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News

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National outbreak of *Escherichia coli* VTEC O157 PT8 VT2

In early August 2015 a number of cases of *Verocytotoxigenic escherichia coli* (VTEC) serotype O157 phage type 8 verotoxin type 2a (MLVA profile 17-9-6-13-8-4-5-5 or a single locus variant thereof) were found to be genetically clustered by whole genome sequencing (WGS) and to share the same SNP address.

As of 3 September, the cluster comprised 38 confirmed cases, with one additional probable case and four possible cases for which WGS results are pending. Onset dates for confirmed and probable cases ranged from 29 July to 12 August 2015. Cases are widely distributed across England, with one case in Wales but none identified in Scotland to date. In England, the majority of confirmed cases (seven each) were reported from Anglia and Cheshire and Merseyside, with 14 additional Health Protection Teams across the country also affected and reporting between one and three cases each. Most cases were female aged 18 to 73 years.

Analysis of enhanced VTEC questionnaires has shown that 33/38 confirmed members of the cluster had exposure to pre-packed salad and that 19 of these had purchased their prepacked salad at the same supermarket chain. A focused survey carried out with 24 of the confirmed cases indicated that the most common exposures were to two salad products from one supermarket chain which share one ingredient. Trace-back has been initiated and one packer/distributor has been identified which is supplied by three farms. Samples are being collected from the supermarket chain outlets visited by cases, the distributor/packer and from the supply farms. Investigations to determine the exact source and cause of contamination are on-going.

Outbreak control team (OCT) meetings were held on 19 August, 24 August and 1 September. The OCT is comprised of epidemiological and laboratory scientists from the Gastrointestinal Infection Department of PHE's National Infection Service, scientists from the PHE Food, Water and Environment laboratory, representatives of local PHE HPTs with cases in their area, and representatives of the Food Standards Agency.

Pre-natal pertussis vaccine coverage 2014-15 annual report

A new analysis of the coverage achieved by the prenatal pertussis immunisation programme in England, for the year April 2014 to March 2015, has been published by PHE [1].

Data for women who gave birth in the year were automatically extracted from 94% of GP practices in England and monitored, validated and analysed by PHE. The annual report provides a more detailed analysis of coverage than in recently published quarterly reports [2]. Ethnicity data is included in the new analysis for the first time.

Although laboratory confirmed pertussis cases in infants under three months of age have remained low since the immunisation programme began in autumn 2012, incidence in those aged one year and older has continued to be higher than before 2012 [3]. PHE has issued a press release calling for pregnant women to take up the pertussis vaccine in order to protect themselves and their babies [4].

References

1. PHE (September 2015). [Prenatal pertussis immunisation programme 2014/15: annual vaccine coverage report for England](#).
 2. [“Pertussis immunisation in pregnancy: vaccine coverage estimates \(England\)” webpage](#).
 3. [Laboratory confirmed pertussis in England: data to end-June 2015](#), HPR 9(30), 28 August 2015.
 4. [“New whooping cough figures prompt call for pregnant women to get immunised”](#), PHE press release, 3 September 2015.
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EVD: international epidemiological summary (at 30 August 2015)

