical Informatics, Tucson, Arizona; 3. Indian Health Service, Albuquerque, New Mexico

The Map to LOINC Project is a collaborative project undertaken by the Centers for Disease Control and Prevention (CDC) and the Indian Health Service (IHS) to design and test a semi-automated process to standardize local laboratory tests names to Logical Observation Identifier Names and Codes (LOINC) at five IHS medical facilities. IHS facilities use an integrated clinical and administrative information system, the Resource Patient Management System (RPMS). This system consists of more than 35 different applications. The “Lab Package” is used for laboratory records.

Objective: The main objective of this pilot project was to map local laboratory test name files to LOINC, using an automated mapping tool, and then to manually map any tests that remained uncoded after the automated mapping procedure. The process was designed to accommodate future changes in laboratory test names/codes; to meet all data security and confidentiality standards; and to be easily expandable to other IHS medical facilities in future.

Methods: The laboratory test names and synonyms along with the test units, and specimen sites of the tests, were downloaded from the five participating IHS sites. Only the details of tests in active use at the sites were gathered. These datasets were combined to create a master file. LOINC codes were assigned manually to the tests in the master file by agreement of two scientists. The Regenstrief LOINC Mapping Assistant (RELMA) was used to identify the LOINC codes for tests. Manual review revealed tests with incomplete or incorrect information, subsequently marked as “uncodeable.” Panel tests with no corresponding LOINC codes were excluded from the master file. An automated mapping tool was developed for mapping local laboratory test names to LOINC using the master file. Tests not assigned a code by the mapping tool were reviewed manually and codes were assigned, if possible.

Results: At each of the five sites, we were able to map 63% to 76% of the local active laboratory tests to LOINC using the mapping tool; 11% to 27% of the tests were mapped manually. We could not assign LOINC codes to 7% to 19% of the laboratory tests due to incomplete or incorrect information about these tests. To validate the performance of our mapping tool, we tested it on a laboratory test file from a facility that did not participate in the pilot project. Of 703 local laboratory tests in this file, we were able to map 569 (81%) of the tests to LOINC.

Conclusions: We were able to standardize more than two-thirds of the laboratory data to LOINC, using an automated mapping tool. Results from applying this tool to data from a facility that did not participate in the tool development phase suggest that comparable results will be achieved if use of the tool is expanded to other IHS medical facilities. This project demonstrates implementation of laboratory standards identified by the Public Health Information Network.

Poster Abstracts:

PS1.E ESRI Developed Integrated GIS

Tom Fletcher, Emergency Management Coordinator, San Antonio Metropolitan Health District, San Antonio, Texas with assistance from Environmental Systems Research Institute Regional Office, San Antonio Texas

Geographic Information Systems are an indispensable tool for public health officials. The visualization of health assets and resources in relation to a health risk incident or infectious outbreak provides another perspective for directing response efforts. Personnel and resources can be more efficiently allocated if reliable modeling can be provided rapidly to Incident Command and field staff.

The City of San Antonio and the San Antonio Metropolitan Health District has been working with an ESRI developed integrated GIS with several data layers and applications that provide health officials rapid visualization, risk assessment, and resource allocation.

Utilizing current geographic, topographic and meteorological data coupled with population distribution it has been possible to do create a series models that project forward in time the progression of the exposure of the community to the natural or man-made hazard. Armed with this projection officials and community leaders can plan for evacuation and diversion of traffic in the soon to be impacted areas of the community. When linked to reverse 911 capabilities a rapid effective means of relaying information can be establish for individuals living in the projected path of the disaster. Locations of near-by hospitals and shelters identified by the model can be inserted into the Reverse 911 message to help ensure an orderly, calm progression of the population flow.

With this visualization of effects and resources the destruction of property, injury and loss of life can be greatly reduced.

The poster presentation depicts the visualization and reporting capabilities of the GIS utilizing a man made disaster, a toxic chemical spill. . The poster will demonstrate some of the possible support this mapping and visualization can be to those in decision-making roles.

