

# FOODBORNE OUTBREAK INVESTIGATION AFTER A WEDDING PARTY IN KULON PROGO DISTRICT, INDONESIA

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## ABSTRACT

**Background:** On 15th October 2022, Purwosari community leader reported a large number of acute diarrhea cases occurring in the residence area after a wedding party. This study aimed to investigate an outbreak in Purwosari, Kulon Progo, Yogyakarta, assess the extent of the outbreak, identify the contributing factors and make recommendation for control measure.

**Subjects and Method:** A case control study with 1:1 ratio was conducted in Purwosari, Kulon Progo, Yogyakarta, in October 2022 for an outbreak investigation. The dependent variable was acute diarrhea. The independent variables were types of food served at the party, including rice and beef. Food sample was sent to a public health laboratory. Food sample was sent to a public health laboratory. Food hygiene practice was observed. The relationship between diarrhea and the suspected were analyzed by chi-square with Odd Ratio (OR).

**Results:** A total of 81 (63.3%) cases were identified among 129 visitors of the wedding party. As many as 58% were female. As many as 28.4% were between 31 and 60 years of age. The main symptoms were diarrhea (87.7%) and stomach ache or tight stomach (44.4%). The median incubation period was 13 hours (2-27 hours). Highest attack rate was found in those eating rice (98.8%) and beef (85.2%). Among all food served, beef showed the strongest association with the illness (OR= 5; CI= 1.78 to 14.78; p= 0.005). Clostridium perferinges was suspected to be the etiologic agent but the laboratory result was still on going. Food hygiene, cooking practice, and environment, were poor.

**Conclusions:** Foodborne outbreak in Purwosari was confirmed. Eating beef was the primary source of the current outbreak.

**Keywords:** foodborne, illness, outbreak, diarrhea.

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