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UK seasonal influenza annual report 2015/16 in summary

Moderate levels of influenza activity were seen in the community in the UK in 2015/16, with influenza A(H1N1)pdm09 the predominant circulating virus for the majority of the season. A(H1N1)pdm09-related activity peaked late, in week 11 of 2016, with influenza B peaking afterwards. The impact of A(H1N1)pdm09 was predominantly seen in young adults – the pattern of those affected being different in different parts of the UK. Peak admissions to hospital and ICU were higher than seen in the previous few seasons, but lower than the last notable A(H1N1)pdm09 season in 2010/11. Levels of excess all-cause mortality were significantly lower than last season, but some excess mortality was seen in younger adults.

These are among the conclusions of Public Health England's annual report on influenza and other respiratory viruses in the UK during the winter of 2015/16 [1]. The annual report, which presents data on flu-related mortality and morbidity, and virological data, for the whole of the UK, is produced by PHE's Respiratory Diseases Department in close collaboration with the health protection bodies and laboratories of the devolved administrations, and other national data providers.

Activity from other circulating seasonal respiratory viruses was similar to levels reported in recent years. Two novel respiratory viruses which emerged in 2012/13 – Middle East Respiratory Syndrome coronavirus (MERS-CoV) in the Middle East, and avian-origin influenza A(H7N9) in Eastern China – have continued to result in human cases in affected countries in 2015/16. Surveillance and public health measures established in the UK for travellers returning with severe respiratory disease from these regions are on-going while the risk remains.

Influenza vaccine uptake and effectiveness

A brief summary of influenza vaccine uptake in England and the devolved administrations is included in the annual report. Uptake in England was lower than last season in the elderly (71.0%), in healthcare workers (50.6%), in under-65 year-olds in a pre-defined clinical risk group (45.1%) and in pregnant women (42.3).

Separate reports, for England, on vaccine uptake among GP patients [2], among healthcare workers [3] and that achieved by the national childhood flu vaccination programme [4, and see below] have also been published.

References

1. PHE (26 May). Surveillance of influenza and other respiratory viruses in the United Kingdom: Winter 2015 to 2016.
 2. PHE (26 May). Seasonal influenza vaccine uptake – GP patient groups 2015 to 16 report.
 3. PHE (26 May). Seasonal influenza vaccine uptake – healthcare workers 2015 to 16 report.
 4. PHE (26 May). National childhood influenza vaccination programme 2015 to 2016 report: seasonal influenza vaccine uptake for children of primary school age (final data for 1 September 2015 to 31 January 2016).
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National childhood influenza vaccination programme annual report 2015/16

A report on the vaccine uptake achieved by the universal childhood influenza vaccine programme in England, during the 2015/16 flu season, has been published by PHE [1]

The 2015/16 season was the first during which all healthy children of school-year-1 age and school-year-2 age in England were offered the recently-licensed, live attenuated influenza vaccine (LAIV), which has been progressively introduced via pilot schemes over the past two seasons. The intention is that the schools programme will eventually cover all children from two to 17 years of age

In 2015/16, the vaccine programme was offered mainly via schools, with alternative schemes – delivering the programme via community pharmacies and general practices – being used in a few areas.

The new report found that uptake levels of 54.4% for year 1, and 52.9% for year 2, were achieved across England, demonstrating the success of the first year national roll-out of the programme for school-age children. As in the previous season's pilot for school-age children, uptake varied by mode of programme delivery: highest through school-based delivery and lowest in areas delivering the programme through a GP or pharmacy.

Reference

1. PHE (26 May). National childhood influenza vaccination programme 2015 to 2016 report: seasonal influenza vaccine uptake for children of primary school age (final data for 1 September 2015 to 31 January 2016).
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Infection reports

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Infection report

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Laboratory confirmed cases of measles, mumps and rubella, England: January to March 2016

Measles, mumps and rubella are notifiable diseases and healthcare professionals suspecting a case are legally required to inform the authorities. Oral fluid testing is offered to all notified cases to confirm the diagnosis. This is part of the enhanced surveillance for these vaccine preventable diseases. Recent infection is confirmed by measuring the presence of IgM antibodies or detecting viral RNA (by PCR) in the samples.

Data presented here are for the first quarter of 2016 (ie January and March). Cases include those confirmed by oral fluid testing (IgM antibody tests and/or PCR) at the National Reference Laboratory, Colindale, and national routine laboratory reports (mumps infections only) (table 1). Analyses are by date of onset and regional breakdown figures relate to Government Office Regions.

Quarterly figures from 2013 for cases confirmed by oral fluid antibody detection only and annual total numbers of confirmed cases by region and age are available from:

<https://www.gov.uk/government/publications/measles-confirmed-cases>

<https://www.gov.uk/government/publications/mumps-confirmed-cases>

<https://www.gov.uk/government/publications/rubella-confirmed-cases>

Table 1. Total laboratory confirmed cases of measles, mumps and rubella, and oral fluid IgM antibody tests in notified cases: weeks 1-13/2016

<u>Notified and investigated cases</u>		<u>Confirmed cases</u>						
Infecting virus	Cases reported to Health Protection Teams in England*	Oral fluid testing				<u>Confirmed infections</u>	<u>Other samples</u>	Total
		Number Tested	% of reported cases tested	<i>Total Positive</i>	<i>Recently Vaccinated</i>			
Measles	556	386	69%	47	11	36	31	67
Mumps	1622	1069	66%	69	0	69	53	122
Rubella	137	69	50%	1	0	1	0	1

*This represents the number of infections reported as possible cases and investigated by individual PHE centres in England

Measles

In England, 67 new measles infections were confirmed in the first three months of 2016 compared to 92 in the whole of 2015 [1].

