



ATSDR
AGENCY FOR TOXIC SUBSTANCES
AND DISEASE REGISTRY



SAFEGUARDING COMMUNITIES FROM HARMFUL CHEMICALS

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Part 3

Informing Decision-Making through Health Assessment



CERCLA Legislation—aka Superfund Law

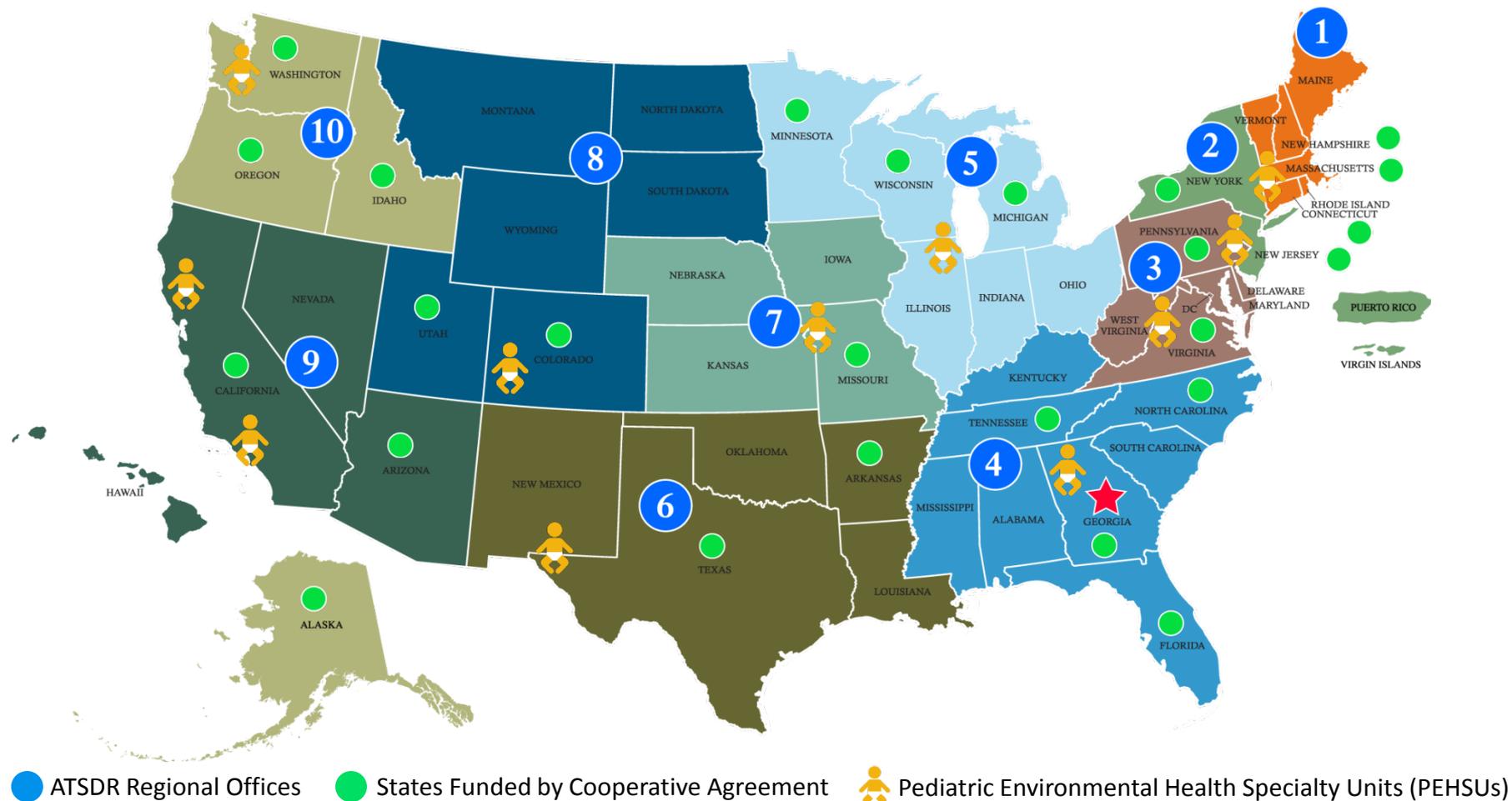
Comprehensive Environmental Response, Compensation, and Liability Act

