# CDC's Environmental Public Health Tracking Network

*Environmental Public Health Tracking: Experiences and Tools to Support Public Health Research and Decision-Making*

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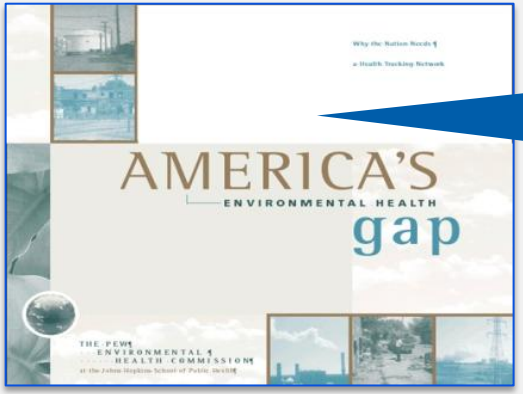
Fuyuen Yip, PhD, MPH
Chief (Acting), Environmental Health Tracking Branch, CDC

Heather Strosnider, MPH
Lead, Science Development Team, Environmental Health Tracking Branch, CDC

# National Environmental Public Health Tracking Program

- Created in 2002 in response to Pew Commission report
- Identified gap in critical knowledge hindering efforts to reduce or eliminate diseases that may be prevented by managing environmental factors
- Recommended a "Nationwide Health Tracking Network for diseases and exposures"

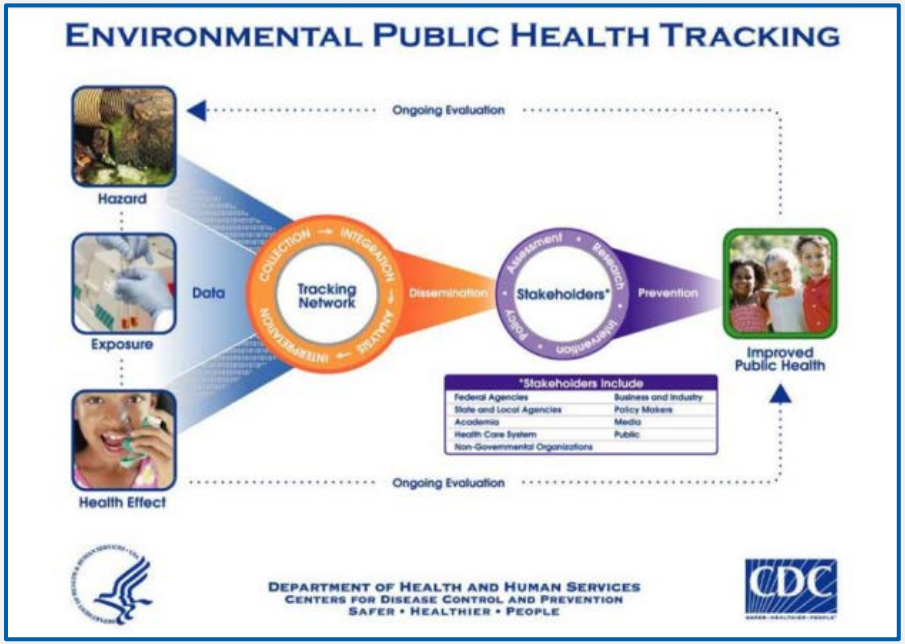



*"…create a federally supported Nationwide Health Tracking Network with the appropriate privacy protection, that informs consumers, communities, public health practitioners, researchers, and policymakers on chronic diseases and related environmental hazards and population exposures."*

# National Environmental Public Health Tracking Program

**Vision:** Healthy informed communities

**Mission:** To provide information from a nationwide network of integrated health and environmental data that drives actions to improve the health of communities



# Driving Public Health Actions

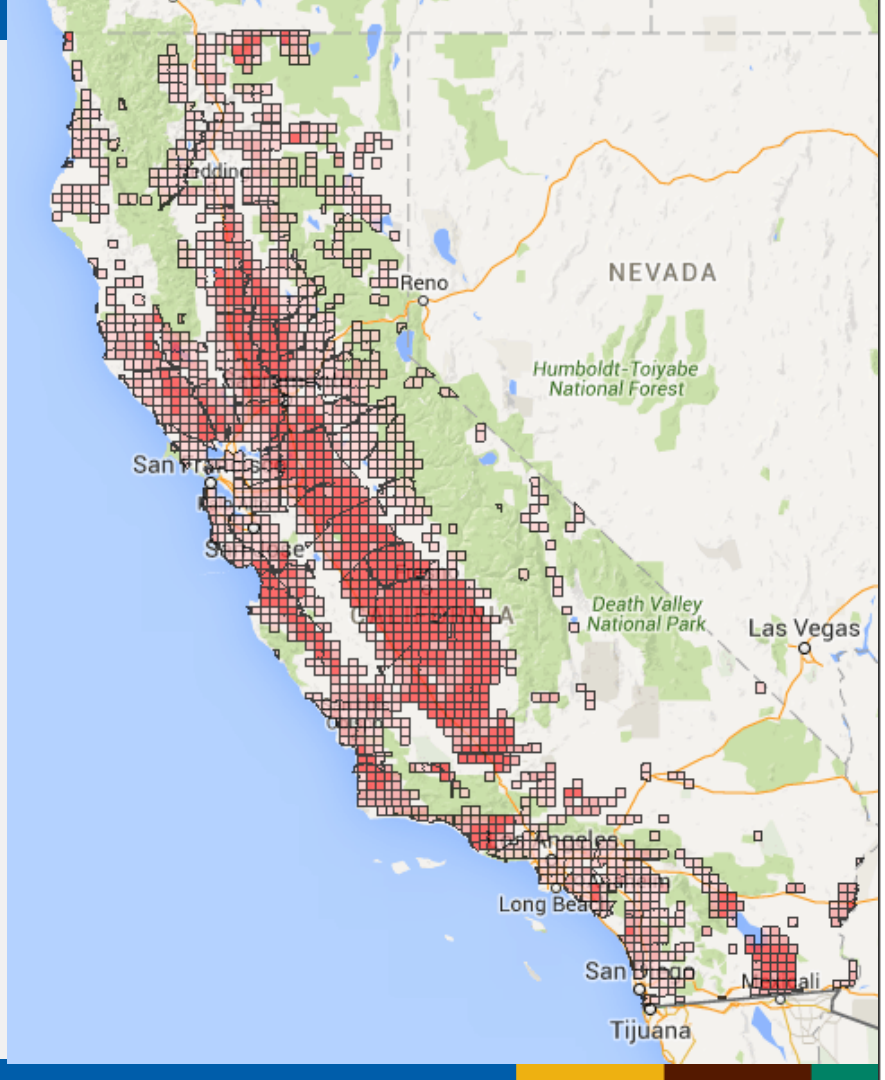
- Detect and monitor trends
- Identify populations at risk
- Identify exposure to hazards
- Examine the relationship between hazards and disease
- Assess potential disease clusters or exposures
- Track progress
- Enhance surveillance
- Improve access to quality data

