

# Investigation Summary of Outbreak Associated with Roosevelt High School Staff Luncheon October 2015

## Introduction

On Thursday, October 22, 2015, the Polk County Health Department was notified that several teachers and staff who attended a staff luncheon on Wednesday, October 21, 2015 became ill with diarrhea.

## Investigation

The Polk County Health Department worked with Des Moines Public School officials, the Iowa Department of Public Health, the Department of Inspections and Appeals and the State Hygienic Laboratory to investigate what may have caused the illness. The investigation included:

- Conducting 103 questionnaires with ill and well teachers/staff who attended the luncheon and who did not attend the luncheon.
- Conducting interviews with ill individuals and food handlers.
- Testing stool specimens/samples.
- Testing food samples.

## Findings

Testing by the State Hygienic Laboratory identified *Clostridium perfringens* (*C. perfringens*) was detected in the meat served at the luncheon. *C. perfringens* was detected in several of the sick individuals' stool specimens. These laboratory results indicate that *C. perfringens* was the cause of illness. Further DNA testing continues and may provide additional information regarding the outbreak.

*C. perfringens* is a bacterium and one of the most common causes of foodborne illness in the United States. The CDC estimates that *C. perfringens* causes nearly one million cases of foodborne illness annually. Beef, poultry, gravies, and dried or pre-cooked foods are common sources of *C. perfringens* infections. *C. perfringens* is commonly found on raw meat and poultry. Cooking kills the growing *C. perfringens* cells that cause food poisoning but not necessarily the spores that can grow into new cells. If cooked food is not promptly served or refrigerated, the spores can grow and produce new cells. *C. perfringens* can grow quickly at room temperature, but cannot grow at refrigerator or freezer temperatures. *C. perfringens* infection often occurs when foods are prepared in large quantities and kept warm for a long time before serving.

A specific point in the food preparation and handling process could not be identified as responsible for presence of *C. perfringens*. Food safety and food handling guidelines have been reviewed with those involved from the point preparation began until the food was served.

## Recommendations

This is an opportunity to stress the importance of proper food handling, cooking and storage:

- Hot foods should be cooked to proper temperatures.
- If hot foods are allowed to cool down, they should be reheated to proper temperatures before serving.
- Place food in shallow containers and immediately put into the refrigerator or freezer.
- Keep hot foods hot and cold foods cold when transporting food and/or serving food at a buffet.

For information about food safety and cooking meat or poultry to proper temperatures, go to: <http://www.cdc.gov/HealthyHomes/ByTopic/FoodSafety.html>

## Conclusions

*C. perfringens* was the cause of this outbreak. Symptoms are usually over within 24 hours, but less severe symptoms may last 1-2 weeks. *C. perfringens* is not spread from person-to-person; and no long-term consequences are associated with the infection.

*Public Health Confidentiality Laws prohibit state and local health officials from discussing specific details of the investigation.*