Poster Abstracts:

PS1.F An Evaluation of SNOMED CT as a Standardized Vocabulary for Organisms Associated with Nosocomial Infections

Wenkai Li, MD, MAS, MS, Public Health Fellow, Division of Healthcare Quality Promotion, National Center for Infectious Diseases, Centers for Disease Control and Prevention

Background: The Public Health Information Network (PHIN), through defined data standards, vocabulary standards, and strong collaborative relationships, will enable consistent exchange of response, health, and disease tracking data between public health partners. Development and use of standardized vocabularies for public health purposes are key components of PHIN. One of the challenges to implement standardized public health vocabularies is to meet specific programmatic requirements of a particular public health practice, such as nosocomial infection surveillance.

To promote healthcare worker and patient safety, CDC is taking the lead in developing the National Healthcare Safety Network (NHSN), an Internet-based reporting system. The NHSN will implement standardized vocabularies to facilitate information exchanges between CDC and participating institutions. The NHSN will integrate three existing surveillance systems, including the National Nosocomial Infections Surveillance (NNIS) system. A NNIS pathogen list has been in use for more than 30 years. The Systematized Nomenclature of Medicine Clinical Term (SNOMED CT) is a national recommended clinical terminology that is used to code, retrieve, and analyze clinical data. This study evaluated SNOMED CT in its coverage of terms and concepts needed for encoding infectious organisms encountered during surveillance of nosocomial infections. We created and implemented methods to map the NNIS pathogen codes (a proprietary code set) to SNOMED CT concepts (a standard vocabulary).

Methods: The mapping process consisted of three sequential steps. First, we created SQL programs to automatically match the preferred names of NNIS pathogens against the terms of SNOMED CT organisms. Second, we used Clue Browser (a freeware browser and terminology server that supports SNOMED CT) to check the results from the automatic matching and then manually searched unmatched NNIS pathogens against the concepts of organisms in the SNOMED CT database. Finally, we consulted with epidemiologists and laboratory scientists on the remaining unmatched items.

We used the SQL server 2000, SNOMED CT database (released in July 2002), and NNIS pathogen list in an ASCII file to implement the mapping. The critical step in the automatic mapping process was subsetting the list of infectious agents from the SNOMED CT database. We used the IS-A hierarchy in the SNOMED CT database and applied the recursive algorithm to construct a list of children of a single concept with SNOMED CT Concept ID 36272005 (infectious agent).

Results: There were 12,960 unique concepts in our subset of SNOMED CT infectious agents. The NNIS code set has 1,214 pathogen codes. Of these, 170 were eliminated because they were ambiguous or duplicate (e.g., species unspecified, or other). Of the 1,044 remaining NNIS codes, 987 (94.5%) matched a SNOMED CT concept and 57 (5.5%) did not match with a SNOMED CT concept. We are consulting with laboratory scientists to provide solutions to the remaining mismatches. Of the 12,960 SNOMED CT infectious agents, 11,973 (92.4%) did not match with a NNIS code. Some of them will be evaluated to determine whether they should be added to the NNIS pathogen list.

Poster Abstracts:

PS1.F An Evaluation of SNOMED CT as a Standardized Vocabulary for Organisms Associated with Nosocomial Infections

Conclusions: This study provided a good understanding of the relationship between a proprietary code set (i.e., NNIS pathogen codes) and a national standard vocabulary (SNOMED CT). We were able to create a mapping schema for most of the NNIS codes to SNOMED CT. We conclude that SNOMED CT is a relatively complete and suitable standardized vocabulary for coding organisms monitored in the nosocomial infection surveillance programs.

PS1.G Human Genomics and Public Health: Examining the Integration of Human Genomic Data Into the National Electronic Disease Surveillance System (NEDSS)

Thomas G. Savel, MD; Bruce Lin, MPH; Mary Lou Lindegren, MD; Andrew R. Autry, PhD; Muin J. Khoury, MD, PhD, Public Health Informatics Fellowship Program, Division of Public Health Surveillance and Informatics, Epidemiology Program Office, Centers for Disease Control and Prevention ; National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention; Office of Genomics and Disease Prevention, Centers for Disease Control and Prevention

Although historically human genomic data has not been captured in routine public health surveillance or during investigations of acute public health events, recent developments, such as the completion of the human genome project, are facilitating our understanding of the role of human genomics in disease causation and individual susceptibility. However, to appropriately capture this human genomic data in the public health information architecture, the information must be standardized.

