

Presentation Objectives

- Characterize health concerns related to blue-green algae
- Describe how DHS gets information about blooms and health complaints
- Discuss respiratory health issues related to blue-green algae

Health Effects of Cyanobacteria

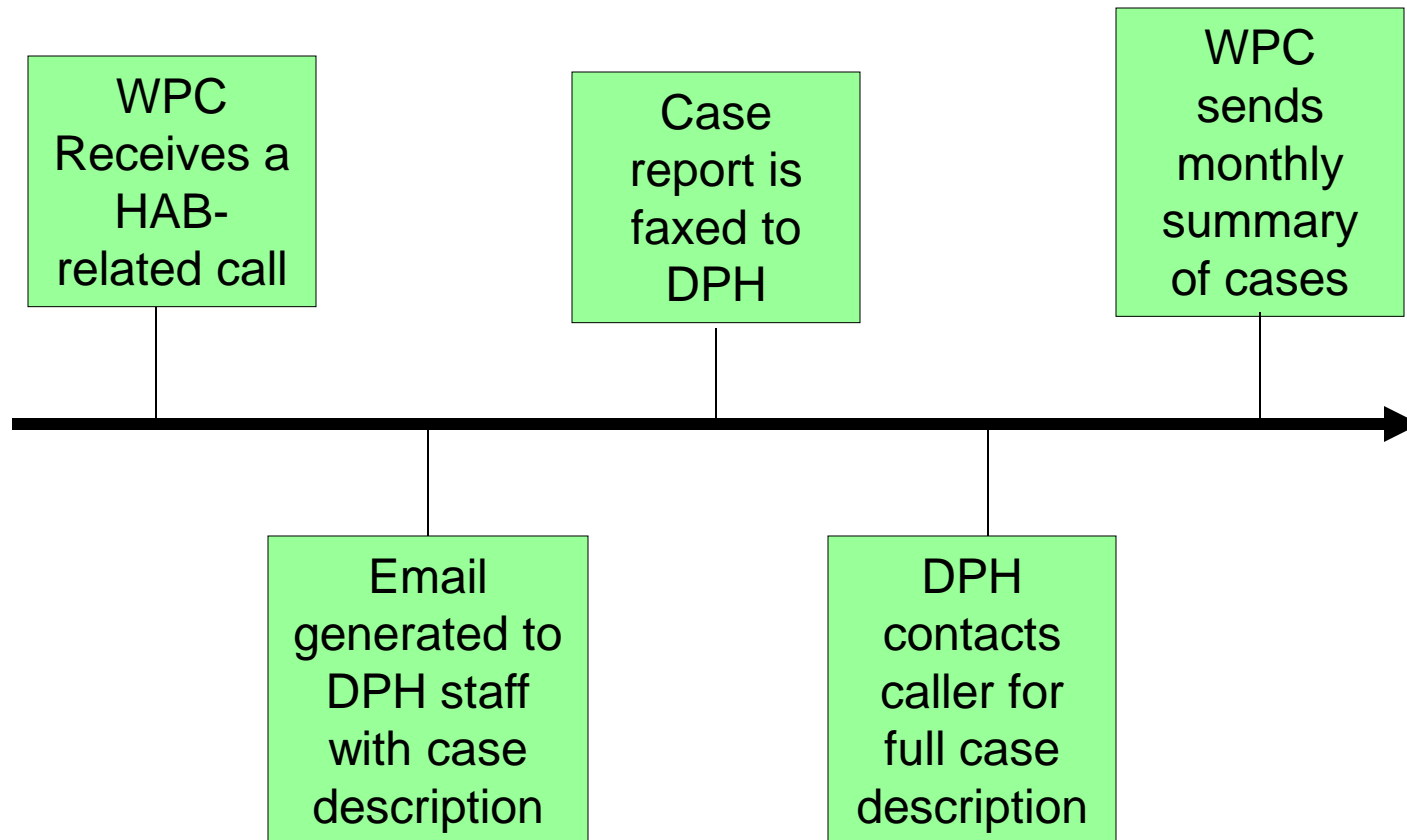
- Most commonly associated with direct water contact (swimmers, boaters and water skiers)
- Irritant, allergenic and gastrointestinal symptoms are common
- Several high-profile outbreaks related to drinking water reservoirs (not in WI)
- May be hard to distinguish from pathogens