**Informed, improved, evaluated…**

**programs, interventions, policies…**

**to address environmental health issues.**

# Reducing Pesticides Near Schools in California



State & Local Grantees

25/1

State & Local Practitioners

200+

Tracking Fellowships

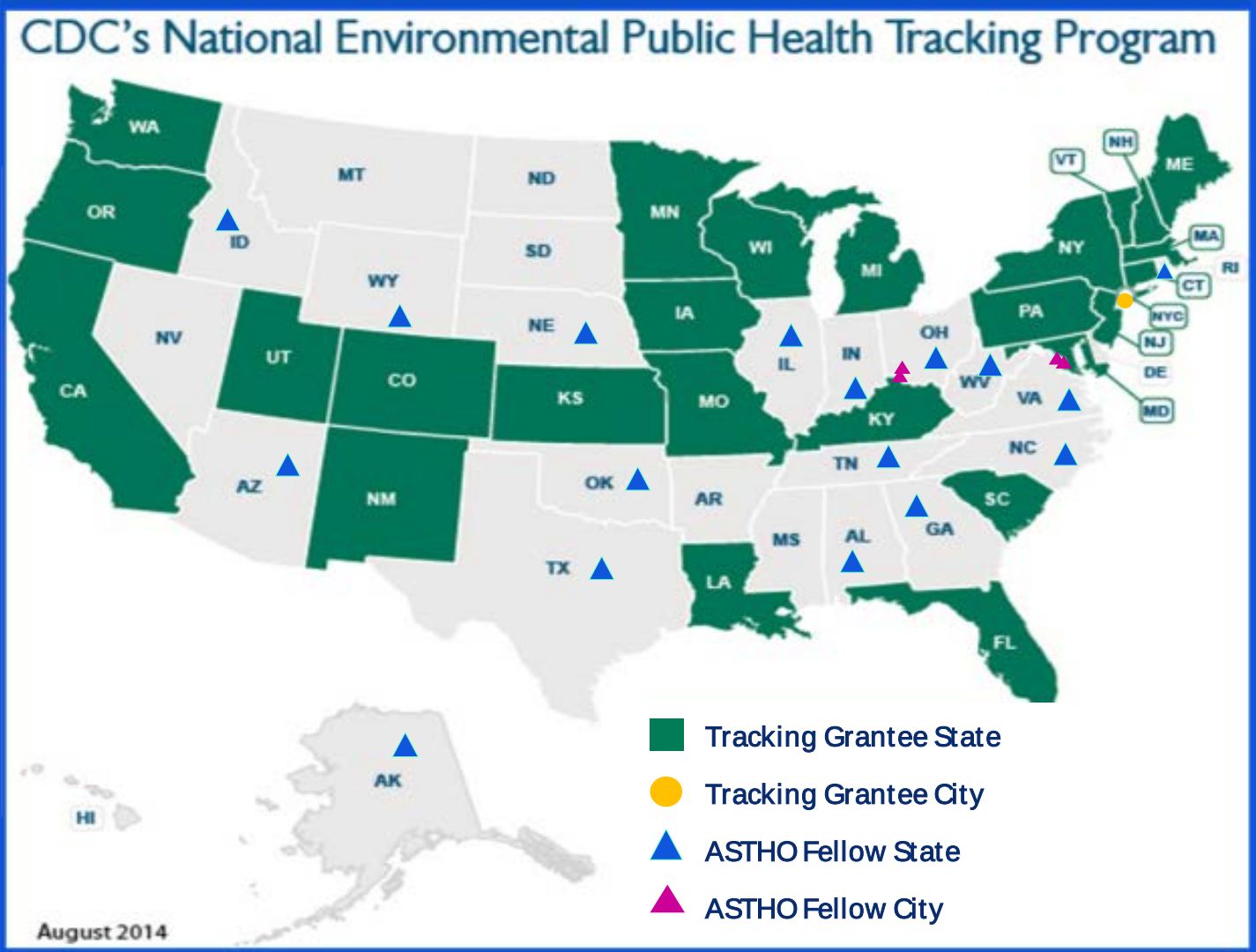
34

Partnerships

CDC, federal agencies, national organizations

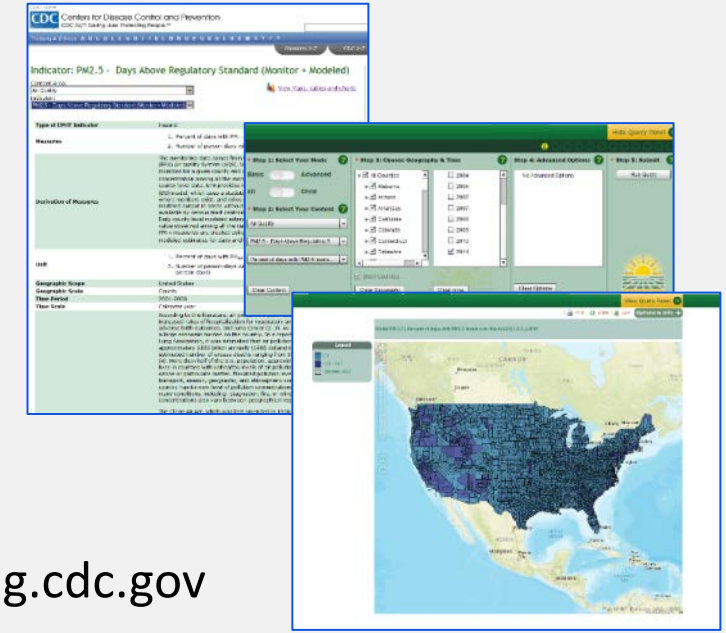
Public Health Actions

340+

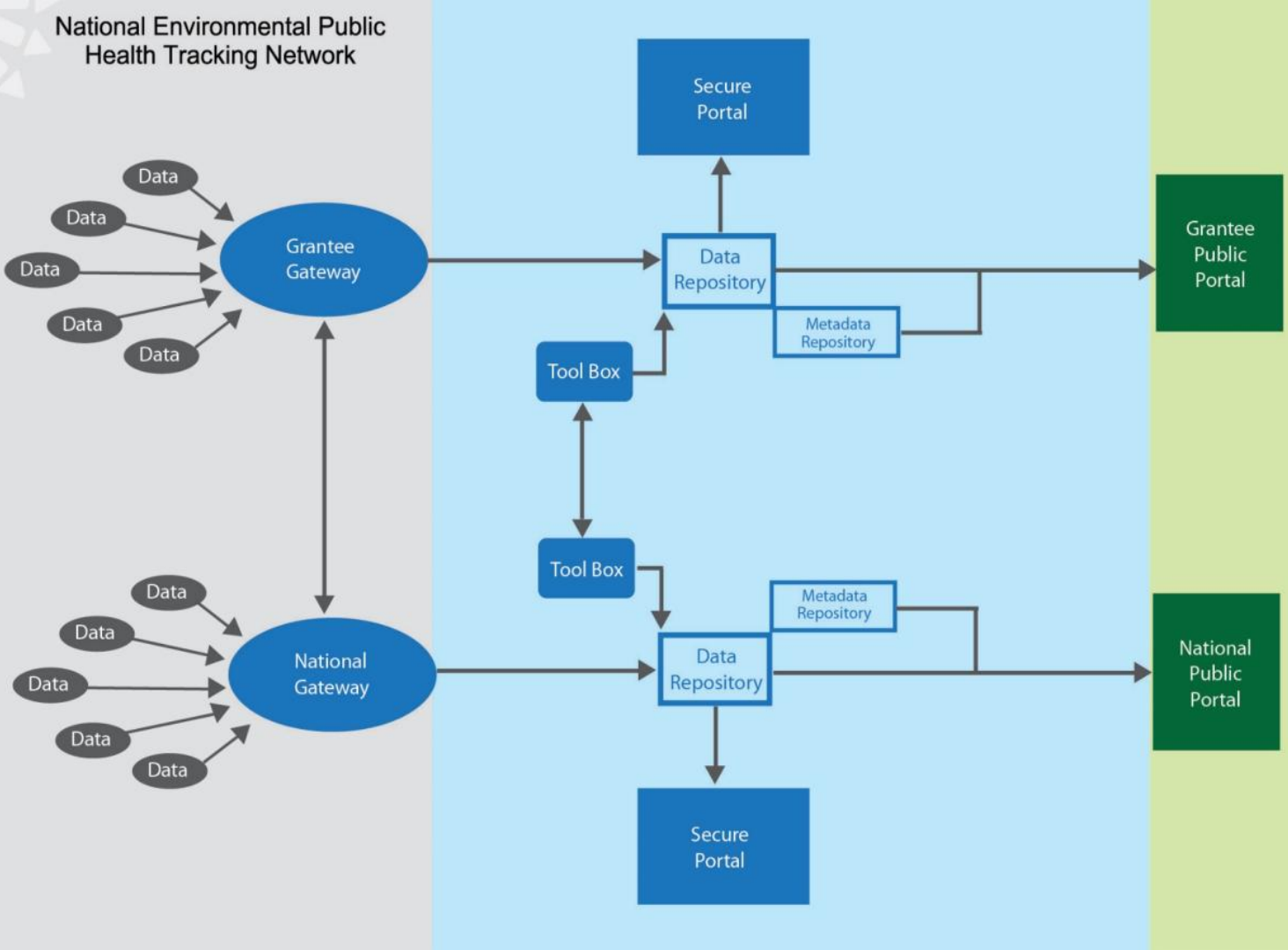


# Cornerstone of Program: The National Environmental Public Health Tracking Network

***A system of integrated health, exposure, and hazard information and data from a variety of sources, that is accessible through a public web portal for educational to policymaking purposes***




Visit the Tracking Network at: ephtracking.cdc.gov


National Environmental Public Health Tracking Network
Secure Portal
Data
Data
Data
Data
Data
Grantee Gateway
Data Repository
Metadata Repository
Grantee Public Portal
Tool Box
Tool Box
Data
Data
Data
Data
Data
National Gateway
Metadata Repository
Data Repository
National Public Portal
Secure Portal

# National Environmental Public Health Tracking Network

The National Environmental Public Health Tracking Network (Tracking Network) is a system of integrated health, exposure, and hazard information and data from a variety of national, state, and city sources.

On the Tracking Network, you ca… tables, and charts wit…

- chemicals and other substances found in the environment
- some chronic diseases and conditions
- the area where you live

Learn more about the Tracking Network

Explore Tracking Data

**Quick Links**
Home
About Tracking Program
State & Local Tracking Networks
Success Stories
Indicators & Data
Print Page
Bookmark and Share
CDC on Facebook
CDC on Twitter

