

Waterborne Disease Investigation Tools

Indiana

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Indiana State
Department of Health

Indiana's Waterborne History

Waterborne Outbreaks Reported into NORS

– 2010

- Crypto at a water park

– 2013

- Crypto in a mobile home park
- Noro at a “Ninja Warrior” swimming event



Improvements

- Streamline the process for identifying, investigating, and reporting clusters and outbreaks
- Create educational materials for local health departments
- Improve surveillance systems
 - Indiana National Electronic Disease Surveillance System
 - Harmful Algal Bloom info

Translation to Practice

The following slides will show examples of tools we've implemented to streamline, educate, and improve our current situation.



I-NEDSS Weekly Count

*Shigellosis by COUNTY_NAME and MMWR Week
2014 I-NEDSS Data
Data Retrieved on June 20, 2014*

The FREQ Procedure

	1	2	3	4	5	6	8	9	10	12	13	14	15	16	17	18	19	20	21	22	23	24	Total	
County 5	0	1	0	0	0	0	0	0	0	0	0	0	1	2	1	1	0	0	1	0	0	0	0	7
County 6	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	3
County 7	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	3	1	0	0	9
County 10	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2
County 11	3	0	0	2	1	0	1	1	1	2	1	0	2	0	0	0	2	0	0	2	1	0	0	19
County 14	3	2	1	0	0	0	1	0	3	5	0	9	10	24	22	14	22	38	21	22	7	4	0	208
County 17	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	3	0	0	6
County 18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
County 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total	6	3	2	3	1	1	2	1	4	8	1	9	13	26	24	16	25	42	25	28	12	4	0	256

Situational Reports

Situational reports are sent out as updates for on-going outbreaks.

These also serve as written record for the outbreak.

Info is transferred to NORS and written up in outbreak reports

Indiana State Department of Health
Epidemiology Resource Center
Surveillance and Investigation Division

Indiana State Department of Health
Updated: 6/16/2014 9:16 AM

Enteric Situational Report

Number: YYYOUT-ENT[DZABBREV]-###

Multistate: Yes No Lead Investigator: _____

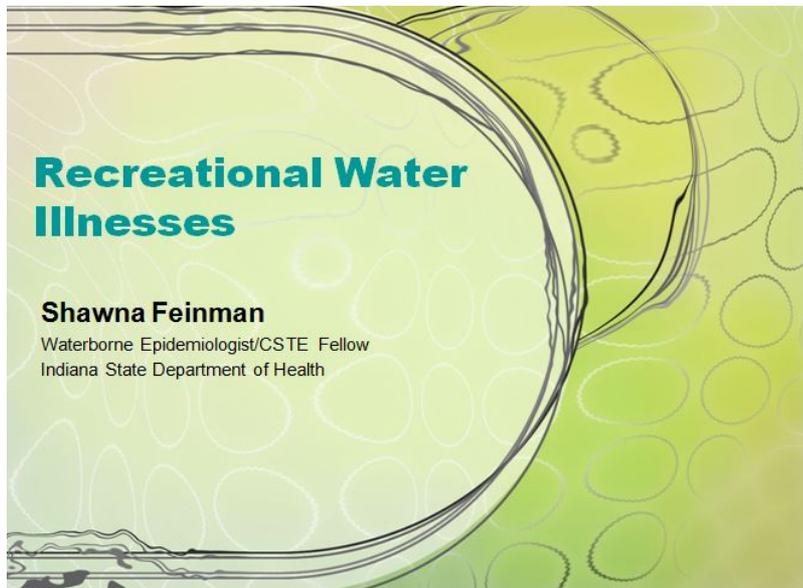
Epidemiology

Case Counts Total Ill: _____ Confirmed: _____ Probable: _____ Hospitalized: _____ Deaths: _____ Currently Ill: _____		Symptoms: _____ <small>Symptoms Key: D=diarrhea, V=vomiting, C=abdominal cramps/pain, N=nausea, L=loss of appetite, W=weight loss, B=blood in stool, F=fever, H=headache, M=body/muscle aches, T=fatigue</small>	
Symptom Onset First Onset Date: _____ Last Onset Date: _____ Thus Far: _____ Average Illness Duration: _____		Transmission: Secondary Cases: _____ # Confirmed Secondary: _____ # Probable Secondary: _____	
		Setting: Name: _____ Dates of Exposure: _____ thru _____ Residents: _____ ill _____ total Staff: _____ ill _____ total Other Settings: _____	
		Sex Male: _____ Female: _____ Unknown: _____	
Age < 1 years: _____ 1-4 years: _____ 5-9 years: _____ 10-19 years: _____ 20-49 years: _____ 50-74 years: _____ ≥75 years: _____ Unknown: _____			

