

## Environmental Public Health Tracking

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## Well Documented Relationship Between Health Effect and Environmental Factor

- Lead – Impaired cognitive development in children; nervous system dysfunction in adults
- Arsenic – Skin cancer
- Methyl mercury – Adverse reproductive outcomes
- Asbestos – Lung cancer; mesothelioma



## Suspected Relationship Between the Health Effect and Environmental Factor

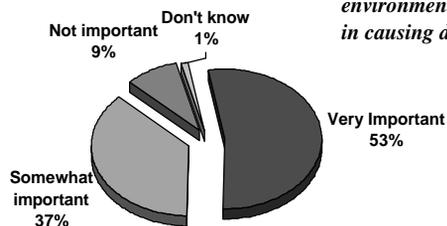
- DBP's – Bladder Cancer
- Aluminum – Alzheimer's disease
- Endocrine disruptors – Fertility
- ? – Cancer clusters



## Typical Environmental Exposures: TODAY



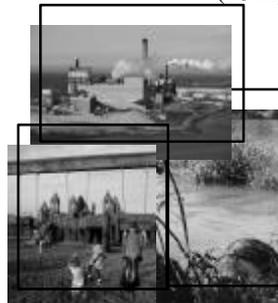
## Public Perceptions of Environmental Health Risks



Princeton Survey Research Associates, 2000. Margin of error: +3%



## The Future of Public Health (IOM, 1988)



“The removal of environmental health authority from public health agencies has led to fragmented responsibility, lack of coordination, and inadequate attention to the health dimensions of environmental problems.”



## The Future of Public Health (IOM, 1988)

*“Wherever organizational separation takes place...desirable program coordination is impeded. Data systems are fragmented, impeding broad assessment and surveillance that makes possible comparisons of program impacts on the health of the public and policy formulation based on comparable analysis and risk assessment.”*



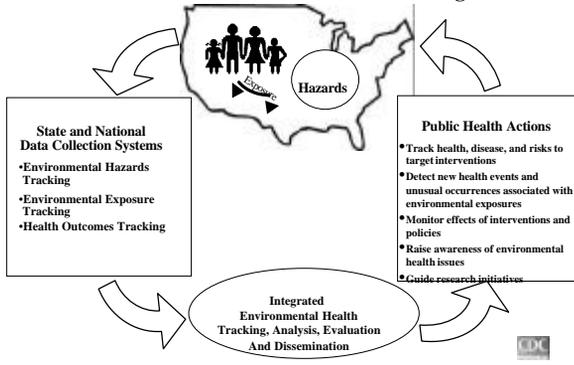
## Pew Environmental Health Commission *Environmental Health Review*

- Environmental health system was inadequate and fragmented
- Responsibilities scattered among agencies
- Unable to link environmental and health databases

Recommended a “Nationwide Health Tracking Network for diseases and exposures”



## Environmental Public Health Tracking



## CDC Program Goal

Develop and implement comprehensive programs in all 50 states, DC, the U.S. territories, and among tribal nations.

- A coordinated, integrated, standards –based Tracking Network
- Improved, sustainable public health resources
- Mechanisms for data dissemination



## Program Priorities

- Chronic diseases and other health effects with possible environmental etiology
- Chemicals, physical agents, biomechanical stressors, biological toxins
- Focus determined by HP 2010, Pew Report, State priorities
- Compatible with NEDSS, BT, EPA’s National Environmental Information Exchange Network.



## CDC Activities

*Obtain input from stakeholders / develop partnerships*

- Environmental Health Tracking Workgroups
- Meetings with State/local health and environmental agency staff
- EPA
- Other Government and NGO meetings
- CDC coordinating workgroup



## CDC Activities (cont'd)

### *Funding 20 state/local pilot projects*

#### ▪ Components:

- Coordination and collaboration between state/local health and environmental agencies required
- Evaluation of existing databases
- Assessment of existing legislation/regulations
- Development/enhancement of surveillance systems
- Linkage of health and environmental databases



## CDC Activities (cont'd)

### *Funding 3 Centers of Excellence for Environmental Public Health Tracking*

- Schools of Public Health
- Support state/local pilot projects
- Select project topics:
  - Linkage issues
  - Using environmental public health indicators
  - Statistical algorithms
  - Market research: audience profiles, needs, communications strategies



## Building the Network

### *How does this fit with other CDC surveillance efforts?*

- Supplements, does not supplant existing resources
  - E.g. broadening scope of Public Health Domain Information Model and Public Health Logical Data Model
- Identifies needs/gaps/priorities
- Increases interoperability through use of standards
- Builds the bridge between health and environmental data
  - MOU with EPA



## Challenges

- Expectations: utility of surveillance data
- Competing local/state/national priorities
- Cost
- Existing capacity
- Data compatibility
- Risk: cumulative; attributable
- Right to know / Right to privacy



## Conclusion

- Significant challenges
- Bottom up AND top down effort
- Collaboration and innovation essential
- Staged approach
- One component of a bigger picture

