
Infection reports

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Vaccine preventable infections

Laboratory reports of *Haemophilus influenzae* by age group and serotype (England and Wales): October to December 2015, and consolidated annual report for 2015

- ▶ Laboratory reports of Hib by age group and serotype: Q4/2015
- ▶ Laboratory reports of Hib by age group and serotype, annual report

Laboratory reports of *Haemophilus influenzae* by age group and serotype, England and Wales: fourth quarter 2015 (2014)

In the fourth quarter of 2015 (October to December) there was a total of 176 laboratory confirmed cases of invasive *Haemophilus influenzae* (Hi). This was similar to the 172 cases confirmed in the fourth quarter of 2014. There were 113 cases in the third quarter of 2015.

Of the samples which underwent serotyping (n=156), 86% were non-capsulated *Haemophilus influenzae* (nHi), a further 13% were serotype a, e, or f, and 1% were serotype b (Hib). This was similar to the fourth quarter of 2014 where: 86% of serotyped samples were nHi, 13% were serotype a, e, or f and 1% were Hib.

Age-group was well reported (see table). Of the laboratory confirmed cases during the fourth quarter of 2015: 86% were aged 15 years and over; 7% were under one year of age, 4% were 1-4 years old, and 3% were among 5-14 year olds. In the fourth quarter of 2014: 81% were aged 15 years and over; 8% were 1-4 years, 7% were under one year, and 2% were 5-14 year olds.

During this quarter, 86% of cases in children under 15 years were nHi (n=18/21). There were no cases of Hib in this age-group during the fourth quarter of 2015. In comparison, there were two cases in unimmunised children during the fourth quarter of 2014.

Age distribution of laboratory-confirmed cases of *Haemophilus influenzae* by serotype England and Wales, fourth quarter 2015 (and 2014)

Serotype	Age-group					Total, third quarter 2014 (2013)
	<1y	1-4y	5-14y	15+	nk	
b	– (–)	1 (–)	1 (–)	2 (2)	– (–)	2 (2)
nc	10 (14)	4 (11)	4 (2)	115 (103)	– (–)	133 (130)
a,e,f	– (1)	2 (2)	1 (–)	18 (17)	– (–)	21 (20)
not typed	2 (1)	1 (1)	– (1)	17 (17)	– (–)	20 (20)
Total	12 (16)	7 (14)	5 (3)	152 (139)	– (–)	176 (172)

Notes: Percentages may not add up to 100 due to rounding. "–" Indicates that testing yielded no positives.

Laboratory reports of *Haemophilus influenzae* by age group and serotype, England and Wales: annual 2015 (and 2014)

During 2015 (January to December inclusive) there was a total of 711 laboratory confirmed cases of invasive *Haemophilus influenzae* (Hi). This was an 8% compared to the 661 cases confirmed in 2014.

Of the samples which underwent serotyping (n=620; 87%), 88% were non-capsulated *Haemophilus influenzae* (nHi), a further 10% were serotype a, e, or f, and 1% were serotype b (Hib). In comparison, in 2014; 85% of serotyped samples (n=557, 85%) were nHi, 13% were serotype a, e, or f, and 2% were Hib. Hib cases among those aged under 15 years declined from three in 2013 to one in 2014 (66% decrease).

Age-group was well reported (Table). During 2015, 86% of all Hi cases were aged 15 years and over; 7% were under one year of age; 5% were 1-4 years old; and 2% were 5-14 years old. The majority of serotyped cases in children under 15 years were nHi (n=76/86; 88%). This distribution was broadly similar to 2014, where: 81% were aged 15 years and over; 10% were under one year of age; 6% were among 1-4 year olds and 3% were among 5-14 year olds.

There was a 21% (from 105 in 2014 to 83 in 2015) decrease in cases among children under five years old due to a 24% (from 83 to 65 cases) fall in the number of nHi cases.

Annual distribution by serotype and age group 2015 (and 2014)

Serotype	Age-group					Total, 2015 (2014)
	<1y	1-4y	5-14y	15+	nk	
b	– (1)	1 (1)	– (1)	8 (9)	– (–)	9 (12)
nc	42 (52)	21 (31)	13 (14)	472 (379)	– (–)	548 (476)
a,e,f	2 (6)	6 (4)	1 (–)	54 (60)	– (–)	63 (70)
not typed	6 (5)	5 (5)	1 (3)	79 (90)	– (–)	91 (103)
Total	50 (64)	33 (41)	15 y	613 (538)	– (–)	711 (661)

