Environmental Public Health Resources at the Agency for Toxic Substances and Disease Registry (ATSDR)

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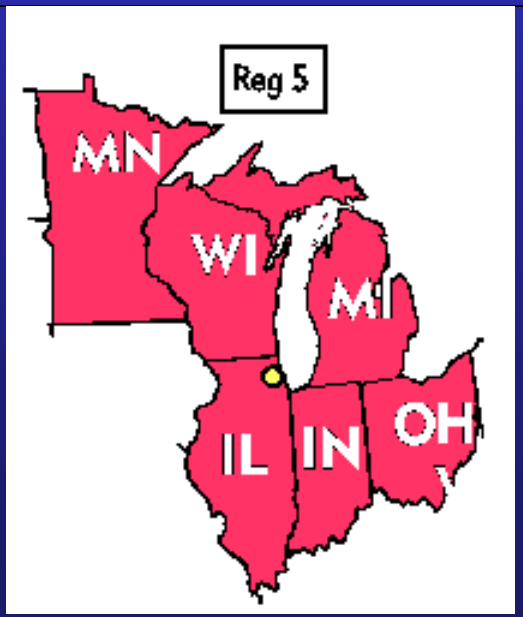
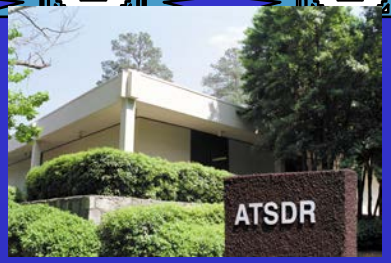


ATSDR

CDC
Centers for Disease Control and Prevention

Outline

- Overview of ATSDR
- CDC/ATSDR Tribal Policy
- GLRI Projects
  - Harmful Algal Bloom Health Surveillance
  - Biomonitoring of Tribal Population
- Public health assessment process



Agency for Toxic Substances and Disease Registry (ATSDR)

- ATSDR created as a federal agency within the Public Health Service in 1980
- Sister agency to the National Center for Environmental Health at the Centers for Disease Control and Prevention (CDC)
- Perform Public Health Assessments at Superfund sites and in response to community petitions

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Community Evaluations

- **Public Health Assessments-** comprehensive evaluation of environmental exposures
- **Health Consultations-** response to specific issue
- **Exposure Investigations-** confirmation of exposed populations
- **Health Studies-** disease clusters, exposure impact assessments
- **Public Health Advisories-** recommendation for immediate action

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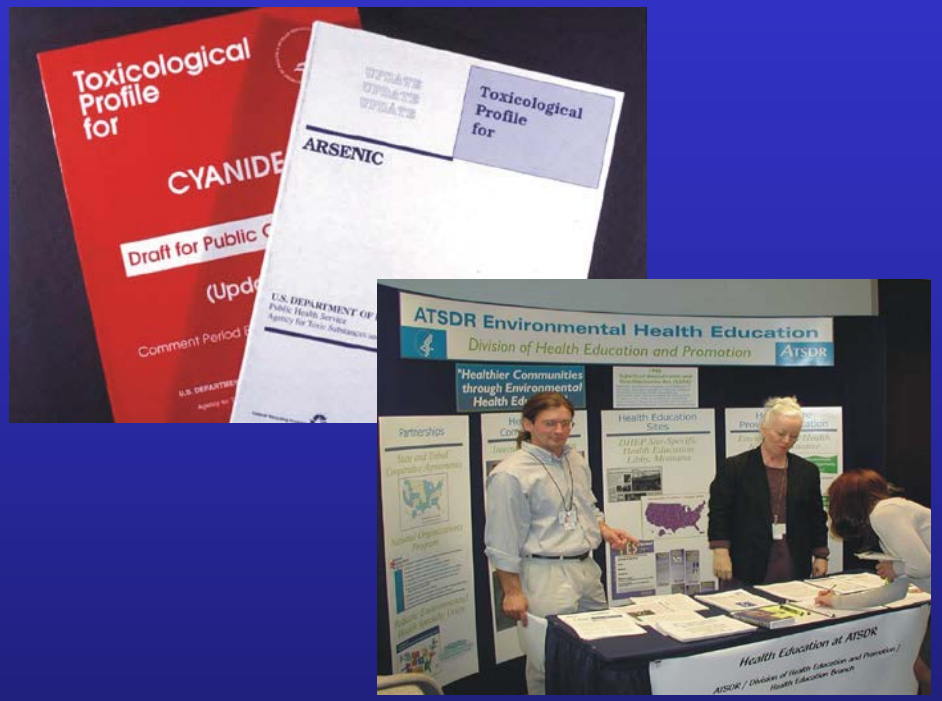
CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