To capture standardized human genomic data for public health purposes, the authors carefully examined the National Electronic Disease Surveillance System (NEDSS) component of the Public Health Information Network (PHIN). Specifically, the NEDSS conceptual and logical data models were examined to identify the modifications required to permit the inclusion of relevant human genomic data.

Although no initial modifications were required to either data model to capture limited genomic data as laboratory observations using the Logical Observation Identifiers Names and Codes® (LOINC®) vocabulary, many limitations were discovered. Specifically, there are at present only 295 human molecular genetic tests in LOINC® (version 2.12); however, there are 30,000 genes in the human genome. Therefore, LOINC® clearly will require a significant number of test additions. Furthermore, while LOINC® does currently contain codes for both genes and specific gene variants, given the millions of potential gene variants, the authors propose that ideally the LOINC® tests ordered should be only for the genes themselves, with the answers being the specific gene variant. At this time, out of the 34,840 codes in LOINC®, only 50 are of this type. Unfortunately, the Systematized Nomenclature of Medicine Clinical Terms® (SNOMED CT®), a PHIN standard that is often used to provide the answers for LOINC® tests, does not contain specific information on gene variants, or the genes themselves for that matter. Given these findings, the authors propose using the nomenclature for the descriptions of sequence variations from the Human Genome Variation Society as an interim solution until SNOMED formally contains this genomic data. In addition to the specific gene and variant, other genomic data is relevant to public health, as is seen in the Genotype Prevalence Database, developed and maintained by the CDC's Office of Genomics and Disease Prevention. This additional information includes unique identifiers creating linkages to NCBI's Online Mendelian Inheritance in Man (OMIM) database, Locus Link database, and single nucleotide polymorphism database (SNPDB). Other unique identifiers would include the Human Genome Nomenclature Committee's (HGNC) gene database, as well as a place holder for a future SNOMED identifier. Given the relevance to genomics, a place holder for haplotype data should be created as well. It would follow that this public health genomic data should be contained within a new class (e.g., Person Genome) in the NEDSS base system data model. Thus, while SNOMED CT (a PHIN vocabulary standard) is in the process of integrating genomic data, an interim solution could be developed to capture this relevant genomic data. Furthermore, given the exponential growth and complexity of this data, select bioinformatics vocabularies and databases could become useful additions to the existing PHIN standards.

Poster Abstracts:

PS1.H Data Visualization and GIS in the Washington DC Automated Disease Surveillance System (WADSS)

John Larson; Mark Bramer; Melissa Fraine, MPH; Laura Dietsch, MPH;
John O. Davies-Cole, Ph.D., MPH; Chevelle Glymph, MPH; Kimberly Russell; Tim Costello;
Jason Porter, District of Columbia Department of Health

Introduction: There are many different ways to analyze health data. Visualizing data can often give an investigator a better understanding of what is actually happening in the population. The DC Department of Health (DCDoH) embarked on the development of the Washington DC Automated Disease Surveillance System (WADSS), a unique and comprehensive system of surveillance, which combines both traditional and non-traditional data as well as notifiable disease in a single, secure, system. WADSS is electronically linked to various data providers and receives information in near-real time. Once the information is entered into the system, it can immediately be analyzed in a number of different ways, including geographically.

Objective: To use WADSS, a web-based system, as a data analysis tool for disease and syndromic investigation, GIS visualization and analysis methods will be discussed.

Methods: An AdHoc query and data analysis system was developed within WADSS for disease and syndromic data analysis. These screens were created after multiple JAD (Joint Application Development) between DCDoH epidemiologists and subject matter experts from Atlantic Management Center, Inc (AMCI). Investigators had the ability to log on to the system from anywhere in the world, as long as they had internet access and a proper security password. Once logged into WADSS, data was analyzed in a number of formats. After determining the population, in an AdHoc Query or through an investigation, data was: exported from WADSS for analysis in other products such as SAS or SPSS; graphed or tabled by a number of variables (age, date seen, onset date, race, report date, reporting facility, sex and/or syndrome); and mapped using GIS. An investigator had the ability to view the data graphically in a bar graph, a grouped bar graph, a line or multi-line graph, a pie chart, or a table.

