

**Outbreak of Norovirus Gastroenteritis Associated with Pin-Up Bowl Kansas City –
Johnson and Wyandotte Counties, January, 2008:
Preliminary Report
(Revised February 5, 2008)**



Investigation by:

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Background

On January 14, 2008, the Unified Government of Wyandotte County Public Health Department (WYCHD) was notified of a possible foodborne outbreak related to The Pin-Up Bowl located at 1859 Village West Parkway, Kansas City, KS 66111. Preliminary information suggested that a group of individuals from a medical group in Johnson County had eaten foods served at The Pin-Up Bowl on January 11 and later became ill with gastrointestinal symptoms. In response to this complaint, an outbreak investigation was initiated by WYCHD, Johnson County Health Department, and the Kansas Department of Health and Environment (KDHE).

Key Investigation Findings

All individuals (N=26) from the medical group were asked to complete two surveys: (1) an initial survey about their illness history and (2) a follow-up survey, which asked additional questions regarding illness and the food items they had eaten. All 26 (100%) responded to the initial illness survey. Of the respondents, 20 (77%) reported experiencing illness 1 to 2 days following the event. Symptoms reported included nausea (85%), diarrhea (80%), abdominal pain (80%), vomiting (75%), and fever (35%), and muscle aches (30%).

Twenty-one (81%) of the 26 persons completed the follow-up survey. Persons who reported eating any fruit from the fruit tray served at The Pin-Up Bowl were four times more likely to experience illness compared to those who did not eat fruit (relative risk [RR]=4.0; 95% confidence interval [CI]=0.7-22.0). Among all the items on the fruit tray, pineapple had the highest association with illness (RR=1.6; 95% CI=1.0-2.7), followed by blackberries (RR=1.3; 95% CI=1.0-1.8), grapes (RR=1.2; 95% CI=1.0-1.5), and cantaloupe (RR=1.3; 95% CI=1.0-1.7). None of these associations were statistically significant, which may be due to the relatively small number of individuals surveyed.

Two stool specimens from two ill individuals were collected and tested positive for norovirus at the KDHE laboratory.

A food inspection of the establishment was conducted on January 14. The inspection revealed the following violations: (1) no date markings on food containers, (2) dirty spray nozzles and mold present on the holder of the soda machine, (3) manual washing sanitizing system was not set up, (4) the mechanical washing sanitizing system had inadequate chlorine level, and (5) a knife had chipping paint. These violations were addressed on-site.

A gastrointestinal survey was also given to The Pin-Up Bowl employees to complete. Two of the 11 employees reported having diarrhea and/or vomiting on January 8. One of these ill employees had prepared the foods served to the medical group on January 11, and the other reported working on January 11 while still ill. A third employee reported onset of vomiting on January 13; this employee had also reported consuming some food that had been prepared for this event. Unfortunately, no stool specimens were collected from any of the ill employees.

Conclusion and Recommendations

This outbreak was caused by norovirus. Noroviruses may be transmitted via the fecal-oral route through food that has been contaminated by the hands of an ill food handler. Noroviruses are highly contagious and as few as 10 viral particles may be sufficient to cause infection. The Centers for

Disease Control and Prevention (CDC) estimate that at least 50% of all foodborne outbreaks of gastroenteritis are attributed to noroviruses.

Simple measures, including correct handling of cold foods, strict hand washing after using the bathroom and before handling food items, and excluding employees with gastrointestinal illness from food handling may substantially reduce foodborne transmission of noroviruses.

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