



Division for Prevention & Preparedness Services

Disease Prevention & Intervention Section

Epidemiology & Disease Surveillance Unit

**Environmental & Injury Epidemiology and
Toxicology Branch**

**Exposure Assessment, Surveillance, &
Toxicology Group**

Health Assessment and Toxicology

Health Assessment and Toxicology (HAT)

- **John Villanacci, PhD, NREMT-I**
- **Susan Prosperie, MS, RS**
- **Toxicologists/Health Assessors**
 - Richard Beauchamp, MD**
 - Carrie Bradford, PhD**
- **Environmental Specialists/Health Assessors**
 - Michelle Bost, MS, CHMM**
 - Tom Ellerbee**
- **Community Liaison**
 - Nancy Ingram**
- **Health Educator**
 - Tina Walker**



Health Assessment and Toxicology (HAT)

State Mandate: Responsible for taking the lead in assessing the potential adverse health effects that exposure to toxic substances or harmful physical agents may have on people

Health and Safety Code, Title 6, Chapter 503.005: Health Risk Assessments

Title 2, Subtitle H, Chapter 161.0211, subchapter C: Epidemiology or Toxicology Investigations

Agency for Toxic Substances and Disease Registry



1988 - ATSDR entered into a Cooperative Agreement with DSHS to assess the presence and nature of health hazards at Superfund sites.



Goals of HAT

- **reduce and prevent adverse human health conditions from toxic environmental exposures**
- **identify human populations at risk**
- **community involvement in areas with hazardous waste sites**
- **educate communities on exposure prevention and pathways**
- **health care professional education**



