Communicable Diseases Prevention Unit,
Public Health Services

OzFoodNet Tasmania Quarterly Report, 2023

July – September 2023

Report prepared on 22 December 2023

Department of **Health**

Tasmanian Government

Executive Summary

This report describes enteric disease notifications and gastrointestinal outbreak investigations in Tasmania for the third quarter of 2023, covering the period from 1 July 2023 to 30 September 2023.

- During the third quarter of 2023, a total 305 notifications of enteric disease were reported.
- The most frequently notified enteric diseases this quarter were campylobacteriosis (243 notifications and salmonellosis (42 notifications).
- Notifications of salmonellosis were slightly higher than expected when compared to historical data (Table 1).
- There were 23 non-foodborne outbreaks reported which is slightly higher than expected compared to historical data for the same time period.
- There was one cryptosporidiosis cluster investigation conducted, with the source not identified.

Data Sources

Case notification data is obtained from the Tasmanian Notifiable Disease Surveillance System (TNDSS). Gastroenteritis outbreak data is obtained from the Communicable Disease Prevention Unit (CDPU) Gastro Outbreak Database and TNDSS.

Notifications of diseases and conditions are reported to Public Health Services under the *Public Health Act* (1997) and *Guidelines for Notifying Diseases and Food Contaminants*. Pathology laboratories in Tasmania are required to report cases of notifiable diseases diagnosed in the laboratories. Suspected cases of food or waterborne illness and clinical cases of haemolytic uraemic syndrome (HUS) are required to be notified by medical practitioners. Suspected gastroenteritis outbreaks in institutional settings are required to be notified by the relevant facility (aged care, childcare and hospitals).

Data in this report represents notifications of enteric disease where the case residential address is in Tasmania or overseas. Interstate residents are notified in the jurisdiction of residence. Data are presented by 'calculated onset date': which is the true onset date if known, or the earliest of specimen date or notification date. Cases are defined as per the national Communicable Disease Network Australia (CDNA) surveillance case definitions or local case definitions within CDPU.

Data was extracted on 22 December 2023 and covers the period from 1 January 2018 to 30 September 2023. Data presented in this report is correct at the time of publication and is subject to change due to data cleaning and late notifications.

Table 1: Number of notifications of enteric disease in the third quarter (Q3) 2023 compared to historical five-year means (5YM), Tasmania.

Disease	Q3 2023	Q3 5YM (2018-2022)
Botulism	0	0.0
Campylobacteriosis	243	221.0
Cryptosporidiosis	4	6.8
Haemolytic Uraemic Syndrome	1	0.2
Hepatitis A	0	1.0
Hepatitis E	0	0.0
Listeriosis	1	0.2
Paratyphoid	1	0.0
Salmonellosis	42	29.2
Shiga-toxin producing Escherichia coli (STEC)	2	0.8
Shigellosis	4	3.2
Typhoid	0	0.2
Vibrio infection (foodborne)	0	0.2
Yersinia	7	13.0
Total	**305**	**275.8**

*Includes both confirmed and probable cases as per national case definition change 1 July 2018

Campylobacteriosis

Campylobacteriosis is disease caused by the bacteria *Campylobacter*. Symptoms may include diarrhoea, abdominal pain, fever and vomiting and illness may last a few days to a week or longer.

There were 243 notifications of campylobacteriosis reported this quarter. Notifications were 10% higher than expected compared to the five-year mean for the same period (221 notifications). Notifications in the South of the state were 8% higher than expected compared to historical data for the region in the same time period. Notifications in the North-West of the states were 20% lower than expected compared to historical data for the region for the same time period. The most commonly reported *Campylobacter* species reported was *Campylobacter jejuni* (122 notifications, 50% of all notifications), followed by *C. coli* (59 notifications , 24% of all notifications). There were a small number of *C. lari* notifications (2 notifications). A quarter of *Campylobacter* isolates were not speciated (60 notifications, 25% of all notifications). Species identification is dependent on the methodology in place in each laboratory.

Campylobacteriosis trends over time are summarised in Figure 1.

Salmonellosis

Salmonellosis is a disease caused by the bacterium *Salmonella*. Symptoms may include diarrhoea, abdominal pain, fever, nausea and vomiting and illness may last a few days to a week or longer.

The number of salmonellosis notifications (42 notifications) were higher than the five-year mean for the same period (29 notifications). Salmonella notifications are usually lower in the cooler months of this quarter, and this quarter were 29% less than the previous quarter (59 notifications). Notifications across all regions of the state were elevated in comparison to historical data, though notification numbers are small when stratified at this level. *Salmonella* Mississippi and S. Typhimurium were equally the most commonly reported serotype in Tasmania during the third quarter of 2023, with eight notifications for each serovar; each representing 19% of all salmonellosis cases reported. *Salmonella* Stanley was the second most common serotype (5 notifications) followed by *Salmonella* Saintpaul (4 notifications). The remaining salmonellosis cases consisted of small numbers of several different serovars. At the time of data extraction, 5% of salmonellosis isolates were untyped.