In WADSS GIS, an investigator was able to sort and view case addresses by home address, work address, incident location and reporting location. There are multiple layers that can be viewed in the map including zip code, parks, roads, Ortho (photographic), water, census tracts, buildings, and points of interests. The GIS functionality also allows visual analysis of disease situations to be shared not only with the DC Public Health community, but as an export to any other interested parties (such as CDC). The WADSS team planned and designed the GIS based on the CDC GIS NEDSS requirements for performing graphical visualization and spatial analysis. The geocoded information automatically scales to zip codes outside of the DC city boundaries and scales to addresses in DC. Methods for performing graphical, spatial and temporal analysis in WADSS, with a concentration on GIS, and suggestions for additional GIS analytical capabilities will be explored.

Results & Conclusions: WADSS is a robust data repository with multiple analytical capabilities. The flexibility to analyze data in WADSS allows an investigator to gain a thorough understanding of the health of the community in a timely manner.

Poster Abstracts:

PS1.1 Policy Coordination and Automated Communication of Critical Events

Yves Lussier, Columbia University and Rose Williams, Thomas J. Watson, Research Center, IBM

September 11th has shown the weaknesses of our critical infrastructure and response capability to address major disasters. Improving the nation's overall emergency response system has become a priority for policy makers, public health officials, and the private sectors. Requirements and specifications for the development of critical infrastructure and response plans for emergency communication and restoration are underway. For example, multidisciplinary emergency systems are coordinating incident response through the use of shared radio communication devices, thus allowing for some inter-agency vehicles to listen in on one another and coordinate response to incidents. Agencies charged with conducting infectious disease surveillance and response activities are evaluating public health infrastructure to improve the timely collection of data and effective information dissemination to agency officials and the public. As such, emergency communications are examining the design and development of open-standards to enable cross-agency sharing of data, voice, and database information. Mobile technologies are included.

However, these technology architectures must be extended to include coordination policies and role-based models for secured and distributed collaboration systems. This presentation examines the extension of a system developed at the I.B.M. Thomas J. Watson Research Center, in collaboration with the biomedical department of Columbia University. Our current prototype is a role-based, policy-based middleware that supports secured, real-time communication of urgent clinical events on mobile Blackberry devices. Our system supports HL7 protocols (can be easily extended), Physician – Roles database (ex., who is on call for ward/patient), Policy database (ex., executing communications on critical lab values), and Acknowledgement Monitoring (ex., executing cascaded and escalated notifications in the case of time-outs or lack of physician response). We propose the extension of our system as a mobile, 2-way communication system supporting roles & policies authorization, automated execution of readiness plans, and intelligent information dissemination to inter-agency teams for coordinated, efficient, and effective delivery of emergency services.

Poster Abstracts:

PS2.A Daily Emergency Department Surveillance System(DEDSS)

Brian La Forgia, LINCS/HAN Technology Coordinator, Bergen County Department of Health Services

The Bergen County Department of Health Services began setting up its DEDSS (Daily Emergency Department Surveillance System) in February of 2000. The department sought to obtain data from the emergency departments of the 6 hospitals located within the County of Bergen on a daily basis. The idea was to abstract available information from the hospitals current information systems and use this data to monitor for outbreaks of bioterrorism and other public health threats. The system was to be used as an early detection system for public health events. The department determined that all the hospitals maintained some type of electronic clinical information system that data could be extracted from on a routine basis. Simple standards were established to exchange the data requested. Each hospital had the ability to query their information systems and export simple ASCII text files that could be transmitted to the Health Department. The files contained data from the corresponding data fields in each hospitals clinical system for: Date of patient visit, age of patient, zip code of patient, chief complaint, and admission status. These 6 fields were requested in a fixed width or character delimited text file based on the technical capabilities of each hospitals clinical system. Data is exchanged via industry standard FTP protocol to the Department's FTP server. The open source PGP Encryption standard was agreed to be the data encryption standard of choice for all entities since it was freely available. However, only one hospital to date requires encryption of their data due to the de-identified nature of the data being received. Data is then automatically imported into an SQL Server, and analyzed using SAS Statistical software. SAS analysis produces geographic and syndromic alerts, which are automatically forwarded to the County Epidemiologist for review and action when appropriate. Geographical Information System capabilities are also currently in development for spatial representation of alerts. All this has been accomplished through CDC funding for individuals in the department as part of the bioterrorism preparedness grants, and in kind contributions of time and labor of local hospitals. The system mirrors data collection efforts of the NYC Department of Health and Mental Hygiene who also collaborated with the Bergen County Health Department in exchanging algorithms for chief complaint analysis. The system was scheduled to be piloted using chief complaint validation data containing ICD-9 codes of the same patients post 9/11, however after the terrorist attacks the preliminary system was switched on almost immediately to monitor for symptoms of any public health outbreaks in the midst of potential terrorist threats. The system is fully automated using industry standard tools, and COTS applications and is easily exportable to other communities through the United States for simple ED data exchange. Currently several other counties in NJ are also using the Bergen County model to collect similar data streams for syndromic surveillance from their own hospitals.