The two regions in the south of England (London and East of England) reported the majority of the cases (82%, 55/67) with all but three of these associated with an outbreak linked to an importation from Italy [2]. The remaining 12 cases were in also in the south of England; seven from the South West and five from the South East. Only one case reported receiving one dose of measles-containing vaccine. Four of the 67 cases were imported infections with a history of recent travel to India, Poland, Indonesia and Equatorial Guinea.

Scotland reported two confirmed measles cases this quarter while Northern Ireland and Wales didn't report any measles cases.

The majority (40/67, 60%) of the measles diagnoses in England were in children and adolescents: eight (12%) aged under one year of age; five (7%) aged 1-4 years; six (9%) aged 5- 9; 10 (15%) aged 10-14 years; nine (13%) aged 15-18 years. The remaining 27 cases (40%) were adults aged 19-50 years.

Mumps

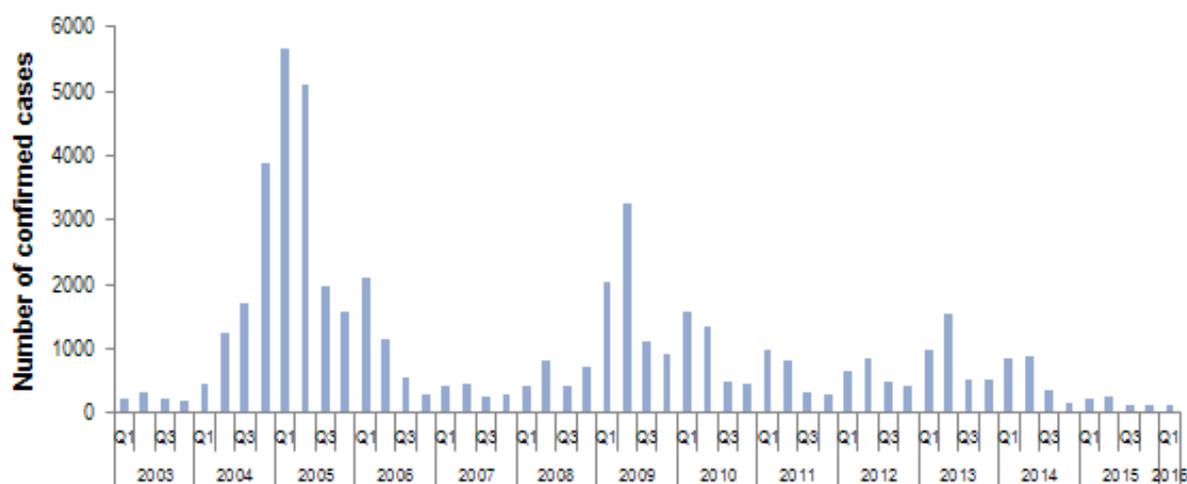
There were only 122 laboratory confirmed mumps infections in England with onset dates in the period between January and March 2016, similar to the number confirmed in the last quarter of 2015 (121), continuing the trend of very low incidence as observed for the last five quarters (figure 2) [1]. An additional 25 cases were confirmed in oral fluid samples from Wales.

Cases are predominantly in young adults between 18 and 35 years of age (66/122 54%). About a third (42/122) of all cases this quarter reported receiving one or two doses of MMR vaccination in childhood. For these cases where the vaccination date was known, the average number of years since last MMR vaccination was 14.6 years. Mumps cases were reported in all regions of England (table 2).

Table 2. Laboratory confirmed cases of mumps by age group and region, England: weeks 1-13/2016

Region	<1	1-4	5-9	10-14	15-19	20-24	25+	Total
North East	–	–	–	4	3	1	3	11
North West	–	2	–	2	4	2	6	16
Yorkshire & Humber	–	–	–	5	5	2	5	17
East Midlands	–	–	1	–	5	–	3	9
West Midlands	–	1	–	–	2	–	6	9
East of England	–	1	–	1	–	1	6	9
London	–	3	–	1	2	6	12	24
South East	–	–	–	–	6	3	6	15
South West	–	1	–	–	3	2	6	12
Total	0	8	1	13	30	17	53	122

Figure 2. Laboratory confirmed cases of mumps by quarter, England, 2003-2016



Rubella

Only one case of rubella infection was confirmed in the period between January and March 2016. The case was a male who acquired rubella infection abroad.

Reference

1. PHE (November 2015). '[Laboratory confirmed cases of measles, mumps and rubella, England: July to September 2015](#)', *HPR* **9**(42): immunisation.
2. '[MMR vaccination call following recent measles cases](#)'. PHE website news story, 11 March 2016

Vaccine coverage report

Volume 10 Number 18 Published on: 26 May 2016

Pertussis Vaccination Programme for Pregnant Women update: vaccine coverage in England, January to March 2016

Pertussis vaccine coverage in pregnant women increased from 59.7% in January 2016 to 60.7% in March 2016. Compared with March 2015, coverage was 4.4% higher in March 2016 and is the first year of the programme where coverage has not declined during the first quarter.

