

A FOOD BORNE OUTBREAK OF GASTROENTERITIS DUE TO SHIGELLA AND POSSIBLY SALMONELLA IN A SCHOOL

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Abstract. On August 5, 2005, a private hospital reported a large number of students with gastrointestinal illness from the same school in Bangkok, Thailand. The Bureau of Epidemiology along with the Bangkok Metropolitan Administration investigated this outbreak, to determine risk factors, identify the source of infection and possible causative organism, and recommend prevention and control strategies. A case was defined as a person who was studying or working at School A and who developed abdominal pain, diarrhea, nausea or vomiting during the five-day period of August 4 to 8, 2005. A descriptive study was carried out for active case-finding, medical records review, and case interviews. We conducted the retrospective cohort study among third and fourth grade students. Stool samples were collected and tested at the Thai National Institute of Health and at private hospital laboratories. The overall attack rate was 37%. Main symptoms were diarrhea, fever, headache, abdominal pain, vomiting, and nausea. The highest attack rate (63%) was among fourth-grade students. Based on food-history data collected from ill and well students, a multiple logistic regression analysis showed that a mixed chicken and rice dish served for lunch on August 4 was associated with illness (OR 3.28, 95% CI 1.46-7.36). Among stools samples from 103 cases, *Shigella* group D was found in 18 cases, *Salmonella* group C in 5 cases, and *Salmonella* group E in 2 cases. This food borne outbreak of gastroenteritis was most likely caused by *Shigella* spp although the possibility of mixed contamination with *Shigella* and *Salmonella* spp cannot be ruled out. Food borne outbreaks such as this can be prevented through simple and effective hygienic measures.

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