

**Outbreak of Gastroenteritis Associated with IHOP Restaurant —  
Finney County, February 2009**



## **Background**

On February 3, 2009, the Kansas Department of Health and Environment Office of Surveillance and Epidemiology (KDHE-OSE) was notified of a possible outbreak of gastrointestinal illness among individuals who ate a meal from IHOP Restaurant, 2507 Crestway Dr., Garden City, KS, 67846. The initial complaint indicated that a nurse practitioner had treated at least six individuals over the preceding week for gastroenteritis and that the ill individuals ate pancakes at the IHOP restaurant. The complainant also stated that the individuals reported that the IHOP restaurant leaves the pancake batter out on the counter all day. Additionally, the complainant reported that an entire wrestling team had been treated in the emergency room for gastrointestinal illness. In response to this complaint, an outbreak investigation was initiated by staff from KDHE-OSE, the Kansas Department of Agriculture (KDA), and the Finney County Health Department (FCHD).

## **Key Findings**

Telephone interviews conducted by staff from KDHE-OSE and FCHD revealed that three individuals from three different households ate items from the above mentioned restaurant, and subsequently became ill. These three individuals met the case definition of illness: onset of diarrhea (three or more loose stools within a 24-hour period) and nausea after eating at the IHOP restaurant. Complete information on illness incubation and duration was available for only one individual. An incubation period of 8.5 hours and duration of illness of 45 hours were recorded. Follow-up with St. Catherine Hospital emergency department found that no wrestling team had been treated as initially reported, but an increase in patients presenting with gastroenteritis to the emergency department had increased in the preceding weeks.

Food histories were collected for the three individuals; two common food items were identified for two of the three individuals, which were the pancakes and eggs. No other common meals or food items were identified for these individuals. A stool specimen was collected on February 4 and tested positive for norovirus and negative for Salmonella, Shigella, Campylobacter, and E. coli O157, parasites, and shiga toxin.

A food inspection of the establishment was conducted on February 4. Two critical violations were noted on the inspection: (1) an employee handled raw eggs with gloved hands and did not wash hands before putting on new gloves; and (2) an employee working the grill area wiped in-use pan with soiled cloth and attempted to return pan to food use. Both of these critical violations were corrected at the time of inspection. Another violation observed was that there was no hand drying provisions at the three hand sinks in the kitchen/preparation area. The inspection revealed no temperature abuse of food items. No employees of the establishment reported illness during the specified time frame of January 26 – February 4, 2009.

## **Conclusion and Recommendations**

Three individuals from three different households became ill with diarrhea and nausea after eating a meal at the IHOP restaurant. Most likely this outbreak was caused by norovirus; however, the causative agent for this outbreak cannot be confirmed using Centers for Disease Control and Prevention criteria, which requires two laboratory-confirmed cases<sup>1</sup>.

Norovirus is a highly contagious pathogen that requires as few as 10 organisms to cause infection, and shedding of the virus has shown to occur prior to the onset of symptoms<sup>2</sup>. Transmitted primarily through the fecal-oral route, norovirus particles may be spread through direct contact or through consuming fecally contaminated food or water. Spread via aerosolized vomitus is also possible. Historically, norovirus outbreaks have been associated with fecally contaminated foods, especially ready-to-eat foods such as salads, sandwiches, ice, cookies, and fruit<sup>1</sup>. Humans are the only known reservoir of norovirus. Special care should be taken to avoid norovirus contamination of ready-to-eat foods. Food handlers should be educated on proper hand washing and discouraged from bare hand contact with such foods. Ill food handlers should be excluded from work while experiencing gastrointestinal symptoms.

To be successful in the future, complete and accurate food histories must be obtained, including the time the food items were consumed. Every attempt should also be made to obtain stool specimens from at least two ill individuals to confirm the causative agent. Individuals who are experiencing gastrointestinal illness should refrain from food handling and ensure proper hand hygiene at all times.

*Report author: Jamie DeMent, MNS (Kansas Department of Health and Environment)*

Investigated by:

**Finney County Health Department**  
919 Zerr Rd  
Garden City, KS 67846  
<http://www.finneycounty.org/Health.asp>

**Kansas Department of Agriculture**  
**Division of Food Safety and Lodging**  
109 SW 9<sup>th</sup> Street, 3<sup>rd</sup> Floor  
Topeka, KS 66612  
[http://www.ksda.gov/food\\_safety](http://www.ksda.gov/food_safety)

**Kansas Department of Health & Environment**  
**Office of Surveillance and Epidemiology**  
1000 SW Jackson St., Suite 210  
Topeka, KS 66612  
<http://www.kdheks.gov>

### ***Our Vision and Mission***

*As the state's environmental protection and public health agency, KDHE promotes responsible choices to protect the health and environment for all Kansans.*

*Through education, direct services, and the assessment of data and trends, coupled with policy development and enforcement, KDHE will improve health and quality of life. We prevent injuries, illness, and foster a safe and sustainable environment for the people of Kansas.*

#### **References:**

- 1 Centers for Disease Control and Prevention. "Diagnosis and Management of Foodborne Illnesses: A Primer for Physicians and other Health Care Professionals." MMWR 2004;53(No. RR-4).
- 2 Goller JL, Dimitriadis A, Tan A, Kelly H, Marshall JA. 2004. J. Hosp. Infect. 58(4):286-91.