Gave EPA responsibility for identifying, investigating and cleaning up hazardous waste sites

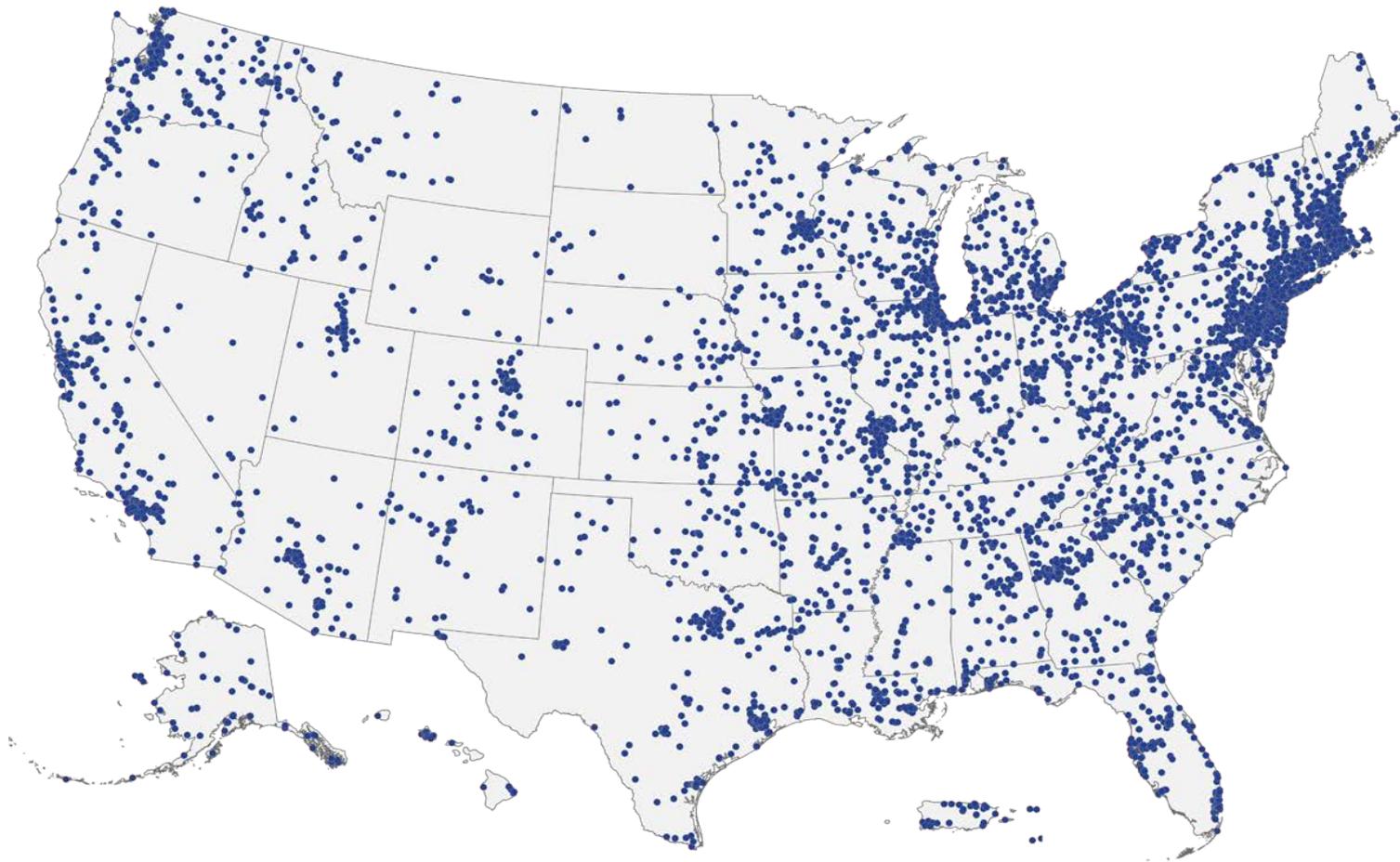
Created the Agency for Toxic Substances and Disease Registry (ATSDR) to:

- Perform public health assessments at hazardous waste sites
- Develop toxicological profiles on harmful substances
- Conduct epidemiological health studies
- Maintain health registries and conduct medical surveillance

Protecting Communities: What it takes



Serving Americans, Community by Community ATSDR's 30 Year History

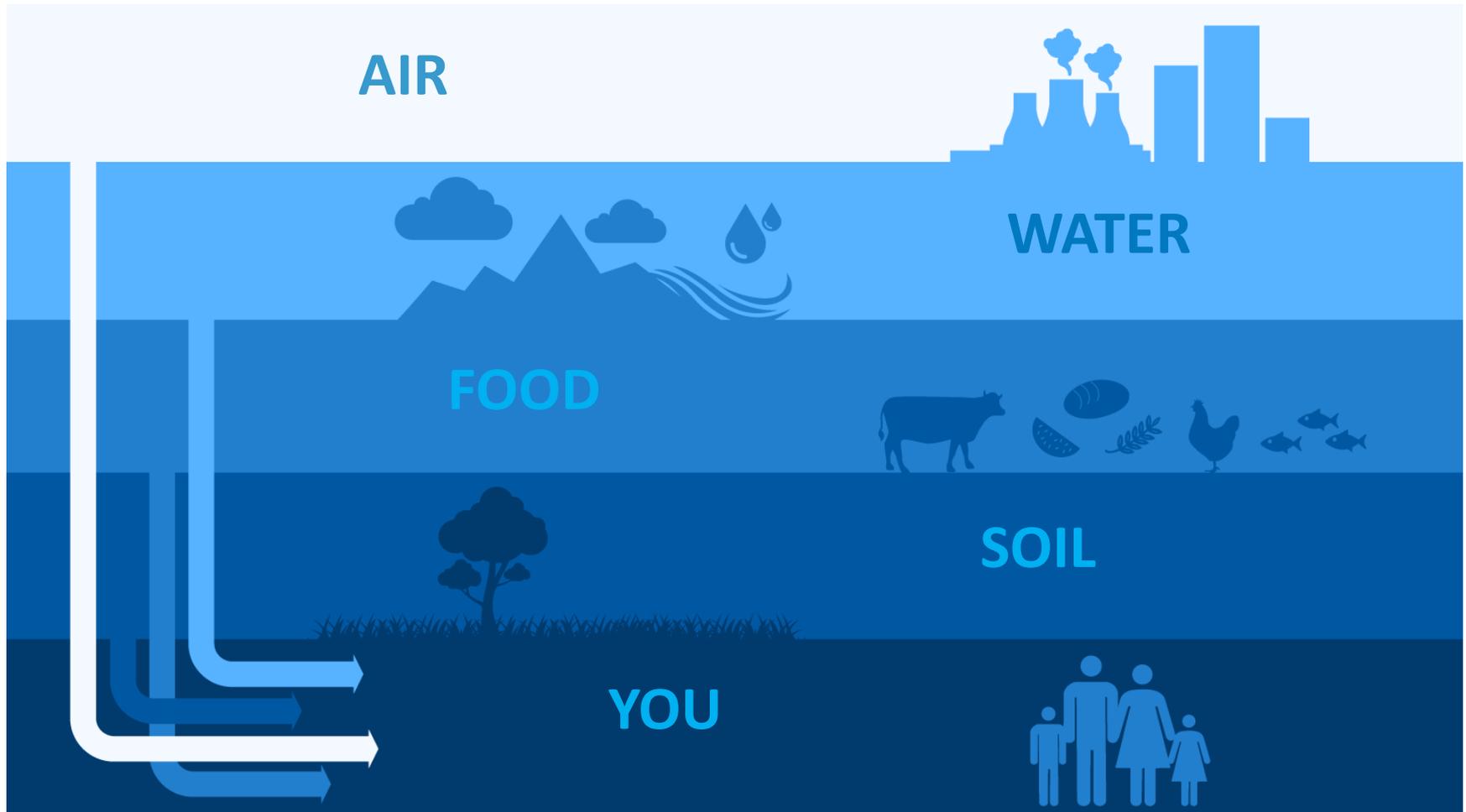


Enabling Data-Driven Decision Making

