



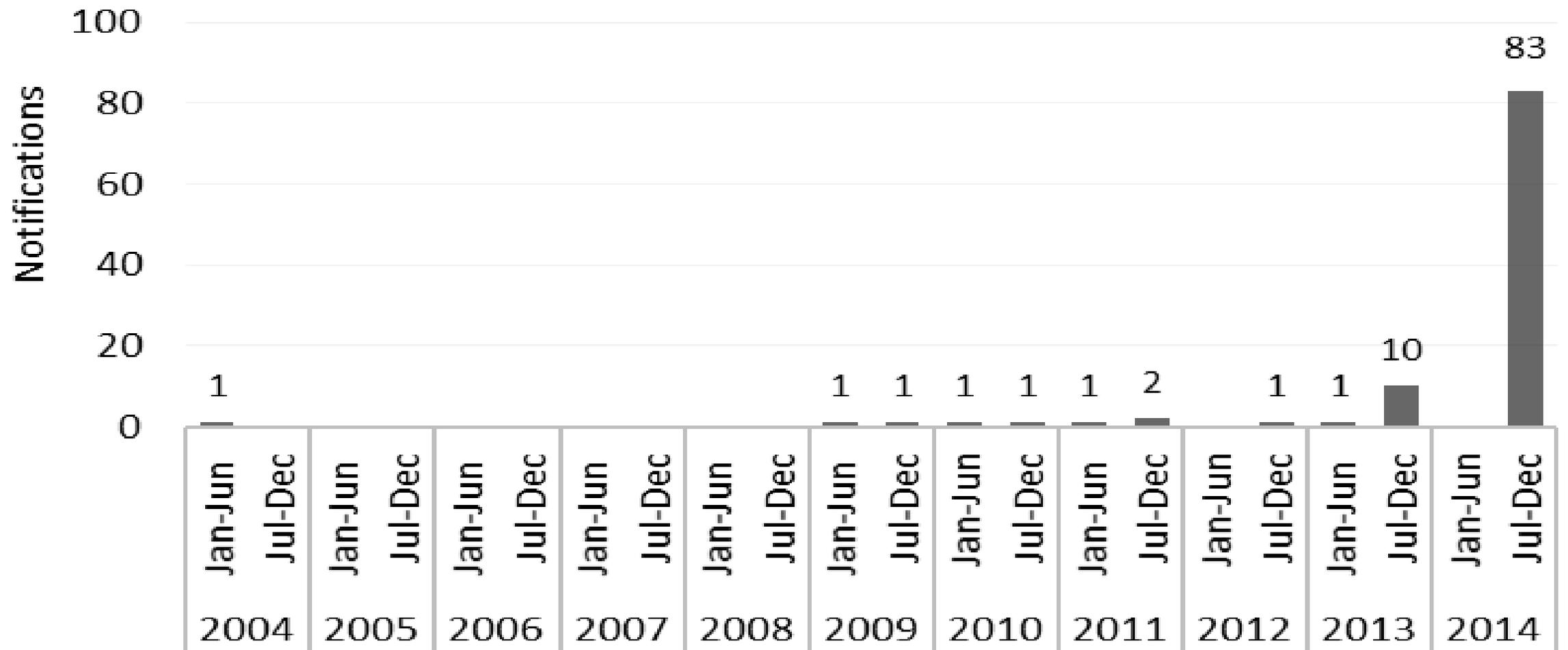
# ***Yersinia pseudotuberculosis* outbreak - a public health unit perspective**

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Community and Public Health

# Background

- Increase in notifications of yersiniosis seen nationally from beginning of September 2014
- High proportion were *Yersinia pseudotuberculosis*
- ESR's Enteric Reference Laboratory undertook PFGE analysis on samples confirming most YPTB isolates genetically indistinguishable
- Cases identified predominantly from Canterbury, Wellington, Auckland and Bay of Plenty