Poster Abstracts:

PS2.B Descriptive Analysis of Intensive Care Unit Data to Evaluate Potential Use for Syndromic Monitoring

Alicia D. Anderson, DVM, MPH, Diplomate ACVPM, Walter Reed Army Institute of Research, Silver Spring, MD

Surveillance of admissions to intensive care units (ICU) could provide an early warning of small outbreaks of severe illnesses, such as seen with the onset of West Nile virus and the 2001 anthrax attack. In order to determine if existing data could be utilized for syndromic ICU surveillance, we obtained 3 years of historic data from one military hospital. The data consists of information stored on the Computerized Information System (CIS) and includes the age, gender, admission date, admission diagnosis, reason for admission and short history and physical (up to 200 words) in an electronic format. We reviewed the information and determined categories for excluding patients for consideration of an acute infectious process. For those with potential infectious diseases, we categorized them using the syndromic categories currently utilized by the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE).

A total of 1,897 patients ages 18-65 were admitted to the ICU from 1 Nov 1999 to 31 Oct 2002. We excluded children because of Institutional Review Board policies, and elderly patients because the military hospital has fewer patients in this age range than comparable civilian hospitals. Duplicate records for the same patient admission were deleted. A total of 213 patients had illnesses that could be classified as infectious, based on the information provided. The remaining 1,684 patients were excluded for the following reasons: admitted for a medical or surgical procedure, alcohol or drug detoxification, suicide attempts, gastrointestinal bleed with known source, cardiac diagnoses, organic neurological diagnoses, seizures with related history, diabetic ketoacidosis, congestive heart failure without signs or symptoms of infection, infections with a known source (eg., diabetic ulcers), trauma, a definitive diagnosis not related to an infectious disease, underlying reason for infectious disease (eg., AIDS, end-stage cancer), symptoms present for over one month, or no history available.

Of the 213 non-excluded records, 53 were classified as gastrointestinal illnesses, 42 as respiratory, 25 as neurological, 7 as unspecified febrile and 2 as dermatologic. The remaining 84 could be classified in more than one category. Key words for classification that could be used in an automated text extraction were identified. No acute infectious disease outbreaks were documented during the study period.

Surveillance of electronically collected ICU patient data could be a useful tool for the detection of small outbreaks of severe illnesses. Due to small numbers, it would be most effective if all ICUs in a region participated in the surveillance. Many patients presented with multiple potential infectious disease symptoms but ultimately with a noninfectious cause. These patients were excluded from the analysis by reading the history and physical, the length of which may present problems for automated text extraction. Through the use of PHIN standards for medical nomenclature, it could be possible to rely on a shortened admission diagnosis for automated surveillance.

