



Infection reports

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Enteric

Enteric fever surveillance quarterly report (England, Wales and Northern Ireland): fourth quarter 2014

This quarterly report summarises the epidemiology of laboratory confirmed cases of typhoid and paratyphoid reported in England, Wales and Northern Ireland between October and December 2014. It includes both reference laboratory and enhanced enteric fever surveillance data. All data for 2014 presented below are provisional; more detailed reports will be produced on an annual basis. More information about enteric fever surveillance, including previous reports, is available on the PHE website [1].

National summary

In the fourth quarter (Q4) of 2014, 60 laboratory confirmed cases of enteric fever were reported in England (table 1), 13% lower than the fourth quarter of 2013 and 33% below the rolling mean (89) for Q4 2007 to 2014 (figure 1). There were no provisional cases reported in Wales and Northern Ireland for Q4. A decrease in case numbers has been seen for *S. Typhi*, 33 in Q4 2014 compared to 50 in Q4 2013, 34% lower (table 1).

Figure 1 Laboratory confirmed cases of enteric fever by organism, England, Wales and Northern Ireland: fourth quarter 2007 - 2014

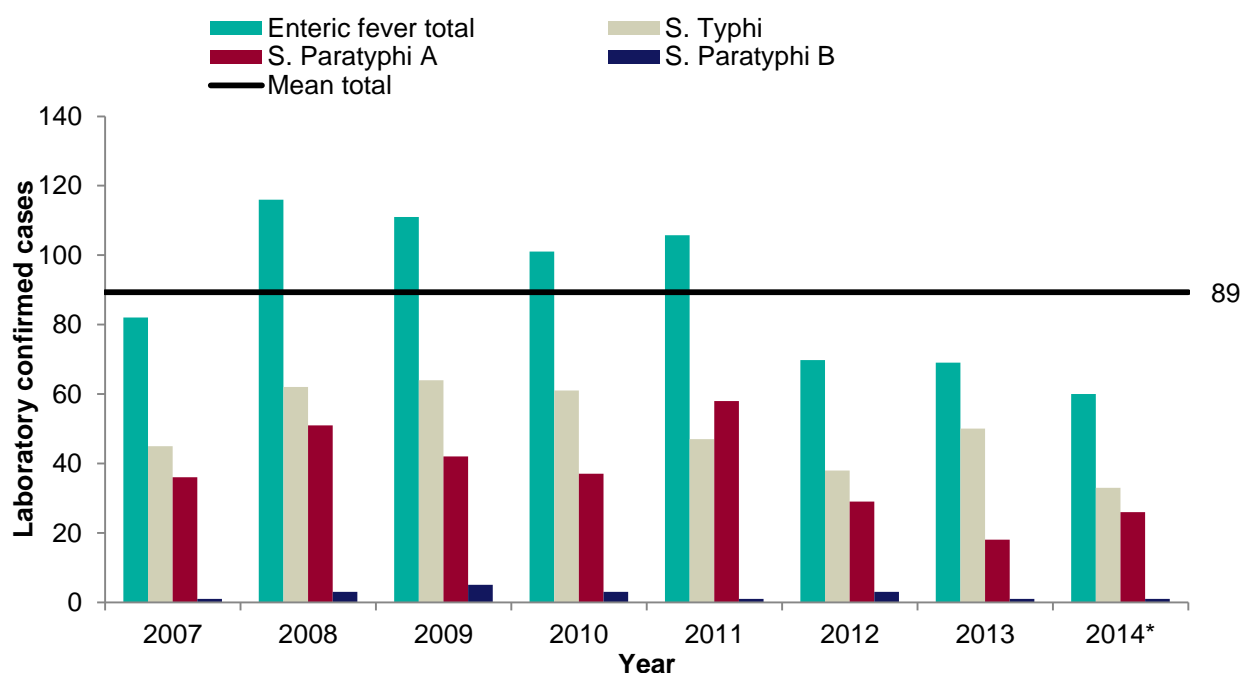


Table 1 Laboratory confirmed cases of enteric fever, England, Wales and Northern Ireland: fourth quarter 2007 – 2014

