Public Health England

Health Protection Report
weekly report

Volume 9 Number 6 Published on: **20 February 2015**

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Ebola virus disease: international epidemiological summary (at 15 February 2015)

As of 15 February 2015 (12 February for Liberia), the World Health Organization reports a total of 23,253 clinically compatible cases (CCC) of Ebola virus disease (EVD), including 9,380 deaths, associated with the West African outbreak (see table). Provided case totals and, particularly, deaths are known to under-represent the true impact of the outbreak in West Africa. While the majority of cases have been reported from Guinea, Liberia and Sierra Leone, cases have also been reported from Mali, Nigeria, Senegal, Spain, the United Kingdom (UK) and the United States of America (USA).

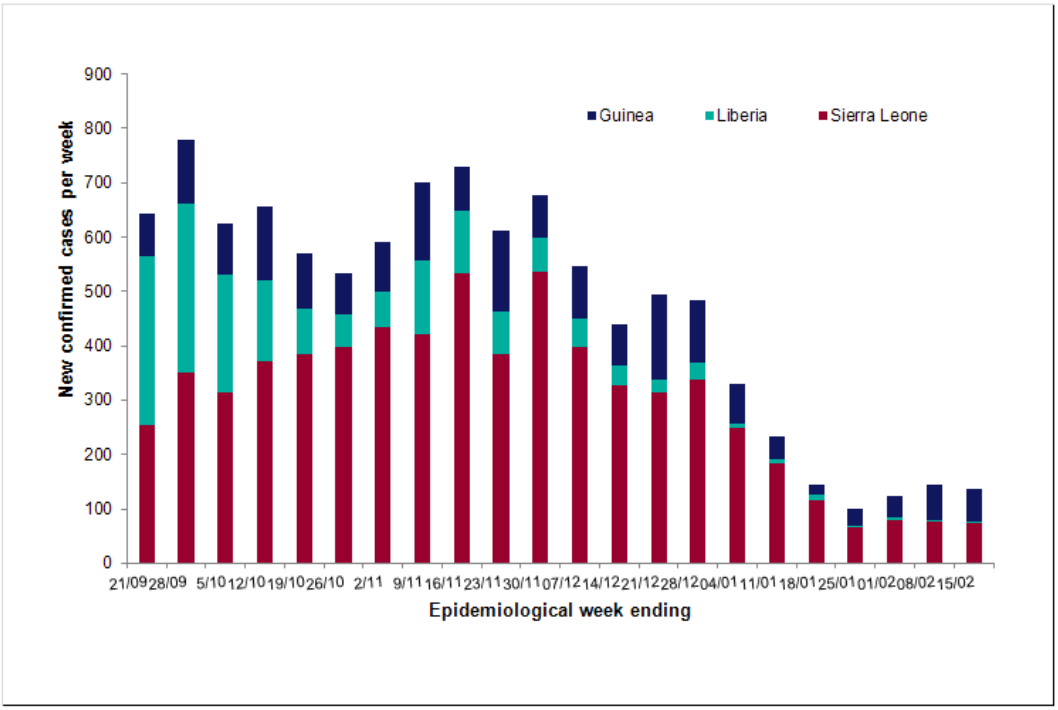
Summary of Ebola virus disease international epidemiological information as at 15 February 2015

Country	Total CCCs	Total deaths	Current status
Guinea	3108	2057	Ongoing transmission
Liberia	9007	3900	Ongoing transmission
Sierra Leone	11,103	3408	Ongoing transmission
Mali	8	6	EVD free
Nigeria	20	8	EVD free
Senegal	1	0	EVD free
Spain	1	0	EVD free
UK	1	0	Single imported case
USA	4	1	Awaiting EVD-free status
TOTAL	**23,253**	**9380**	

Substantial improvements in the epidemiological situation in Guinea, Liberia and Sierra Leone have been observed in the last two months. However, the complex nature of this outbreak means that control of EVD in West Africa continues to face significant challenges. In the last week, 128 new confirmed cases were reported from Guinea (52), Liberia (2) and Sierra Leone (74).

In Guinea, a slight decrease in case incidence was reported in the last week. The geographical distribution of cases continues to vary and shift, with six prefectures reporting confirmed cases in the last week. While the majority of cases were reported from Forécariah, on the Sierra Leone border, Conakry the capital continues to record intense transmission. Reports of unsafe burials and incidents of community resistance remain an issue and may impede progress in EVD control.