Poster Abstracts:

PS2.C Data Mining Techniques for Early Detection in Washington, DC

Melissa Fraine, MPH; Laura Dietsch, MPH; John O. Davies-Cole, Ph.D., MPH; Jason Porter; Chevelle Glymph MPH; Kimberly Russell, District of Columbia Department of Health

Introduction: The DC Department of Health (DCDoH) pioneered the nation in developing an enterprise-wide system to detect changes in the DC community health status based on the CDC PHIN/NEDSS standards. This system, the Washington Automated Disease Surveillance System (WADSS), is unique in that it detects spatial and temporal disease clustering's and aberrations in chief complaint data as well as notifiable diseases based on ICD9 codes from multiple electronic reporting sources. The aberrations are detected from real-time data using the CUSUM method. Spatial and temporal disease clusters (Unusual Clusters) are determined by disease thresholds set by DCDoH. It is necessary to have various detection mechanisms since bioterrorism threats may involve known or unknown organisms. Investigators have the ability to log on to the system from anywhere in the world, as long as they have internet access and a proper security password. When an investigator logs into WADSS, the first screen seen identifies the aberrations detected and notifiable diseases reported. All of the data available (syndromic or disease) is accessible, expediting the ability to begin an investigation.

Objective: To describe the benefits of a three pronged data mining system that detects public health threats by utilizing algorithms that analyze both diagnosis and chief complaint data simultaneously.

Methods: Three different algorithms were created in WADSS for aberration detection: Bioterrorism Disease Threat; Unusual Disease Clusters; and CUSUM calculation.

Algorithms are run against the diagnosis to flag diseases which are considered an immediate public health threat. Unusual disease clusters are determined by a threshold level. An unusual cluster is defined as any disease which reaches its threshold level in one reporting location in the same day. All diseases that pose an immediate health threat (determined by DCDoH) have a threshold level of one and will appear as an Unusual Clusters in the system with one disease from the reporting location. All reportable disease thresholds are adjustable and determined by DCDoH.

The CUSUM algorithm runs against chief complaint data. In WADSS, all of the chief complaints are translated to a syndrome and then run through the algorithm. The algorithms support three different levels of detections: one for mild, medium and ultra flags. If one of the algorithms detects an aberration, then the flag will appear as an alert to the epidemiologist upon logging into WADSS.

Examples of all of these will be shown and methods for creating detection algorithms and suggestions for early event detection will be discussed.

Results: All three algorithms are necessary for aberration detection. A diagnosis isn't always available immediately and must wait for laboratory confirmation; therefore an epidemiologist must rely on chief complaint data to expedite their aberration detection. However, chief complaint data is indistinct and relies on many cases to create a detection. Therefore, utilizing varying data mining techniques is preferable.

Conclusion: WADSS now makes it possible to detect both infectious disease outbreaks and aberrations using chief complaint data in DC, within a timely manner and with 100% accuracy.

Poster Abstracts:

PS2.D Info-Aid: Monkeypox Response

Vibha Kumar, MD, Public Health Informatics Fellow, Office of Science and Extramural Research/PHPPPO, Centers for Disease Control and Prevention

Introduction: Monkeypox is a rare viral disease caused by Monkeypox virus which belongs to Orthopox-virus group of viruses. In June 2003, CDC received reports of patients with febrile rash illness who had close contacts with pet prairie dogs. During the Monkeypox outbreak, CDC employees participated in the response. Mostly people worked from Director's Emergency Operation Center (DEOC) in Atlanta. Few staff members were deployed to other states to do the field work. In early September 2003, the National Centers of Control (NCID) began assessment process to identify achievements, summarizing lesson learned and providing recommendations to improve the agency's ability to respond to outbreaks.(1)

Info-Aid: Info-Aid is a short-term informatics assistance provided to federal, state, local, or international health departments by an Informatician or informatics fellow. The technical help was provided to NCID team leaders during the assessment of the Monkeypox outbreak Response which included following activities:

- Structured interviews of selected participants (12) to gain further insight into strengths and weaknesses of the Monkeypox response process.
- Web-based surveys of all the people who participated (200+) in the Monkeypox response. There were two slightly different surveys - one for headquarters staff and one for field staff.
- Analysis of survey data collected from structured interviews and web based surveys using Zoomerang software
- After Action Report (AAR) summarizing the results from the surveys and interviews.

Lesson Learned: The goal of the Public Health Informatics Fellowship Program (PHIFP) at CDC is to provide the training and experience for its participants to effectively apply computer and information science and technology to real public health problems, including the ability to lead and manage all aspects of the design, development and implementation of public health information systems (2).

