

Multistate Outbreak(s) of Cyclosporiasis, 2013: How many Outbreaks Were There? Putting the Puzzle Pieces Together

Ian Williams, PhD, MS

Chief, Outbreak Response and Prevention Branch
Division of Foodborne, Waterborne and Environmental Diseases
National Center for Emerging Zoonotic and Infectious Diseases

November 21, 2013

Preliminary Conclusions

- ❑ Data suggest that there were multiple outbreaks of *Cyclospora* infection during June, July, and August 2013 in the United States
 - Restaurant-associated illnesses in Iowa and Nebraska were linked to prepackaged salad mix from Guanajuato, Mexico.
 - Some illnesses in Texas were linked to fresh cilantro from Puebla, Mexico

Cyclosporiasis cases notified to CDC, by state*

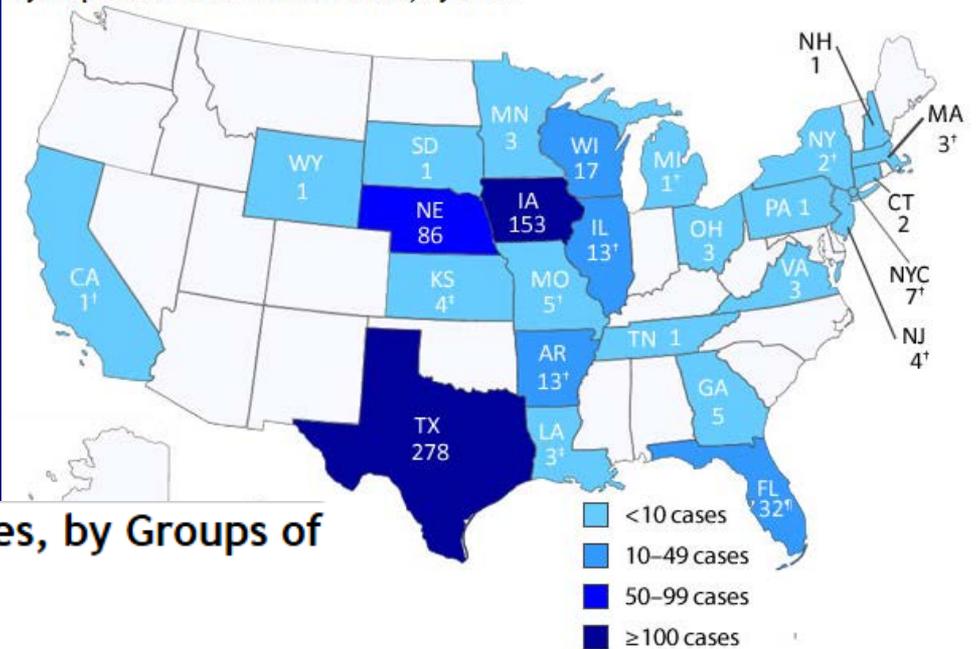
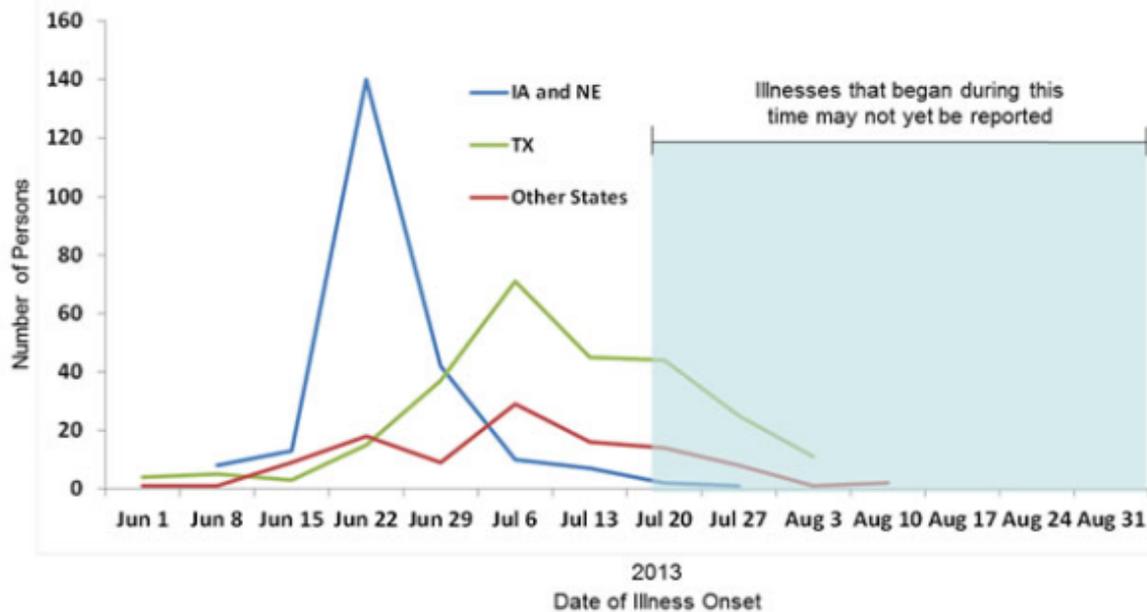


Figure 1. Confirmed Cyclosporiasis Cases, by Groups of States, Since June 1, 2013*



Was it Cilantro in IA/NE and/or Salad Mix in TX (or vice versa)?