Summary of Ebola virus disease international epidemiological information as at 15 February 2015



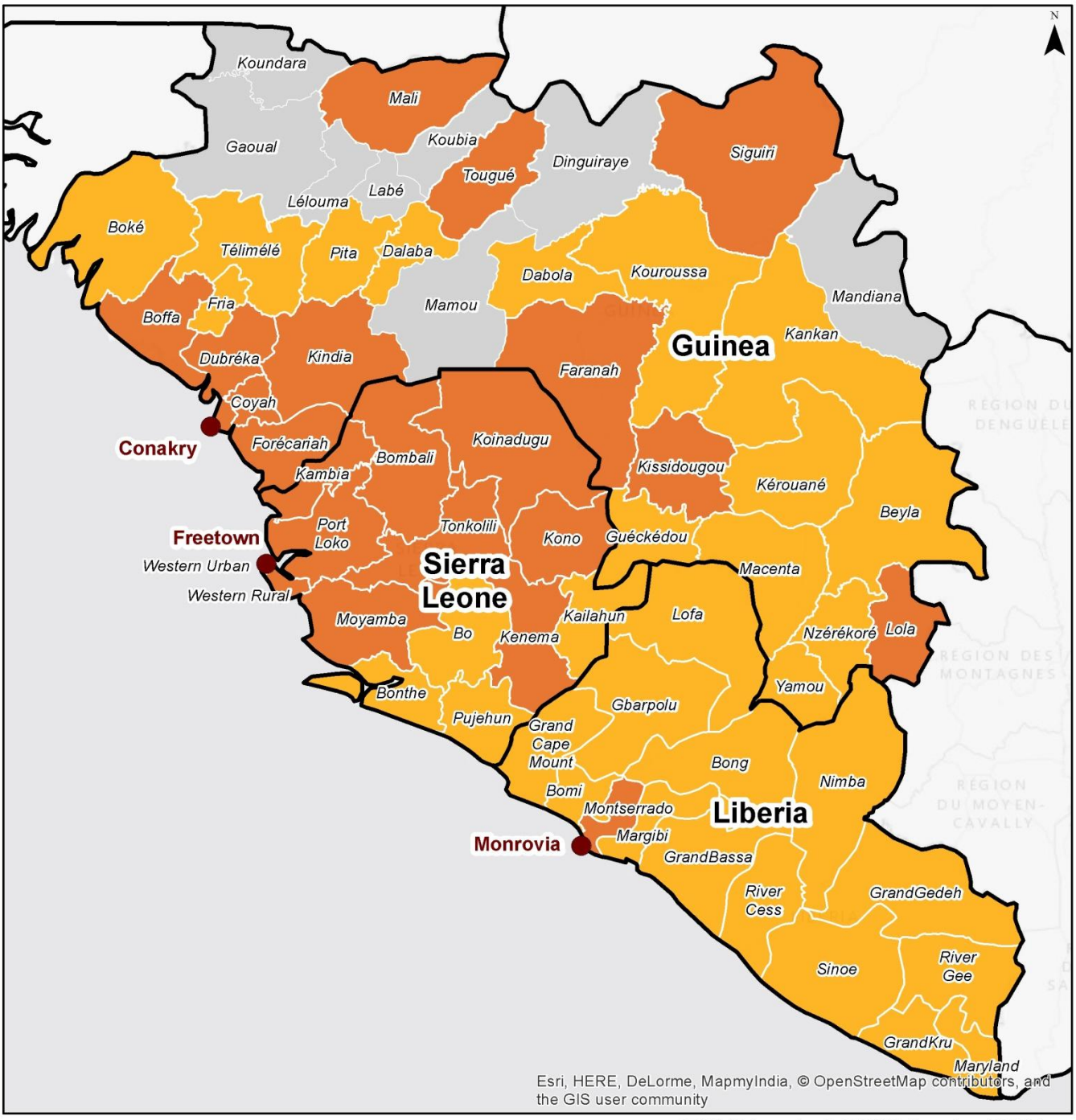
In Liberia, reported case incidence remains at a low level with two confirmed cases reported in the last week, all cases were reported from Montserrado county. The situation in Liberia appears promising. However, it is important to note that even when no ongoing transmission is reported in Liberia, the porous nature of its borders with other affected countries means that the risk of further outbreaks continues until West Africa is EVD free.

Sierra Leone continues to record the majority of new cases in the West African EVD outbreak. Worryingly, a significant increase in confirmed cases was reported in the capital Freetown in the last week. While there has been substantial improvement in the epidemiological situation in Sierra Leone in the last two months, the fluctuating trend in new cases in certain districts, as well as ongoing reports of community resistance and reports of significant numbers of unsafe burials, may impede control measures.