My comprehensive informatics training in Database Management, MS SQL Server, Decision Analysis and Support helped me in providing technical support for this project. I gained hands-on experience while conducting interviews, uploading data, transferring data to MS Excel and MS Access, data analysis and producing graphs. It was a great learning experience for me.

NCID used Zoomerang as their primary software to load the surveys. Zoomerang is expensive software. Instead of Zoomerang, Epi-Info should have been used. It is free software and can be downloaded over the internet. Epi Info has extensively been used by epidemiologists, public health and medical professionals to develop questionnaires. The data can be customized easily and used for data analysis. Tables, graphs, statistics and maps can also be produced with simple commands. Epi Map displays geographic maps with the data entered. The Info-Aid made a critical difference in the whole evaluation process. It helped NCID team to establish objectives and conducting a science based evaluation of how the outbreak was managed.

Poster Abstracts:

PS2.E Defining the needs of Research Knowledge Management System: A Public Health Informatics Fellow's Perspective

Dr. Vibha Kumar, Public Health Informatics Fellow, Office of Science and Extramural Research, PHPPPO/ CDC)

Introduction:

Web-based software systems known as Knowledge Management Systems (KMS) provide a medium for translating and transmitting the power of knowledge to federal, state and local health officers, CDC staff, public health researchers, and policy makers. One of the goals of the knowledge management is to make tacit knowledge more widely available and capture it in explicit form to try to meet the specific needs of each user. Explicit knowledge is the knowledge that has been articulated in the form of text, tables, and diagrams and so on e.g. Public Health Research. Tacit knowledge can not be articulated because it is possessed in the heads of public health professionals and researchers, based on their expertise and experiences.

A Research based Knowledge Management System (KMS) will help CDC:

Explicit Knowledge:

- Collect and sustain knowledge related to research findings across Centers, Institutes and Offices
- Identify and capture the information that exists across the Agency

Search, organization and Knowledge sharing:

- Help people find, organize, and share CDC's knowledge related to research findings

Knowledge and Content Management:

- Help to efficiently manage the Agency's knowledge resources

Collaboration and Community of Practice:

- Increase collaboration and facilitate knowledge creation and sharing
- Facilitate to enable teams and communities to collaborate across the barriers of time and space

Tacit Knowledge:

- Capture valuable information held in the heads of CDC experts especially among those that retire from public health practice

Target Users: There are four principal target user groups for the KMS:

- Public health practitioners including state and local health department staff
- Policy makers and legislators
- Public health researchers
- CDC's internal and external staff

Poster Abstracts:

PS2.E Defining the needs of Research Knowledge Management System: A Public Health Informatics Fellow's Perspective

As a Public Health Informatics Fellow in the office of Science and Extramural Research (PHPPO/CDC), I struggled, experimented and experienced the development of 'Research based Knowledge Management system (KMS)'. The development of the system is in five stages: Business process modeling, Cost benefit analysis, User requirements, Prototype, and Implementation. In Business process modeling, an initial project plan was developed in MS Project that included timelines and activities. Once the initial user requirements and Use case models were established looking into previously developed demo, it became apparent that the system would consist of numerous software components that performed different features and functions. Industry research was done to determine which components could be purchased and integrated into a KMS system, and which components would need to be developed in-house. Additional research was done to identify KMS software components that had been developed by CDC that could be integrated into a comprehensive KMS system.

This project meets PHIN standards to ensure public health information network to serve nation's public health information needs. If the project continues, the next phase will be development of a functional software prototype that will be used to focus test features and functionally. The public health infrastructure research program supports population based prevention research and also addresses the CDC Director's priority of Excellence in Science.