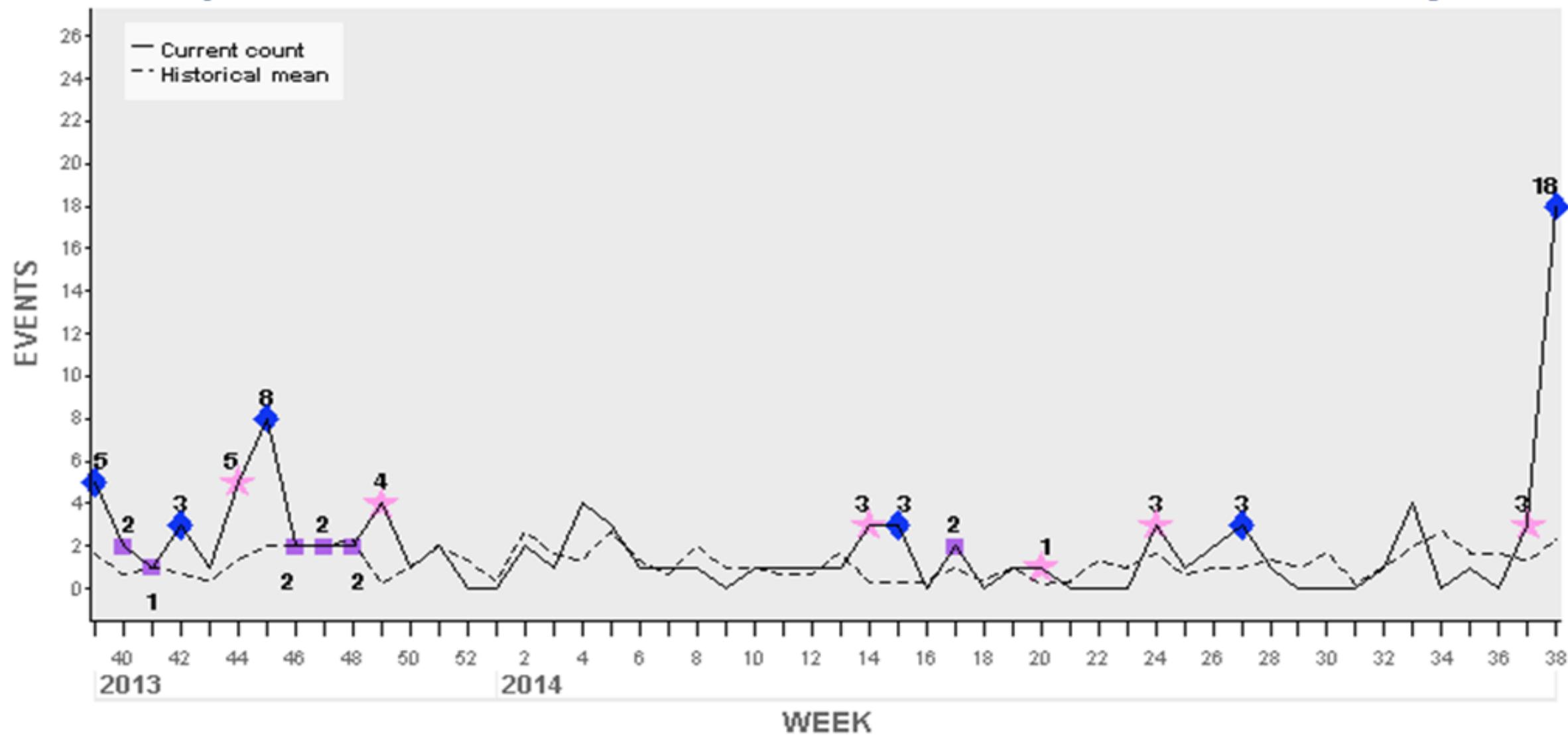
Canterbury presumptive and probable *Yersinia pseudotuberculosis* notifications by six-monthly reporting with number of notifications: 2004 - 3 November 2014



