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An Outbreak Of Cryptosporidiosis Associated With A Recreational Spray Ground - New York, 2005

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Objective: In August 2005 an outbreak of cryptosporidiosis, an emerging water- and food-borne disease, was identified among persons visiting a state park with features including a lake, playground, and spray ground. Approximately 3,003 persons became ill; 716 tested positive for Cryptosporidium. A cohort study was conducted to determine risk factors for disease.

Methods: Persons who reserved park picnic shelters provided names and phone numbers of persons who attended events during July30-August 14. Phone interviews using a standardized questionnaire were conducted during September 3-28. After providing informed consent, participants were asked about their activities while at the park, gastrointestinal illness following their park visit, visit to a health care provider, and treatment used.

Results: Of 141 persons included in analysis, 44 primary cases were identified (attack rate=31%). Using the lake, playground, bath house, or drinking park potable water were not associated with illness. Using the spray ground was a significant predictor of illness (RR=5.90, 95% CI 2.7-13.1). Relative risk of illness increased with increasing degree of spray ground exposure. Spending more time in the spray ground resulted in significantly shorter incubation period (p=0.002) and longer duration of symptoms (p=0.049).

Conclusions: Exposure to the spray ground gave rise to disease. A dose-response existed with spray ground exposure and illness incubation and duration. Future Cryptosporidium control measures include regulation of spray grounds and adherence to published “Healthy Swimming” guidelines.