Building a National Environmental Public Health Tracking Program

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Outline

- Overview
- Defining the National Environmental Public Health Tracking Network
- Moving Forward
Environmental Public Health Tracking

Hazard → Data → Tracking Network → Dissemination → Stakeholders

Stakeholders Include:
- Federal Agencies
- State and Local Agencies
- Academia
- Health Care System
- Non-Governmental Organizations

Business and Industry
Policy Makers
Media
Public

Exposure → Improved Public Health

Health Effect → Ongoing Evaluation

Ongoing Evaluation
The National Environmental Public Health Tracking Program

Mission & Goals

To provide information from a nation-wide network of integrated environmental monitoring and public health data systems so that all sectors can take action to prevent and control environmentally related health effects.

Goal #1: Build a Sustainable, National Environmental Public Health Tracking Network.

Goal #2: Increase Environmental Public Health Tracking Capacity

Goal #3: Disseminate Credible Information

Goal #4: Advance Environmental Public Health Science for Practice and Research

Goal #5: Bridge the Gap Between Public Health and the Environment
Program Components

- IT and standards
- Partnership
- Communications
- Methods
- Training
- Leg. & Policy
- Research
Partners -2004

- State and local health departments
- Academic Centers of Excellence
- National public health and environmental health professional organizations
- Advocacy groups
- Environmental Protection Agency
- National Aeronautics and Space Administration
"Hello, Emily. This is Gladys Murphy up the street. Fine, thanks... Say, could you go to your window and describe what's in my front yard?"
Characteristics of an Ideal EPHT Network
(adapted from Hertz-Picciotto, AJPH, 1996)

- High-quality, timely mortality and morbidity data with high resolution geographic coordinates
- A wide range of information on exposures based on biomonitoring, personal monitors, or exposure modeling
- Relevant, high-quality, timely emissions data and monitoring data for air, water, soil, and food – all based on temporally and spatially appropriate sampling schedules
Characteristics of an Ideal EPHT Network
(adapted from Hertz-Picciotto, AJPH, 1996)

- Updated population data for denominators to calculate rates with adjustment for migration and socio-demographic factors
- Ability to link geographically and in some situations, individually
- Fine enough resolution to enable evaluation of effects from localized environmental exposures in small areas.
At-A-Glance
Features of the National Environmental Public Health Tracking Network

- Web-enabled
- Standards-based (PHIN)
- Compatible with EPA Exchange Network
- Exists at the local, state, & national level
- Provides direct access to distributed data sources (and exchange of information as appropriate)
- Comprised of a core set of health effects, exposures and hazards that all states/locals will track
At-A-Glance
Features of the National Environmental Public Health Tracking Network (cont’d)

- Flexible design so states/locals can also track their own unique priorities
- Includes central catalog of EPHT data and data owners
- Serves multiple customers but levels of access are based on the roles and purpose of the customer
- Includes tools for linkage, visualization, analysis, generation of alerts, and reporting
- HIPAA compliant
Part of CDC’s Public Health Information Network

- Early Event Detection
  - BioSense
- Outbreak Management
  - Outbreak Management System
- Surveillance
  - NEDSS
  - EPHT
- Secure Communications
  - Epi-X
- Analysis & Interpretation
  - BioIntelligence
  - analytic technology
- Information Dissemination & KM
  - CDC Website
  - Health alerting
- PH Response
  - Countermeasure administration
    - Lab, vaccine, prophylaxis

Federal Health Architecture, NHII & Consolidated Health Informatics
Moving Forward

Strategies and Accomplishments
Standards and Network Development Workgroup

- Works with CDC and its contractors to
  - define requirements, identify standards, define terms, and ensure compatibility with PHIN and EPA’s NEIEN

- Comprised of 4 subgroups:
  - Metadata and Data Quality
  - Data Sharing/Access
  - Geography and Locational Referencing
  - Network Architecture Subgroup
New York Pilot Data Exchange Project

- **Purpose:**
  - To implement and test a system for exchange of air monitoring data between the New York State Environmental and Health Departments
  - To examine interoperability issues between CDC’s PHINMS and EPA’s NEIEN
  - To provide lessons learned to CDC and other partners

- **Content experts working closely with information technology experts**

- **Expected completion: Sept, 2004**
Data Linkages Workgroup

- **Functions:**
  - Compile and share lessons learned in linking health, environmental hazard, and exposure data
  - Develop recommendations

- **5 subgroups:**
  - Asthma, Birth Defects, Cancer, Lead poisoning/exposure, Pesticide poisoning/exposure

- Working report completed and provided to EPHT funded partners

- Recommendations focus on continued gathering of lessons learned, need for standards and guidance documents, research needs, and partnership
Legislation & Partner Agreements Workgroup

- Bill Writer’s Tool Kit
  - In collaboration with the Program Marketing Workgroup
- Legislation & Regulations Guidance
- Memorandum of Understanding (MOU) Guidance
Program Marketing Workgroup

- Assist CDC in planning national communication strategy
- Developing key program messages and concepts
- Identifying audiences, outreach strategies

Subgroups:
- Community Outreach
- Messages Mapping
- Existing Materials Search/Review
Other Communications, Education, and Outreach Activities

- Communications contract with ORISE
- State planning consortiums
- Outreach to state and local agencies and health care providers through national organizations
  - Cooperative agreements with ASTHO and NACCHO
  - NEHA, ECOS, PSR subcontracts
Pilot Project for Evaluating Air Quality Characterization Methods

- Collaborative Effort
  - CDC EPHT Program
  - Three EPHT State Partners
  - EPA Office of Research & Development
  - EPA Office of Air Quality Planning & Standards

- Purpose: to evaluate alternative methods for generating air quality characterization information that can be ROUTINELY used for EPHT.
Health and Environment Linked for Information Exchange, Atlanta (HELIX)

- Initiated by CDC in 2003
- Goals:
  - Develop a local network of integrated environmental monitoring and public health data systems
  - Develop tools for accessing, linking, analyzing, and disseminating data that will inform the National
- 5-county Metropolitan Atlanta Area
- Collaborative effort with EPA and NASA
- Includes 70 participants representing federal, state, local, and academic environmental and health partners
Where Do We Go From Here?

All activities focus on moving into implementation phase in late 2005

For more information:  www.cdc.gov/nceh/tracking