Introduction

This report presents pertussis vaccine coverage in pregnant women in England for the period January to March 2016, updating previous data reported for October to December 2015 [1].

Following increased pertussis activity in all age groups, including infants under three months of age, and the declaration of a national pertussis outbreak (level 3 incident) in April 2012 [2] [3], pertussis vaccine has been offered to pregnant women since 1 October 2012. Overall pertussis activity persists at raised levels compared to the years preceding the outbreak in 2012. However, reported incidence in young infants, the group targeted by the vaccine programme, is now comparable with before the 2012 peak. Between 1 October 2012 and 31 December 2015, 14 deaths have been reported in young babies with confirmed pertussis. Twelve of these 14 babies were born to mothers who had not been vaccinated against pertussis and both of the babies whose mothers had been vaccinated were delivered too close to vaccination to confer optimal passive protection in the infant [4].

The prenatal pertussis vaccination programme aims to minimise disease, hospitalisation and deaths in young infants, through intra-uterine transfer of maternal antibodies, until they can be actively protected by the routine infant programme with the first dose of pertussis vaccine scheduled at eight weeks of age [3]. In June 2014 the Joint Committee on Vaccination and Immunisation (JCVI) considered available data and, based on the high effectiveness and safety of the programme, advised it should continue for a further five years [5]. In February 2016 the JCVI considered new evidence demonstrating that vaccination earlier in pregnancy would be likely to improve neonatal antibody levels and would increase opportunities during pregnancy for vaccination [6,7]. Based on this, they advised that vaccination should ideally be offered from gestational week 16 (although for operational reasons, vaccination should be offered from around 20 weeks, on or after the foetal anomaly scan) [8]. This advice has been implemented from April 2016.

Further information on the history and epidemiology of the disease, recommendations on supply, storage and use of the vaccine, as well as guidance on contraindications, precautions and adverse reactions can be found in *Immunisation against infectious disease* (the [Green Book](#)), chapter 24 [8]. Additional background information for the programme can be found on the [PHE website](#) and on the vaccine coverage collection in the annual report: [Pertussis vaccine coverage in pregnant women April 2014 to March 2015](#).

Methods

General practice (GP) level pertussis vaccine coverage data are automatically uploaded via participating GP IT suppliers to the ImmForm* website on a monthly basis.

ImmForm data are validated and analysed by PHE to check data completeness, identify and query any anomalous data and describe epidemiological trends.

Monthly data are collected on the following:

- *Denominator*: number of women who delivered in the survey month at more than 28 weeks gestational age;
- *Numerator*: number of pregnant women who delivered after 28 weeks gestational age in the survey month that received a dose of pertussis-containing vaccine in the preceding 14 weeks.

For accurate denominators to be extracted from GP IT systems by the automated survey and precise coverage estimates to be calculated, it is important that the medical records of all women who have given birth have the following fields completed:

- the date of delivery;
- the date of receipt of a pertussis-containing vaccine at or after week 28 of pregnancy, regardless of the setting where the vaccine was administered;
- where relevant, any record of a premature delivery occurring at less than 28 weeks gestational age.

GP data are aggregated by NHS England organisations (Clinical Commissioning Groups (CCGs), Area Teams (ATs) and NHS England Local Teams (LTs), and by Local Authorities (LAs).

Participation and data quality

One of four data suppliers, representing around a third of GP practices, extracted monthly data earlier than recommended between April 2015 and February 2016. This should not affect coverage but could result in some mothers who gave birth towards the end of the evaluation month not being captured in the monthly survey due to potential delays in updating the delivery date on her record. This data extraction error was amended for this GP IT supplier in the March 2016 monthly submission and the denominator increased by around 20% compared to the January and February submissions. This correction will also be reflected in data from this supplier in the annual prenatal pertussis survey for 1 April 2015 – 31 March 2016, published later this year. Additionally, another data supplier, representing around 8% of GP practices, did not upload data for approximately 200 GP practices in February 2016 due to a technical error. These data are therefore provisional and to be interpreted with caution.

