

Building a National Environmental Public Health Tracking Program

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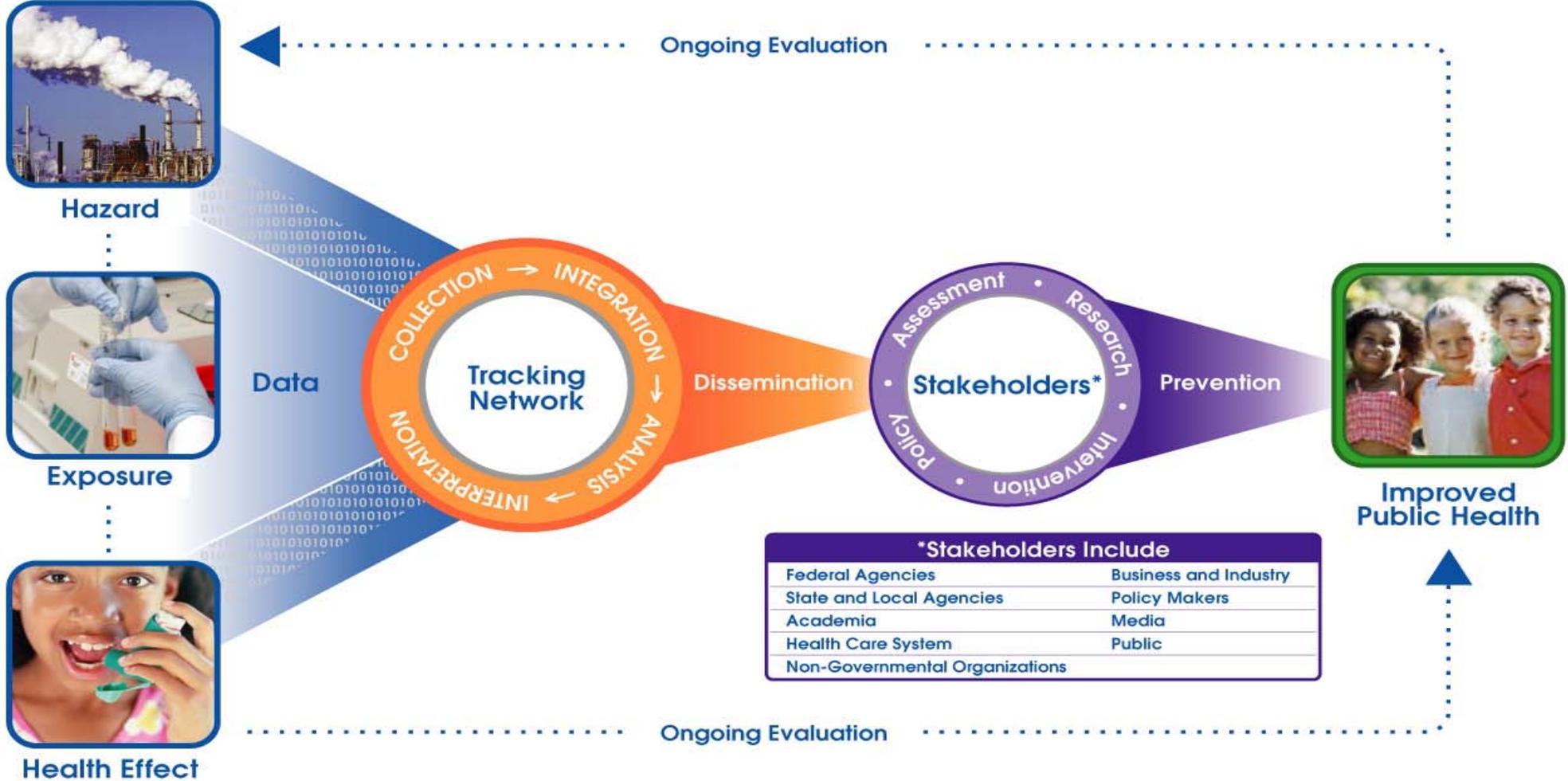
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Outline

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

ENVIRONMENTAL PUBLIC HEALTH TRACKING



***Stakeholders Include**

Federal Agencies	Business and Industry
State and Local Agencies	Policy Makers
Academia	Media
Health Care System	Public
Non-Governmental Organizations	