## Environments

- Pesticide Exposures
- Climate Change NEW
- Outdoor Air
- More

## Health Effects

- Asthma
- Cancer
- Childhood Lead Poisoning
- More Health Conditions

**Tracking Hot Topics**

Tracking Asthma

Allergy Testing for Persons with Asthma : FAQs

Asthma and Allergy Foundation of America

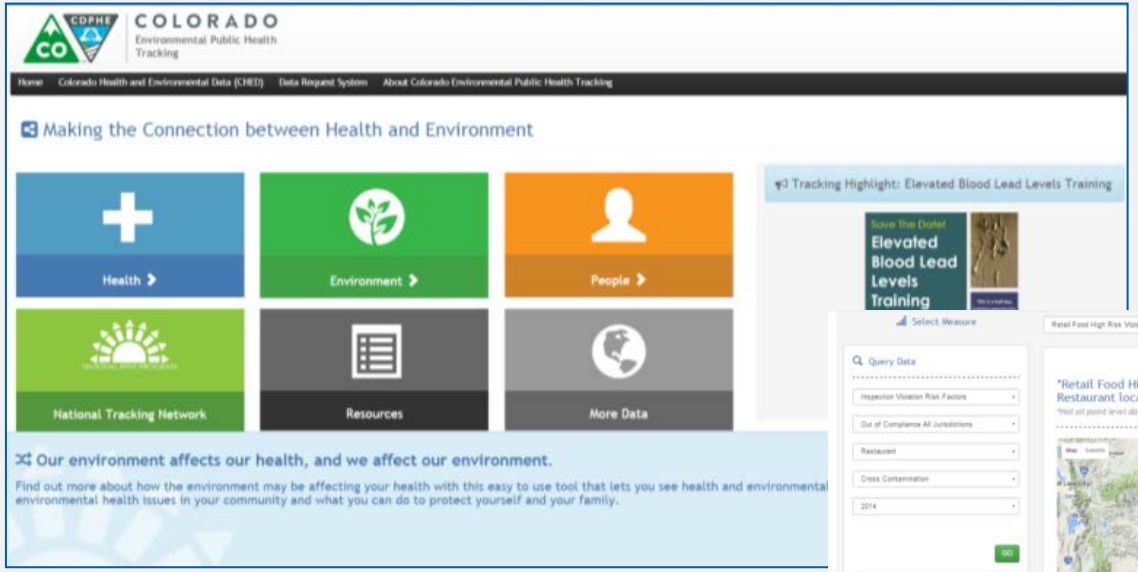
Asthma and Schools

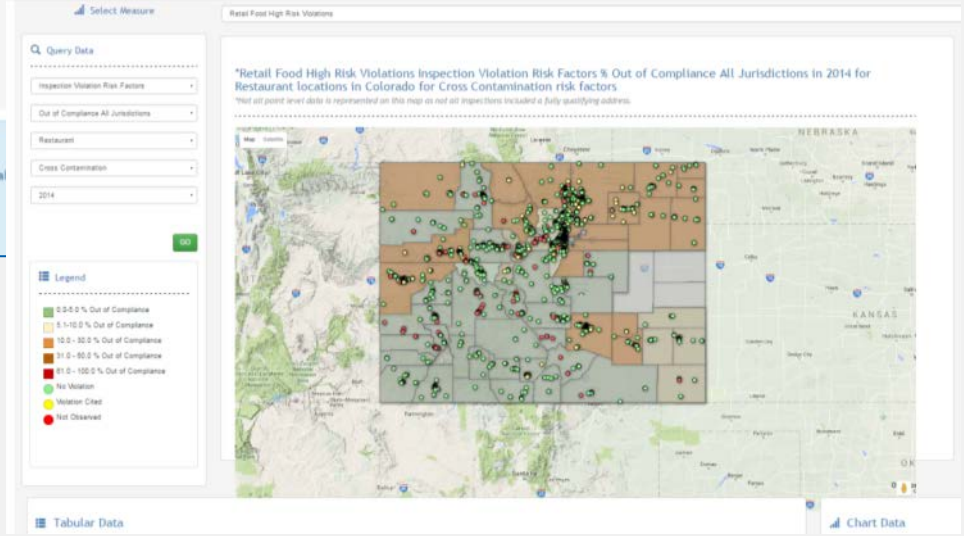
National Women's Health Week

New Tracking Data API

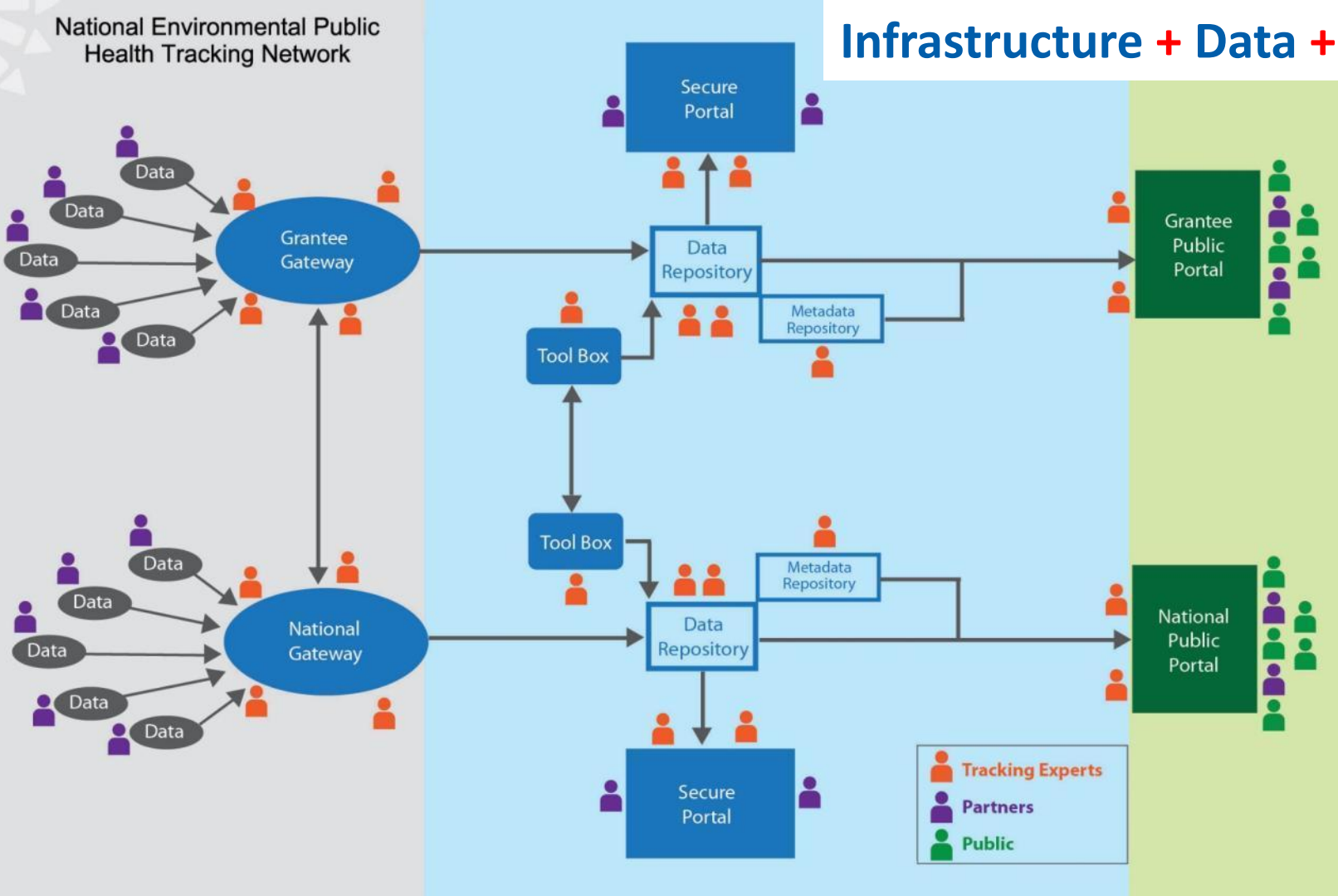
View our Tracking Success Stories to learn how Tracking is making a difference across the U.S.