Results

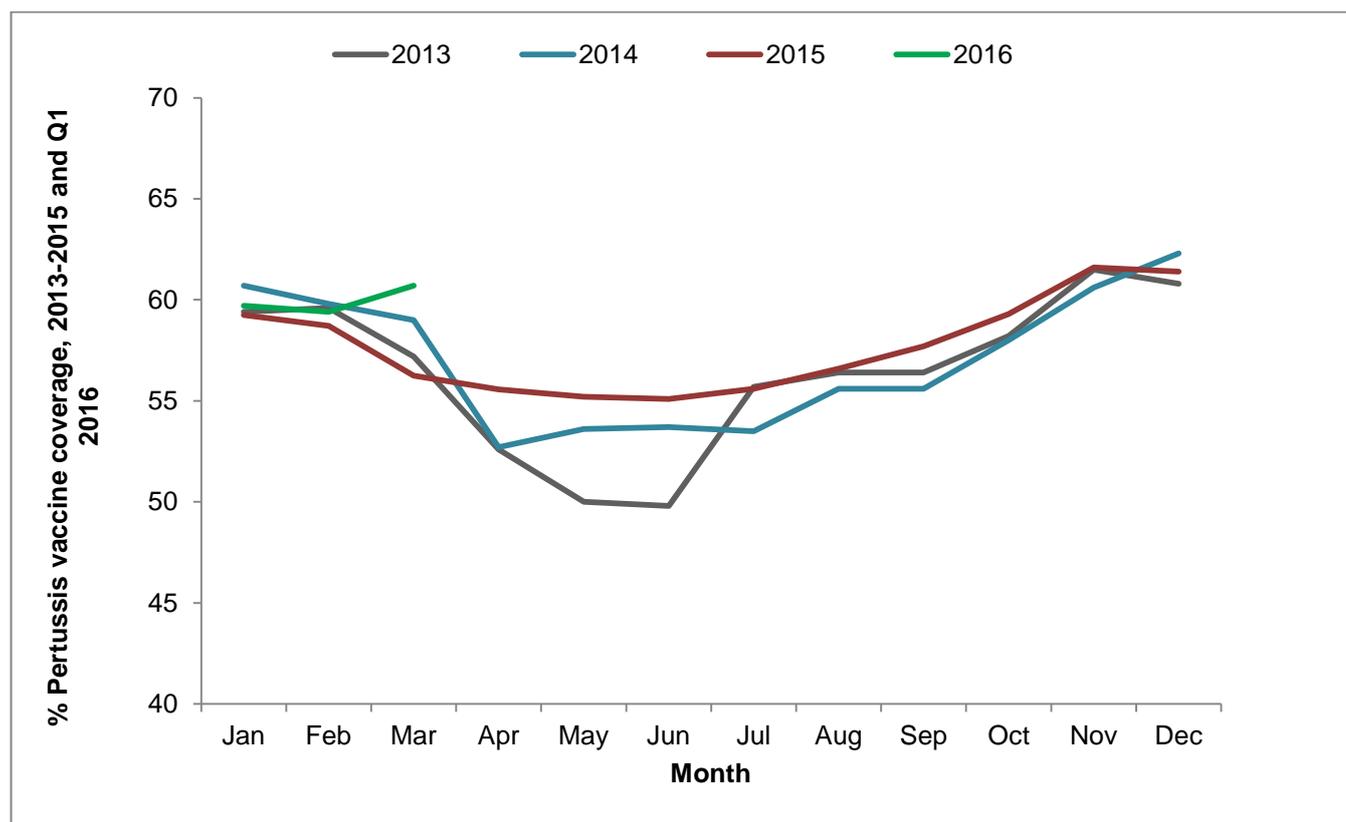
Between January and March 2016, data were provided for 95.3% of GP practices on average, ranging from 93.8% (February 2016) to 96.4% (March 2016).

* ImmForm is the system used by Public Health England to record vaccine coverage data for some immunisation programmes and to provide vaccine ordering facilities for the NHS

Pertussis vaccine coverage in pregnant women increased from 59.7% in January 2016 to 60.7% in March 2016 (figure 1). In each of the last 12 evaluations monthly coverage estimates have exceeded the previous year's estimate, with the exception of December 2015 where coverage was lower than December 2014.

Between January and March 2016, average vaccine coverage by NHS England AT ranged from 49.5% (London) to 70.3% (South Yorkshire and Bassetlaw) (see table 1 for monthly figures by AT). Vaccine coverage data by AT and CCG for the period April 2015 to March 2016 are presented in an [Appendix](#) associated with this report.

Figure 1. Monthly pertussis vaccination coverage (%) in pregnant women: England, 2013-2015 and Q1 2016.



Discussion

Pertussis vaccine coverage has increased during the first quarter of 2016, reaching 60.7% in March 2016. In previous years, coverage declined in the first quarter as the influenza season ended and GP practices reduced their amount of active calling and recalling of eligible pregnant women for both influenza and pertussis vaccines. Although data are provisional, this increasing coverage is encouraging.

As pertussis continues to circulate in the population, unprotected young infants continue to be at risk of infection and GPs and midwives should continue to encourage pregnant women to receive the pertussis vaccine, ideally between weeks 16 and 32 of their pregnancy (but up to week 38) to further reduce the incidence of pertussis in young infants [8]. Considerable variation in coverage between ATs has consistently been reported, with around a 20% difference between those with the highest coverage and those with the lowest coverage. Identifying examples of good practice in areas achieving consistently high coverage for pertussis vaccination during pregnancy and applying them to low coverage areas may help address this gap.

There are limitations to the data presented in this report. First, completeness of data is reliant on the recording of delivery dates in the mothers' medical records and comparison of this data with national data on live births, indicates these data represent about 60% of the population of pregnant women [9]. However, monthly variations in the denominator closely mirror the seasonal variation observed in national live births.

Second, the survey does not cover all GP practices in England and, although data for 95% of GP practices were on average provided, there may be differential completeness of the recording of delivery dates among GPs. Coverage may be overestimated if women who have received the vaccine are more likely to have their delivery date recorded. Furthermore, women not registered with a GP (and therefore less likely to be having regular contact with the health service prior to delivery) will not be captured by this reporting system.

Comparison with other data sources examined to estimate the vaccine coverage of this programme suggests that this methodology may be underestimating coverage [10]. If coverage, and ultimately the impact of the programme itself, is to be accurately monitored, it is essential that GPs and practice nurses ensure that vaccination and date of delivery are recorded in the patient's GP record.

Continued support in the delivery of this important programme has been sought from service providers (GP practices and maternity units), Screening and Immunisation Teams and Health Protection Teams and the improved coverage reported here suggests the delivery of this programme is becoming more routine. Screening and Immunisation Teams should continue to update service providers on the current epidemiology of the disease, the effectiveness of the vaccination programme and the need to maintain and improve coverage achieved thus far.