# Yersiniosis

ESR: Canterbury DHB

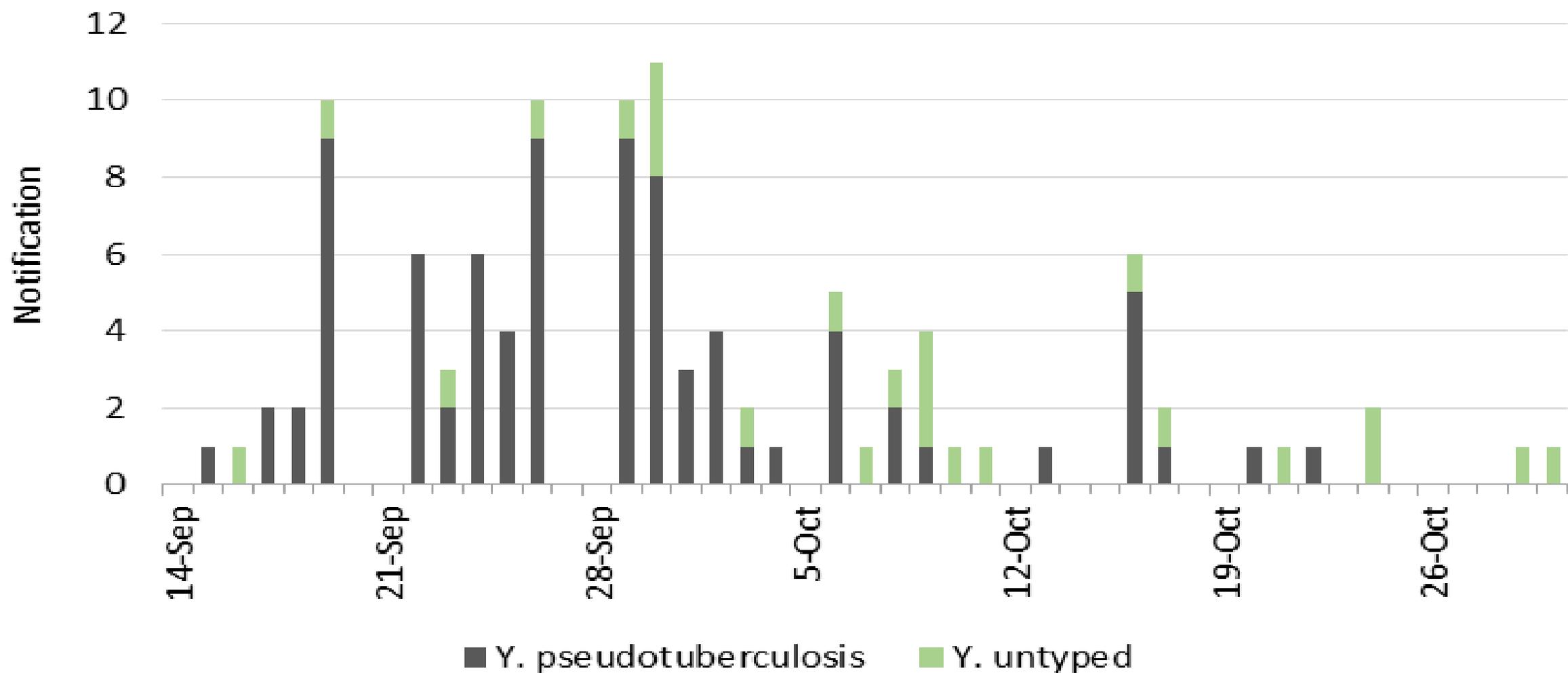
Ending Week 38



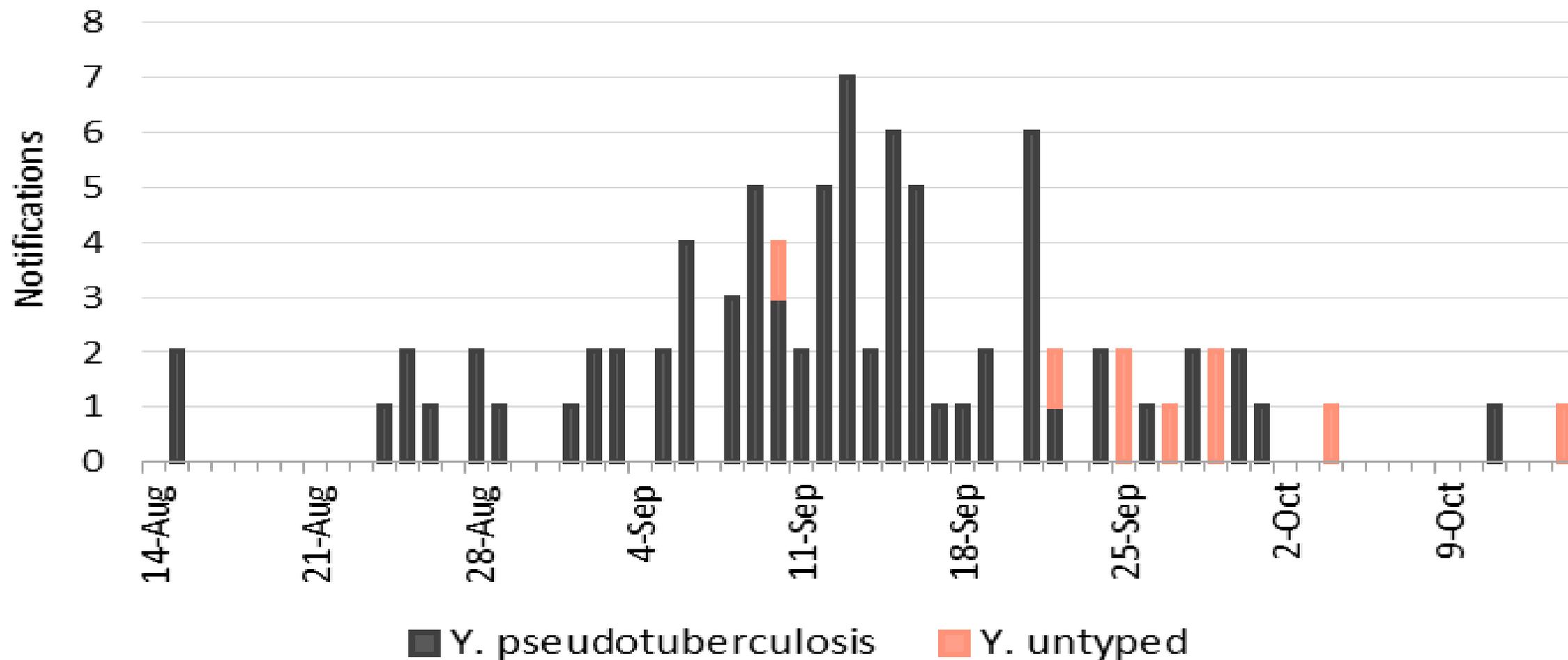
# Initial PHU outbreak response

- Initial discussion with ESR and other affected public health units
- CPH outbreak team (CIMS) established
- Enhanced case investigation with shotgun questionnaire administered by phone (cf. usual postal questionnaire)
- Local epidemiology examined and compared with national picture
- Sitreps shared with ESR, other PHU and Ministry of Health (later MPI)

Canterbury probable and presumptive *Yersinia pseudotuberculosis*  
and *Yersinia* untyped notifications by date of notification:  
1 September - 3 November 2014