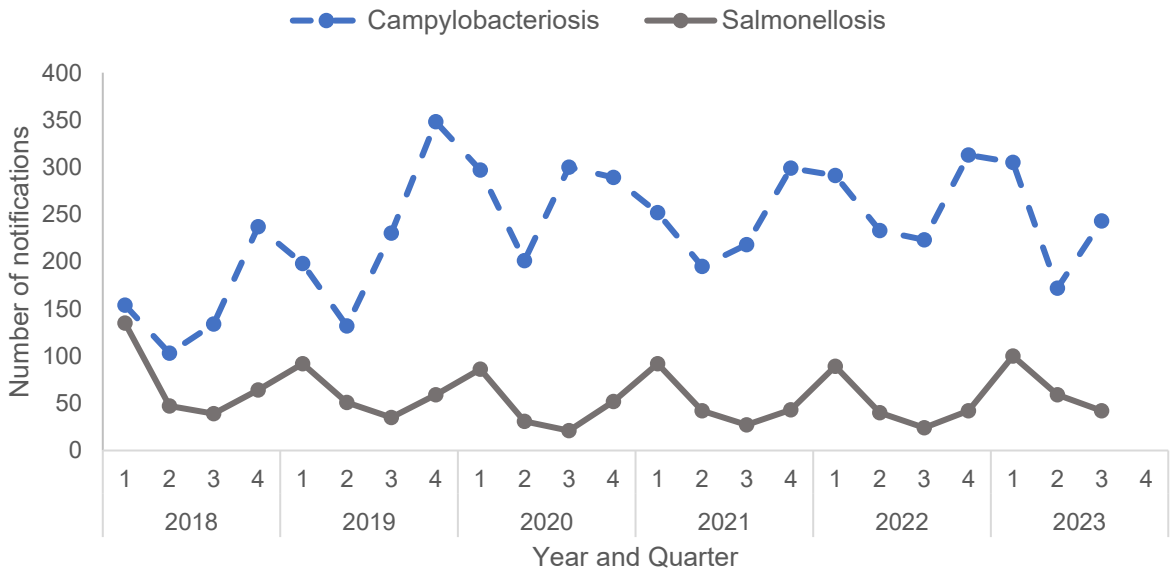
Salmonellosis trends over time are summarised in Figure 1.

Other enteric diseases

There was one listeriosis case notified in a 77 year old female. The case has consumed several high risk foods such as soft cheese and sliced meats. The infection was likely acquired interstate.

There were four shigellosis notifications in the third quarter of 2023. The majority were probable cases and associated with overseas travel to different countries. There was one culture confirmed case of multi drug resistant *Shigella sonnei* biotype g which was overseas acquired. Two cases of Shiga-toxin producing *E coli* (STEC) were reported this quarter, both cases were the same serotype (O26). One case developed haemolytic uremic syndrome (HUS) and died from the condition.

Figure 1: Number of notifications of Campylobacteriosis and Salmonellosis by year and quarter, Tasmania, January 2018 to September 2023



Foodborne outbreaks

There was one foodborne outbreak in Tasmania identified in the third quarter of 2023. Five members of a family were ill with neurological symptoms following consumption of home prepared meals. Tetrahydrocannabinol (THC) was detected in one food sample. The pathway of contamination was not identified.

Non-foodborne Outbreaks

During the third quarter of 2023 a total of 23 non-foodborne outbreaks were reported in Tasmania. This is higher than the average number of non-foodborne outbreaks reported during the same quarter from 2018 to 2022 (13 outbreaks) . A total of 536 people were ill, two people were hospitalised and two deaths were reported. The majority of non-foodborne outbreaks were reported in residential aged care facilities (11 outbreaks, 48 %). There were seven outbreaks in hospitals, one outbreak in a childcare facility, two outbreaks in schools and two outbreaks in other institutional settings. Most outbreaks were classified as person to person transmission outbreaks (19 outbreaks, 83%) with a small number classified as unknown mode of transmission (4 outbreaks, 17%). The aetiogical agent was identified as norovirus in 16 outbreaks, and unknown in the seven remaining non-foodborne outbreaks.

Cluster investigations

There was one cluster investigation into cases of cryptosporidiosis conducted during the third quarter of 2023. There were five cases clustered in the South of the state. Median age of cases was 33 years (range 1 to 60 years) and 60% were male. No common point sources were identified, and the source of infection was not identified.

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