



Infection report

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Enteric

Enteric fever surveillance quarterly report (EWNI): Q4/2013

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 2013. It includes both reference laboratory and enhanced enteric fever surveillance data. All data are provisional; final and more detailed reports will be produced on an annual basis. More information about enteric fever surveillance, including previous reports, is available on the enhanced enteric fever surveillance page of the PHE health protection website [1].

National summary

In the fourth quarter of 2013, 69 laboratory confirmed cases of enteric fever were reported in England, Wales and Northern Ireland [table 1], just one case less than the fourth quarter of 2012 and 27% below the rolling mean (94) for Q4 2007 to 2013 [figure 1]. A 32% increase in case numbers was seen for *S. Typhi* (50 in Q4 2013 compared to 38 in Q4 2012) [table 1].

Figure 1 Laboratory confirmed cases of enteric fever by organism, England, Wales and Northern Ireland: fourth quarter 2007-2013

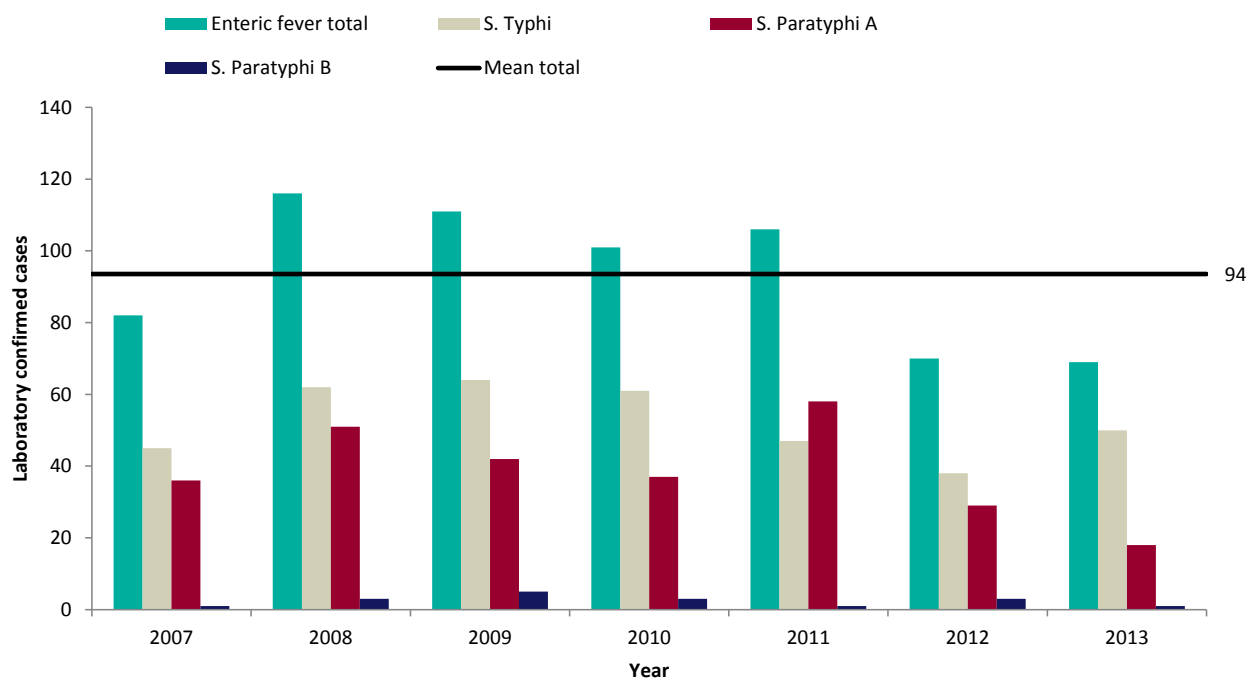


Table 1 Laboratory confirmed cases of enteric fever, England, Wales and Northern Ireland: fourth quarter 2007-2013

Organism	Laboratory confirmed cases						
	Q4 2013	Q4 2012	Q4 2011	Q4 2010	Q4 2009	Q4 2008	Q4 2007
<i>Salmonella</i> Typhi	50	38	47	61	64	62	45
<i>Salmonella</i> Paratyphi A	18	29	58	37	42	51	36
<i>Salmonella</i> Paratyphi B	1	3	1	3	5	3	1
Enteric fever total	69	70	106	101	111	116	82