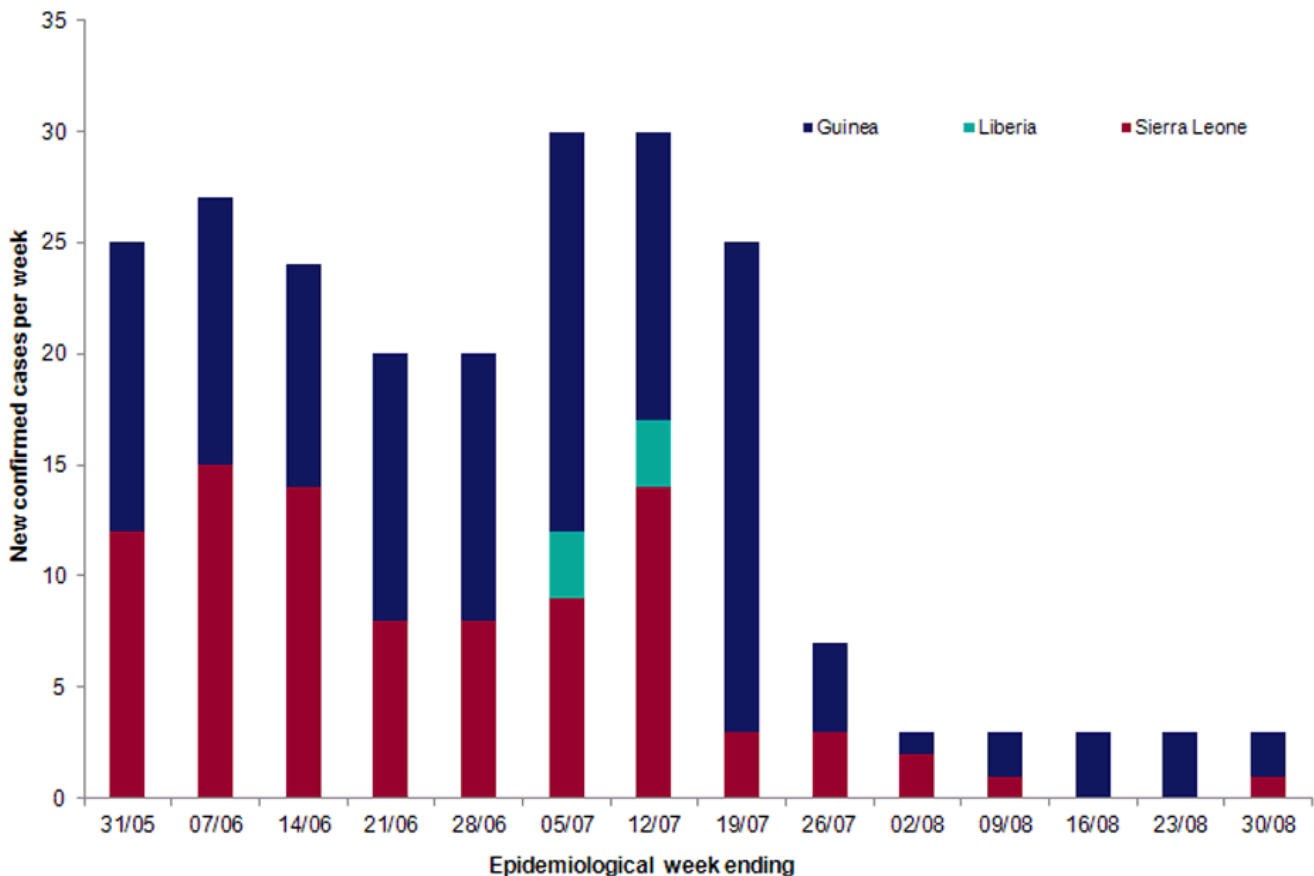
The West African Ebola virus disease (EVD) outbreak continues with case incidence in the affected countries remaining at three confirmed cases for five consecutive weeks (see figure).

As of 30 August 2015, a total of 28,109 clinically compatible cases of EVD (15,226 confirmed) including 11,305 deaths, have been reported associated with the West African outbreak.

In the last fortnight, a total of six cases have been reported, five in Guinea and one in Sierra Leone. The Guinean cases have been reported in two prefectures, Conakry the capital (four cases) and Dubréka (one case), with ongoing occurrence of cases emerging from unknown sources. The single case in Sierra Leone was detected following a community death in the district of Kambia, an area which last reported a case in early July. Investigations into the source of infection for this case continue. Vaccination is currently being undertaken in Guinea and Sierra Leone of all adult contacts of confirmed cases.

Following 42 days since the second negative test on the last case, Liberia was declared EVD transmission free on 3 September and now enters a 90 day period of heightened vigilance.

Number of new confirmed cases reported per week (17 May to 30 August 2015) in affected countries in West Africa



Data source: WHO Ebola Situation Report 2 September 2015.

More detailed information is available in PHE's full weekly [Ebola Epidemiological Update](#). A graphical indication of currently affected areas (in Guinea, Liberia and Sierra Leone) is presented in the [Ebola Outbreak Distribution Map](#).