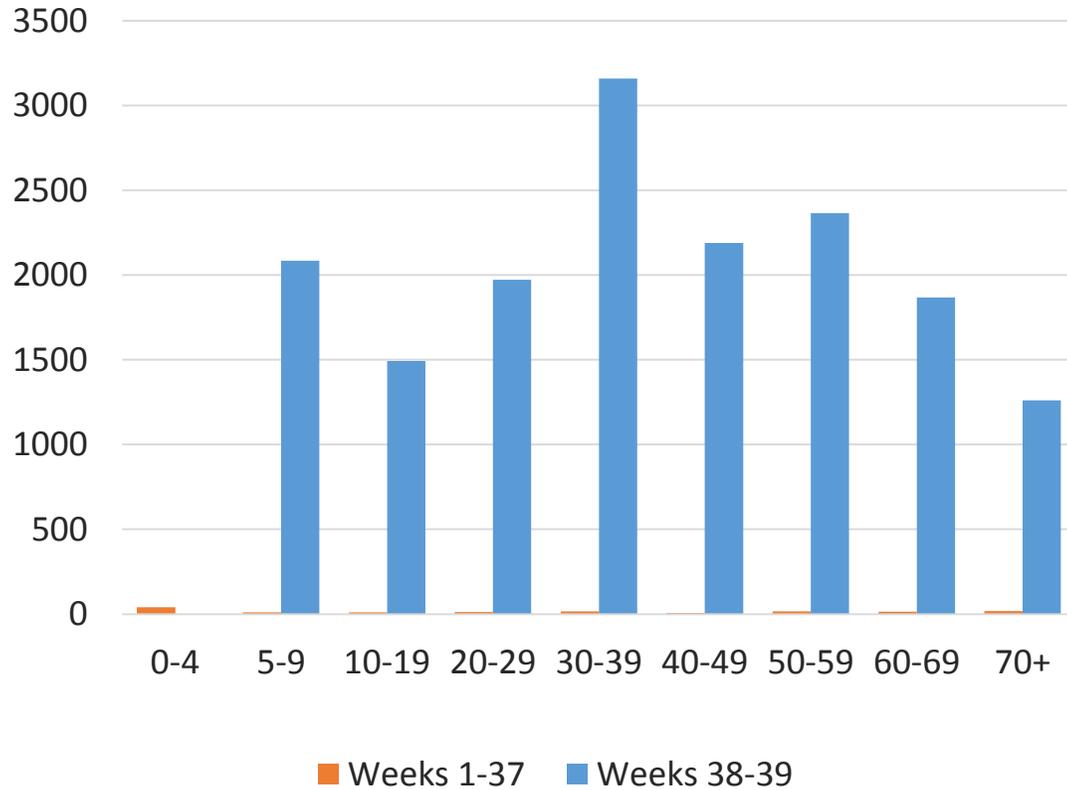


# Canterbury probable and presumptive *Yersinia pseudotuberculosis* and *Yersinia* untyped notifications by date of onset: 14 August - 3 November 2014

