

Contacting and Working with the Local Health Department



According to the CDC Data on Foodborne Illness, there were 51 foodborne outbreaks in child-care centers from 1998-2008.

Public Health Reasons

Early detection of a disease outbreak is critical to containing the disease and preventing additional cases. According to the U.S. Centers for Disease Control and Prevention (CDC), an outbreak is defined as the occurrence of two or more cases of a disease, injury, or other health condition in a given area or among a specific group of people during a specific period. Notifying the appropriate health authorities as soon as an outbreak is suspected will help stop the spread of pathogens to others and help those who are ill recover more quickly, by enabling the facility to take steps to control the outbreak.

One way outbreaks come to the attention of health authorities is a phone call from an individual or a facility that is concerned enough to call the health department. For example, on February 8, 2007, a school nurse contacted the District of Columbia Department of Health about a possible outbreak of acute gastroenteritis in an elementary school (pre-kindergarten through sixth grade). The nurse reported that 27 students and two staff members had become ill between February 4th and 8th with nausea, vomiting, and diarrhea.

Once contacted, staff at the health department must decide whether or not to investigate the possible outbreak. Factors affecting the decision include the severity of the illness, the number of cases, the source, mode or ease of transmission, and the availability of prevention and control measures. Most local health departments are more likely to investigate an apparent outbreak when:

- a large number of people are exposed
- the illness carries high risks of hospitalization, complications, or death
- effective control measures exist
- the outbreak has the potential to affect others unless prompt control measures are taken

In the 2007 Washington, DC elementary school outbreak, the health department conducted a site visit *only after* two pre-investigation interventions (more thorough hand washing and cleaning of all shared environmental surfaces with a 1:50 bleach solution) did not eliminate the illnesses.

Once an investigation starts, public health officials will be able to confirm suspected disease agents, review likely sources of the illness, and suggest specific control strategies. During the investigation of the Washington, DC elementary school outbreak, the Department of Health collected stool specimens from two ill persons and samples from 25 environmental surfaces on

February 9th. Laboratory results showed that both stool samples and one (4%) environmental swab were positive for noroviruses. The outbreak was linked to the use of an unclean computer keyboard and computer mice in a first grade classroom. On February 18th, the department of health recommended the following additional interventions: clean computer equipment (e.g., mice and keyboards) and other shared surfaces that were overlooked during the February 8th cleaning with a 1:50 concentration of household bleach solution, and exclude ill persons from the school for at least 72 hours after the resolution of illness because of continued fecal shedding of the infectious virus.

Practices

Child-care providers must have the local health department's information readily available and easy to access. Important telephone numbers can be kept on a laminated sheet posted by the phone, in a directory kept near the phone, or in an electronic file/contact list. The most important thing is that all staff members know where the numbers are located and can easily access them.

The most important telephone number is the number for the local health department or the agency that handles infectious disease outbreaks in the area. This can be a county agency or a state agency. The agency varies by the geographic location and state in which the child-care facility is located. This is why it is important to have this information ahead of time. To find the telephone number, look in the government pages of a phonebook for the county/district health department, or state health department. Online, check the state health department's website for the local health department's contact information.

When contacting health authorities, the right person to speak with will vary depending upon the regulatory system in that jurisdiction. In most instances, ask for a member of a department with a title such as Environmental Health, Infectious Disease, or Public Health Response. When illnesses are suspected, the child-care facility must provide the following information to the health department:

- number of children ill
- number of childcare providers ill
- symptoms, onset, and duration of illness
- any events that might have been linked to the illnesses (meals, field trips, animal contact) and the dates they occurred

The CDC also recommends taking a sample if a food or a water source is suspected as the source of an outbreak. Samples must be kept and provided to local public health investigators who will then contact the CDC or the US Food and Drug Administration for further guidance on testing. Ensure that food and water samples are properly collected and do not become contaminated during storage. Handle all food and water suspected of causing an outbreak with single-use gloves, cleaned and sanitized utensils, and store in clean, sanitized containers. Food samples must be stored frozen at -4°F (-20°C) and water stored at 4°F (-15.5°C), until investigators can pick them up. For a list of nationally notifiable diseases, visit the CDC's website at: www.cdc.gov

References

1. Aronson S. A. & Shope, T. R. eds. 2009. *Managing infectious diseases in child care and schools: A quick reference guide* (2nd ed.). Elk Grove Village, IL: American Academy of Pediatrics.
2. Diggs, R., Diallo, A., Kan, H., Glymph, C., Furness, B. W., & Chai, S. J. 2008. Norovirus outbreak in an elementary school – District of Columbia, February 2007. *Morbidity and Mortality Weekly Review* 56 (51): 1340-1343.
3. Muldoon, K. 2010. Vancouver child's illness spirals into deadly grip of *E. coli*. *Oregon Live*. http://www.oregonlive.com/news/index.ssf/2010/04/vancouver_childs_illness_spira.html (accessed October 5, 2012).
4. U.S. Department of Health and Human Services. 2010. *Principles of Epidemiology in Public Health Practice* (3rd ed.). Atlanta, GA: Centers for Disease Control and Prevention.

Authors and Acknowledgements

AUTHORS: Cortney Miller, MS, Angela Fraser, PhD, Roman Sturgis, MFA (editor), Department of Food, Nutrition, and Packaging Sciences, Clemson University, Clemson, SC 29634.

Ben Chapman, Ph.D. and Danielle Peschon, Department of 4-H Youth Development and Family & Consumer Sciences, North Carolina State University, Raleigh, NC, 27607

Published: March 31, 2013 **Revised:** March 4, 2013

This material is based upon work supported by the Cooperative State Research, Education and Extension Service, U.S. Department of Agriculture, under Agreement No. 2008-51110-04335, the National Integrated Food Safety Initiative of the Cooperative State Research, Education, and Extension Competitive Grants Program. Any opinions, findings, conclusions or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the USDA.

CLEMSON
UNIVERSITY



RTI
INTERNATIONAL

NC STATE UNIVERSITY