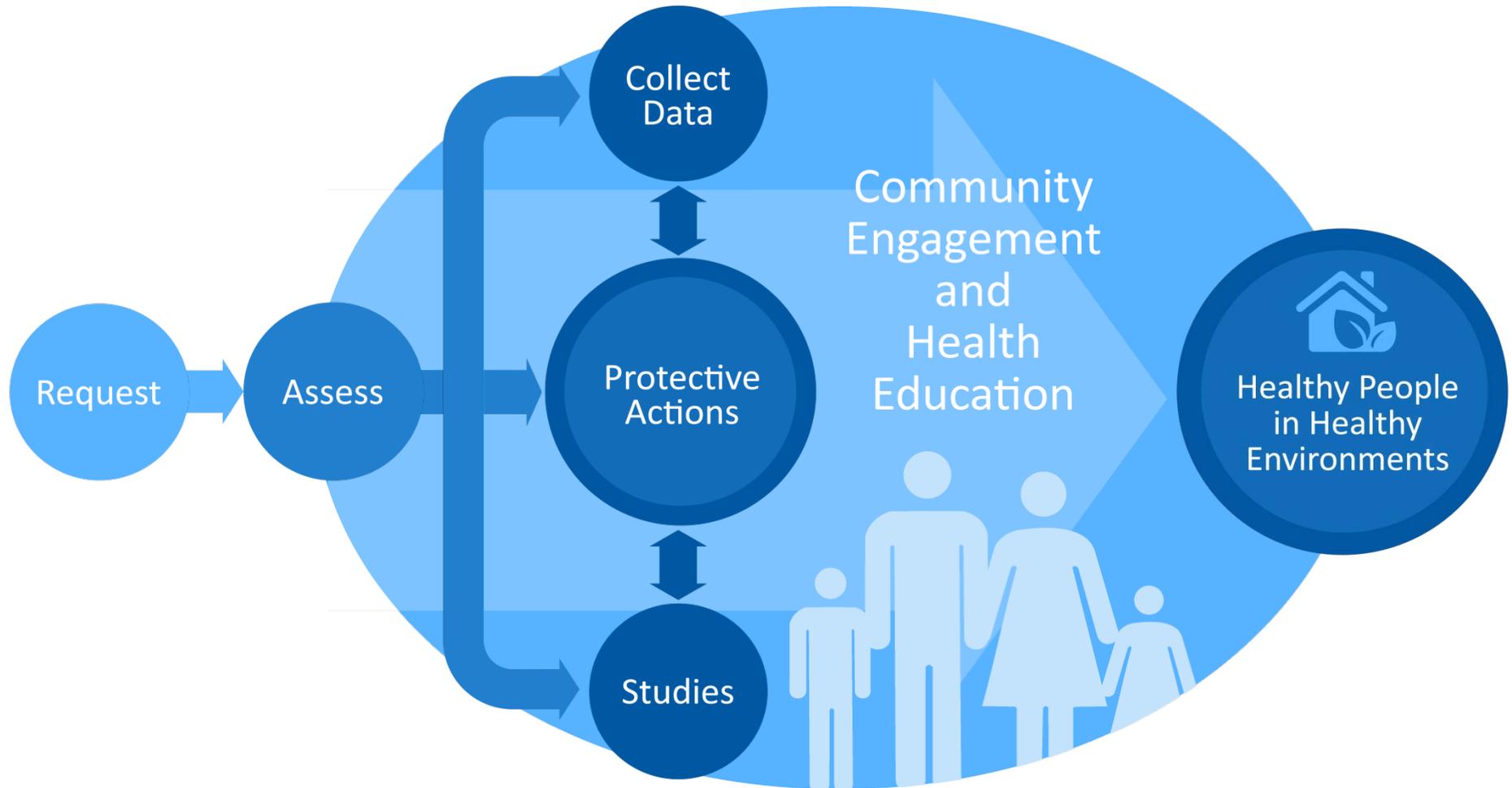
ATSDR's Health Assessment Process



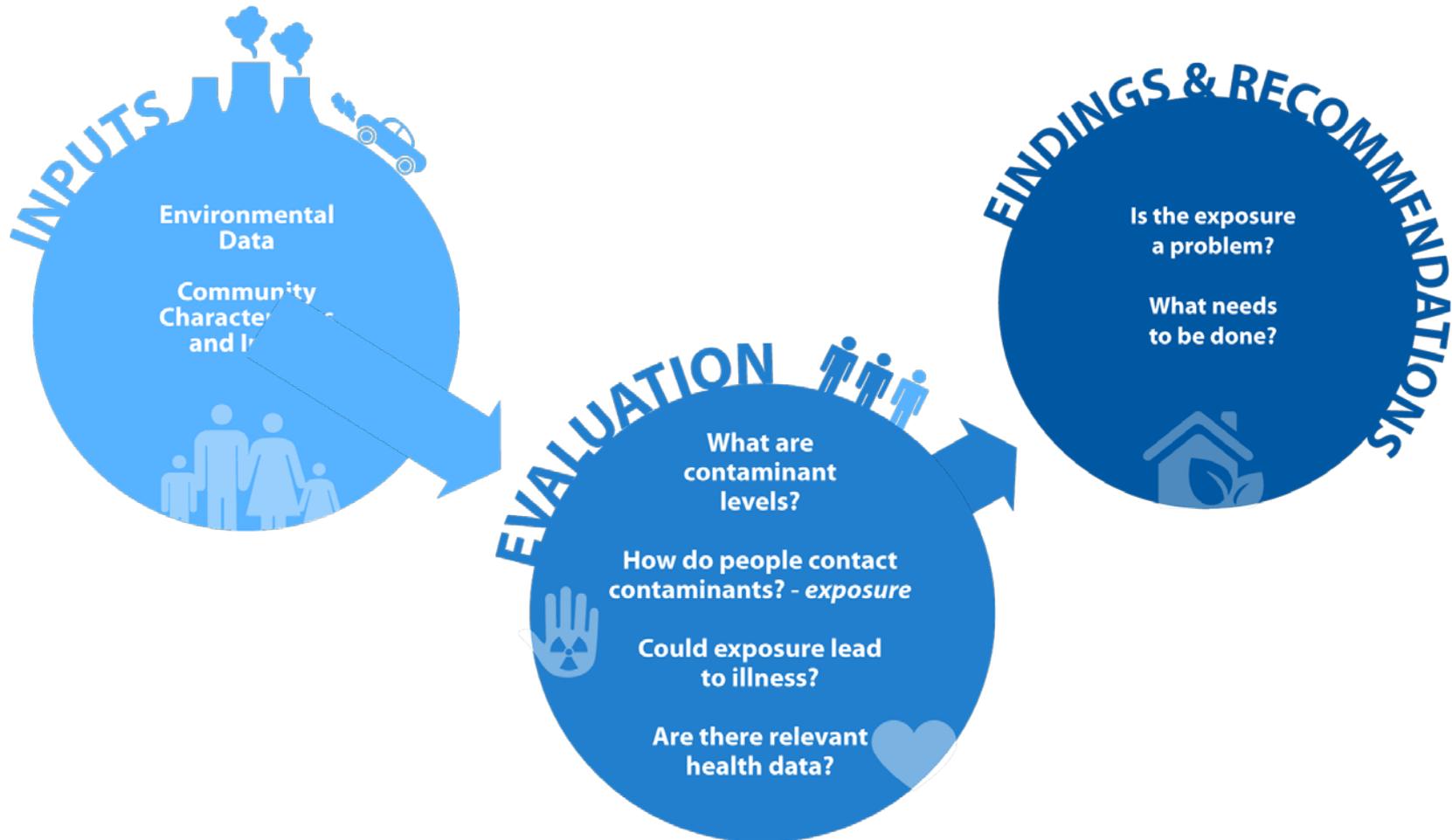
ATSDR's Core Work in Communities: Understanding Exposures