# Example: Colorado Tracking Portal

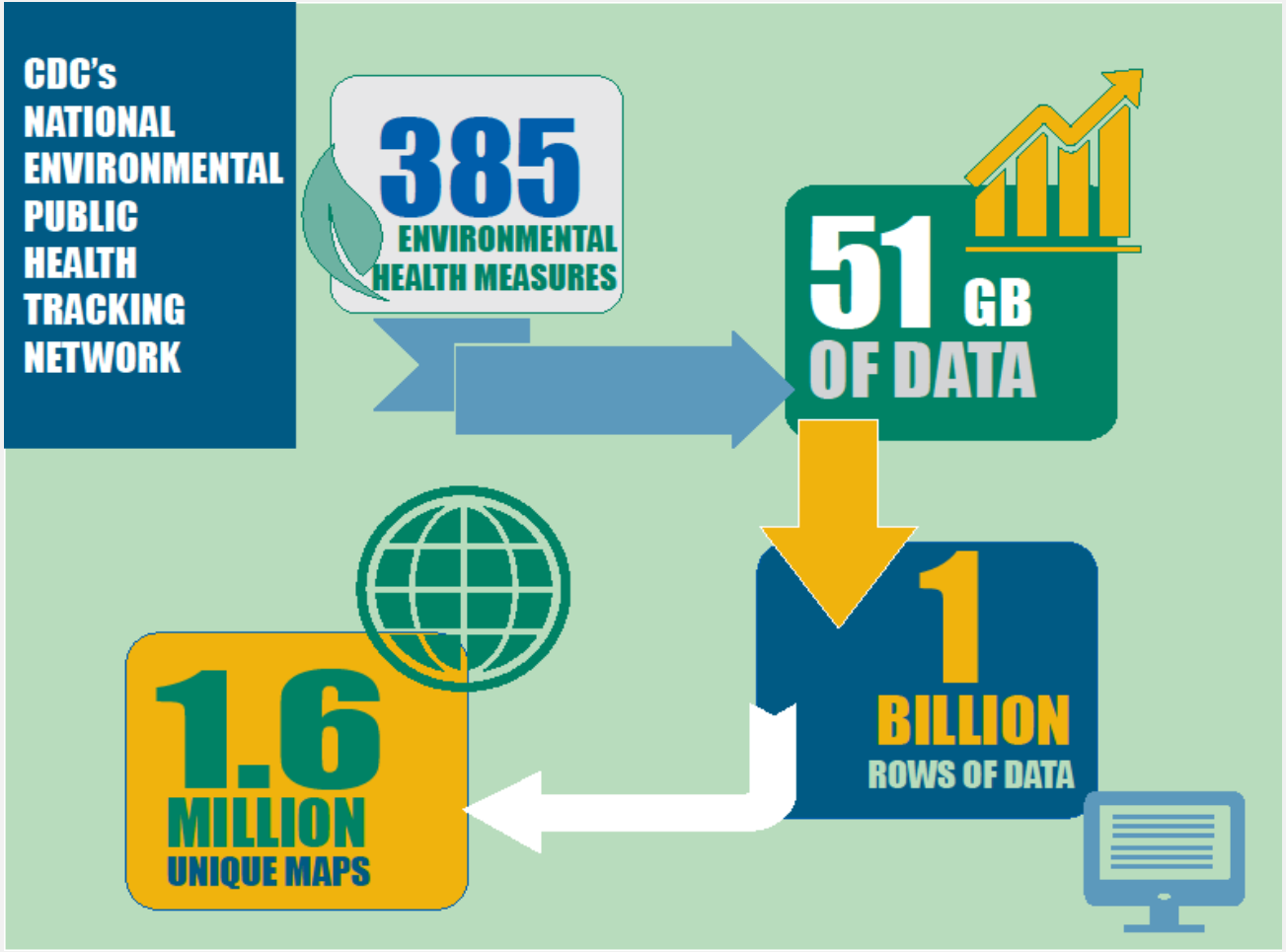


# Infrastructure + Data + People



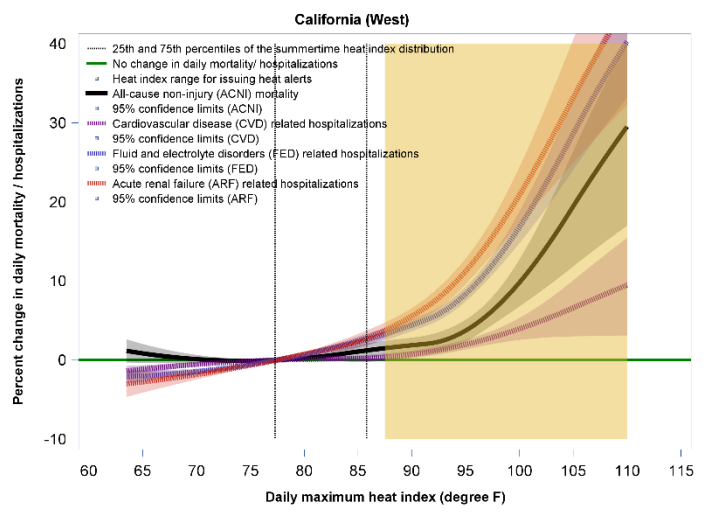
Asthma
Biomonitoring
Birth Defects
Cancer
CO Poisoning
Childhood Lead
Climate Change
Community Design
Dev. Disabilities
Heat Stress Illness
Heart Disease
Homes
Lifestyle Risk Factors
Natural Disasters
Outdoor Air
Pesticide Exposures
Population Characteristics
Reproductive & Birth Outcomes
Toxic Substance Releases
Water