Further information on the international epidemiological situation can be found in PHE's weekly Ebola epidemiological update

See also Ebola Outbreak Distribution Map below.

Ebola Outbreak Distribution Map



Timeliness of European communicable disease outbreak investigations reviewed

The timeliness of investigations into communicable disease outbreaks that have occurred in Europe since 2000 is the subject of a recent paper in the journal *Eurosurveillance* [1].

The authors reviewed 86 investigation reports of major communicable disease outbreaks in Europe published in peer-reviewed journals between 2003 and 2013. “Major” outbreaks were deemed to be those involving significant geographical spread of cases, requiring national or international-level coordination of investigation and having the potential for severe population impact (ie corresponding to PHE outbreak level definitions 3, 4 or 5). A total of 86 selected papers met the inclusion criteria; of which 63 were deemed to be level 3, 22 level 4 and one level 5, according to PHE’s classification system.

Nineteen of the papers dealt with outbreaks that had occurred across the UK (eight across two or more countries within the UK, four in Scotland, three in England, three in Wales and one in Northern Ireland). Germany was the location of the single level 5 outbreak investigation reviewed (relating to an outbreak of Escherichia Coli O104 infection in May 2011). Other reported investigations of outbreaks covered by the review affected: the Netherlands (10 papers), France (8), Norway (7), Italy (6), Denmark (5), Spain (3) and other countries including Austria, Finland, Greece and Hungary (11).

The main focus of the review was the timeliness of outbreak investigations: the length of analytical epidemiological investigation, the interval between outbreak declaration and hypothesis generation, and between hypothesis generation and availability of results. Time intervals were ascertained from 55 papers, the median period for completion of an analytical study being 15 days (range: 4–32) for levels 4 and 5; and 31 days (range: 9–213) for level 3 investigations. Key factors influencing the speed of completing analytical studies were outbreak level, severity of infection and study design.

The study, carried out in collaboration with Bristol University and the Robert Koch Institute in Germany, was led by scientists from PHE’s Field Epidemiology Service. They note the importance of timeliness in outbreak investigation in order to prevent further cases and minimise the impact on both patients and health services and consider whether it would be feasible for more specific guidance to be issued on timeliness, over and above the existing PHE recommendation that outbreak reports should be completed within 12 weeks of the formal

closure of an investigation. They suggest it is possible to describe good practice in relation to timeliness of epidemiological investigations and that guidance, accompanied by the development of tools to support prompt investigations, could be usefully elaborated to improve the timeliness of response.

Reference

1. van de Venter EC, Oliver I, Stuart JM (2015). Timeliness of epidemiological outbreak investigations in peer-reviewed European publications, January 2003 to August 2013. *Euro Surveill.* 20(6).

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Listeriosis in England and Wales in 2014: summary report

Listeriosis is a foodborne illness caused by the bacterium *Listeria monocytogenes*. It is a rare and severe infection predominantly affecting the elderly, people with weakened immunity, pregnant women and their unborn or new-born babies. In England and Wales, it is one of the major causes of death by foodborne illness.

In the last decade (2005-2014) an average of 180 cases was reported annually, a 23% increase from the previous decade (1995-2004) where an average of 137 cases was reported (figure 1). This increase could be a result of the rise in cases from ethnic minority groups and cases of bacteraemia in the elderly. In 2014, the number of reported cases increased by 5.3% from 2013 with 169 cases reported.

Eighty seven per cent of the reported cases were non-pregnancy associated and 12.4% were pregnancy associated. Males accounted for 45.6% (77/169) of cases while females accounted for 54.4% (92/169). Sixty-five per cent (110/169) of reported cases were over 60 years of age and 40.9% (45/110) of these were between 70 to 79 years old. Eight per cent (14/169) of cases were between 0 and 9 years old and 78% (11/14) of these were infants. In previous years, a large proportion of female cases were pregnancy related in the age group 20-39 years; however, in 2014, there was also a high proportion of females that were non-pregnancy-related cases in the age groups 0-9 years, 30-39 years and 70-79 years (figure 2). It is too soon to speculate on whether this change in age and gender distribution is the start of a new trend or simply a chance finding.

The clinical presentation of 79.2% (94/169) of cases was bacteraemia, and 15.3% (12/169) of cases presented with meningitis. In previous years, bacteraemia has been the predominant clinical presentation in cases 60 years and above. This trend continues in 2014 where 70% of the bacteraemia cases were aged 60 and above (figure 3).

