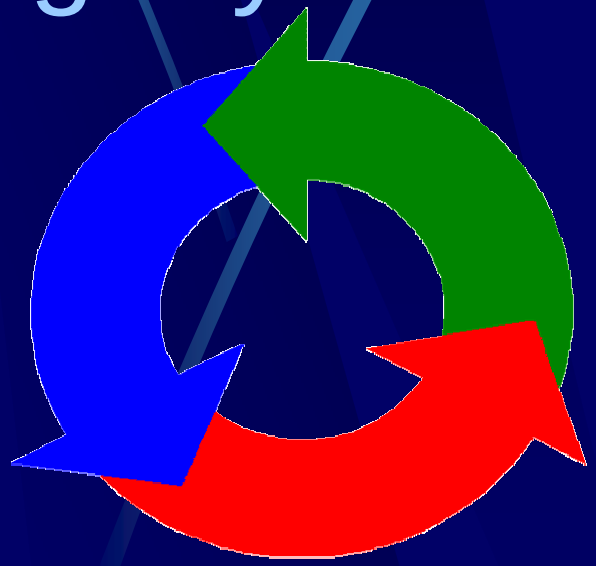
# Developing and Managing a Local Comprehensive Environment and Health Tracking System

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

- 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**