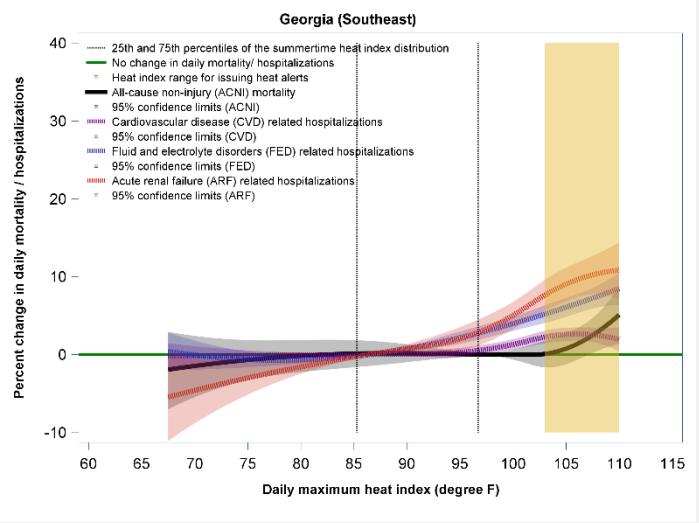



*Red text indicates content area that contains nationally consistent data and measures*

# Current Projects: Extreme Heat

## Translating Findings from Heat-Health Risk Assessments to Inform Public Health Practice in the U.S.



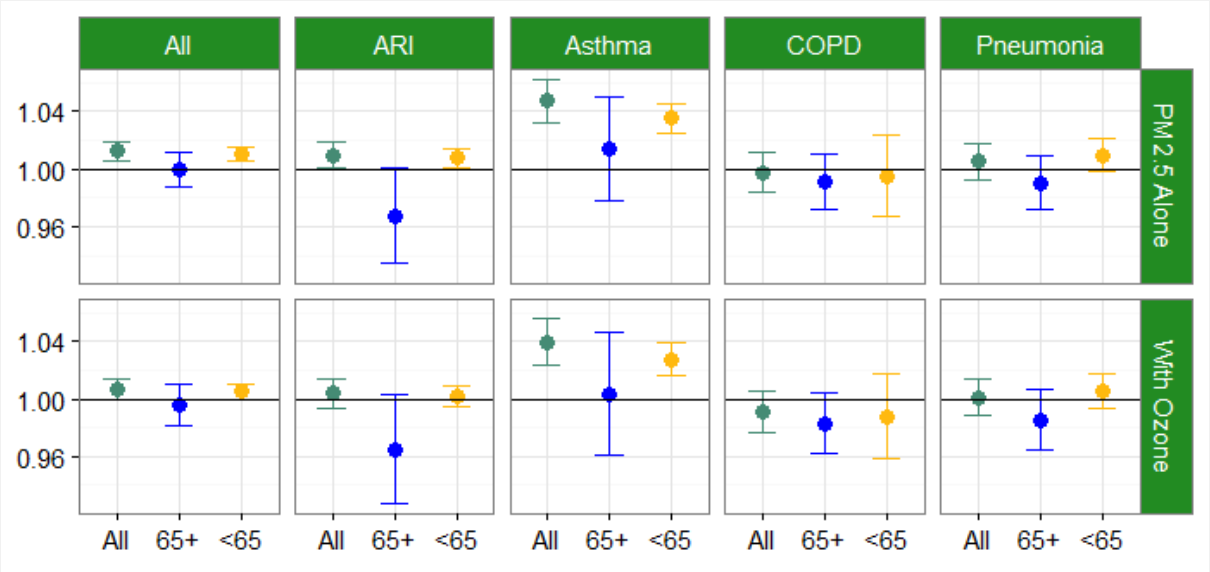




R. Vaidyanathan, Poster Session 3, Saturday, September 3, 13:00

# Current Projects: Air Pollution and Respiratory Health

## Associations between ambient air pollution concentrations and respiratory emergency department visits among all age groups in the U.S.

Rate Ratios & 95% CIs: unconstrained, distributed lag model (lags 0 – 6) for a 10 µg/m$^3$ increase in 24 hour $PM_{2.5}$




H. Strosnider, Poster Session 1, Thursday, September 1, 13:00

# Current Projects: CO Poisoning Deaths

| Period | Unintentional* | | Unknown intent or mechanism | Total |
|---|---|---|---|---|
| | Fire | Non-fire | | |
| 2000-2004 | 3343 (52.2%) | 2232 (34.9%) | 824 (12.9%) | 6399 |
| 2005-2009 | 2808 (48.0%) | 2336 (39.9%) | 708 (12.1%) | 5852 |
| 2010-2014 | 2288 (48.1%) | 1908 (40.1%) | 563 (11.8%) | 4759 |
| Total | 8439 | 6476 | 2095 | 17010 |

