

OzFoodNet—Enhancing Foodborne Disease Surveillance Across Australia

First Quarter Summary, 2010 NSW/Hunter OFN sites combined

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Enteric diseases and OzFoodNet team
enteric@doh.health.nsw.gov.au
Communicable Diseases Branch
NSW Department of Health
73 Miller Street North Sydney NSW 2060
Locked Mail Bag 961 North Sydney NSW
2059
Phone: 02 93919236/93919561
Fax: general 93919848, secure 93919189

Overview of Quarter

In NSW, foodborne outbreaks are often reported to the NSW Food Authority's (NSWFA) Consumer Complaints Line by members of the public. This results in a number of outbreaks affecting small numbers of people being referred to public health units (PHUs). These outbreaks usually require limited epidemiological investigation and are often of unknown aetiology.

Incidence of Foodborne Disease

Three cases of haemolytic uraemic syndrome were notified during the first quarter of 2010, similar to the five-year average of 3.8 cases for the same quarter of the year.

There was an increase of 54% in notifications of Hepatitis A. In the first quarter of 2010 there were 40 notifications compared to a five-year average of 26 cases for the same quarter. The majority (92.5%) of Hepatitis A infections were acquired overseas, but there was also a small outbreak of Hepatitis A in the Hunter New England Area involving nine cases (described below).

There was also an increase in notifications of listeriosis. There were 15 notifications in the first quarter of 2010, compared to a five-year average of 9.2 cases for the same quarter (8 notifications in the first quarter of each year, except for 2008 when there were 14 notifications). All listeriosis cases were interviewed about possible causes and their specimens were further typed. No common exposure among the cases could be found and typing did not provide evidence of a common source of infection. Discriminatory sub-typing of some isolates is underway to further inform the investigation into the increase in notifications.

Salmonellosis notifications increased by 61% compared to the same quarter in the previous five years. In 2010 there were 1,366 notifications compared to a five-year average of 846 cases. This increase is partly explained by the outbreaks described below, particularly the large outbreak of *Salmonella* Typhimurium PT 9 infection in Albury.

Foodborne Disease Outbreaks

***Salmonella* Typhimurium MLVA type 3-(9)10-7-15-523**

Five of a group of seven people who consumed a homemade seafood casserole dinner with a raw egg mayonnaise dressing, developed diarrhoea and/or vomiting. Four people were hospitalised and one stool sample for each was positive for *Salmonella* Typhimurium PT 170, MLVA 3-(9)10-7-15-523. The farm from which the eggs, used to prepare the mayonnaise, were sourced was inspected and 50 samples (faecal matter, swabs, eggs) were negative for *Salmonella* (SW0032).

Another outbreak of *Salmonella* Typhimurium MLVA type 3-(9)10-7-15-523 was notified to the public health unit by a registrar at an emergency department. They reported seven people from a group of 100, who developed vomiting, diarrhoea, abdominal cramps and fever after consuming food at a wedding, prepared by a friend. Five of the seven ill submitted stool samples, and all five were positive for *Salmonella* Typhimurium, with MLVA patterns as follows: MLVA 3-10-7-15-523 (n=3), MLVA 3-9-7-15-523 (n=1) (one MLVA typing outstanding). The food vehicle suspected to be the source of infection, eaten by only a few people at the function, was tiramisu, prepared with raw eggs. No environmental assessment was conducted (SSW0039).

***Salmonella* Typhimurium MLVA type 3-9-7-13-523**

An outbreak of *Salmonella* Typhimurium MLVA 3-9-7-13-523 occurred in a nursing home, where two residents developed illness (diarrhoea only) and had stool samples positive for *Salmonella* Typhimurium. Both residents were on a pureed diet. No other residents in the facility were unwell. Food and environmental samples were all negative for any pathogens (SSW0038).

***Salmonella* Typhimurium MLVA type 3-11-10-9-523**

Four (including two children) of a family of five developed diarrhoea, vomiting and fever, approximately 16 hours after consuming BBQ pork from an Asian take-away. Three were admitted to hospital and their stool samples tested positive for *Salmonella* Typhimurium MLVA type 3-11-10-9-523. Samples of raw pork, and swabs of a cutting board and the preparation bench were also positive for the *Salmonella* Typhimurium (cutting board MLVA type 3-11-10-6-523, preparation bench MLVA type 3-11-10-9-523, and raw pork MLVA type pending). A sample of another batch of BBQ pork was negative. A sample of raw chicken was positive for *Salmonella* Infantis (SW0034).

