Iowa Department of Public Health
Center for Acute Disease Epidemiology

Iowa Cryptosporidiosis Surveillance
2008 Year End Summary of Public Health Efforts

Background

In the summer of 2007, Iowa experienced a significant increase in the number of cases of cryptosporidiosis. Crypto is a parasitic disease typically spread through contact with water containing the organism, or person to person. Crypto can easily spread in large, public swimming pools (due to its resistance to chlorine); transmission is commonly linked to child care settings; or contact with farm or zoo animals.

In response to the large increase in cases, the Iowa Department of Public Health (IDPH), working with local health partners, implemented several preventative methods to slow the spread of disease. These methods had been shown effective in other states, were supported by the Centers for Disease Control and Prevention (CDC) and included:

- Investigation of all suspected crypto cases including assessment of key exposures
- Maintenance of a crypto database used to analysis epidemiologic factors associated with disease transmission
- Partnership between the Center for Acute Disease Epidemiology and Environmental Health in identifying pool facilities in need of remediation
- Extensive collaboration between IDPH and local health agencies, particularly those with high numbers of cases or outbreaks; efforts within health agencies for epidemiology and environmental health to work together in identifying and reducing local risks for infection
- Recommendations for the hyper-chlorination of swimming pools linked to confirmed crypto cases

In 2008, public health prevention efforts continued. Statewide educational efforts with pool operators and local health agencies occurred. Protocols for hyper-chlorination of affected pools were promoted by environmental officials prior to the summer swimming season. Likely as a result of these continued efforts, case counts declined to levels seen prior to 2007.

Statistical summary

In 2007, there were 610 confirmed cases of crypto and 398 epidemiologically-linked cases. A comparison of just the confirmed cases to the average number of cases from the previous four years represents a 333% increase in cases. An increase from 2005 to 2006 was an indication that activity overall was beginning to increase (Figure 1). Data acquired from follow-up forms submitted by local health agencies starting in 2007 allowed for characterization of Iowa's crypto cases these past two years. In 2007, child care and recreational water exposures were reported for 29% and 61% of cases, respectively. Other common exposures included contact with an ill individual and/or farm/zoo animal exposure. The majority of cases occurred in children ages four and under (Figure 2).

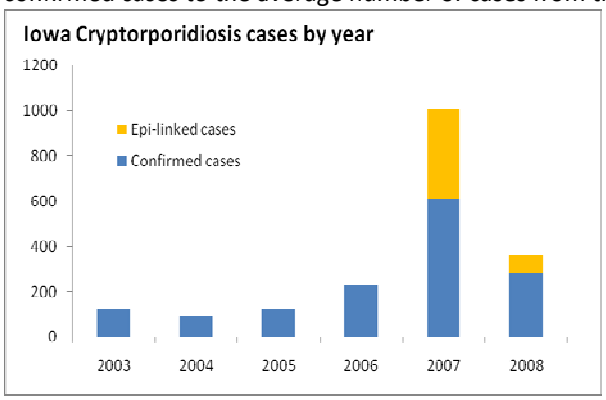

Figure 1

In 2008, IDPH saw a decrease in reports of crypto cases. The decrease in crypto cases suggests a successful statewide public health effort, and may be related to local public health official's efforts to follow up on individual case reports (verses once there is an outbreak identified). In addition efforts included public health system education, implementing environmental cleaning efforts early and often, and increase awareness of surveillance activities.

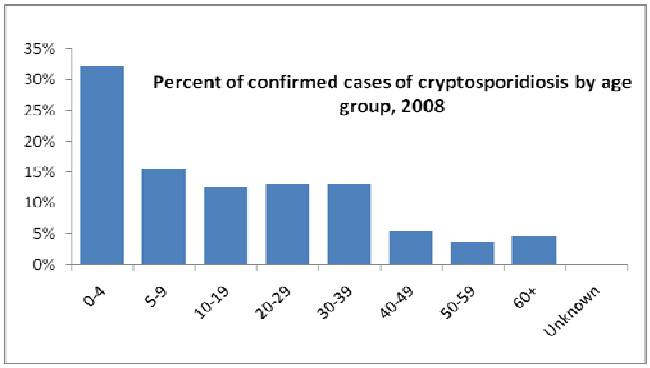

Figure 2