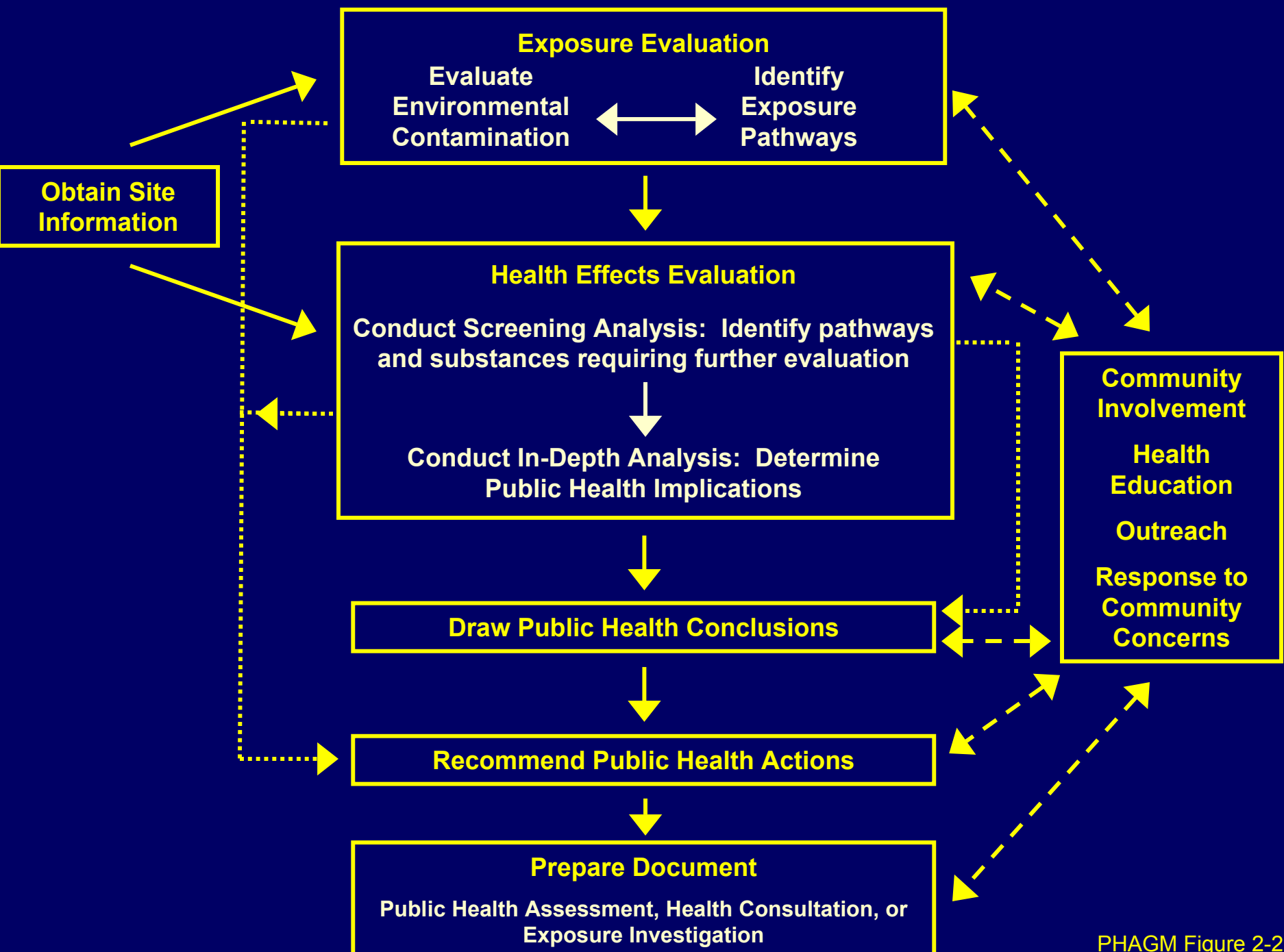
Customers

- **Federal/State agencies**
- **City and County officials**
- **Community residents/citizens**
- **Health professionals**
- **DSHS internal programs**
- **Media**