Other Resources

- Community fact sheets
- Toxicological Profiles
- Hazardous substance research
- Pediatric Environmental Health Specialty Units (PEHSU)
- Managing Hazardous Materials Incidents
- Medical Management Guidelines
- Case Studies in Environmental Medicine
- Health education



Website: www.atsdr.cdc.gov

1-888-422-8737

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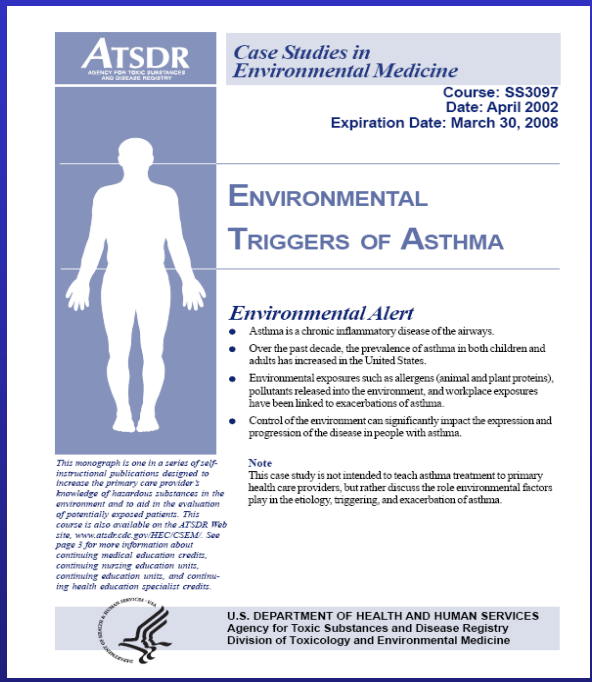
Healthcare Provider Education

- Case Studies in Environmental Medicine
- Continuing Medical Education Courses
  - Disease Clusters
  - Environmental Triggers of Asthma
  - Pediatric Environmental Health
- Grand Rounds- local hospitals



ATSDR

Case Studies in Environmental Medicine

Course: SS3097
Date: April 2002
Expiration Date: March 30, 2008

ENVIRONMENTAL TRIGGERS OF ASTHMA

Environmental Alert

- Asthma is a chronic inflammatory disease of the airways.
- Over the past decade, the prevalence of asthma in both children and adults has increased in the United States.
- Environmental exposures such as allergens (animal and plant proteins), pollutants released into the environment, and workplace exposures have been linked to exacerbations of asthma.
- Control of the environment can significantly impact the expression and progression of the disease in people with asthma.

This monograph is one in a series of self-instructional publications designed to increase the primary care provider's knowledge of hazardous substances in the environment and to aid in the evaluation of potentially exposed patients. This course is also available on the ATSDR Web site, www.atsdr.cdc.gov/HEC/CSEM. See page 3 for more information about continuing medical education credits, continuing nursing education units, continuing education units, and continuing health education specialist credits.

Note
This case study is not intended to teach asthma treatment to primary health care providers, but rather discuss the role environmental factors play in the etiology, triggering, and exacerbation of asthma.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Agency for Toxic Substances and Disease Registry
Division of Toxicology and Environmental Medicine

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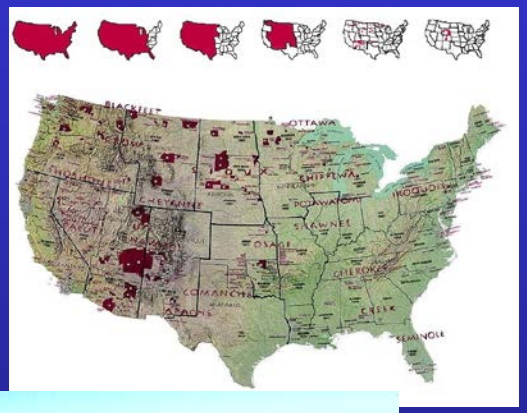
CDC/ATSDR Tribal Consultation Policy
-Philosophy-