Pre-Meetings

Day	Time	Group	Room
May 24	8:30 am–12:00 pm	NACCHO Information Technology Committee	Gwinnett
May 24	9:00 am–12:00 pm	HAN Coordinators Pre Meeting	Cherokee
May 24	9:00 am–12:00 pm	Environmental Public Health Tracking	Walton
May 25	6:00–7:00 pm	APHL	Fulton
May 25	6:00–7:00 pm	Public Health Davis Award	Douglas
May 25	6:00–8:30 pm	ELR National Teleconference Group	Clayton
May 26	12:00–1:30 pm	NACCHO Meeting	Fulton
May 26	5:30–7:00 pm	HIMSS	Fulton
May 27	1:30–5:30 pm	HAN Coordinators Meeting	DeKalb
May 27	2:00–7:00 pm	NAPHIT Meeting	Gwinnett
May 28	8:00–10:00 am	NAPHIT Meeting	Gwinnett

Special Thanks

The PHIN Conference wishes to extend a special thanks to:



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And

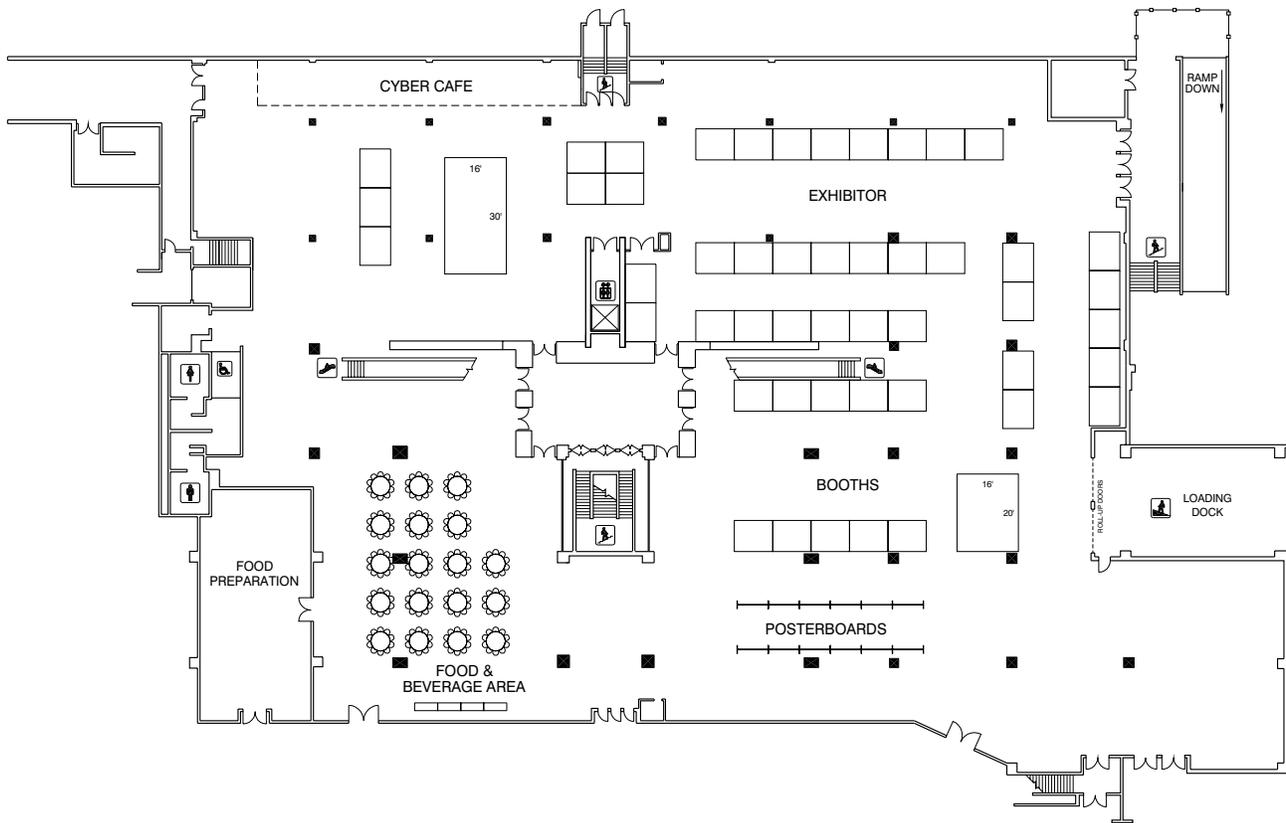


for their support of the Cyber Café.

Meeting Facilities

The Atlanta Hilton Galleria Exhibit Hall, Atlanta Georgia

May 24—27, 2004



Meeting Facilities

The Atlanta Hilton 2nd Floor, Atlanta Georgia

