

*Developing and
Managing a Local
Comprehensive
Environment and Health
Tracking System*

*The Allegheny County
Health Department Initiative*

Environmental Programs

- **Air Quality**
- **Public Drinking Water**
- **Water Pollution Control**
- **Solid Waste**
- **Plumbing**
- **Recycling**
- **Food safety**
- **Housing and Community Environment**
- **Lead Poisoning**
- **Injury Prevention**
- **Emergency Management**

Why A Local Environment and Health Tracking System?



First Essential Public Health Service

- Monitoring Health Status to Identify Community Health Problems

Primary Project Objectives

- **Develop a list of environmental indicators**
- **Design an Information System for indicator monitoring**
 - Maximize the use of existing data
 - Link environmental risk to health outcomes
 - Evaluate the effectiveness of environmental health interventions

Out of the universe of possibilities....

What Makes a
Good Environmental
Health Indicator?

Criteria for useful indicators

- **Measure outcome vs. activity**
- **Demonstrate effectiveness of interventions**
- **Useful, relevant**
- **Timely, accurate**

Sources for Indicators

- **Morbidity and Mortality**
 - **Environmental Conditions**
 - **Regulatory Data**
 - **Demographics**
 - **Geographic**
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- **Choose 4 or 5 priority indicators that will be relevant over the next 5-year period**

Criteria for prioritization

- **Priorities of elected officials**
- **Community concerns**
- **Health indicators**
- **Program relevance**
- **Availability of data**
- **Access to data**
- **Research data**

Data Management System

**Multiple Program
Data Sources**



Data Applications

(Air Quality, Food Safety and an Environmental Complaint System)



Backend Cluster Server: Populate of Indicators

System Status

APPLICATION	INTERVENTION	OUTCOME
Air Quality	Developing centralized data collection and reporting tools	Linking data to demographic, geographic and human health systems.
Food Safety	Developing a data model for Adherence Standards	Improving compliance
Environmental Complaints	Consolidating a catalog of complaint data (phone, fax, email, web and surface mail)	Tracking data by location and linking to specific monitoring sites.

On-going efforts

- **Refocus application development**
- **Tools for mining data**
- **Peer Review Group**
- **Usefulness of data**
- **Linking data to the community**
- **Community feedback**

Conclusions

- **Ongoing process**
- **Time, thought and talent**
- **Coordinated efforts across departments**

Recommendations

- **Cooperative atmosphere for breaking down institutional barriers**
- **Talented persons (informatics, systems support, biostatistics, epidemiology)**
- **Data sharing**