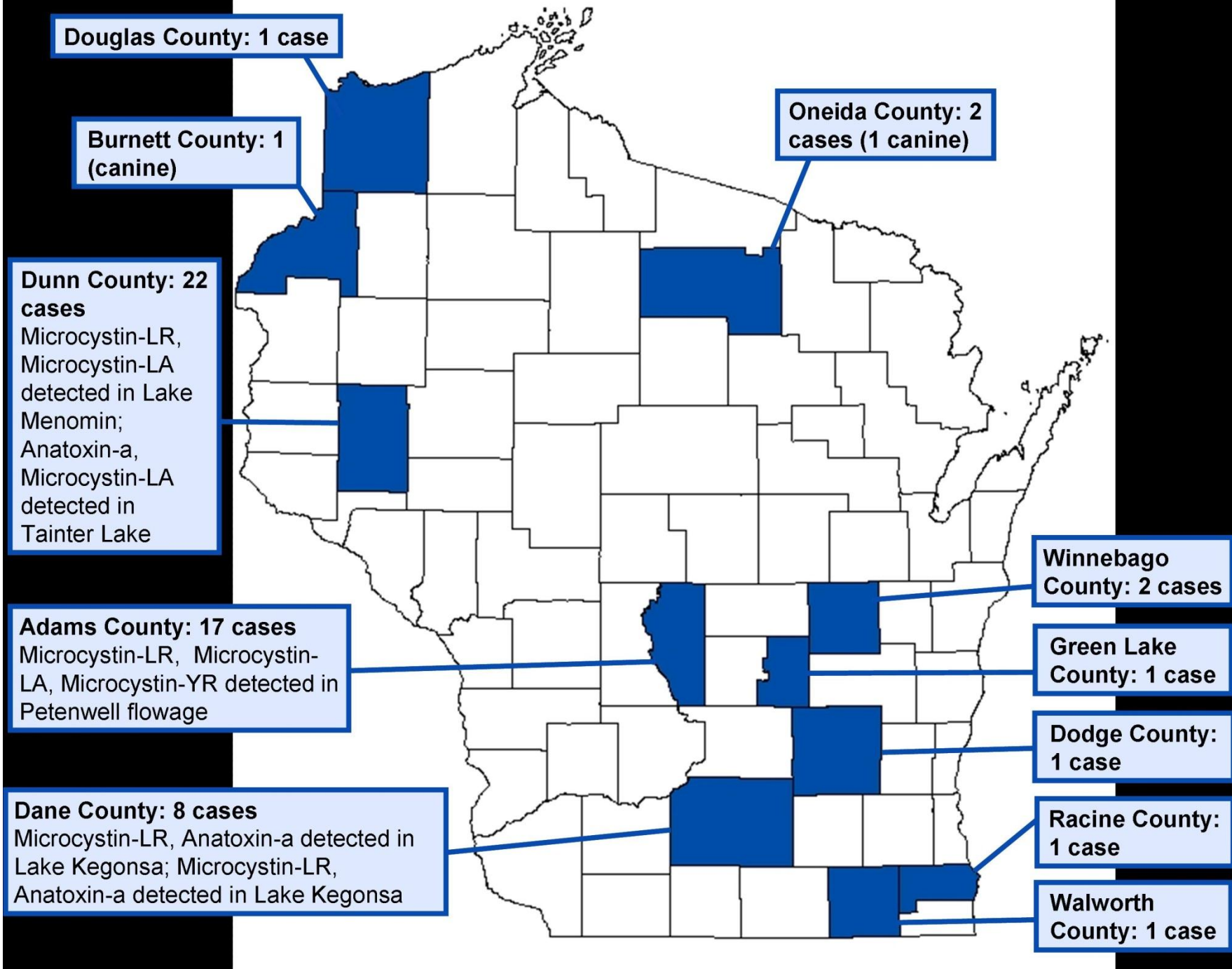
Case Reporting Pathways

- DHS website case reporting tool
- DNR and local health agency referral
- WI Poison Center