- ❑ Investigation of 30 ill persons who reported eating at a single Mexican-style restaurant in Fort Bend County, TX
 - Consumption of lettuce was not associated with illness in epi study
 - Traceback information indicated that lettuce served in this restaurant was not from Taylor Farms de Mexico.
 - Neither red cabbage nor carrots (components of Taylor Farms de Mexico salad mix linked with illness in IA&NE) used in this restaurant
 - Well done epi study and traceback linking these and other illnesses in TX (especially grocery store cluster in North TX) to cilantro
- ❑ Cilantro was not used in one of the two restaurant chains linked to illnesses in IA/NE
 - ❑ Epi study, common ingredient comparisons across restaurant chains, and traceback linking illnesses to bagged salad mix

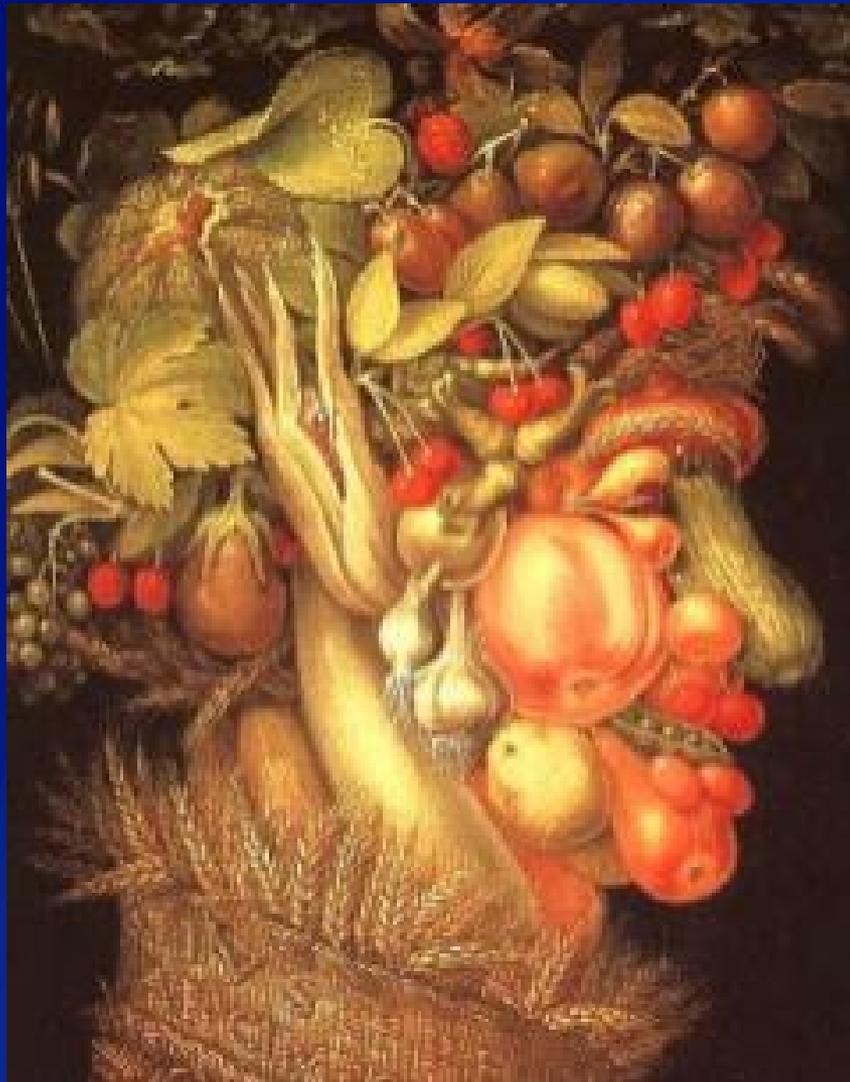


Laboratory Challenges: *Cyclospora cayetanensis*

- Lack of molecular subtyping tools
- Inability to culture in vitro
- Lack of animal model, cryopreservation methods
- Limited supply of parasites
- CDC & other institutions are working to develop advanced molecular detection methods

In the future, DNA fingerprinting methods could help public health investigators determine whether cases of cyclosporiasis are linked to each other and to particular food items/sources





Thank you

The findings and conclusions in this presentation are those of the author and do not necessarily represent the views of the Centers for Disease Control and Prevention



SAFER • HEALTHIER • PEOPLE™