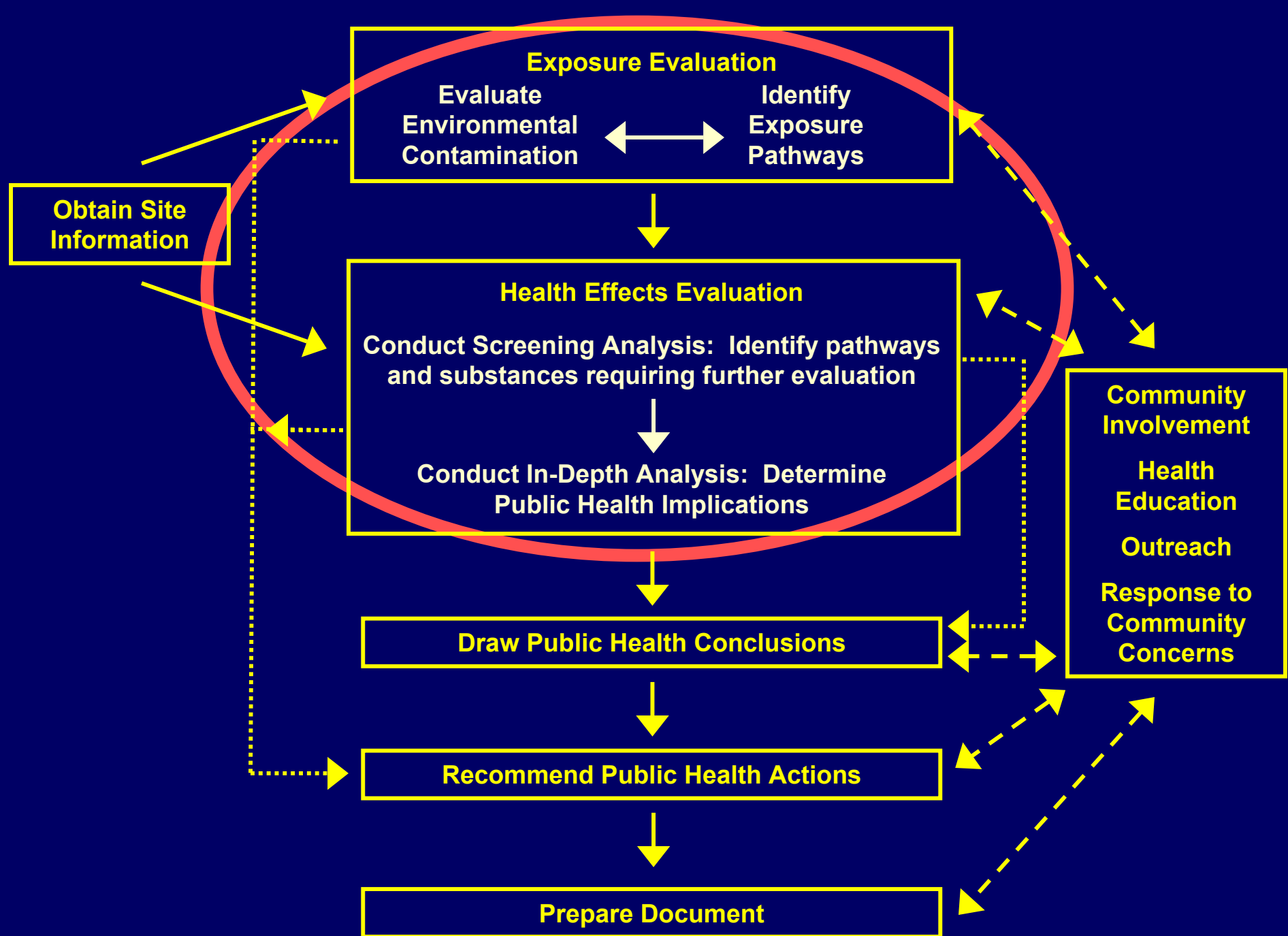


Cooperative Agreement with ATSDR

- **Conduct Public Health Assessments and Health Consultations on hazardous waste sites**
 - **listing on National Priorities List (Superfund)**
 - **petitioned by community members**
 - **specific request from another government agency**