Table 1. Monthly pertussis vaccination coverage (%) in pregnant women by NHS England Area Team: England, January to March 2016

Area Team	Jan 2016	Feb 2016	Mar 2016
Cheshire, Warrington and Wirral (Q44)	67.5	65.3	66.6
Durham, Darlington and Tees (Q45)	61.1	59.7	61.8
Greater Manchester (Q46)	60.2	60.1	60.7
Lancashire (Q47)	62.0	61.3	62.1
Merseyside (Q48)	56.9	60.3	58.6
Cumbria, Northumberland, Tyne and Wear (Q49)	65.5	65.3	66.3
N Yorkshire and Humber (Q50)	68.3	66.7	68.7
S Yorkshire and Bassetlaw (Q51)	69.9	69.8	71.2
W Yorkshire (Q52)	65.1	60.6	63.8
Arden, Herefordshire and Worcestershire (Q53)	63.1	66.3	68.3
Birmingham and Black Country (Q54)	54.0	54.6	57.0
Derbyshire and Notts. (Q55)	65.4	66.8	66.4
East Anglia (Q56)	59.1	58.7	62.4
Essex (Q57)	55.1	53.9	56.5
Hertfordshire and the S Midlands (Q58)	58.9	56.8	59.4
Leicestershire and Lincolnshire (Q59)	57.2	52.4	56.4
Shropshire and Staffordshire (Q60)	68.0	68.4	68.2
Bath, Gloucestershire, Swindon and Wiltshire (Q64)	64.8	62.8	66.7
Bristol, N Somerset, Somerset and S Gloucestershire (Q65)	63.5	60.8	62.3
Devon, Cornwall and Scilly Isles (Q66)	56.7	57.2	59.3
Kent and Medway (Q67)	63.6	68.5	68.5
Surrey and Sussex (Q68)	64.5	65.5	65.4
Thames Valley (Q69)	62.7	60.4	61.7
Wessex (Q70)	68.5	68.8	67.4
London (Q71)	48.9	49.8	49.8
ENGLAND	59.7	59.4	60.7
Monthly reported denominator	34841	34067	37682

References

1. Public Health England (2016). *Pertussis vaccination programme for pregnant women: vaccine coverage estimates in England, October to December 2015*. HPR **10**(8). Available from: <https://www.gov.uk/government/publications/pertussis-immunisation-in-pregnancy-vaccine-coverage-estimates-in-england-october-2013-to-march-2014>.
 2. *A level 3 incident is the third of five levels of alert under the HPA's Incident Reporting and Information System (IERP) according to which public health threats are classified and information flow to the relevant outbreak control team is coordinated. A level 3 incident is defined as one where the public health impact is significant across regional boundaries or nationally. An IERP level 3 incident was declared in April 2012 in response to the ongoing increased pertussis activity*. HPR **6**(15).
 3. Public Health England (2014). *The complete routine immunisation schedule: 2014*. Available from: <https://www.gov.uk/government/publications/the-complete-routine-immunisation-schedule>.
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 6. Eberhardt CS, et al. (2016). *Maternal immunization earlier in pregnancy maximizes antibody transfer and expected infant seropositivity against pertussis*. *Clin Infect Dis* **62**(7): 829-36.
 7. JCVI (2016). *JCVI February 2016 Minutes*. Available from: <https://www.gov.uk/government/groups/joint-committee-on-vaccination-and-immunisation>.
 8. Public Health England (2015). *Pertussis: the Green Book, chapter 24*. Available from: <https://www.gov.uk/government/publications/pertussis-the-green-book-chapter-24>.
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 10. Amirthalingam G et al (2014). *Effectiveness of maternal pertussis vaccination in England: an observational study*. *The Lancet* **384**(9953): 1521-1528.
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Vaccine coverage report

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Preliminary vaccine coverage estimates for the new meningococcal B (MenB) immunisation programme for England, update to the end of April 2016

Preliminary vaccine coverage estimates for those eligible for infant Meningococcal B immunisation are 95.5% for one dose and 87.9% for two doses by six months of age (evaluated at the end of April 2016).

Introduction

This report presents Meningococcal B (MenB) vaccine coverage data for one and two doses of vaccine by six months (26 weeks) of age, evaluated at the end of April 2016, updating previous data reported for the period November 2015 to January 2016 [1].

Meningococcal B (MenB) vaccination was introduced from 1 September 2015 for infants due to receive their primary immunisations starting at two months of age on or after 1 September 2015 (i.e. those babies born on or after 1 July 2015). The vaccine is offered alongside other routine immunisations at two and four months of age, with a booster dose at 12-13 months. A limited one-off catch-up programme was also delivered targeting infants born in May and June 2015.

Methods

In order to rapidly assess vaccine coverage of this newly implemented immunisation programme, PHE has put in place a temporary sentinel surveillance system. This uses general practice (GP) level MenB vaccine coverage data automatically uploaded via participating GP IT suppliers to the ImmForm* website on a monthly basis. These data are then validated and analysed by PHE to check data completeness, identify and query any anomalous results and describe epidemiological trends.

Monthly MenB vaccine coverage data are collected for each cohort reaching six months of age in the survey month using the following definitions:

- *Denominator:* the number of infants in a GP practice who, in the survey month, reach 26 weeks of age;
- *Numerators:* the number of infants in the denominator who received (a) a first dose and (b) a second dose of Bexsero® (MenB vaccine) from eight weeks of age up to 26 weeks of age, including vaccinations given by other healthcare providers.