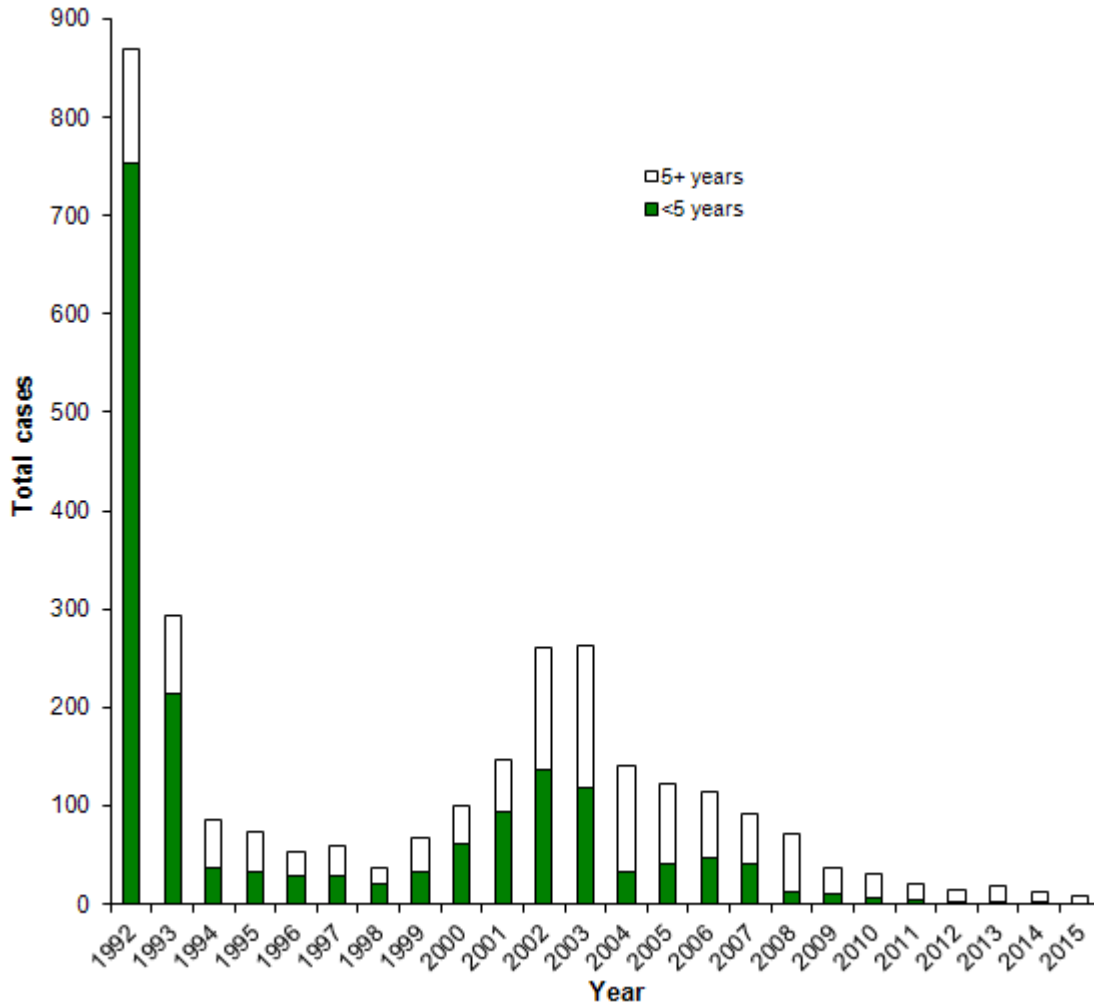
Notes: Percentages may not add up to 100 due to rounding. "–" Indicates that testing yielded no positives.

As reported previously [1], cases of invasive Hib disease have declined since the introduction of the Hib conjugate vaccine in 1992 and remained at low levels since the introduction of a fourth dose of vaccine in 2006 (see figure). In 2015, invasive Hib disease continued to be well controlled across all age groups. Compared to 2014, Hib cases declined from 12 to 9 cases; this was due to the decrease in cases among children under 15 years, whereas the number of cases among adults remained stable.

During 2015, there were one case of Hib among children who were eligible for immunisation; a three year old who had been fully immunised presented with Hib meningitis and made a partial recovery. This was the first case of invasive Hib disease in a fully immunised child since 2012. In 2014, there were three cases of Hib among children who were eligible for immunisation; none of whom had been immunised. One child presented with pneumonia, one with bacteraemic-tonsillitis, and one with bacteraemia; all subsequently recovered.

There were no deaths attributed to invasive Hib disease in 2015 or 2014; the most recent death in a child aged under 16 years attributed to invasive Hib disease was in 2011.

Total cases of Hib by year, 1992-2015



Reference

1. Public Health England (2014). Laboratory reports of *Haemophilus influenzae* by age group and serotype (England and Wales): annual report for 2014, *HPR 9(7)*: immunisation. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/409070/hpr0715_page_d.pdf.