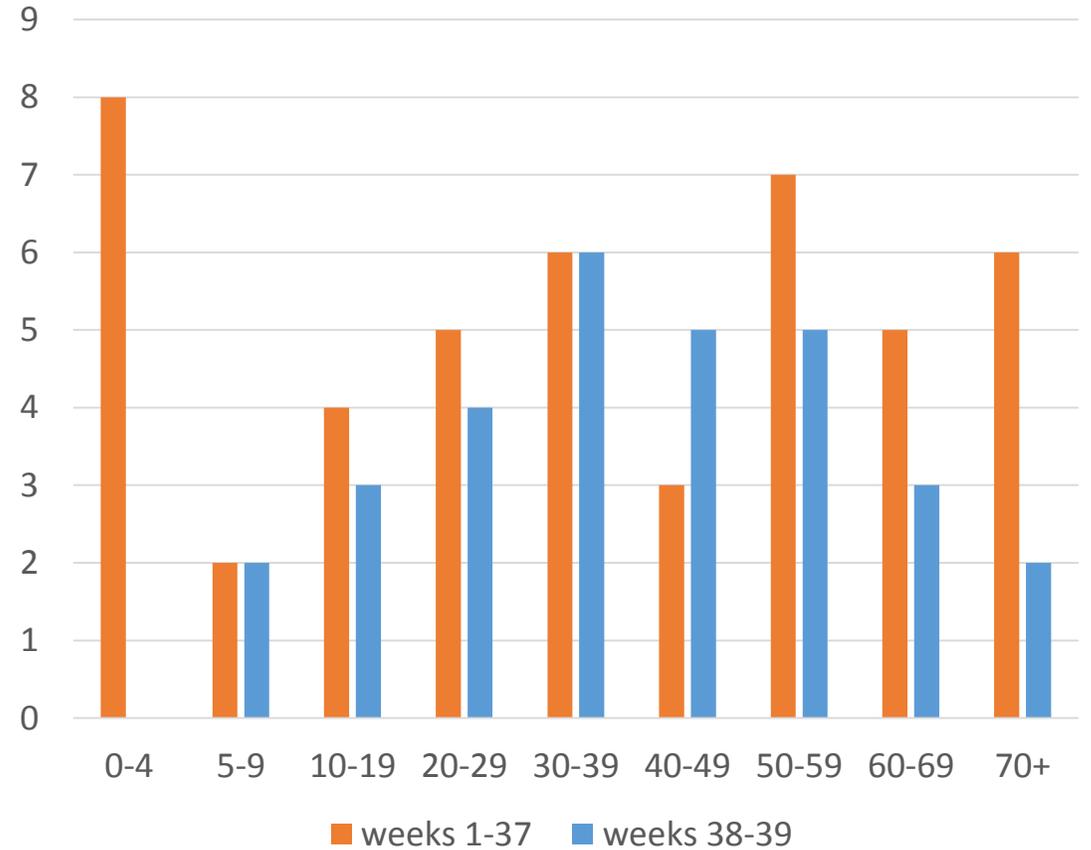


# Age

Annualised rates per 100,000 population by age group for weeks 1-37 and 38-39, 2014 for Canterbury yersiniosis notifications