Vaccine coverage is calculated as the total number of patients who have received the vaccination (numerators) as a percentage of the number of patients registered (denominator).

GP data are aggregated by NHS England organisations (Clinical Commissioning Groups (CCGs), Area Teams (ATs) and NHS England Local Teams (LTs)).

* ImmForm is the system used by Public Health England to record vaccine coverage data for some immunisation programmes and to provide vaccine ordering facilities for the NHS

Participation and data quality

MenB dose two coverage data from one of four data suppliers representing 7-8% of GP practices in the survey is consistently lower than other data suppliers. We are currently working with ImmForm to resolve this data issue. These data are therefore provisional and to be interpreted with caution.

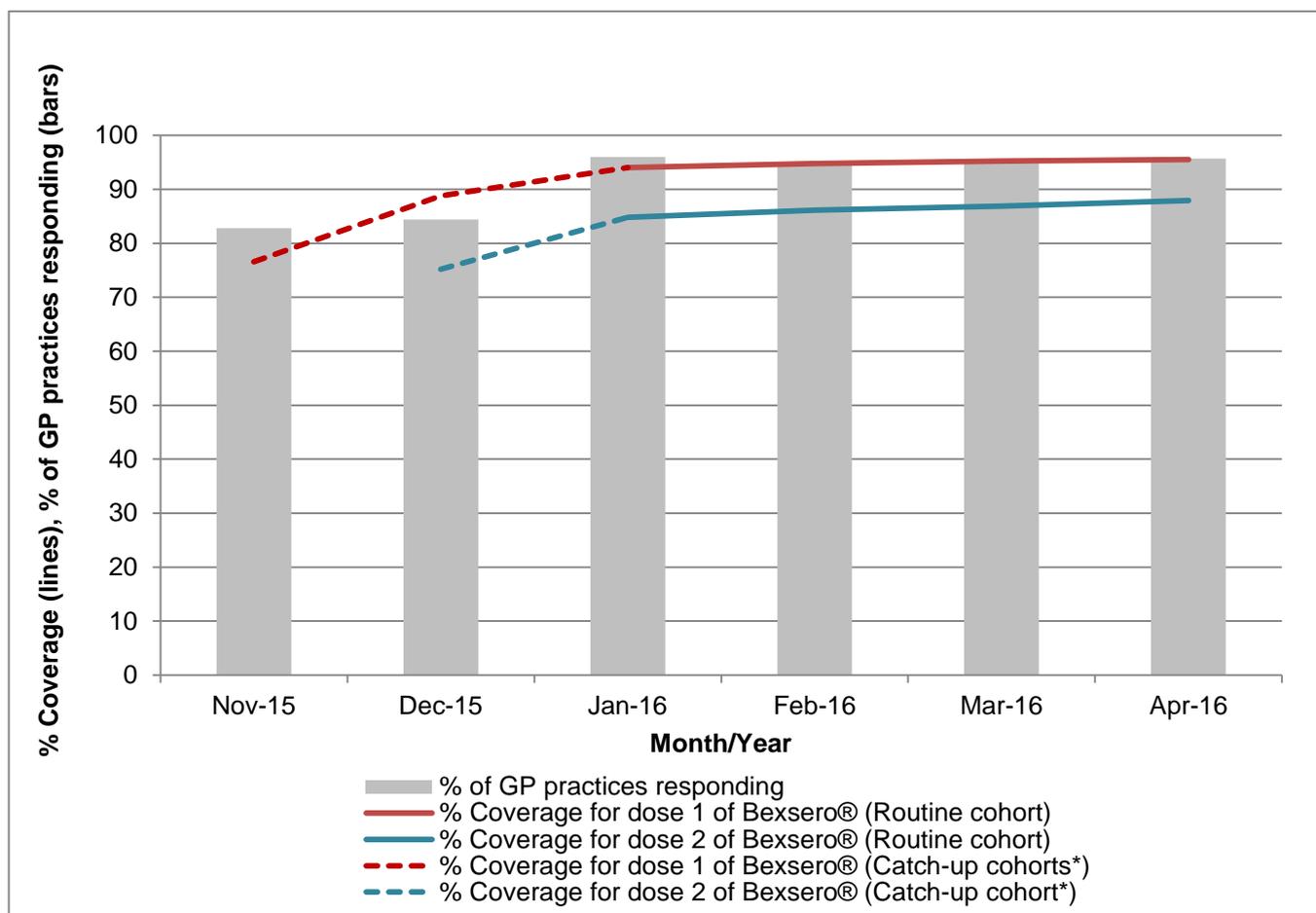
Results

In total MenB vaccine coverage data was available for 7298/7625 (95.7%) GP practices in April 2016. The proportion of GP practices represented ranged by AT from 89.9% (Merseyside) to 99.1% (North Yorkshire and Humber).

Between February and April 2016 national coverage of dose 1 increased from 94.8% to 95.5%. In April 2016, this ranged by AT from 91.8% (Devon, Cornwall and Scilly Isles) to 98.4% (North Yorkshire and Humber) (table 1). National coverage of dose 2 also increased between February and April 2016 from 86.1% to 87.9%. In April 2016 this ranged by AT from 82.7% (London) to 93.1% (North Yorkshire and Humber) (table 2).