Laboratory

Pathogen: _____ Confirmed: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Specimens Collected: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Positive: _____ Negative: _____ Pending: _____ <input type="checkbox"/> Number of Specimens Unknown	
PFGE Pattern / Cluster Code: _____	

Training Materials



Background information on waterborne diseases

Emphasize multiple methods of transmission (don't just assume it's food!)

Harmful Algal Bloom Surveillance

Cyanotoxins and algae cell counts available for select lakes

No symptomatic data for humans or animals

Continue with education and outreach

HARMFUL ALGAL BLOOM-RELATED HUMAN ILLNESS NOTIFICATION
Date Form 55879 (3-14)
 INDIANA STATE DEPARTMENT OF HEALTH

State use only
 HABISS # _____
 Date _____

Identifying Information for Suspected Case

Name _____
 Telephone _____
 Address _____

 County _____
 Date of Birth mm / dd / yyyy _____

Sex Male Female
 Race American Indian
 Asian/Pacific Islander
 Black White
 Multiracial
 Unknown
 Other (please specify) _____

Hispanic Yes No
 Height _____ ft / in / m (circle one)
 Weight _____ lbs / kg (circle one)

Environmental Conditions

Visible algae present Yes No Unknown
 If yes, what color? _____
 Unusual odors Yes No Unknown
 Any sick or dead animals? _____
 Yes No Unknown
 If yes species & count: _____
 Additional information: _____

Other Exposed People

State use only
 Related HABISS #: _____

Notifying Party

General Public State Agency
 Healthcare Provider County Agency
 Other (specify): _____
 Contact Name _____
 Telephone Number _____

Exposure Information

Date of exposure mm / dd / yyyy _____
 Time hh : mm am/pm to hh : mm am/pm _____

Activity Exposure

Recreational Occupational (specify): _____
 Swimming _____
 Wading _____
 Boating _____
 Fishing _____
 Tubing/skiing _____
 Other (specify): _____

Location of Exposure

Home/Private Water body
 Public Water body
 Name of water body: _____
 Location: _____

Route(s) of Exposure

Inhalation Unknown
 Dermal Other: _____
 Ingestion

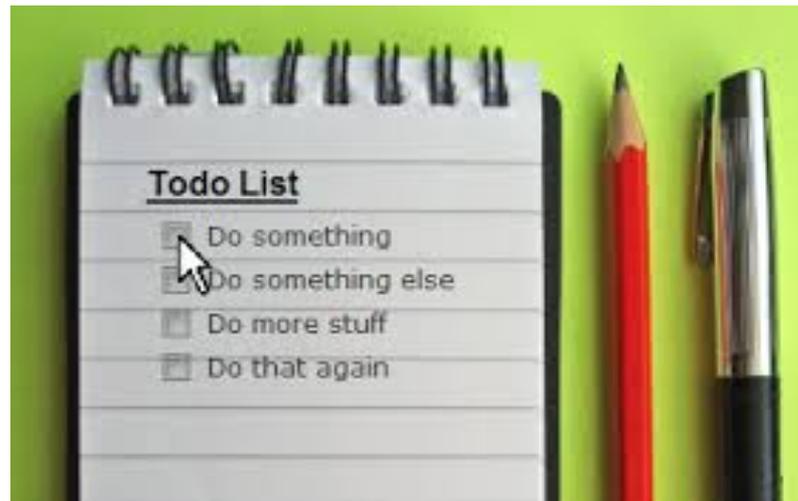
Source of Exposure

Food (type, brand, where purchased): _____
 Brackish water
 Sea water
 Fresh water
 Drinking water
 Other (specify): _____

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Future Projects

- Training webinars
- Outbreak standard operating procedures
- Surveillance form updates



Thank you!

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