Countries currently or previously affected by EVD as at 30 August 2015

Country		Total CCCs [‡]	Total CCs	Total deaths	New CCCs [‡] reported in preceding week [*]	New confirmed cases in preceding week [*]	Current status (Date declared EVD free)
Guinea		3,792	3,337	2,529	0	2	Active transmission
Liberia	Outbreak 1	10,666	3,151	4,806	–	–	Declared over 9 May 2015
	Outbreak 2	6	6	2	–	–	Declared over 9 May 2015 [§]
Sierra Leone		13,609	8,698	3,953	68	1	Active transmission
Italy		1	1	0	–	–	EVD free (20 July 2015)
UK		1	1	0	–	–	EVD free (7 March 2015)
Nigeria		20	19	8	–	–	EVD free (19 Oct 2014)
Senegal		1	1	0	–	–	EVD free (17 Oct 2014)
Spain		1	1	0	–	–	EVD free (2 Dec 2014)
Mali		8	7	6	–	–	EVD free (18 Jan 2015)
USA		4	4	1	–	–	Considered EVD free [^] (23 Oct 2014 [^])
TOTAL		28,109	15,226	11,305	68	3	–

Data sources: WHO Ebola Situation Report 2 September 2015 (data to 30 August).

[‡] Clinically compatible cases (CCC) represents a combination of suspected, probable and confirmed cases. CCC totals are under constant revision and reclassification as suspect cases are confirmed or discounted.

^{*} The reporting period is one week: 23 August to 30 August (WHO Ebola situation report 2 September 2015).

[§] Outbreak 2 declared over on 3 September 2015.

[^] More than 42 days have passed since last case tested negative. For further information see [PHE weekly epidemiological update](#).

Cyclospora outbreak related to travel to Mexico: an update

The outbreak of cyclospora associated with travel to Mexico, previously reported in *HPR* on 24 July [1], has been ongoing since 1 June 2015. As of 2 September 2015, 69 cases with known travel to Mexico had been reported in England, Scotland and Wales, of which 39 had been confirmed by a reference laboratory. A further six cases in England were awaiting travel history information.

Where information was known, cases had been to various hotels and resorts on the Riviera Maya coast of Mexico, most of which also have their own water supply, suggesting the source is likely to be a food product that was distributed to several hotels.

The latest known date of onset of illness for cases was 7 August 2015. Onset dates were awaited for a further 11 cases recently reported in England, therefore it was unclear if the outbreak was still ongoing.

The UK travel industry is aware of the outbreak and tour operators have been given information about cyclospora in order to increase awareness of the infection among travellers to Mexico. Investigations into the cause of the outbreak by Mexican health authorities are ongoing.

Given that it is not clear if the outbreak has ceased, it is recommended that patients returning from Mexico with diarrhoea continue to be tested for *Cyclospora cayetanensis*. Cases in England should be reported to the PHE local health protection team and positive faecal specimens referred to the National Parasitology Reference Laboratory, Hospital for Tropical Diseases for confirmation and typing. Specimens in Wales and Scotland can be sent to the Cryptosporidium Reference Unit in Swansea and the Scottish Parasite Diagnostic and Reference Laboratory in Glasgow respectively.

Information about cyclospora for the public is available on the NHS Choices website.

Health advice for travellers to Mexico, including advice on food and water hygiene, is available from the National Travel Health Network and Centre [2].

Reference

1. *Cyclospora outbreak related to travel to Mexico*, *HPR* **9**(26), 24 July 2015.

Infection reports / Respiratory

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Laboratory reports of respiratory infections made to CIDSC from PHE and NHS laboratories in England and Wales: weeks 32-35/2015

Data are recorded by week of report, but include only specimens taken in the last eight weeks (i.e. recent specimens)

Table 1. Reports of influenza infection made to CIDSC, by week of report

Week	Week 32	Week 33	Week 34	Week 35	Total
Week ending	9/8/15	16/8/15	23/8/15	30/8/15	
Influenza A	10	6	4	5	25
Isolation	3	–	–	–	3
DIF *	–	1	–	1	2
PCR	1	2	2	2	7
Other †	6	3	2	2	13
Influenza B	4	4	–	2	10
Isolation	–	–	–	–	–
DIF *	1	–	–	–	1
PCR	1	3	–	2	6
Other †	2	1	–	–	3

* DIF = Direct Immunofluorescence. † Other = "Antibody detection - single high titre" or "Method not specified".