Coverage data by CCG are presented in an [appendix](#) associated with this report.

Figure 1. Monthly Meningococcal B vaccine coverage evaluated at six months of age for one dose and two doses, and the percentage of GP practices reporting: England, November 2015 to April 2016*



*Data for November 2015 represent the first catch-up cohort (born between 03/05/2015 - 01/06/2015), offered one dose of vaccine. Data for December 2015 represent the second catch-up cohort (born between 02/06/2015 - 02/07/2015), offered two doses of vaccine. Due to data quality issues, these data are based on partial GP practice reporting; see 'participation and data quality' in [January 2016 HPR](#). Data presented from January 2016 are for the routine cohort of infants (born on or after 03/07/2015).

Table 1. Monthly Meningococcal B vaccine coverage for one and two doses (%) assessed at six months of age by Area Team: England, February to April 2016

Area Team	Feb-16		Mar-16		Apr-16	
	% coverage one dose	% coverage two doses	% coverage one dose	% coverage two doses	% coverage one dose	% coverage two doses
Cheshire, Warrington and Wirral (Q44)	97.2	89.2	96.8	91.2	96.7	90.7
Durham, Darlington and Tees (Q45)	98.4	89.9	98.5	90.8	98.3	90.4
Greater Manchester (Q46)	92.1	80.6	92.4	82.7	92.3	83.0
Lancashire (Q47)	96.1	88.1	96.0	88.1	95.8	87.7
Merseyside (Q48)	91.9	81.0	93.5	83.3	96.4	85.9
Cumbria, Northumberland, Tyne and Wear (Q49)	96.2	90.9	96.7	90.7	96.4	90.6
N Yorkshire and Humber (Q50)	97.4	89.4	97.7	90.4	98.4	93.1
S Yorkshire and Bassetlaw (Q51)	97.5	90.3	97.2	90.7	97.6	91.2
W Yorkshire (Q52)	96.7	87.2	96.6	87.4	96.7	88.5
Arden, Herefordshire and Worcestershire (Q53)	93.7	87.5	94.5	88.6	95.8	90.0
Birmingham and Black Country (Q54)	94.3	82.0	94.5	84.0	95.9	85.1
Derbyshire and Notts. (Q55)	97.6	90.8	97.8	90.6	97.9	92.3
East Anglia (Q56)	97.2	90.5	97.1	89.8	97.2	90.3
Essex (Q57)	97.0	88.9	96.9	89.4	96.9	91.2
Hertfordshire and the S Midlands (Q58)	96.5	89.2	97.1	89.7	97.1	91.1
Leicestershire and Lincolnshire (Q59)	97.4	89.9	97.0	89.6	97.4	91.0
Shropshire and Staffordshire (Q60)	96.5	90.4	95.8	90.9	95.7	90.9
Bath, Glos., Swindon and Wilts (Q64)	96.7	89.0	96.5	87.7	97.3	91.4
Bristol, N Som. and S. Glos. (Q65)	96.2	88.0	96.8	86.5	96.4	87.6
Devon, Cornwall and Scilly Isles (Q66)	92.6	83.4	92.7	83.8	91.8	84.1
Kent and Medway (Q67)	95.9	83.5	95.9	87.3	95.7	88.3
Surrey and Sussex (Q68)	93.3	86.7	95.9	87.9	95.9	90.0
Thames Valley (Q69)	94.9	88.9	93.1	86.9	94.3	88.8
Wessex (Q70)	94.9	89.3	96.0	90.5	95.7	90.8
London (Q71)	91.3	80.4	92.4	81.6	92.9	82.7
ENGLAND	94.8	86.1	95.2	86.9	95.5	87.9
Monthly reported denominator	50361		56096		53033	

Discussion

This second assessment of preliminary vaccine coverage at six months of age for the new routine childhood MenB programme indicate that the vaccine has continued to be well accepted and implemented, with high and increasing coverage achieved between February and April 2016. Infants born after 1 July 2015 who were not vaccinated at six months of age continue to be eligible for their primary immunisations and it is anticipated that coverage for both doses of vaccine in this cohort will increase when evaluated at 12 months of age.

The automated MenB GP data collection is a temporary sentinel surveillance programme set up to provide assurance that the vaccine has been well accepted. It will be replaced by data from the routine quarterly COVER (Cover of Vaccination Evaluated Rapidly) reporting scheme which will evaluate two dose MenB vaccine coverage for children at 12 months of age and booster MenB coverage at 24 months of age using data extracted from Child Health Information Systems (CHISs) [2]. The first quarterly COVER evaluation to include MenB coverage is expected to be published in December 2016, for children aged 12 months of age in the July to September 2016 quarter.

The introduction of MenB immunisation has been supported by a comprehensive media and communications campaign in partnership with health partners and meningitis charities, that has led to significant reporting in national, local and parenting media and social media. New patient information leaflets and posters have also supported the campaign, and comprehensive guidance has been added to the [NHS Choices website](#). Existing children's immunisation information booklets and leaflets have been amended to reflect the new schedule. A training factsheet and video for health professionals has also been produced.