Table 2 Laboratory confirmed cases of enteric fever by organism and phage type, England, Wales and Northern Ireland fourth quarter 2013

Phage type	<i>S. Typhi</i>
PT E1	15
PT E9 Var.	12
Untyp.VI	9
PT A	3
Untyp.VI 2	2
Degr.VI	2
PT 28	1
Untyp.VI 7	1
Untyp.VI 6	1
PT C1	1
VI Neg.	1
PT D2	1
PT O	1
Total	50

Phage type	<i>S. Paratyphi A</i>
PT 1	6
PT 2	3
PT 13	3
PT 1a	3
RDNC	2
PT 4	1
Total	18

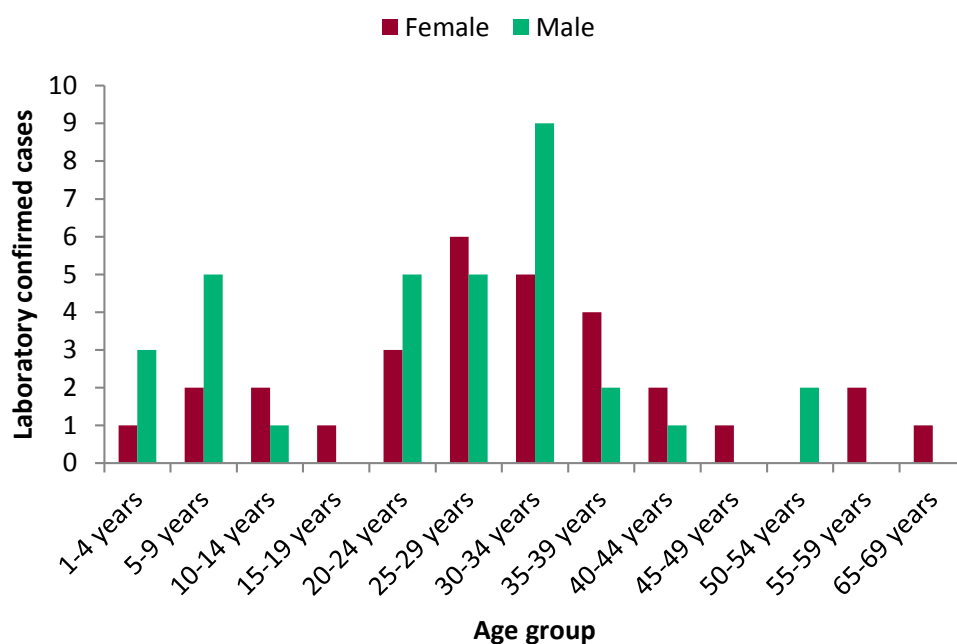
Phage type	<i>S. Paratyphi B</i>
Dundee	1
Total	1

In Q4 2013, *S. Typhi* phage types E1, E9 var and Untyp.VI and *S. Paratyphi A* phage type 1 were the most frequently reported [2].

Age/sex distribution

In the fourth quarter of 2013, the median age of cases was 28 years and 22% (17% for females and 27% for males) were aged 16 years and under. Females represented 52% of the total number of cases [figure 2].

Figure 2 Laboratory confirmed cases of enteric fever by age and sex (N=63): fourth quarter 2013



Geographical distribution

London PHE Centre (PHEC) reported 38% of the total cases during the fourth quarter of 2013, followed by Sussex, Surrey and Kent and South Midlands and Hertfordshire (10% each) [table 3].