- Tribes have an inalienable and inherent right to self-governance

- CDC and ATSDR recognize their special obligations to and unique relationship with tribes



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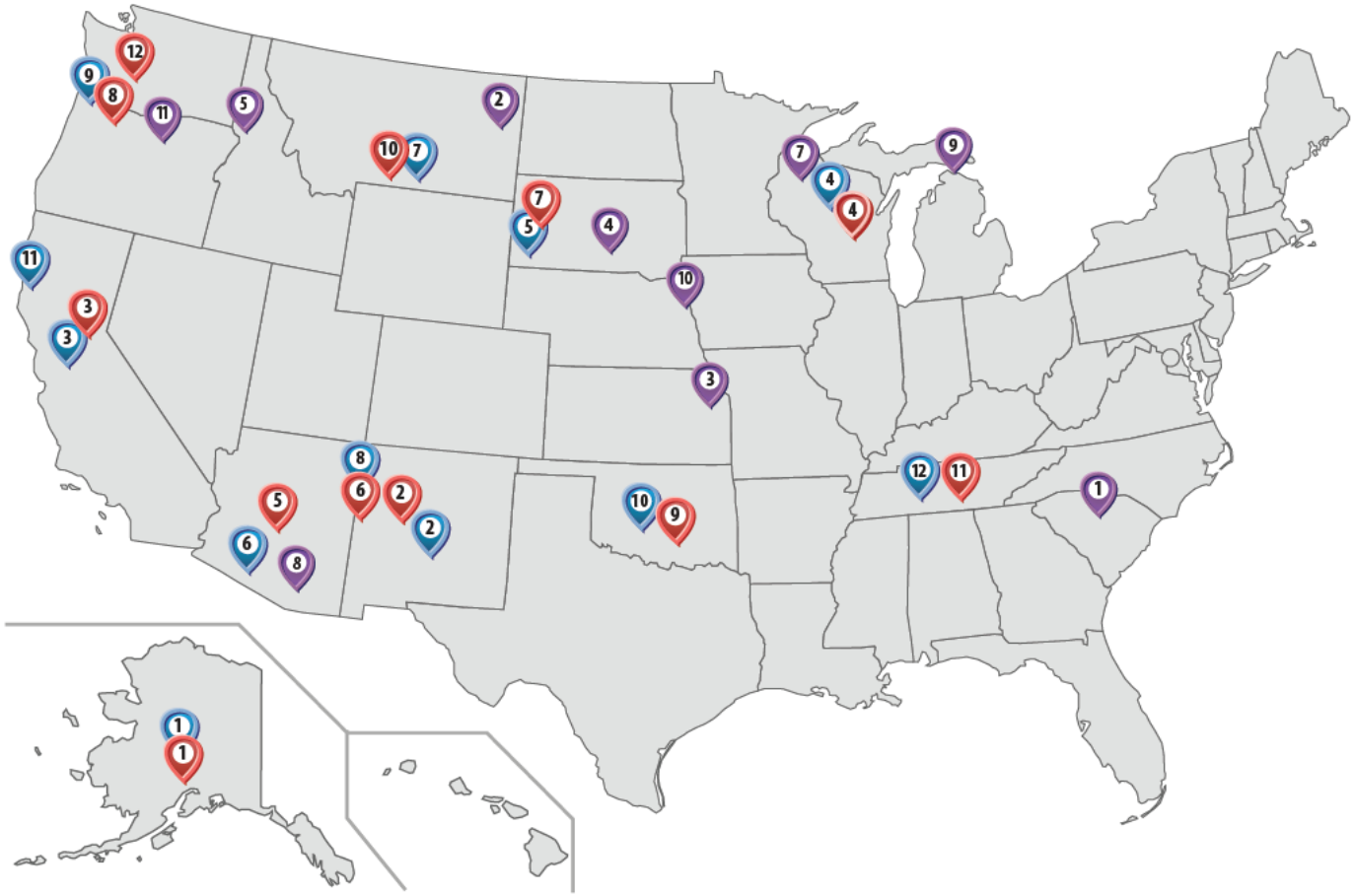
Good Health and Wellness in Indian Country: FY 2017 Investments (35 Awards)