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



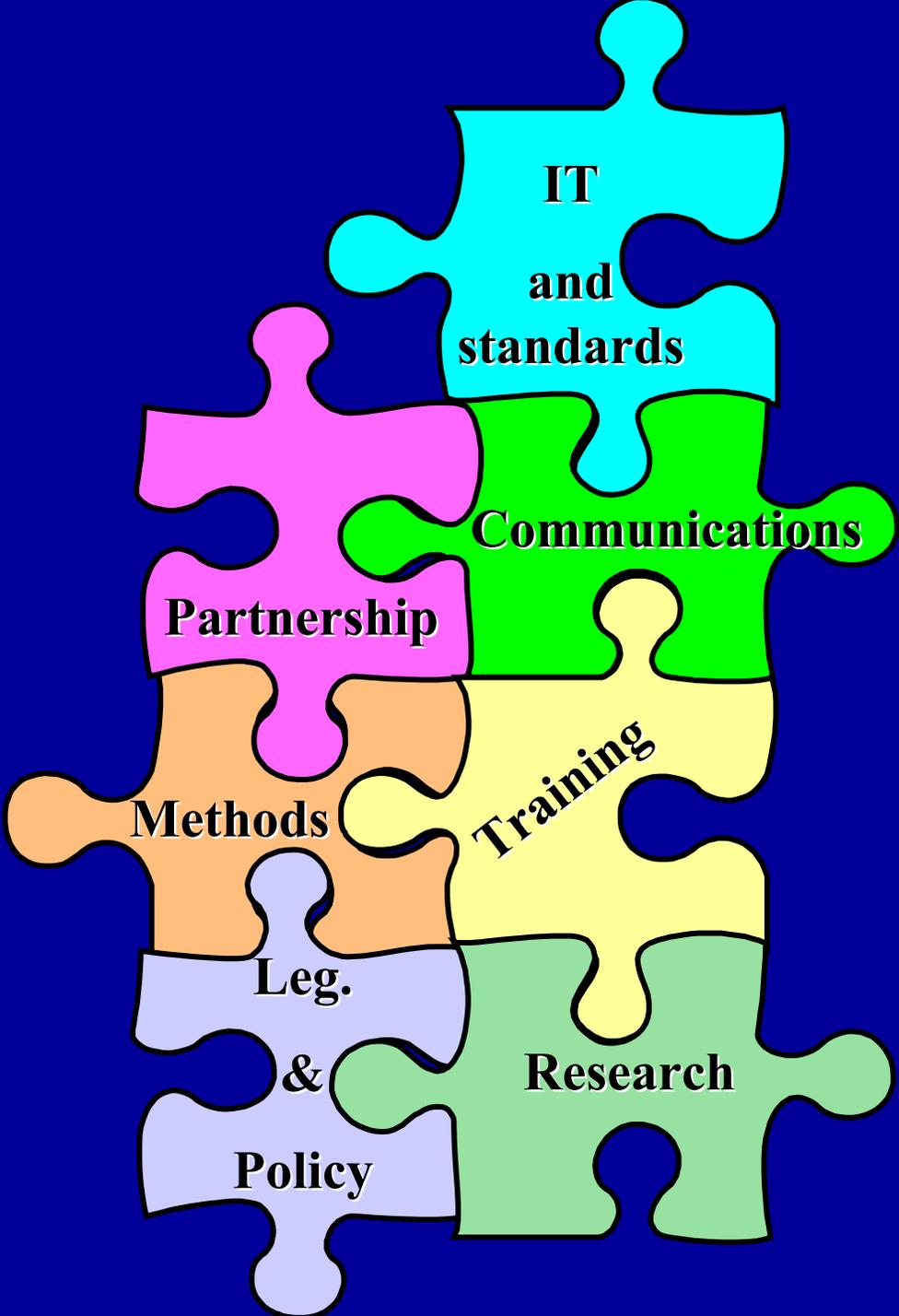
Goal #3:
Disseminate Credible Information



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



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



Program Components

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?"