The presence or absence of an underlying condition was recorded for 67.4% (114/169) of cases. Of these, malignancy was the most common underlying condition with 26.3% (30/114) of

cases reporting a form of cancer. Sixteen per cent (19/114) of cases reported an auto-immune disease such as arthritis or Chron's disease. Twelve per cent (14/114) of cases reported more than one underlying condition and 21% (24/114) reported no underlying condition of which nine of the cases were pregnancy associated (see table).

Figure 1. Numbers of cases of listeriosis by patient type, 1990-2014

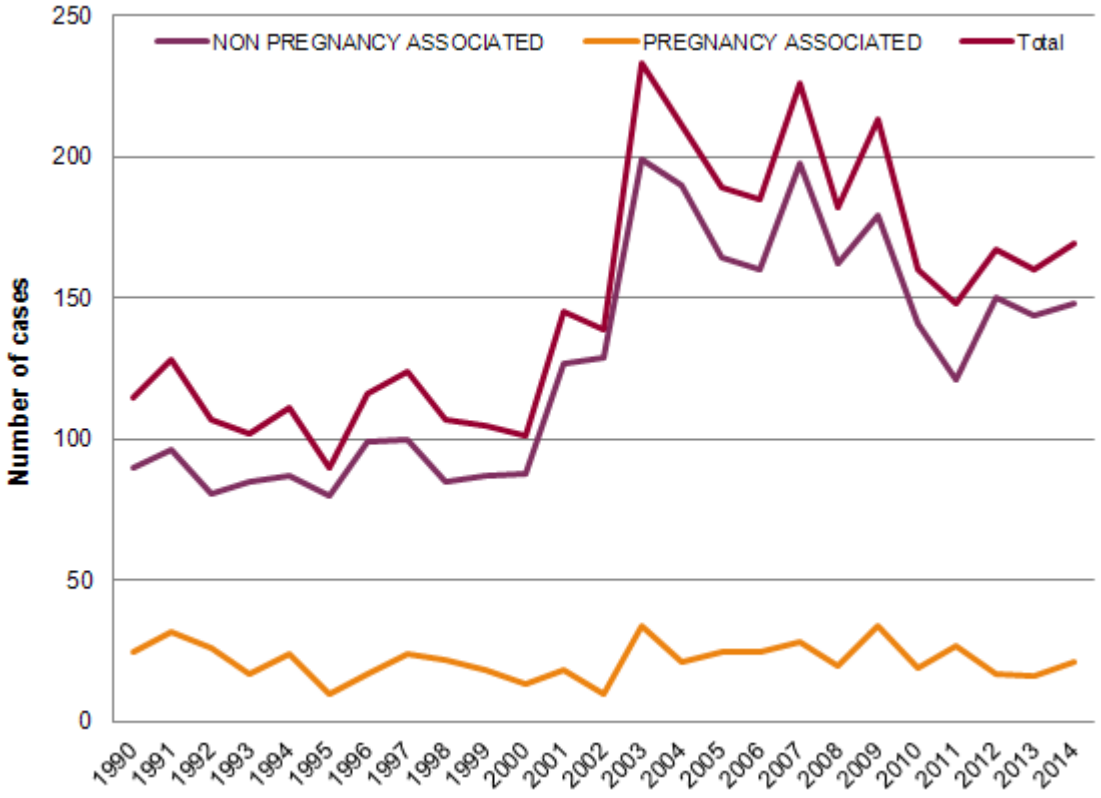