Protecting Communities



Public Health Assessment Process



Inputs: Environmental Data

Data collected by regulatory agencies

- Soil, air, water, and/or food concentration data collected through site investigation
- Releases reported by operating companies to regulatory agencies – TRI, permits, NPDES

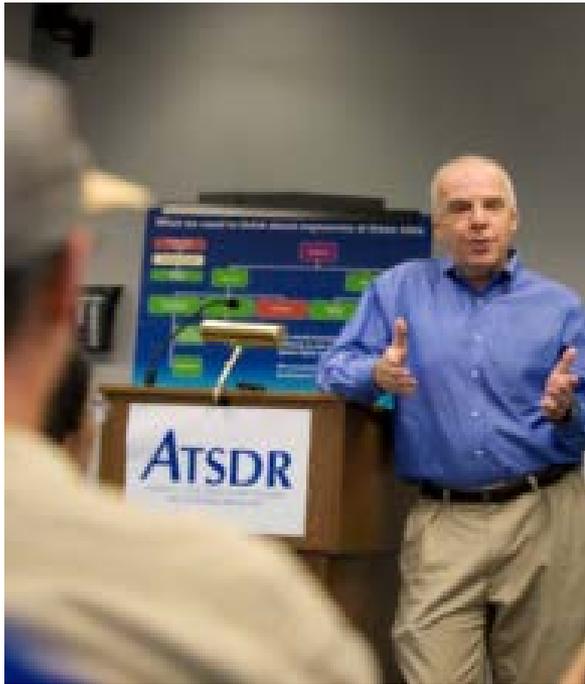
Data collected by others

- Data from company records or reports
- Sample results from individuals, community groups, or other stakeholders

ATSDR assesses quality of data received and discusses data with appropriate caveats.



Inputs: Community Characteristics and Insights



- Gathered throughout our involvement
- E-mail, telephone, public availability sessions, or public meetings
- Why?
 - Learn community health concerns
 - Address community concerns
 - Understand potential exposure pathway and perceptions of exposure
 - Develop relationships, build trust



Evaluation: Screening Steps

Screen contaminants using ATSDR Comparison Values (CVs)

- Use highest values detected for each contaminant
- Use cancer and non-cancer CVs

SCREEN

Calculate estimated dose using conservative exposure assumptions

- Dose: Amount of a substance a person is exposed to per day

ESTIMATE

Screen dose using Health Guidelines (Minimal Risk Levels)



COMPARE

Evaluation: Exposure Assessment and Toxicological Evaluation

Refine dose to reflect site-specific exposure

- Information from community on exposure frequency, duration
- Knowledge of site demographics
- Account for site-specific environmental characteristics and previous actions taken



Examine toxicological literature to determine potential for harm

- Harmful effect levels in animal or human health studies
- Target organs, sensitive populations, etc.
- Potential mixture effects



Conclusions and Recommendations

Conclusions

- Can the exposure cause harm?
- To whom?

Recommendations

- Should exposures be reduced?
- Do we need more information?
- Do we need to educate the community about what exposures (past or current) mean to them?
- Are other actions needed?



Impacts

Support need for *cleanup* actions

Allow *early* response to public health issues



Identify potential *exposure* pathways to be characterized

Identify *new sites* or situations of health concern not under regulatory authority

Engage local and state health departments



Give *advice* to residents and community leaders



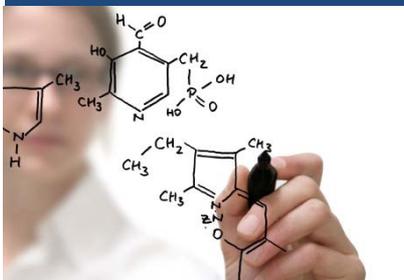
Provide physician *education* and community *outreach*

ATSDR Resources: Where To Go For More Information



Regional Offices and State Coop Partners

<http://www.atsdr.cdc.gov/dro/>



Toxicological profiles—Tox FAQs

<http://www.atsdr.cdc.gov/toxprofiles>



Environmental Medicine

<http://www.atsdr.cdc.gov/csem>