National Center for Chronic Disease Prevention and Health Promotion



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Tribes (Component 1)

1. Catawba Indian Nation
2. Fort Peck Community College
3. Kickapoo Tribe in Kansas
4. Lower Brule Sioux Tribe
5. Nez Perce Tribe
6. Pueblo of Santa Ana
7. Red Cliff Band of Lake Superior Chippewa
8. San Carlos Apache Tribe
9. Sault Ste. Marie Tribe of Chippewa Indians
10. Winnebago Tribe of Nebraska
11. YellowHawk Tribal Health Center

Tribal Organizations (Component 2)

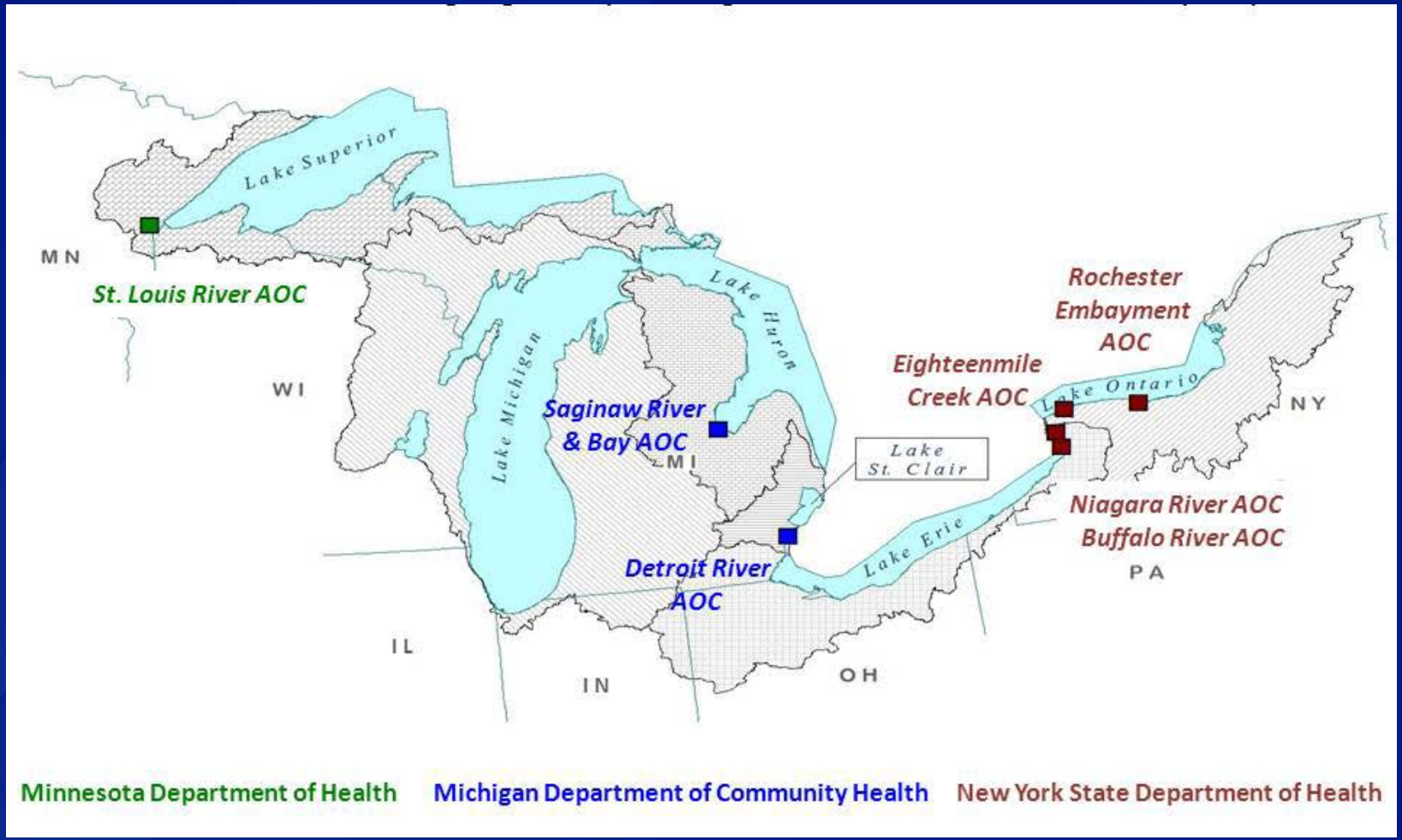
1. Alaska Native Tribal Health Consortium
2. Albuquerque Area Indian Health Board, Inc.
3. California Rural Indian Health Board, Inc.
4. Great Lakes Inter-Tribal Council, Inc.
5. Great Plains Tribal Chairmen's Health Board
6. Inter-Tribal Council of Arizona, Inc.
7. Montana and Wyoming Tribal Leaders Council
8. Navajo Nation Tribal Government
9. Northwest Portland Area Indian Health Board
10. Oklahoma City Area Inter-Tribal Health Board
11. United Indian Health Services, Inc.
12. United South and Eastern Tribes, Inc.

