

Appendix 2: Food outbreak investigations – 2020-21

Outbreak Investigations

An outbreak is defined as an event where two or more people experience a similar illness after eating a common meal or food and epidemiological and/or microbiological evidence indicates the meal or food as the source of the illness.

Outbreak No. 1: Campylobacter - Restaurant

An outbreak investigation was conducted in January 2021 after reports of illness in a group that had a lunch function at a restaurant in late December 2020. There were three cases of *Campylobacter* (two further typed as *C. jejuni*) and three people with diarrhoea in the following week. A cohort study was conducted and 28 of 32 attendees replied (response rate 88 percent). The cohort study did not identify any single food item with a significant association with illness, as most people ate some of every food on the set menu. The set menu included a chicken liver parfait. EHOs inspected the restaurant and noted that the cook temperature for the parfait was insufficient. The business was advised to take corrective actions.

Outbreak No 2: Vibrio Parahaemolyticus – Primary production

An investigation into an increased number of locally acquired cases of *Vibrio parahaemolyticus* was initiated in South Australia in March 2021. Cases were also identified in other jurisdictions, with a total of 21 cases reported in the outbreak with onsets between 1 February and 30 April 2021, including eight cases in South Australia, 12 cases in Victoria and one case in Western Australia. Nineteen cases (90 percent) reported eating oysters in their incubation period, including 16 cases that ate oysters uncooked. Oysters were consumed at a variety of commercial restaurants and purchased for consumption at home. Trace back identified a common source of oysters in a South Australian growing region. Retail samples of oysters were collected in South Australia and no *V. Parahaemolyticus* was identified. A common sequence type (ST 36) was identified for four South Australian cases and 11 of the Victorian cases that were able to undergo whole genome sequencing, and phylogenetic analysis on the isolates found they were highly related and suggestive of a common source. SA Health distributed information regarding safe seafood handling via social media and a communication letter was distributed to South Australian food businesses including growers, processors, transporters, brokers and retail on controlling the risks in oysters and the importance of traceability.

Outbreak No 3: Salmonella Typhimurium MLVA 03-14-10-08-523 – Bakery

An increase in *Salmonella Typhimurium* MLVA 03-14-10-08-523 was identified, with the majority of cases in the same metropolitan local government area. In total, 16 cases were reported in the area between 1 April 2021 and 31 May 2021. Of these, seven cases consumed food and beverages from the same local bakery, including one case that was potentially a secondary infection within a household. A variety of foods (including pies, soup, cakes and coffee) were consumed by cases from the bakery in the first two weeks of April. Six cases that ate at the bakery were

hospitalised. An EHO inspected the bakery and identified issues around egg handling, cleaning and sanitation, and skills and knowledge of food handlers. Recommendations for improvements and follow up inspections occurred. Cross contamination from eggs was the likely source.

Outbreak No 4: Salmonella Typhimurium MLVA 03-11-09/10-08-523 – Primary produce

Nine cases of Salmonella Typhimurium MLVA 03-11-09/10-08-523 were notified between 1 April 2021 and 31 May 2021. Seven cases were able to be contacted for interview and six reported eating eggs in their incubation period. Five cases recalled eating the same egg brand, including three consuming eggs at home and two ate egg dishes at different restaurants that trace back was able to identify as the same brand and from a common egg producer. Egg dishes consumed were various types of potentially undercooked eggs including poached and runny fried eggs. EHOs inspected the commercial restaurant venues where eggs were consumed and an audit of the egg farm was undertaken.