Canterbury yersiniosis notifications by age: weeks 1-37 and 38-39, 2014



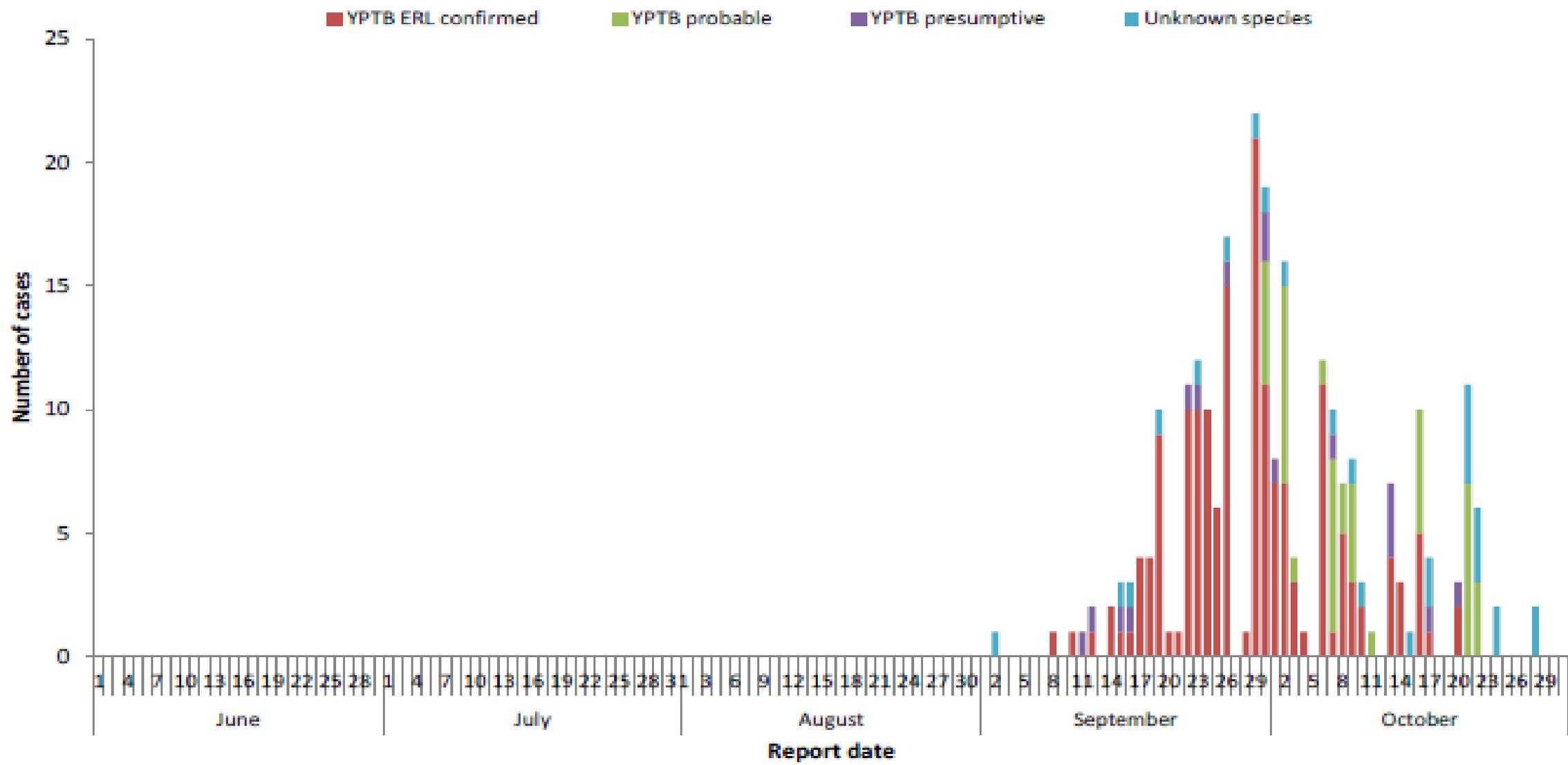
## Sex

	Weeks 1-37	Weeks 38-39
Male	25 (54%)	11 (37%)
Female	21 (46%)	19 (63%)