Tribal Epidemiology Centers (TEC)

1. Alaska Native Epidemiology Center
2. Albuquerque Area Southwest TEC
3. California TEC
4. Great Lakes Inter-Tribal Epi Center
5. Inter-Tribal Council of Arizona TEC
6. Navajo TEC
7. Great Plains TEC
8. Northwest Portland TEC
9. Oklahoma Area TEC
10. Rocky Mountain TEC
11. United South and Eastern TEC
12. Urban Indian Health Institute

CDC & Indian Country Working Together - https://www.cdc.gov/chronicdisease/tribal/index.htm

Study Locations - Seven Great Lakes AOCs



Minnesota

- Title “Fond du Lac Community Biomonitoring Study”
- Areas of Concern
  - Lake Superior /St. Louis River
- Target Population
  - Tribal members who live in Carleton and St. Louis county
- Sampling Strategy
  - Simple random sampling from clinic roster for eligible tribal members
- 491 Participants

Fond du Lac Community Biomonitoring Study

- **Minnesota Department of Health (MDH) and the Fond du Lac Band (FDL) of Lake Superior Chippewa collected blood and urine from 491 participants in the Study.**

- **To identify the following for a select number of environmental chemicals**
  - the amount of each chemical in participants' blood or urine;
  - how the amounts found in participants compare to results from other studies;
  - whether any groups, such as women or elders, have greater amounts of study chemicals in their bodies; and
  - how study participants may have contacted the chemicals