Organism	Laboratory confirmed cases							
	Q4 2014	Q4 2013	Q4 2012	Q4 2011	Q4 2010	Q4 2009	Q4 2008	Q4 2007
<i>Salmonella</i> Typhi	33	50	38	47	61	64	62	45
<i>Salmonella</i> Paratyphi A	26	18	29	58	37	42	51	36
<i>Salmonella</i> Paratyphi B	1	1	3	1	3	5	3	1
<i>Salmonella</i> Paratyphi C	-	-	-	-	-	-	-	-
<i>Salmonella</i> Typhi and Paratyphi A	-	-	-	-	-	-	-	1
Enteric fever total	60	69	70	106	101	111	116	83

Table 2 Laboratory confirmed cases of enteric fever by organism and phage type, England, Wales and Northern Ireland: fourth quarter 2014

Phage type	S. Paratyphi A	Phage type	S. Typhi
PT 13	9	PT E1	12
PT 1	4	PT E9 Var.	9
PT 1a	4	Untyp.VI	7
PT 4	3	PT E14	2
PT 6a	2	VI Neg.	1
PT 14	2	PT C4	1
PT 2	2	PT F1	1
Total	26	Total	33

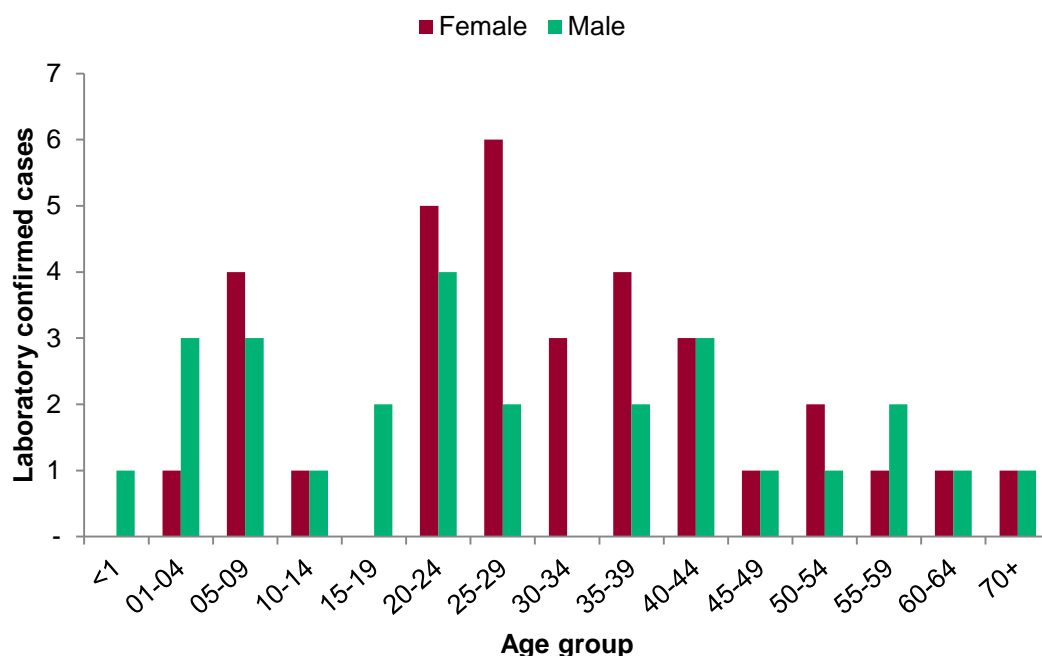
Phage type	S. Paratyphi B
Taunton	1
Total	1

In general, *S. Typhi* phage types E1, Untyp. VI and E9 Var and *S. Paratyphi A* phage types 1, and 13 occur most frequently (table 2) [2].

Age/sex distribution

In the fourth quarter of 2014, the median age of cases was 29 years and 25% (33% for males and 18% for females) were aged 16 years and under. Females represented 55% of all cases and males 45%, which is unusual as typically there are slightly more males with typhoid consistent with the proportion who travel (figure 2), however this may be artefactual due to the smaller numbers reported in Q4.

Figure 2 Laboratory confirmed cases of enteric fever by age and sex (N=60): fourth quarter 2014



Geographical distribution

London PHE Region reported 32% of the total cases during the fourth quarter of 2014 (table 3). Only regions are shown in this report as the numbers are too small to disaggregate by PHE Centre; between one and 19 cases were reported by each of 13 PHE Centres during the fourth quarter in 2014. PHE Centre data is available for local PHE teams on request.