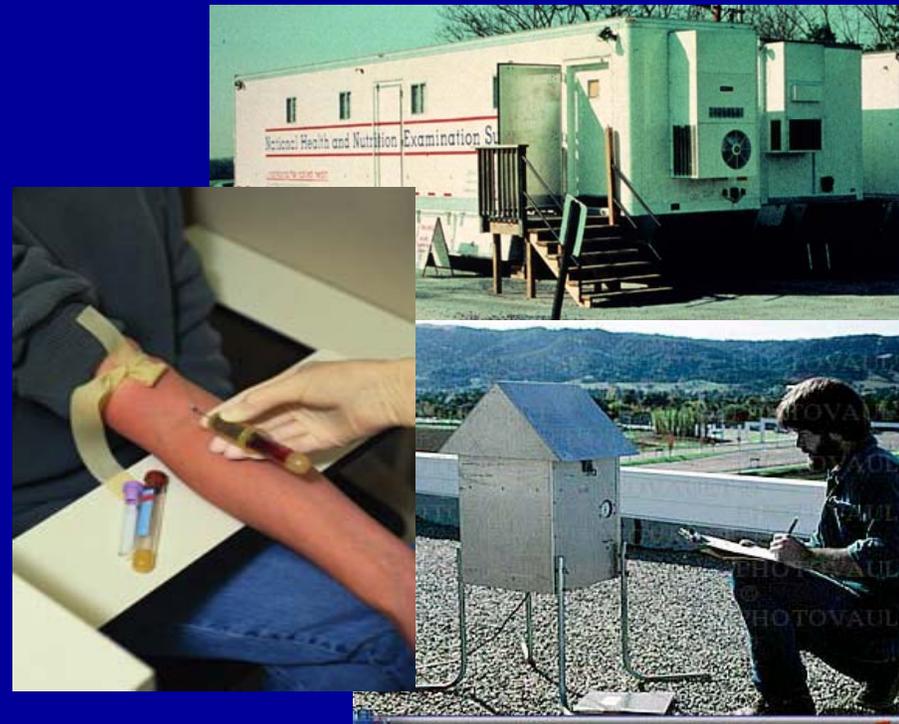
Information Technology

What is the EPHT Network?

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

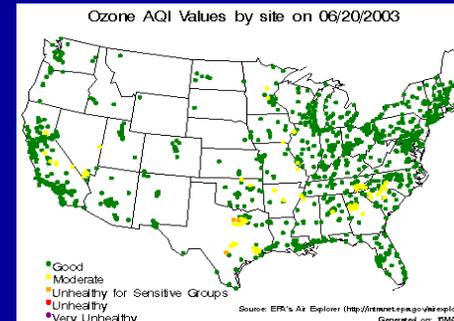
- Assist CDC in planning national communication strategy
- Developing key program messages and concepts
- Identifying audiences, outreach strategies
- Subgroups:
 - Community Outreach
 - Messages Mapping
 - Existing Materials Search/Review

Other Communications, Education, and Outreach Activities

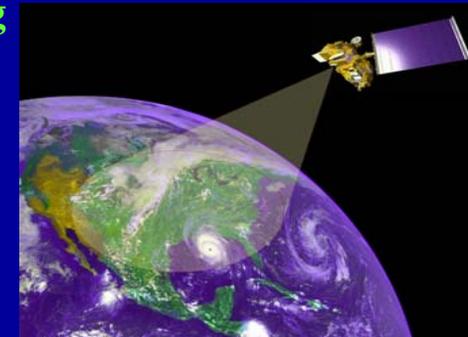
- **Communications contract with ORISE**
- **State planning consortiums**
- **Outreach to state and local agencies and health care providers through national organizations**
 - **Cooperative agreements with ASTHO and NACCHO**
 - **NEHA, ECOS, PSR subcontracts**

Pilot Project for Evaluating Air Quality Characterization Methods

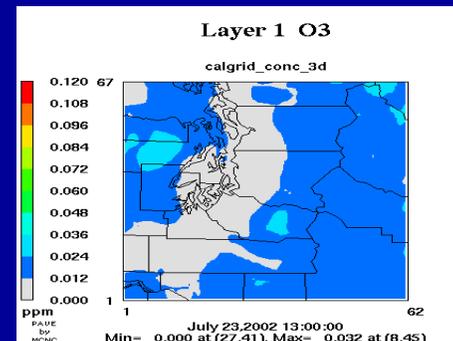
- Collaborative Effort
 - CDC EPHT Program
 - Three EPHT State Partners
 - EPA Office of Research & Development
 - EPA Office of Air Quality Planning & Standards
- Purpose: to evaluate alternative methods for generating air quality characterization information that can be **ROUTINELY** used for EPHT.



Ambient Air Monitoring



NASA Satellite Data



Air Quality Models

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