Core Questionnaire Domains

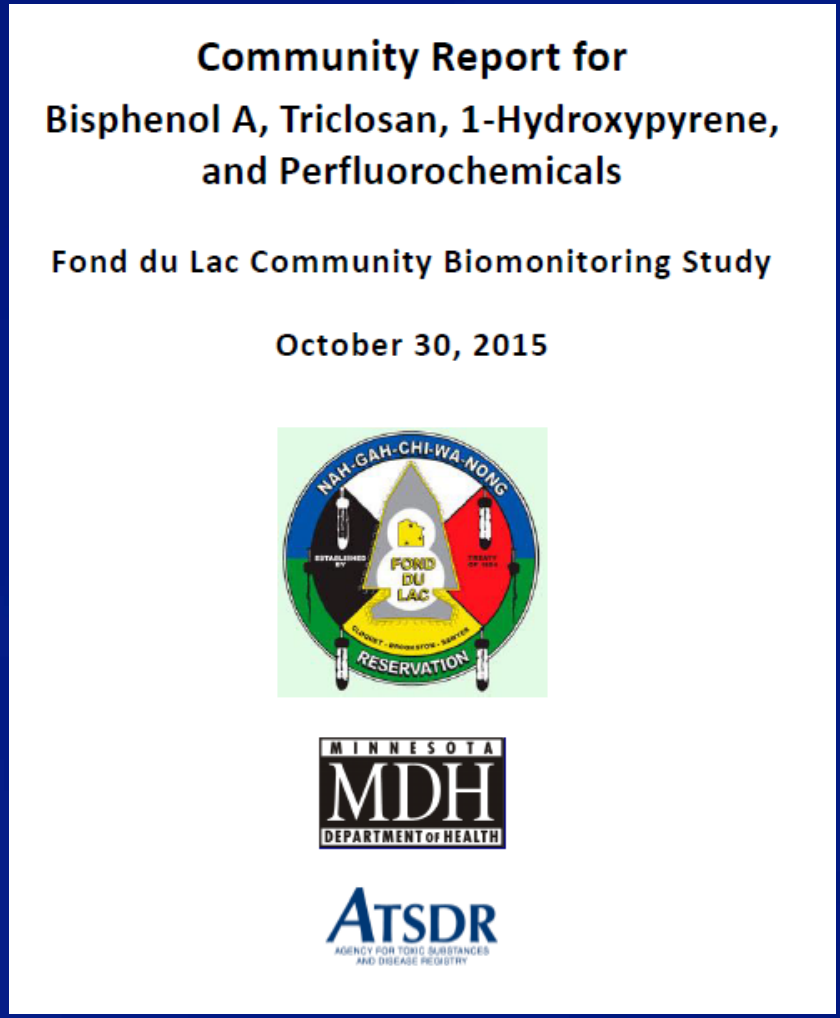
- Demographics
- Residential history
- Housing characteristics
- Job history
- Lifestyle factors
- Dietary intake
- Recreational activities
- Smoking history
- Fish consumption patterns with a focus on fish species and locally caught fish
- Women's reproductive history

Fond du Lac Community Biomonitoring Study

Study Website: http://www.fdlrez.com/HumanServices/biomonitoring.htm

Fond du Lac Community Biomonitoring Study – Community Reports

- Three reports are available on the study website
  - Bisphenol A, Triclosan, 1-Hydroxypyrene, and PFAS
  - Cadmium, Lead and Mercury
  - Persistent, Bioaccumulative Chemicals



Fond du Lac Community Biomonitoring Study – Community Reports

Community Report for Cadmium, Lead, and Mercury

Fond du Lac Community Biomonitoring Study

July 1, 2014

MINNESOTA MDH DEPARTMENT OF HEALTH

ATSDR AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Community Report for Persistent, Bioaccumulative Chemicals

Fond du Lac Community Biomonitoring Study

June 29, 2015

MINNESOTA MDH DEPARTMENT OF HEALTH

ATSDR AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Optimize the Monitoring and Use of Waterborne Disease and Outbreak Health Data

- Centers for Disease Control and Prevention (CDC) has received GLRI funding to expand public health surveillance
  - Build state and regional public health capacity related to harmful algal blooms and ambient waterborne disease in the Great Lakes
  - Engage in state and federal partnerships, data and information sharing
  - Collect better data to assess Great Lakes ecosystem health and GLRI project impacts

- Project activities include
  - Support for waterborne disease surveillance work in state health departments
  - The One Health Harmful Algal Bloom System (OHHABS)

