

International Poster 2

Foodborne Outbreak Among Inmates in Six Prison Facilities — Eastern El Salvador, June 2010

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BACKGROUND: On June 18, 2010, authorities of six prison facilities in eastern El Salvador sharing a food supplier reported frequent gastrointestinal complaints among 5,817 inmates. The supplier provided the same menu to all facilities in the region. We sought to document the outbreak, identify its cause to develop control measures.

METHODS: We conducted a 1:1 case-control study, collecting demographic, symptomatic and food consumption data through a survey. Cases were inmates reporting abdominal pain or diarrhea on June 17. Facility-matched controls were inmates without gastrointestinal symptoms. Clinical and food samples were cultured. Matched-odds ratios (OR) and 95% confidence intervals (95%CI) were calculated using Epi-info 3.5.2. Food-handling practices at the supplier's were observed.

RESULT: We documented 2,737 cases in six prisons, for a 47% global attack rate (range: 26-93%). Higher rates occurred in facilities farthest from the supplier. Of 612 cases surveyed, abdominal pain occurred in 97%, diarrhea in 96%, nausea and vomiting in 34%. Symptoms began within 12 hours of lunch on June 17, and resolved within 36 hours. 15% of cases required intravenous rehydration. The outbreak lasted 10 hours. Consuming chicken (OR:9.34; 95%CI:3.54-27.13), rice (OR:2.31; 95%CI:1.43-3.73), drink (OR:1.8; 95%CI:1.42-2.31), or tortillas (OR:1.61; 95%CI:1.27-2.03) was associated with illness. 25 rectal swabs yielded *Echerichia coli*; food samples from four facilities, fecal coliforms. The supplier's sanitary practices were poor. No further illness was reported after changing supplier.

CONCLUSIONS: We confirmed a food-borne outbreak associated with a lunch provided by a common supplier in six prisons, likely due to poor food-handling practices. Association between distance from the supplier to the facilities and attack rate suggested a dose-response effect to contaminated food. Trainings in best food-handling practices were recommended.

KEYWORDS: El Salvador, prisoners, *Echerichia coli*, food supplier