References

1. Public Health England (2016). *MenB vaccine coverage estimates, report: January 2016*. *HPR* 10(8). Available from: <https://www.gov.uk/government/publications/meningococcal-b-immunisation-programme-vaccine-coverage-estimates>.
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Vaccine coverage report

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Vaccine coverage estimate for the first urgent catch-up meningococcal ACWY (MenACWY) immunisation programme for England, updated to the end of March 2016

National vaccine coverage for the first cohort offered MenACWY vaccine as part of an urgent catch-up programme from August 2015 (those born 1 September 1996 to 31 August 1997) evaluated at the end of March 2016 was 35.2%. This cohort remain eligible for vaccination until the age of 25.

Introduction

MenACWY immunisation was added to the national immunisation programme in August 2015 following advice from the Joint Committee on Vaccination and Immunisation (JCVI) in response to the rising number of meningococcal W (MenW) cases.

The objective of the MenACWY immunisation programme is to immunise all teenagers in school years 9 to 13 before they complete academic year 13. This is being met through replacing the routine adolescent MenC booster given in years 9 or 10 with the MenACWY vaccine since September 2015, and through a series of catch-up campaigns targeting older teenagers. These include, an urgent general practice (GP) based MenACWY vaccination catch-up campaign from August 2015, targeting all those in the 2014/15 school year 13.

There will be further catch-up campaigns in 2016 and 2017 for those currently aged 15 to 18 who will not have been offered MenACWY vaccination. Additionally, MenACWY is offered to older students aged up to 25 who are in university as part of the existing time-limited 'freshers' programme.

This report updates the previous estimate of national vaccination coverage in the 2014/15 year 13 cohort, assessed to 31 January 2016 and based on data from three of four GP IT suppliers [1], with more complete data from all GP IT suppliers to 31 March 2016.

Methods

In order to assess vaccine coverage of this newly implemented immunisation programme PHE has put in place a temporary sentinel surveillance system. This uses GP practice level MenACWY vaccine coverage data automatically uploaded via participating GP IT suppliers to the ImmForm* website on a monthly basis. Cumulative monthly data are then validated and analysed by PHE to check data completeness, identify and query any anomalous results and describe epidemiological trends.

Cumulative monthly MenACWY vaccine coverage data (from September 2015 to March 2016) were collected for the target birth cohort using the following definitions:

- *Denominator:* the number of patients registered in a GP practice aged 17-18 years on 1 August 2015 (born between 1 September 1996 and 31 August 1997);
- *Numerator:* the number of patients in the denominator who have received a MenACWY vaccine between 1 August 2015 and 31 March 2016.

Vaccine coverage is calculated as the total number of patients who have received the vaccination (numerators) as a percentage of the number of patients registered (denominator).

* ImmForm is the system used by Public Health England to record vaccine coverage data for some immunisation programmes and to provide vaccine ordering facilities for the NHS

Participation and data quality

For this urgent MenACWY catch-up programme, vaccination was offered to individuals in the target population from August 2015 through to the end of March 2016. Many individuals in this cohort will have changed their GP registration as they move to university or college, military establishment, etc. during this period. For this reason the denominators and numerators for individual GP practices will fluctuate between monthly data extractions, limiting the month on month comparability for any given geography. As a result, local MenACWY coverage estimate cannot be confidently estimated and are not provided.

Seven monthly collections (September 2015 to March 2016) of MenACWY vaccine coverage data were uploaded. Only one GP IT supplier, representing around 50% of all English GP practices, provided data consistently for all uploads since the beginning of the evaluation period (September 2015). However, all four GP IT suppliers provided information for cumulative coverage estimates to the end of March 2016.

Results

National cumulative MenACWY vaccine coverage at the end of March 2016 for the urgent catch-up cohort in England is 35.2%.

Monthly cumulative coverage reported by the one GP IT supplier that provided data consistently through the evaluation period increased from 28.9% at the end of September to 35.5% at the end of March 2016. This suggests that 81% of all vaccinations were given during August and September 2015.

Discussion

The announcement of the urgent catch-up programme was made in June 2016, MenACWY vaccine became available for GP practices to order in July, and the call and recall of the target cohort of adolescents started in August. The aim of the programme was to vaccinate as many of this cohort as possible before the start of the 2015/16 academic year and these data indicate that most vaccinations were given prior to October 2015.

The relatively low coverage in the target group highlights the challenges of a GP-delivered vaccination programme in this age group, confirming findings from a previous HPV catch-up vaccination programme [2]. Low MenACWY coverage may be exacerbated by a significant number of the target individuals in this age group attending university or other educational organisations away from their home address, which may lead to a temporary change in GP, making both invitation to the vaccination programme and monitoring more complex.

In the 2016/17 financial year, the GP delivered MenACWY programme again targets 17- and 18-year-olds (born between 1 September 1997 and 31 August 1998, school year 13) who are leaving school in summer 2016. However, young adults in the first urgent catch-up cohort who have not yet been vaccinated are still able to obtain MenACWY vaccination from their GP up to the age of 25, and coverage in this cohort will continue to be monitored alongside the new eligible school year 13 cohort.

Coverage estimates for the school-based routine and catch-up MenACWY programmes delivered in the 2015/16 academic year will be captured in an annual survey in September 2016 and are expected to be published in late 2016.

Further information

Further information relating to the implementation of this vaccination programme is available from the PHE website document collection, [Meningococcal ACWY \(MenACWY\) vaccination programme](#).

References

1. Public Health England (2016). *MenACWY vaccine coverage estimates, report: January 2016*. HPR 10(9). Available from: <https://www.gov.uk/government/publications/meningococcal-acwy-immunisation-programme-vaccine-coverage-estimates>.
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