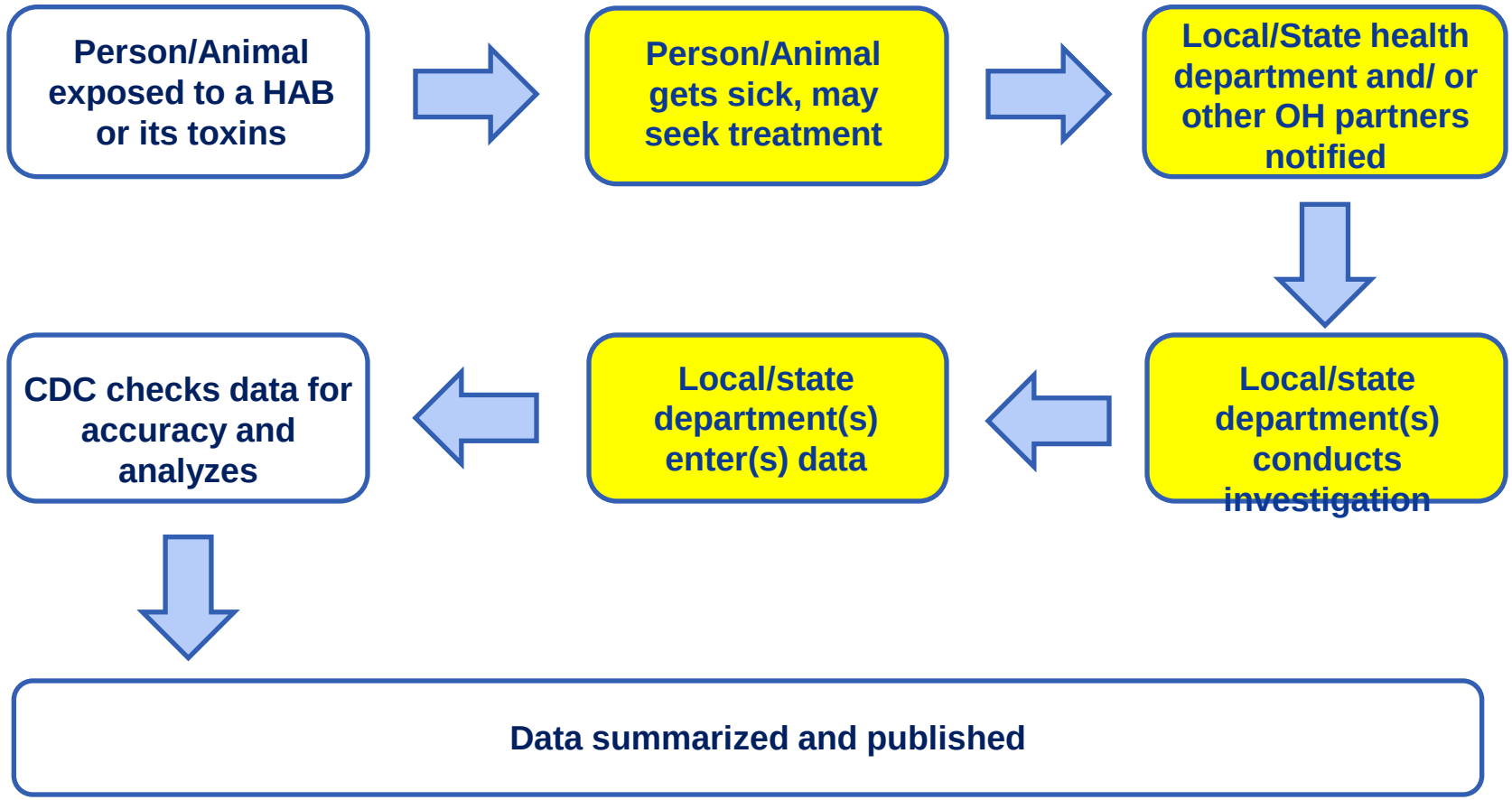
- Electronic reporting
  - Web-based, password-protected system
  - Systematic data collection
  - Launched in 2016

- One Health surveillance for fresh and marine water events
  - HAB events (environmental data)
  - HAB-associated human cases of illness
  - HAB-associated animal cases of illness

- Voluntary reporting to CDC
  - Local, state, and territorial public health partners
  - Their designated environmental health and animal health partners

- Reporting frequency
  - Event-based, not routine water monitoring
  - Not a real-time notification or case investigation system
  - Passive surveillance

