

***Salmonella* Enteritidis Outbreak Linked to a Bakery in Kinmen, Taiwan, November 2016**

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Abstract

On November 25, 2016, over 70 people were reported having gastroenteritis after consuming products from Bakery A in Kinmen. We conducted an investigation to determine outbreak scale and infection source. We defined cases as patients visiting emergency department of Kinmen County Hospital during November 24–29 who met one of the designated ICD-10 codes (K52.9/R19.7/A09/R50.9) and consumed products from Bakery A within three days before illness onset. We interviewed cases, inspected Bakery A and collected leftovers and stool samples of cases and food handlers for enteropathogens testing and pulsed-field gel electrophoresis (PFGE) genotyping of isolates. Among 235 cases, 176 (75%) reported consuming mayonnaise-contained products, 28 (12%) consumed mayonnaise-free products, and 22 (9%) consumed both. Stools (n = 18), leftovers with/without mayonnaise (n = 20), workbench and bread knife (n = 2), all yielded *Salmonella* Enteritidis with identical PFGE patterns. Environmental investigations implicated possible cross-contamination by using the same bread knife and workbenches for products with/without mayonnaise and baked products, and cleaning bread knife and workbenches with the same rag. We identified

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this *Salmonella* Enteritidis outbreak as associated with environmental cross-contamination, possibly from mayonnaise. We recommend food handlers to use separate tools and workbenches for baked and unbaked products/ingredients and make mayonnaise with sanitized eggs.

Keywords: *Salmonella*, pulsed-field gel electrophoresis, molecular epidemiology, gastroenteritis