

## Abstract

**OBJECTIVE:** To describe an outbreak of salmonella food poisoning that probably was due to contamination of mashed potatoes by a foodhandler, which occurred despite a policy for routine surveillance stool cultures of kitchen employees.

**DESIGN:** A case control study of 223 individuals who ate the lunch meal on September 23, 1989, at the Jordan University Hospital (JUH) cafeteria.

**SETTING:** Tertiary care university hospital in Amman, the capital of Jordan.

**PATIENTS:** Individuals who developed loose stool or vomiting 6 to 72 hours after eating the lunch meal of September 23, 1989, at the JUH cafeteria.

**RESULTS:** Of 619 individuals, 183 fit the case definition (attack rate, 19.6%); 150 were employees, 26 were inpatients, and seven were visitors. Twelve other employees became sick 4 to 6 days later and probably were infected secondarily. The incubation period ranged from 16 to 72 hours in 183 instances. Symptoms included diarrhea (88%), fever (71%), abdominal pain (74%), dehydration (34%), and bloody stool (5%). Eighty-four were hospitalized. Cultures of eight food items were negative, but stool culture on 90 of 180 patients and 11 of 61 kitchen employees yielded *Salmonella enteritidis* group D. A cohort study of 223 individuals revealed a food-specific attack rate of 72% for the steak and potato meal and 18% for the rice and meat meal (RR, 4; CI95, 2.62 to 6.24;  $P < 0.01$ ). Stratified analysis of the steak and potato meal revealed that the potatoes were implicated most strongly (RR, 1.93; CI95, 1.42 to 2.64;  $P < 0.01$ ). Cultures were obtained from all kitchen employees, and 11 of 61 grew *Salmonella enteritidis* group D. One asymptomatic, culture-positive employee prepared the mashed potatoes on September 23. All of these employees had negative stool cultures 3 months earlier.

**CONCLUSION:** This outbreak probably was caused by massive contamination of mashed potatoes by the contaminated hands of the foodhandler. Routine stool culture of foodhandlers is not cost-effective and should not be used as a substitute for health education and proper hygienic practices.