General HAB-associated Illness Reporting Process



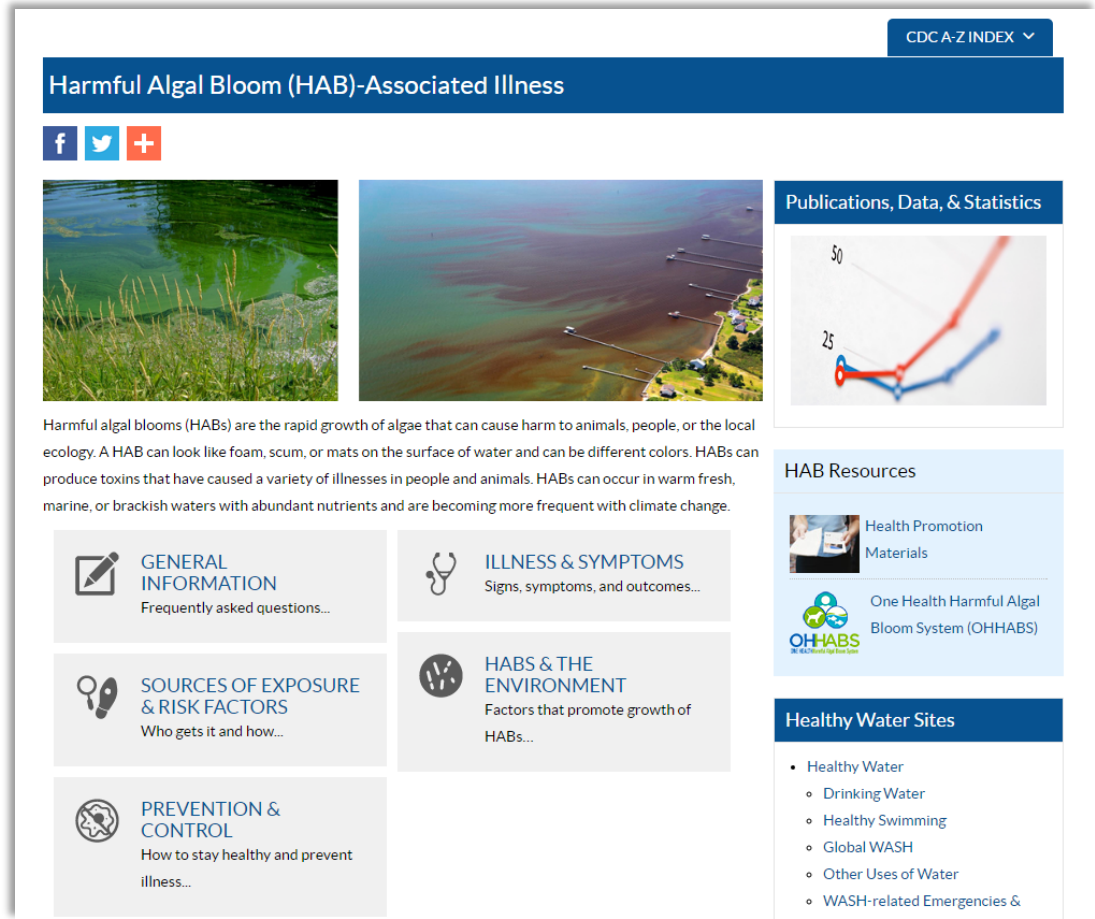
Data uses:

Summary reports, other publications, data and statistics

Development and support of programs, health promotion, and policies

Related Resources

- Harmful Algal Bloom – Associated Illnesses: www.cdc.gov/habs
- HAB health promotion materials: www.cdc.gov/habs/materials/index.html
- OHHABS information: www.cdc.gov/habs/ohhabs



Public Health Assessments

- Evaluates exposure to chemicals in the environment and determine if those exposures may cause harm to health
- Reviews exposure pathways, toxicological information, health outcome data, and community concerns
- Reports the results of its evaluation in a public health assessment and recommendations for specific actions to protect health
- Engage the community in planning, implementation, and communication of the assessment

Evaluation- Exposure

- Recreational and subsistence fish consumption is significantly greater than general U.S. population
  - Average diet: 10 - 17.9 g/day
  - Sport fishing amount: 12 - 54 g/day
  - Subsistence fishing: 150 - 500 g/day
- Body burden levels in vulnerable populations are 2 - 8 X higher than general U.S. population

Toxicology: Exposure Doses

- An exposure dose is an estimate of the total amount of a chemical that enters a person's body when exposed to the chemical by inhalation, ingestion, or dermal contact
- Site-specific exposure doses are calculated in order to assess whether exposures are severe enough to caused health effects

Public Health Assessment Process

- Conclusions and Recommendations
  - Identify Hazard Category
  - Identify Data Gaps
  - Follow-up Health Activities

- Public Health Action Plan
  - Determine actions to be taken
  - Identify who will perform actions