Table 3 Laboratory confirmed cases of enteric fever by region: fourth quarter 2013

Geographical area	Q4 2013	Q4 2012	% change
London PHEC	24	28	-14.3%
Sussex, Surrey and Kent PHEC	6	-	-
South Midlands and Hertfordshire PHEC	6	4	50.0%
Thames Valley PHEC	4	5	-20.0%
Cumbria and Lancashire PHEC	4	1	300.0%
East Midlands PHEC	4	2	100.0%
West Midlands PHEC	3	7	-57.1%
Yorkshire and the Humber PHEC	2	6	-66.7%
Greater Manchester PHEC	2	7	-71.4%
Avon, Gloucestershire and Wiltshire PHEC	2	5	-60.0%
Anglia and Essex PHEC	2	-	-
Wessex PHEC	1	1	0.0%
Northern Ireland	1	-	-
Devon, Cornwall and Somerset PHEC	1	1	0.0%
Wales	1	3	-66.7%
Total	63	70	-10.0%

PHEC: PHE Centre

Carriers/asymptomatic cases

Of the 69 laboratory confirmed infections of enteric fever, one was identified as a carrier and is excluded from further analysis in this report.

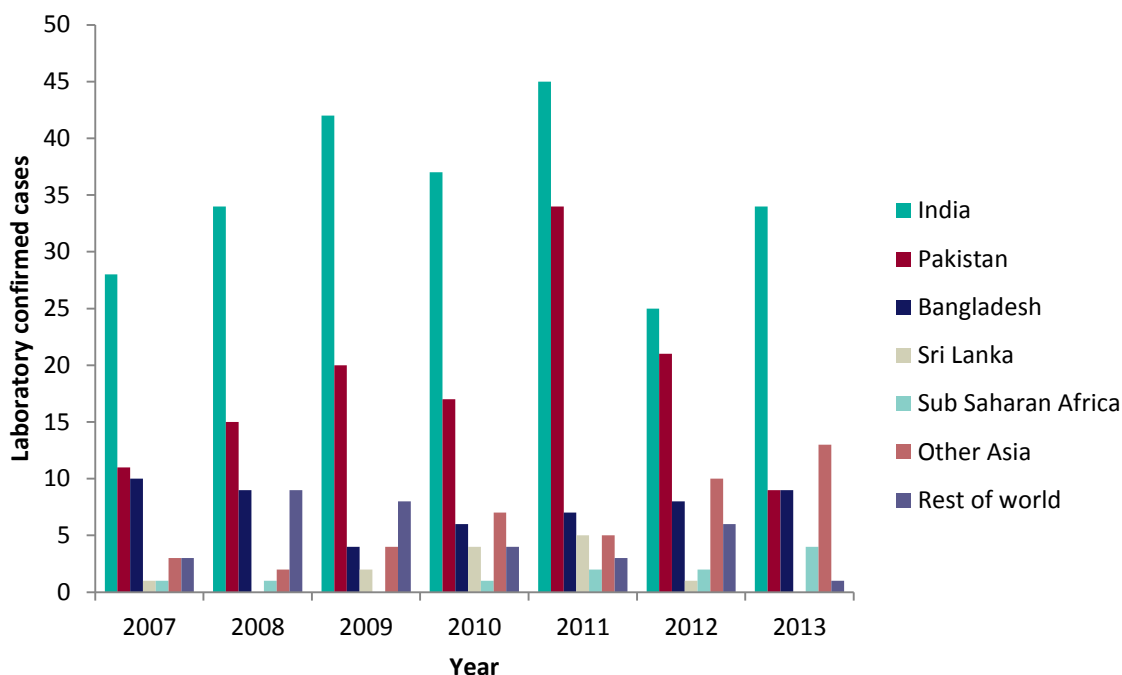
Travel history

In the fourth quarter, travel history was known for 68 cases (67 from enhanced surveillance forms and one from laboratory data); 63 (93%) cases had travelled abroad.