Partnership with the WI Poison Center

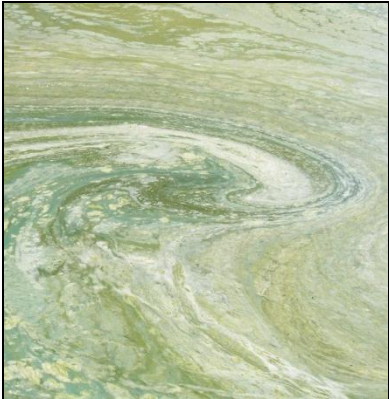

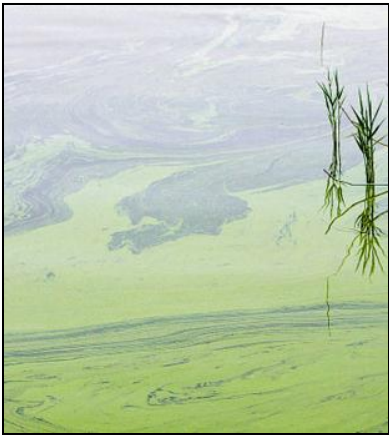
Automated Case Reporting Process





Case Reporting 2009/2010

- 2009: 37 cases (2 canine)
- 2010: 27 case reports

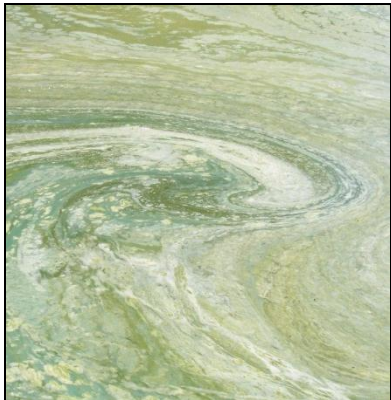
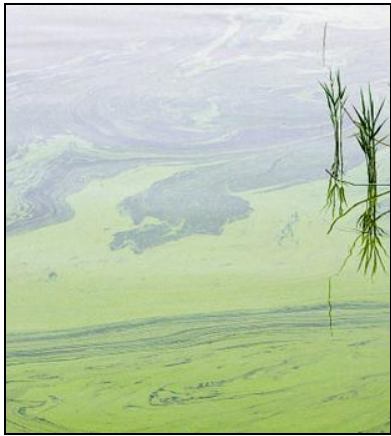


Symptom	# of Cases
Dermal Rash	9
Respiratory Irritation	5
Gastrointestinal Distress	32
Cold/flu-like illness	18

These cases included one or more of the following symptoms: wheezing, shortness of breath, cough, sore throat, chest tightness, fever, fatigue, loss of appetite, ear ache, headache or nasal congestion

Asthma and Algae

- Inhaling water droplets from irrigation or water-related recreational activities can cause runny eyes and nose, a sore throat, asthma-like symptoms, or allergic reactions
 - Inhalation is more likely during activities in which toxins are aerosolized, such as wake boarding or water skiing
- Some cyanotoxins (i.e. Brevatoxin, produced by red tide forming marine algae) have been found to aerosolize and cause changes in pulmonary function in asthmatics



Respiratory Health Issues

- Respiratory irritation is a common reported symptom
 - Anaerobic bloom decay scenarios
 - May be related to cells and/or toxins
- Cheng et al (2007)
 - Measured toxins in nasal swabs in recreational water users
 - Detectable levels of toxin were observed