***Salmonella* Typhimurium MLVA type 3-10-15-12-496**

Two of a family of four developed diarrhoea after eating a pork bun (the only common food eaten by both cases) at a Yum Cha restaurant. Stool specimens for both were positive for *Salmonella* Typhimurium MLVA type 3-10-15-12-496. Environmental samples were all negative except from a swab of a table used to prepare raw pork, which was positive for *Salmonella* Agona. (SESILL0057).

***Salmonella* Typhimurium MLVA type 3-14-8-12-523**

SSW PHU identified a cluster of ten *Salmonella* Typhimurium cases in December of which four cases had identical MLVA type (3-14-8-12-523) and others listed had minor variations in MLVA type. The MLVA type is uncommon in NSW. The only link identified between three of the cases was the consumption of pork rolls which tended to occur on the date of onset of illness. Two cases consumed pork rolls from one bakery and one case from another bakery in a different part of Sydney. The bakery where two of the cases had eaten was inspected by the NSW Food Authority and a number of issues were found with hygiene and cleanliness of the premises. An Improvement Notice was issued to address these. The business was also producing raw egg mayonnaise and making other ingredients, such as pate, for the pork rolls on site. A large number of food and environmental samples were obtained and submitted for sampling. All samples returned negative for *Salmonella*. A warning letter on the use of raw egg foods was issued to the bakery (SSW0042).

***Salmonella* Typhimurium PT 9**

An outbreak of *Salmonella* Typhimurium PT 9 (STm9) associated with eating products containing aioli prepared with raw eggs from a take-away food business in Albury, was investigated. Of the 206 interviews amongst people who ate at the outlet in a period of six days, there were 170 who reported symptoms of diarrhoea and/or vomiting, fever, abdominal pain, myalgia and bloody stools, and 102 laboratory confirmed cases of *Salmonella*. Phage typing is complete for 87 of these and the result is STm9. STm9 has also been isolated from the aioli and from a swab of chopping boards. The egg farm that supplied the eggs used to prepare the aioli was inspected but no *Salmonella* was detected. Molecular typing of human and environmental swabs is underway (GS0013).

Scombroid fish poisoning

Five people presented to an emergency department with symptoms of hypotension, rash, numbness and tingling, vomiting and diarrhoea, following the consumption of mahi mahi (a scombroid fish) fillets at two different restaurants in the same area. Both restaurants

bought their fish from one supplier, who withdrew the suspected batch from sale (NC0008).

***Salmonella* Singapore**

As part of an investigation into an increase of *S. Singapore* notifications in the Hunter New England area, a small outbreak was identified affecting five people (three with laboratory confirmed *S. Singapore* infection) who had consumed food from a kiosk. Two cases consumed meals containing egg (salad and wrap). A trace back investigation identified that the eggs were supplied by an egg producer previously implicated in another *S. Singapore* outbreak affecting three people who dined at a common local restaurant. An environmental investigation of the egg farm resulted in the identification of *S. Singapore* from swabs taken from the egg grading machine (HUN0421).

Cluster Investigations

***Salmonella* Infantis**

A sharp increase in notifications of *Salmonella* Infantis infections in NSW from the beginning of December 2009, prompted an investigation to identify a possible source of infection. In the first quarter of 2010, there were 58 cases of *S. Infantis* compared to a five year (2005-2009) median of 13 cases for the same quarter (range 11 – 29 cases). Public health units started investigating a proportion of notifications. One public health unit identified two cases with very similar onset of illness dates, who had consumed Vietnamese pork rolls from the same bakery. A sample of the pork tested positive for *Salmonella* Aberdeen. Another two cases had consumed prawns, possibly served with a raw egg sauce, at the same bowling club but no food samples were collected for laboratory testing. OFN assisted by interviewing each newly notified *S. Infantis* case where the specimen collection date was less than thirty days prior to interview date. Case food history data was included in the analysis if the individual's seven day food history recall was deemed good, and if the case was not part of an outbreak investigation. In total, data from ten interviews were included in the analysis. Common food items for the ten cases in the seven days prior to onset of illness included chicken (n=9: 8 cases purchased fresh chicken from a supermarket), eggs (n = 9, all consumed in the home), sausages (n=7), deli meat (n=6: 5 consumed ham) and broccoli (n=7, 1 consumed raw). A trace back investigation was unable to identify a common chicken processor for the premises where the cases bought their fresh chicken. Egg consumption data was not included in the trace back investigation as, when available, sources and brands of eggs were varied. Although the investigation did not identify a common food source for cases, it is suspected that poultry may be the vehicle of infection. This is supported by recent

IMVS reports noting multiple isolations of *S. Infantis* in samples of fresh poultry and value added poultry products collected in NSW. The investigation is ongoing (NSW0018).