# Geographic distribution

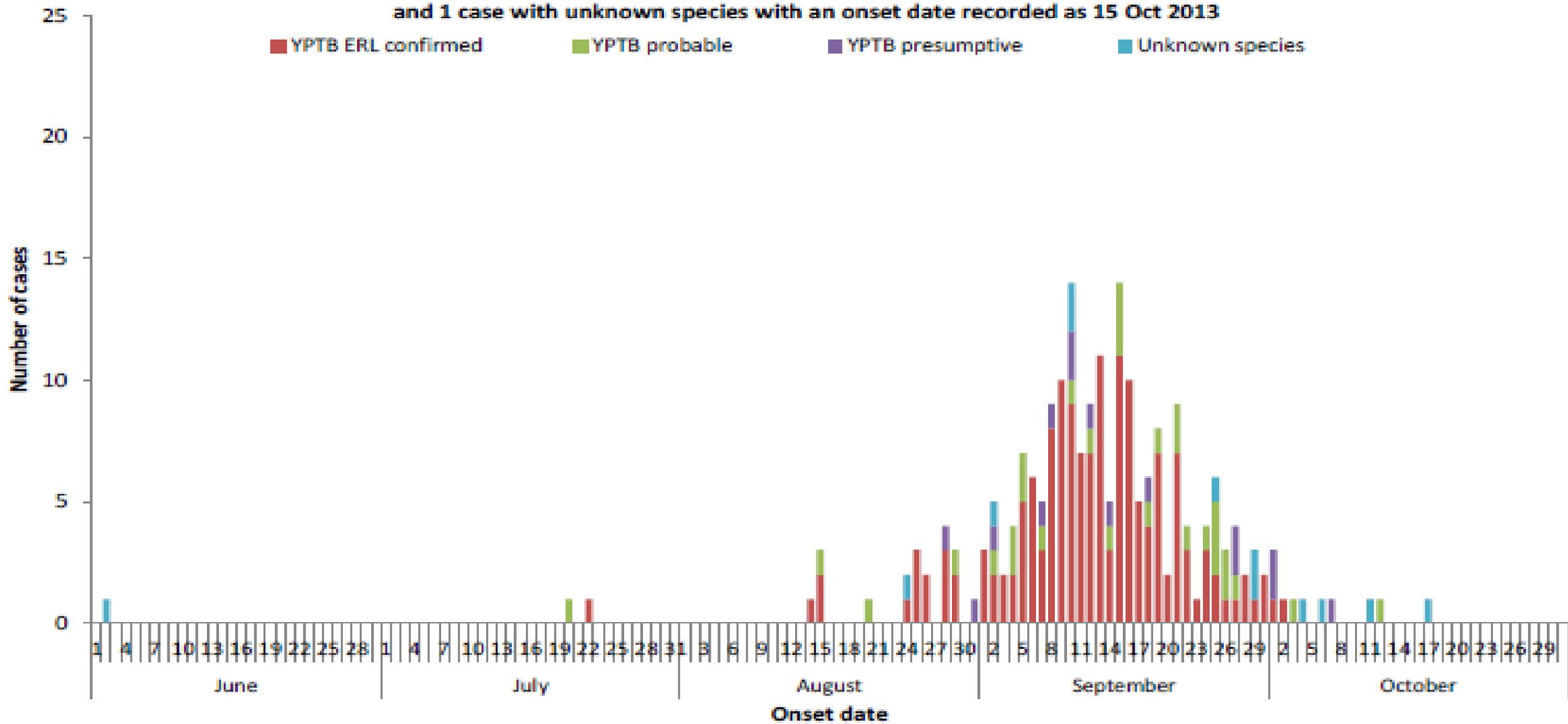


Number of *Yersinia pseudotuberculosis* and unknown *Yersinia* species notifications reported to EpiSurv since 01 September 2014, by status and report date (as of 1400 hours 28 October 2014, n=251)



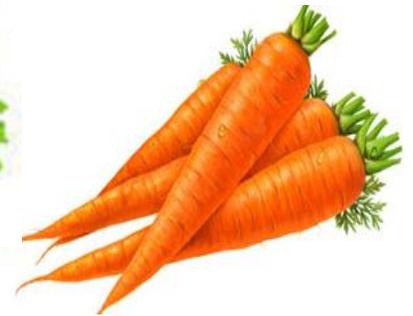
**Number of *Yersinia pseudotuberculosis* and unknown *Yersinia* species notifications reported to EpiSurv since 01 September 2014, by status and onset date (as of 1400 hours 28 October 2014, n=214)**

**Excludes 37 cases with no onset date recorded [YPTB ERL (8), YPTB probable (14), YPTB presumptive (1), Unknown (13)] and 1 case with unknown species with an onset date recorded as 15 Oct 2013**



# National case control study

- Carried out by ESR
- Used REDCap and further revised versions of questionnaire
- PHUs interviewed cases and helped to provide controls
- Interim report (96 cases, 112 controls) 8 October 2014
- Three food exposures found in >50% of cases
  - Lettuce (91%)
  - Lettuce from supermarket or shop (90%)
  - Carrots from supermarket or shop (72%)



# Summary of outbreak

- Between 1 September and 28 October 2014, 351 cases of Yersiniosis were reported to EpiSurv
- 225 cases were *Yersinia pseudotuberculosis*
- 70 cases (31%) were hospitalised
- National surveillance ended 31 October 2014
- CPH surveillance ended 3 November 2014
- MPI Outbreak Source Investigation Report 18 November 2014

*“...establishment of a causal link between a specific vector and the outbreak is unlikely despite the identification of distribution patterns that matched the geographic distribution of the outbreak”*

# Practical considerations

- Multi-jurisdictional outbreak – response coordination
- CPH staff not fully familiar with REDCap at that time, so manual systems used to capture data which was then entered into REDCap
- PHU resourcing
  - 40-45 minutes to complete each questionnaire by phone
  - Multiple questionnaires (shorter each time)
  - Duration of response and maintaining capacity
- Multi-agency response with differences in approach to investigation, inter-agency communication, and public risk communication