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## **Health Alert: *Salmonella* Associated with a Church Luncheon**

**Summary:** The Boston Public Health Commission (BPHC) is investigating an outbreak of *Salmonella* associated with a church luncheon in Boston. Health care providers should report any suspected or confirmed cases of salmonellosis diagnosed in Boston, or cases of gastroenteritis following attendance of an April 12, 2009 church luncheon in Dorchester, to the Boston Public Health Commission at (617) 534-5611.

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### **BACKGROUND & EPIDEMIOLOGY**

On April 20, 2009 the Boston Public Health Commission received reports that approximately 50 attendees of a church luncheon, held on April 12, 2009 (Easter Sunday) in Dorchester, have reported illness with gastroenteritis over the past week; seven of these cases have been culture confirmed with *Salmonella* infection. Illness has been reported among attendees of all ages from the metro Boston area. The event was described as a pot-luck style luncheon, and no single food item has been identified to date as the cause of illness.

*Salmonella* is a bacterium that causes intestinal illness in people and animals. The major vehicles of transmission are foods of animal origin, including poultry, beef, fish, eggs, and dairy products. Many other foods, including fruits, vegetables and bakery products have been associated with outbreaks; these foods may be contaminated after contact with an infected human or animal product. In addition, outbreaks are occasionally associated with reptiles (e.g. small pet turtles or lizards).

The attack rate for *Salmonella* is highest for children under four years of age; the rate of invasive infection and mortality, while rare, are higher for infants, the elderly, and persons who are immunosuppressed. Risk of transmission exists throughout the fecal excretion of *Salmonella* organisms and may persist for up to 12 weeks after infection, especially in children younger than five years of age. In 2008, a total of 162 *Salmonella* cases were confirmed in Boston residents.

### **SYMPTOMS AND DIAGNOSIS**

The most common illness associated with nontyphoidal *Salmonella* is gastroenteritis; common symptoms are diarrhea, abdominal cramps and tenderness, and fever. The incubation period for gastroenteritis is typically 6-48 hours. Onset of illness is usually gradual, and constitutional symptoms may include lethargy, fever, headache, malaise, and anorexia. Sustained or intermittent bacteremia can occur, and focal infections are recognized in as many as 10% of cases with bacteremia resulting from *Salmonella* infection.

Isolation of *Salmonella* organisms from cultures of stool, blood, urine, or material from foci of infection is diagnostic. Physicians considering a diagnosis of *Salmonella* infection in patients with gastroenteritis should obtain stool specimens for culture and sensitivity.

## **RECOMMENDATIONS FOR TREATMENT AND PREVENTION**

Antimicrobial therapy is not indicated for patients with uncomplicated (noninvasive) gastroenteritis caused by nontyphoidal *Salmonella* species because therapy does not shorten the duration of disease and may prolong carriage. Antibiotics may be used to treat salmonella bacteria in people in whom *Salmonella* may result in more severe illness such as the very young, the very old or those with weakened immune systems. Preventive measures include the following:

- Keep raw foods, especially meat, away from ready to eat food.
- Avoid cross contamination with used knives, cutting boards, and countertops.
- Leftover foods should be refrigerated (40°F or colder) promptly after eating.
- All foods should be cooked to proper temperatures. Avoid eating raw or undercooked eggs or undercooking foods which contain raw eggs. Avoid drinking or using raw (unpasteurized) milk.
- Carefully wash hands with soap and water before food preparation, after food preparation, after toilet visits, and after handling pets.

The Boston Public Health Commission has developed fact sheets on *Salmonella* (in English, Chinese, and Haitian Creole) as well as a food safety video, available at [www.bphc.org/cdc](http://www.bphc.org/cdc). In addition, brochures and promotional materials for safe food handling are available to Boston area healthcare providers by calling the BPHC Communicable Disease Control Division, at (617) 534-5611.

## **REPORTING**

Any suspected or confirmed cases of *Salmonella* diagnosed in Boston should be reported to the Boston Public Health Commission. In addition, cases of gastroenteritis following attendance of an April 12, 2009 church luncheon held in Dorchester, should also be reported. Reporting forms and additional information for health care providers and for laboratories (including fact sheets) are available at: [www.bphc.org/cdc](http://www.bphc.org/cdc).