Table 3. Laboratory confirmed cases of enteric fever by region: fourth quarter 2014

Region	Q4 2014	Q4 2013	% change
London	19	35	-45.7%
North of England	15	13	15.4%
South of England	12	16	-25.0%
Midlands and East of England	14	23	-39.1%
Wales	-	2	-100.0%
Northern Ireland	-	-	-
Grand total	60	89	-32.6%

Travel history

In the fourth quarter, travel history was known for 54 (90%) cases; of which 52 cases were presumed to be acquired abroad and two cases had not travelled outside the UK in the 28 days prior to symptoms.

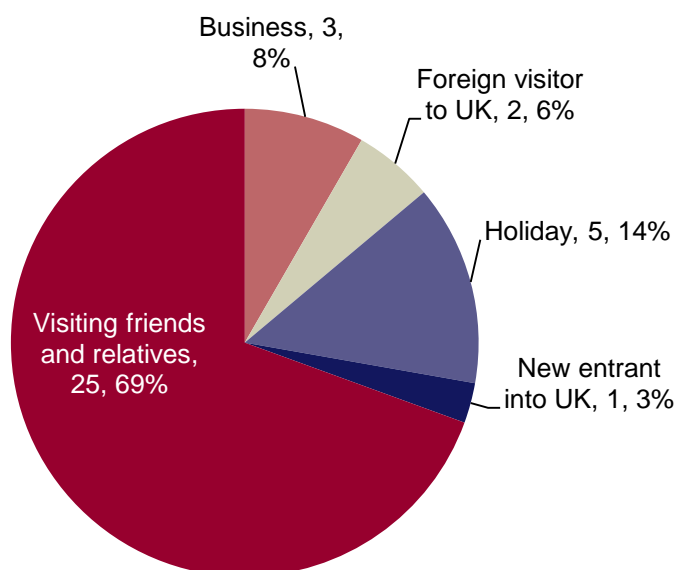
Travel-associated cases

Travel-associated cases were likely to have acquired their infection in: India (20); Pakistan (24); Bangladesh (five); Zimbabwe (three); Turkey and Nepal (two each); China, Cambodia, South Africa, Afghanistan, Peru (one each). For two cases, country of travel was not stated. Some cases travelled to more than one country so totals will not equal the number of total cases that travelled. Where multiple countries of travel have been stated by the case, only risk countries, as identified by the National Travel Health Network and Centre [3], were included for analysis. If a case travelled to multiple risk countries each country was counted individually. India and Pakistan continue to be the most frequently reported countries of travel for the fourth quarter.

Reason for travel

Of the 52 cases that had travelled abroad, reason for travel was known for 36. Among those, 69% of cases travelled to visit friends and relatives (figure 4).

Figure 4 Laboratory-confirmed cases of enteric fever that have travelled abroad (N=36) by reason for travel: fourth quarter 2014



Non-travel-associated cases

Two cases in the fourth quarter had enhanced information available stating they had not travelled abroad within 28 days of developing symptoms. One of the cases was suspected to have acquired *S. Typhi* infection from a microbiology lab where the case worked. Neither of the two cases had links to known cases or travellers from endemic countries and no other possible sources have been identified.

Data sources and acknowledgements

Data were collated and analysed by the Travel and Migrant Health Section, Centre for Infectious Disease Surveillance and Control, Colindale. Laboratory data were provided by Gastrointestinal Bacterial Reference Unit, Microbiology Services, Colindale. Other surveillance data were provided by Environmental Health Officers and local health protection colleagues in PHE through enteric fever enhanced surveillance.

References

1. PHE website. Enhanced surveillance of enteric fever, <https://www.gov.uk/government/collections/typhoid-and-paratyphoid-guidance-data-and-analysis>
2. PHE website. Typhoid and paratyphoid: laboratory confirmed cases in England, Wales and Northern Ireland, <https://www.gov.uk/government/publications/typhoid-and-paratyphoid-laboratory-confirmed-cases-in-england-wales-and-northern-ireland>
3. National Travel Health Network and Centre (NaTHNaC) website, <http://www.nathnac.org/>.