***Salmonella* Wangata and *Salmonella* Potsdam**

An increase was observed in the number of *Salmonella* Wangata (15 cases in the first quarter compared to a five year median of 6 cases (range 4-10 cases) for the same quarter), and *Salmonella* Potsdam cases (13 cases in the first quarter compared to a five year median of 5 cases (range 1-14 cases) for the same quarter). A proportion of cases were interviewed by the relevant public health units but no common exposure could be identified.

Hepatitis A

A small outbreak of Hepatitis A occurred in one public health unit area which was initially associated with a local primary school. Four people (three students and one teacher) from the same class room were identified as co-primary cases, with secondary transmission occurring in family members and friends (n=5). No domestic or overseas travel or consumption of semi-dried tomatoes was reported for any cases. Isolates collected from the cases were typed as genotype 1A. Despite a thorough public health investigation into possible risk factors associated with the setting, a source of the infection was not identified.

Non-foodborne Disease Outbreaks

Of the 60 reported outbreaks of (suspected) viral gastrointestinal disease in institutions in the first quarter of 2010, 29 (48%) occurred in aged care facilities, 26 (43%) occurred in child care centres, four (6.7%) in hospitals and one (1.7%) in a family care centre. The outbreaks affected approximately 980 people.

There was also one outbreak of non-institutional suspected viral gastroenteritis in a school camp, affecting 10 people.

In 53% (32/60) of all outbreaks, one or more stool specimens were laboratory tested to identify a possible cause of the outbreak. Norovirus was identified in 16% (10/60) of the outbreaks. In one outbreak, rotavirus was detected alongside norovirus. Of the 32 outbreaks where one or more stool specimens were tested, 69% (22/32) of the results were negative for any pathogens that may have caused the outbreak.

Outbreaks of unknown aetiology

There were 13 reports of suspected foodborne outbreaks for which the aetiology remained unknown.

Three of a group of four people developed gastrointestinal symptoms after consuming food from a Chinese take-away (CCA0038).

Three of a group of twelve people developed gastrointestinal symptoms after consuming a meal at a café (HUN0422).

Fifty work colleagues of a group of 100 people developed gastrointestinal symptoms after consuming fruit kebabs at a conference (NSCC0027).

Three of an unknown number of people developed gastrointestinal symptoms after consuming food at a Chinese restaurant (NSW0019).

Three of a group of four people developed gastrointestinal symptoms after consuming chicken or beef at a Mexican restaurant (SESILL0058).

Seventy of an unknown number of synagogue visitors developed gastrointestinal symptoms after consuming catered food (SESILL0059).

Four of a group of four work colleagues developed gastrointestinal symptoms after consuming lamb, beef or chicken skewers and/or vegetables at a Chinese restaurant (SSW0040).

Four of a group of four people developed gastrointestinal symptoms after consuming food at a Japanese restaurant (SSW0041).

Three of a group of nine people developed gastrointestinal symptoms after consuming food at a Bistro (SW0008).

Twenty-five of a group of fifty guests at a birthday party developed gastrointestinal symptoms after consuming food in a pub (SW0033).

Two residents of an aged care facility of a group of people developed gastrointestinal symptoms which was thought to have a viral cause and suspected to be transmitted from

person-to-person. Laboratory tests of stool samples however, detected norovirus as well as Salmonella. The cause of the outbreak is unknown.

Three of an unknown number of people developed gastrointestinal symptoms after consuming take-away pizzas (HUN0420).

Three of a group of three people developed gastrointestinal symptoms after consuming a commercially prepared orange and mango fruit drink (HUN0422).

Notes for Quarterly Report

Data was reported as received by the Communicable Diseases Branch on 23 April 2010. For both (suspected) foodborne illness outbreaks as well as gastroenteritis outbreaks in institutions, PHUs are required to complete a summary form within 1 month of completion of the investigation, or within 1 month of notification respectively. This means that for outbreaks reported after 23 March 2010, the information in this report and in the Outbreak Register may not be complete.

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