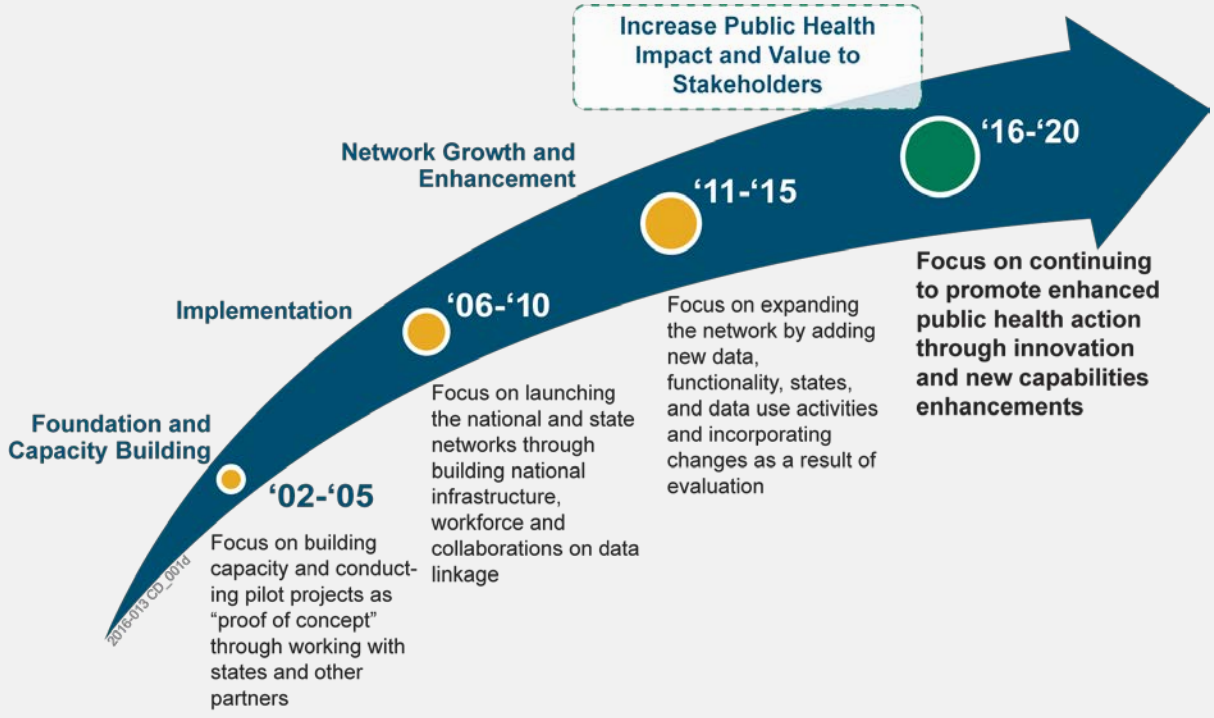
| NO mention of intent or fire mechanism | Both Fire and Non-Fire |
|---|---|
| 2034 (97.0%) | 61 (2.9%) |

| | | | |
|---|---|---|---|
| Y17 | 773 | 37% | poisoning by and exposure to other gases and vapors, undetermined intent |
| Y26 | 242 | 12% | exposure to smoke, fire and flames, undetermined intent |
| V89 | 226 | 11% | motor- or non-motor-vehicle accident, type of vehicle unspecified |

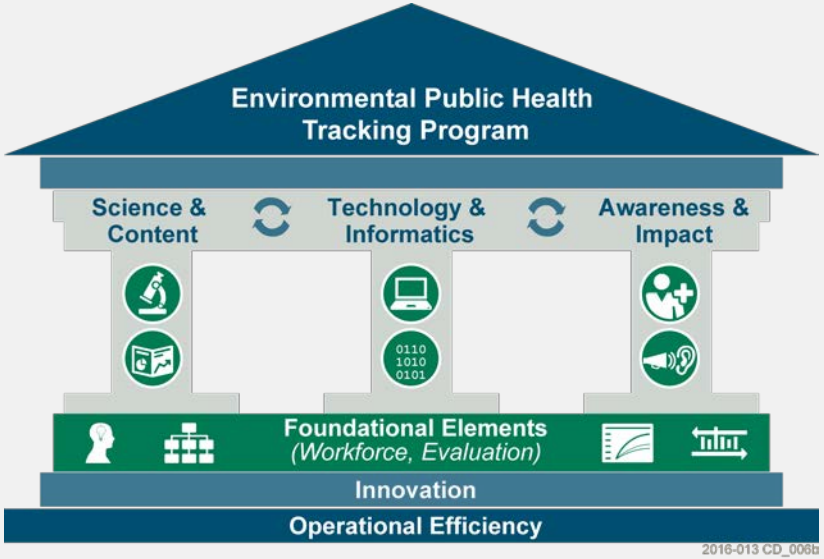
****Death certificate data; preliminary results****

# CDC TRACKING NETWORK – PORTAL DEMO

# Evolution of the Tracking Program and Focus for 2016-2020



# Strategic Pillar Framework




**Science & Content:**

- Deliver scientific content that addresses key environmental health issues
- Enable improvements in public health outcomes and practice

**Technology & Informatics:**

- Modernize technology and tools
- Implement efficient processes to enhance functionality and capabilities of Tracking Network

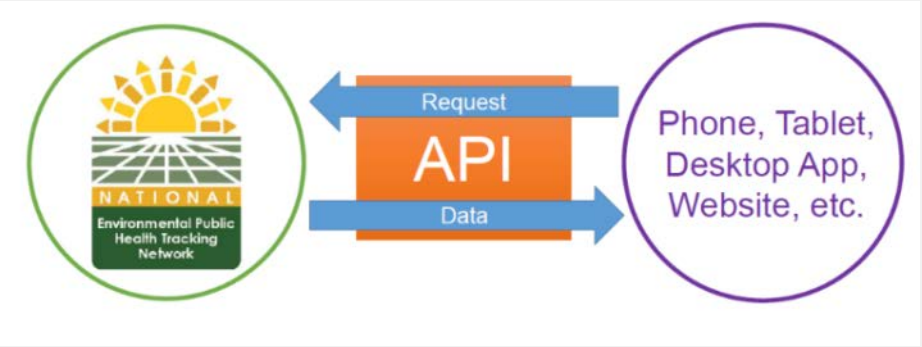
**Awareness & Impact:**

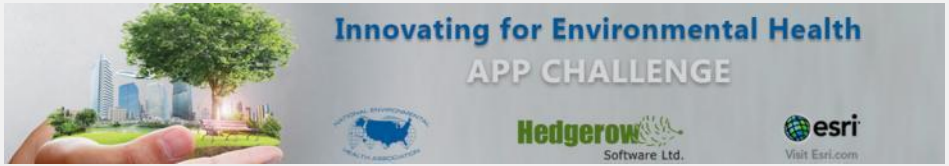
- Strengthen outreach and communications with stakeholders and end-users
- Increase awareness, expand usage, and enhance utility of the Network

# New Data and Tools On the Horizon

- **Extreme Weather / disasters**
  - Exploring community-specific heat-health risk for heat alerts
  - Exploring daily data feeds during an event
  - Identifying vulnerable populations (social vulnerability)
  - Developing a real-time online tool for identifying populations at risk to wildfire smoke hazards
  - Drought
- **Daily $PM_{2.5}$ source impacts over the continental US**
- **County level UV radiation (from remote sensing)**
- **Exploring cost data**
- **Chronic Obstructive Pulmonary Disease (COPD)**