Table 2. Respiratory viral detections by any method (culture, direct immunofluorescence, PCR, four-fold rise in paired sera, single high serology titre, genomic, electron microscopy, other method, other method unknown), by week of report

Week	Week 32	Week 33	Week 34	Week 35	Total
Week ending	9/8/15	16/8/15	23/8/15	30/8/15	
Adenovirus*	62	80	59	45	246
Coronavirus	2	2	4	1	9
Parainfluenza†	71	54	44	49	218
Rhinovirus	188	168	119	112	587
RSV	40	92	26	24	182

* Respiratory samples only. † Includes parainfluenza types 1, 2, 3, 4 and untyped.

Table 3. Respiratory viral detections by age group: weeks 32-35/2015

Age group (years)	<1 year	1-4 years	5-14 years	15-44 years	45-64 years	≥65 years	Un-known	Total
Adenovirus *	27	44	15	96	46	18	–	246
Coronavirus	–	–	–	1	7	1	–	9
Influenza A	1	3	–	10	12	5	1	32
Influenza B	–	2	–	2	3	4	1	12
Parainfluenza †	53	47	12	24	45	38	–	219
Respiratory syncytial virus	63	36	11	36	16	20	–	182
Rhinovirus	172	126	56	95	76	63	–	588

* Respiratory samples only.

† Includes parainfluenza types 1, 2, 3, 4 and untyped.

Table 4 Laboratory reports of infections associated with atypical pneumonia, by week of report

Week	Week 32	Week 33	Week 34	Week 35	Total
Week ending	9/8/15	16/8/15	23/8/15	30/8/15	
<i>Coxiella burnettii</i>	–	–	–	–	–
Respiratory <i>Chlamydia</i> sp. *	4	2	–	–	6
<i>Mycoplasma pneumoniae</i>	7	8	7	5	27
<i>Legionella</i> sp.	9	18	11	11	49

* Includes *Chlamydia psittaci*, *Chlamydia pneumoniae*, and *Chlamydia* sp detected from blood, serum, and respiratory specimens.

Table 5 Reports of Legionnaires Disease cases in England and Wales, by week of report

Week	Week 32	Week 33	Week 34	Week 35	Total
Week ending	9/8/15	16/8/15	23/8/15	30/8/15	
Nosocomial	–	1	1	–	2
Community	3	6	4	5	18
Travel Abroad	1	10	4	6	21
Travel UK	5	1	2	–	8
Total	9	18	11	11	49
Male	8	16	8	7	39
Female	1	2	3	4	10

* Cases with onset of symptoms in 2015.

Forty-nine cases were reported with pneumonia. Thirty-nine males aged 35 – 86 years and 10 females aged 47 to 82 years. Eighteen cases had community-acquired infection and two cases were reported to be associated with hospital/healthcare facilities. One death was reported in a male aged 85 years.

Twenty-nine cases were reported with travel association: Bulgaria (3), Cyprus (1), France (1), France/Spain/United Kingdom (1), Greece (2), Italy (1), Italy/United Kingdom (1), Kosovo (1), Lithuania (1), Spain (6), Switzerland (1), Thailand (1), United Arab Emirates (1) and the United Kingdom (8).

Table 6. Reports of Legionnaires Disease cases in England and Wales, by PHE Centre: weeks 32-35/2015

Region/Country	Nosocomial	Community	Travel Abroad	Travel UK	Total
North of England					
North East	–	–	3	–	3
Cheshire & Merseyside	–	1	3	–	4
Greater Manchester	–	1	–	2	3
Cumbria & Lancashire	–	–	–	–	0
Yorkshire & the Humber	–	1	1	1	3
South of England					
Devon, Cornwall & Somerset	–	–	–	1	1
Avon, Gloucestershire & Wiltshire	–	3	2	–	5
Wessex	–	2	–	–	2
Thames Valley	–	–	–	–	0
Sussex, Surrey & Kent	–	–	–	1	1
Midlands & East of England					
East Midlands	–	–	–	–	0
South Midlands & Hertfordshire	–	1	–	1	2
Anglia & Essex	–	2	–	–	2
West Midlands	2	2	4	–	8
London Integrated Region					
London	–	3	3	2	8
Public Health Wales					
Mid & West Wales	–	–	1	–	1
North Wales	–	–	1	–	1
South East Wales	–	1	–	–	1
Miscellaneous					
Other	–	1	3	–	4
Not known	–	–	–	–	0
Total	2	18	21	8	49