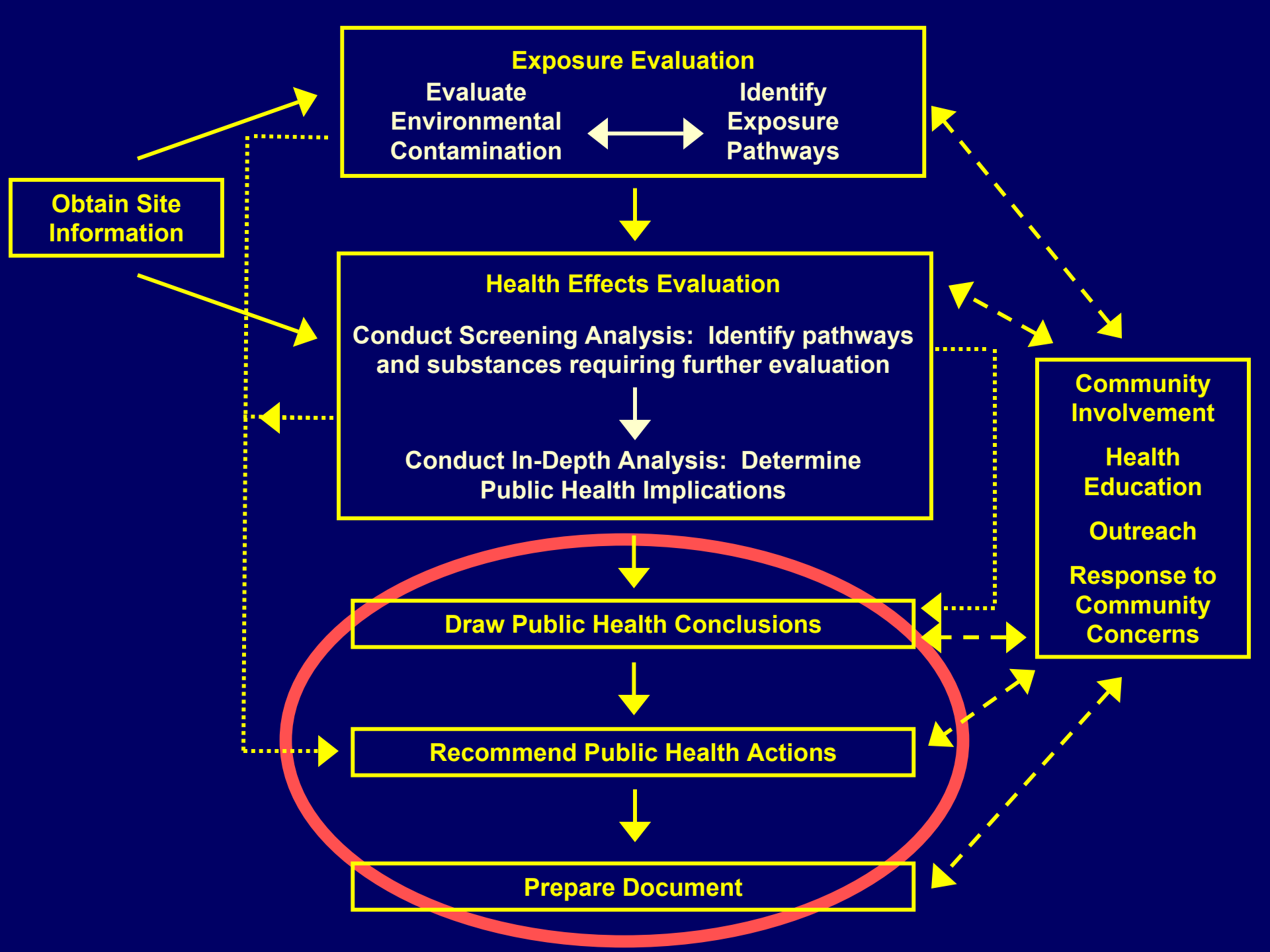


PHAGM Figure 2-2



Data Analysis

- **ATSDR Screening Values**
 - **substance concentrations (environmental guidelines – EMEG, RMEG, CREG)**
 - **doses (health guidelines – MRL, RfD)**
- **NOAEL/LOAEL**
- **Weight-of-evidence and risk factors**



Conclusions

Categories

Recommendations

HAZARD

Urgent Public Health Hazard
Public Health Hazard

- health advisory
- measures to stop or reduce exposures
- health education
- health studies/surveillance

NO HAZARD

No Apparent Public Health Hazard
No Public Health Hazard

- health education
- possible health surveillance
- measures to prevent future exposures

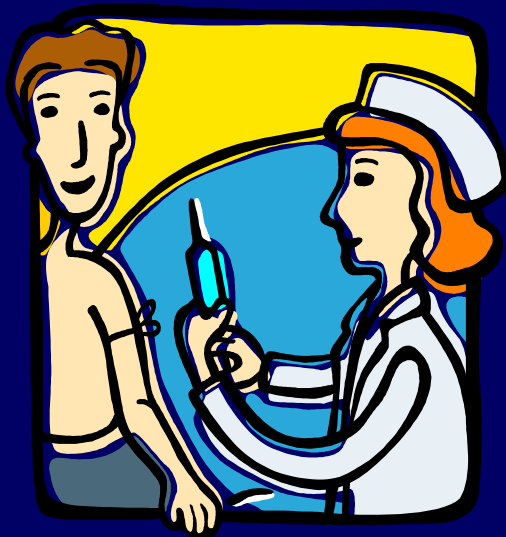
UNKNOWN

Indeterminate Public Health Hazard

- further investigate site exposures
- health education
- health studies/surveillance

Exposure Investigations

Our team conducts exposure investigations at sites where there may be current human exposures.



We use biological testing to determine levels of exposure and then help educate communities on how to protect themselves and their families.