# Tracking Application Program Interface (API) Released

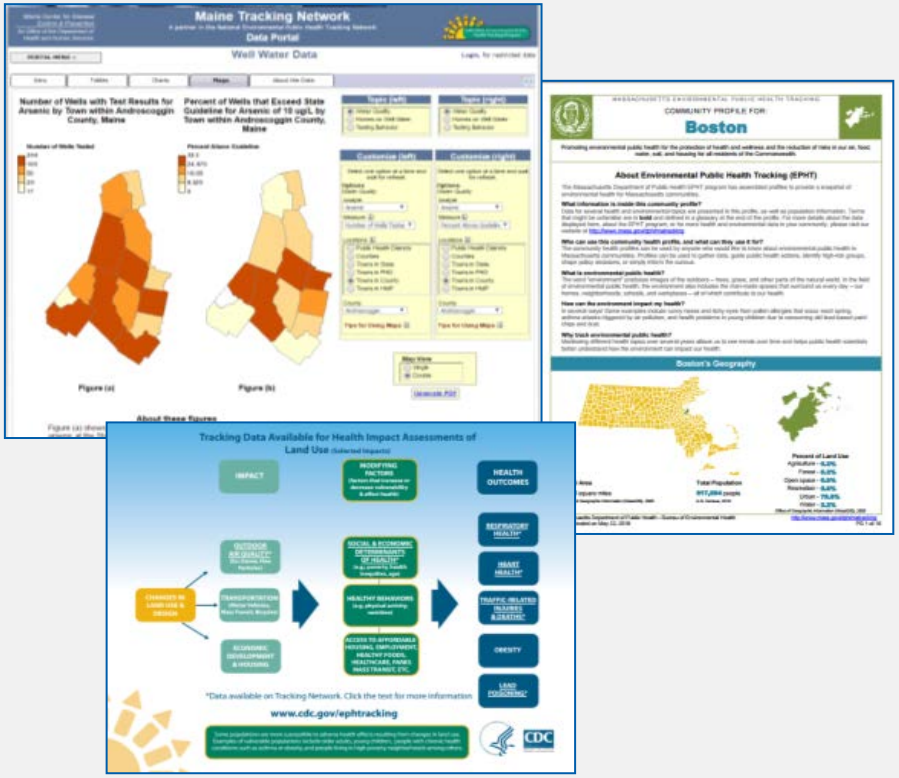



- Provides machine-friendly data for a person to program a machine to read and create people-friendly data tools such as apps for your phone
- Planning our own APP Challenge

# New Initiatives: Addressing Needs

- **Changing US health care landscape**
  - Electronic Health Records and Meaningful Use
- **Higher geographic resolution on Tracking Network**
  - Address local issues and research needs
- **Community Profiles**
- **Health Impact Assessment toolkits**



# Discussion

**CDC Public Health Grand Rounds Presentation and "Beyond the Data":**
Tracking Environmental Health Data for Public Health Decision Making
http://www.cdc.gov/cdcgrandrounds/archives/2016/june2016.htm

For more information, contact NCEH/ATSDR
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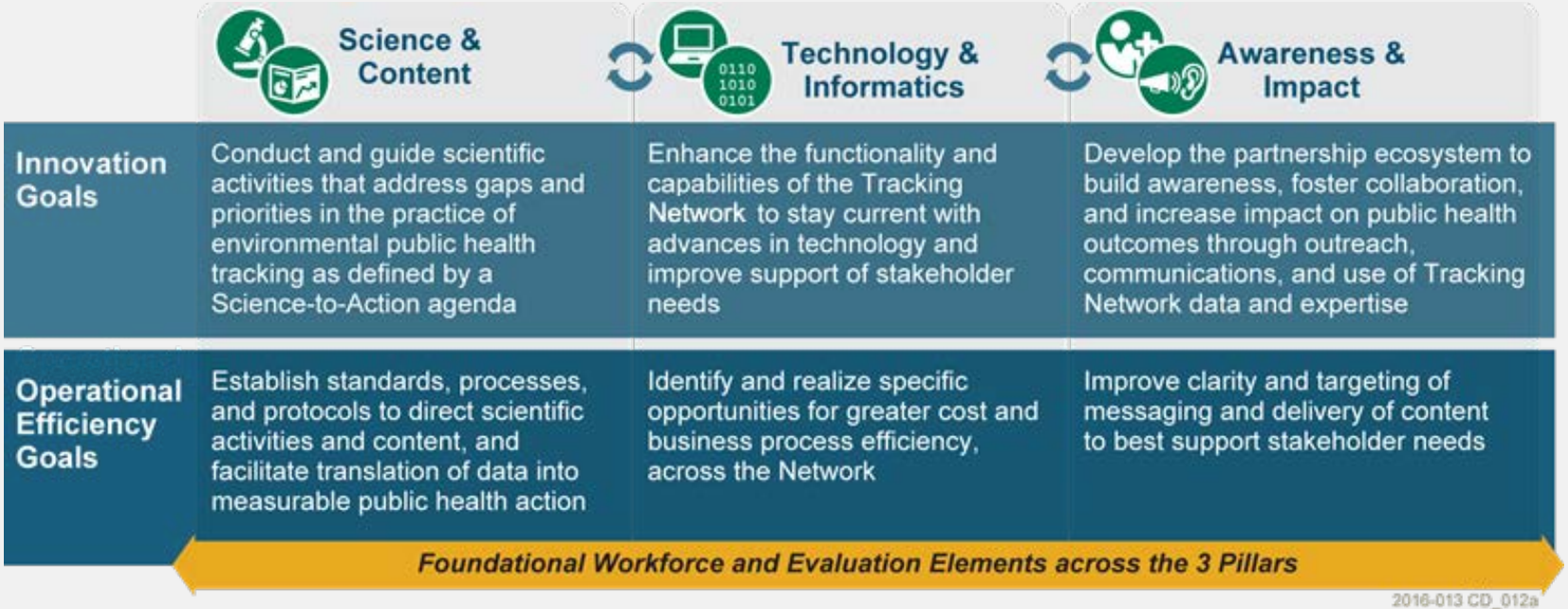
# Tracking Program Goals: 2016–2020