Figure 2. Age-gender distribution of listeriosis cases in 2014

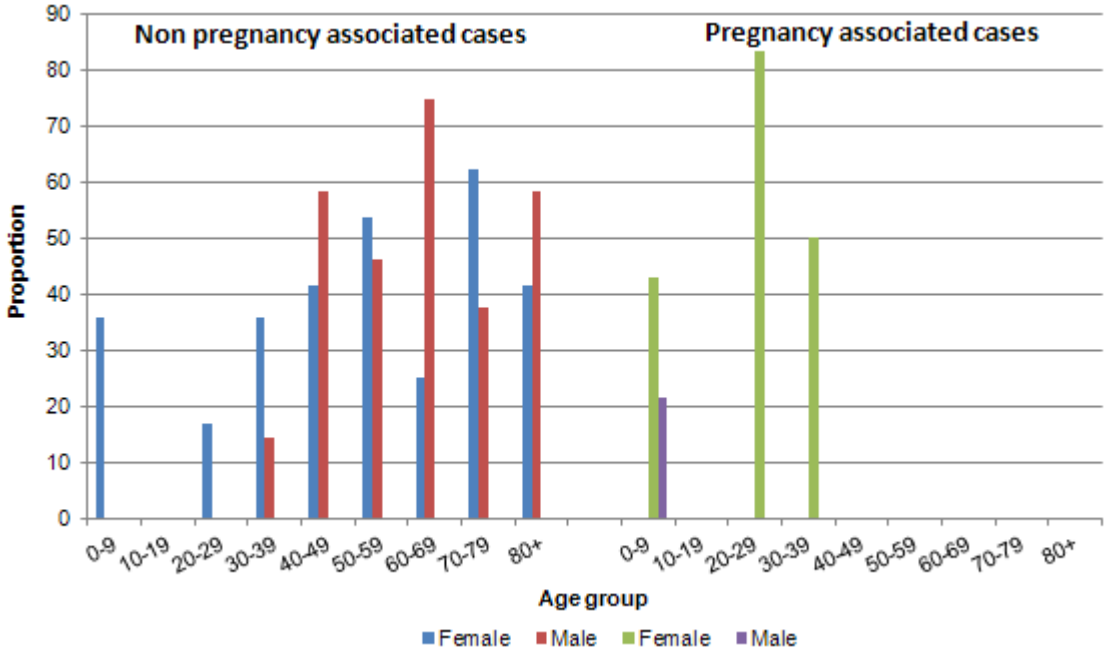
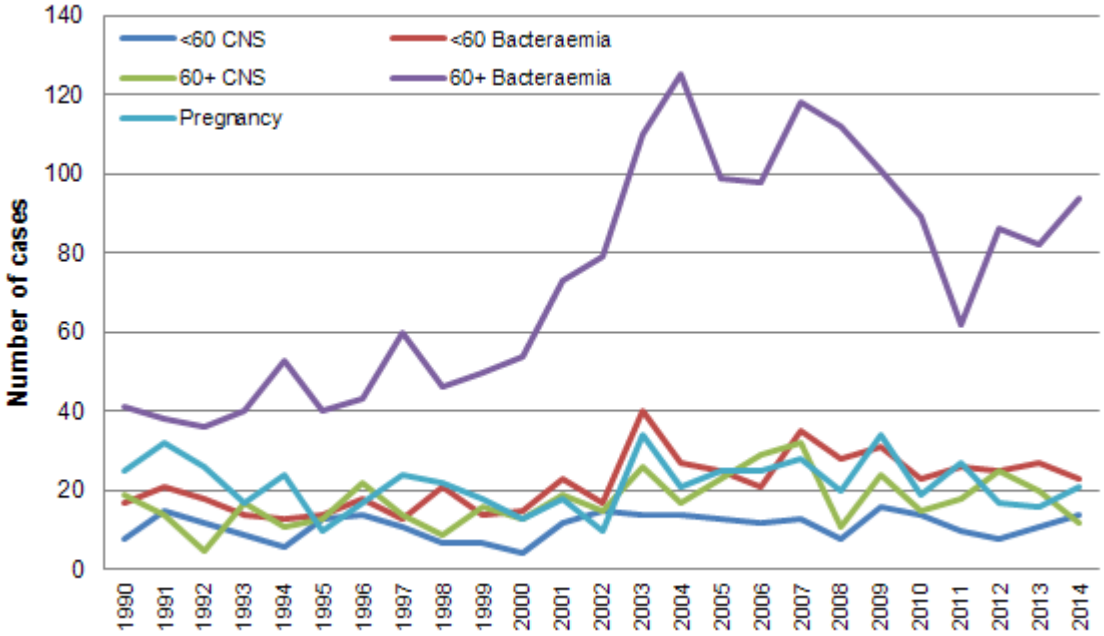


Figure 3. Distribution of cases by age and clinical presentation in England and Wales, 1990-2014



Underlying conditions reported by cases

UNDERLYING CONDION REPORTED	NUMBER OF CASES	PROPORTION OF CASES
Malignancy	30	26.32
Auto-immune disorders	19	16.67
Multiple conditions	14	12.28
Alcoholism	7	6.14
Renal disease	7	6.14
Other underlying conditions	5	4.39
Cardiovascular	3	2.63
Diabetes	2	1.75
Immunosuppressed	1	0.88
Not specified	1	0.88
Recent post operation	1	0.88
No underlying condition	24	21.05