

OFFICIAL

Coversheet

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Appendix 2: Food outbreak investigations – 2021-22

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.

In the 2021-22 financial year the SA Health conducted seven outbreak investigations as detailed below.

Outbreak No 1: *Vibrio parahaemolyticus* – Primary production - multi-jurisdictional outbreak investigation (MJOI)

In September 2021, an increase in locally acquired *V. parahaemolyticus* was identified in South Australia (SA), with an investigation initiated. *V. parahaemolyticus* is notifiable in SA, Western Australia (WA), Tasmania (TAS) and the Northern Territory (NT), with laboratories providing ad hoc reporting to health departments in other jurisdictions when increases are noted. In October, cases were also reported in WA and Victoria. Cases increased in several jurisdictions and affected more jurisdictions in November when an MJOI was triggered. Cases included *V. parahaemolyticus* reported from faecal specimens collected between 7 September 2021 and 18 February 2022. A total of 268 cases were identified, including 143 that were further typed as multi-locus sequence type (ST) 417, 70 as ST 50 and 55 not able to be further typed. Cases were reported from residents in every jurisdiction; with most in SA (76 cases, 28 per cent), followed by Victoria (69 cases, 26 per cent), Queensland (59 cases, 22 per cent), WA (33 cases, 12 per cent), New South Wales (26 cases, 10 per cent), Australian Capital Territory (3 cases, 1 per cent), TAS (1 case, 0.4 per cent) and NT (1 case, 0.4 per cent). A total of 206 cases were able to be interviewed and 199 (97 per cent) reported consumption of oysters, 189 of which reported eating raw oysters (95 per cent).

Traceback was conducted by Environmental Health Officers (EHOs) and SA Health food regulators to determine the origin of oysters consumed by cases, with 173 oyster exposures traced back to South Australian oysters. Oyster samples were collected from retail, case households, brokers and as part of the South Australian Shellfish Quality Assurance Program (SASQAP). *V. parahaemolyticus* ST 417 was isolated from 14 oyster samples, all from the same growing region in SA. Implicated oyster bays were closed on 16 November 2021, and SA growers implemented a *Vibrio* control program including ensuring infrastructure was available for adequate post-harvest temperature control and improved traceability of oysters. A recall of Coffin Bay oysters occurred on 19 November 2021 via Emergency Orders under the *Food Act 2001*. Media alerts were distributed in several jurisdictions and a Public Health Alert issued in SA to doctors to encourage testing for *V. parahaemolyticus* for people reporting gastroenteritis after consumption of seafood. Case reports peaked in mid-November and declined in late November after the recall. SA Health worked with the Department of Primary Industry and Regions South Australia (PIRSA)

officers to implement a clearance program for the affected growing area. PIRSA continues to monitor compliance with the Vibrio control programs.

Outbreak No. 2: *Campylobacter* – Aged care facility

Three cases of *Campylobacter* that were polymerase chain reaction (PCR) positive only (with no growth on culture) were reported in residents at the same aged care facility, with onsets on 3 October 2021 and 4 October 2021. There were 70 residents at the facility and no staff reported illness. All cases ate from the facility menu with no specialised diets and no meals consumed that were from outside of the facility. Cases did not have contact with any animals at the facility. An EHO inspected the facility, and no issues were identified other than turnover of kitchen staff at the time prior to onset of illness amongst cases.

Outbreak No 3: *Salmonella* Typhimurium MLVA 03-13-10-08-523 - Bakery

An increase in *Salmonella* Typhimurium (STm) with multi-locus variable number tandem repeat analysis (MLVA) 03-13-10-08-523 was identified, with a high proportion of cases in the same metropolitan region. Five cases consumed food from a common local bakery on 23 October 2021 and 24 October 2021. A variety of foods were eaten by cases at the bakery, including several sweet items that contained custard. No cases were hospitalised. An EHO inspected the bakery and minor issues were identified and rectified. Through the notifiable contaminants data collected by Food Standards Surveillance section at SA Health, it was noted that unpasteurised egg pulp in September 2021 and October 2021 detected STm 03-13-10-08-523 from the same egg producer that was identified as the brand of eggs used at the bakery. Cross contamination from eggs was the likely source.

Outbreak No 4: *Salmonella* Typhimurium MLVA 03-15-08-11-523– Restaurant

An increase in STm MLVA 03-15-08-11-550 was identified, with seven cases reporting consumption of food from a common restaurant between 3 November 2021 and 10 November 2021. A variety of foods were eaten by cases at the restaurant, including cold rolls, spring rolls, hot pot, fried rice, and several other dishes including chicken, pork, quail and prawns. Three cases were hospitalised. An EHO inspected the restaurant where cleaning and pest control issues were identified and then rectified.

Outbreak No 5: *Salmonella* Typhimurium MLVA 03-09-07-13-523– Take-away

An increase in STm MLVA 03-09-07-13-523 was identified, with three cases reporting consumption of food from a common take-away venue in November 2021. All three cases consumed teriyaki chicken sushi. One case was hospitalised. An EHO inspected the venue and identified issues with cleaning and sanitising and hand washing practices. Traceback of the chicken supply at the venue identified a link to an interstate producer that had reported the same MLVA in recent product sampling.

Outbreak No 6: *Salmonella* Typhimurium MLVA 03-14-10-11-523 – Restaurant

An increase in STm MLVA 03-14-10-11-523 notifications was identified in December 2021. Four cases were linked to a common restaurant venue, with foods consumed between 26 November 2021 and 1 December 2021, including a food handler at the venue. A range of foods were consumed by cases that ate at the venue. An EHO identified issues with sanitising, handwashing and cross contamination in the venue. Two other cases were linked to a different common venue, both eating on 4 December 2021, and both consumed salt and pepper squid with aioli. Aioli was made inhouse with raw eggs. An EHO inspected the premises and issues were identified with cleaning and sanitising. The same egg supplier was identified in both restaurant venues.

Outbreak No 7: *Salmonella* Enteritidis phage type 4b – Restaurant

Three cases of locally acquired *Salmonella* Enteritidis phage type 4b were reported within a week. All cases had their onsets on 6 March 2022, and all ate at a common restaurant in Adelaide on 4 March 2022. Cases were not known to each other and did not eat together. All cases ate sashimi at the restaurant and two recalled eating aioli. A variety of other fish dishes were consumed by cases. Investigations at the restaurant identified that aioli was a commercially bought product not made onsite, but eggs were used for desserts. Swabs and food samples taken from the restaurant did not detect *Salmonella*. Traceback of egg suppliers to the restaurant occurred and an investigation undertaken at one commercial South Australian free range egg farm. Environmental samples from the farm did not detect *S. Enteritidis*. The source of infection for the outbreak was unknown.