Travel-associated cases

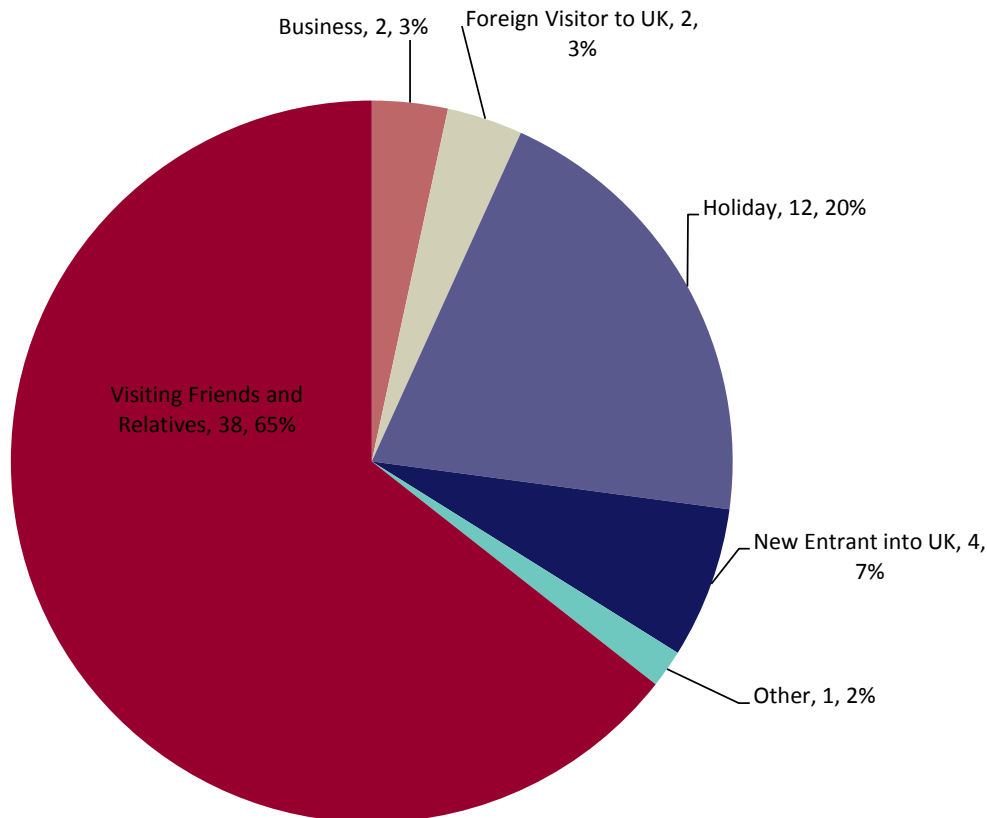
Travel-associated cases were likely to have acquired their infection in: India (34), Pakistan (nine), Bangladesh (nine), Sri Lanka (two), Sub Saharan Africa (two), Other Asia (two), and Rest of world (one each). Some cases travelled to more than one country so totals above will not equal the number of 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 has travelled to multiple risk countries each country is counted individually. India and Pakistan continue to be the most frequently reported countries of travel throughout the year [figure 3].

Figure 3 Laboratory-confirmed cases of enteric fever, England, Wales and Northern Ireland by country of travel: fourth quarter 2007-2013



Reason for travel

Figure 4 Laboratory-confirmed cases of enteric fever that have travelled abroad (N=59) by reason for travel: fourth quarter 2013



Of the 63 cases that had travelled abroad, reason for travel was known for 59; 65% of cases travelled to visit friends and relatives mainly in the Indian sub-continent, 20% travelled abroad for a holiday and 7% were new entrants to the UK [figure 4].

Non-travel-associated cases

Five cases in the fourth quarter had not travelled abroad within 28 days of developing symptoms. Two of these cases had travelled to an endemic country but not in the previous 28 days before onset. One case had a household visitor from an endemic country and one case lived in the same household as a confirmed case. The remaining case had no possible sources of infection that were 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 the PHE Salmonella Reference Service, Colindale. Other surveillance data were provided by Environmental Health Officers and local health protection colleagues in the PHE through enteric fever enhanced surveillance.

References

1. [Enhanced surveillance of enteric fever](#). PHE health protection website: Infections A-Z › Travel health › General Information › Enhanced surveillance of enteric fever
2. [Enteric fever surveillance quarterly report \(England, Wales and Northern Ireland\): third quarter 2013](#). *HPR* 7(46), 8 November 2013. Archived enteric routine data reports: <http://www.hpa.org.uk/hpr/archives/Infections/2013/enteric13.htm>.
3. National Travel Health Network and Centre (NaTHNaC) website: <http://www.nathnac.org/>.