



## Infection report

Volume 11 Number 13 Published on: 31 March 2017

### Preliminary vaccine coverage estimates for the new meningococcal B (MenB) immunisation programme for England, update to the end of February 2017

Preliminary vaccine coverage estimates for the infant Meningococcal B immunisation, evaluated at the end of February 2017, are 96.8% for one dose and 87.9% for two doses by six months of age. Children who were 12 months in February achieved 96.3% coverage for one dose and 93.1% for two doses.

The first cohort routinely offered the vaccine that reached 18 months of age in February achieved 95.8% coverage for one dose, 93.5% for two doses and 87.9% for the booster dose.

## Introduction

This report presents Meningococcal B (MenB) vaccine coverage data for one and two doses of vaccine by six months, 12 months and 18 months of age, evaluated at the end of February 2017, updating previous data reported for the period to end of August 2016 [1].

MenB vaccination was introduced from 1 September 2015 for infants (born July 2015 onwards) due to receive their primary immunisations starting at two months of age on or after 1 September 2015 (ie 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, Public Health England (PHE) 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 (26 weeks), 12 months (52 weeks), and 18 months (78 weeks) (table 1) of age in the survey month, using the following definitions:

Coverage at six months:

- *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) 1st dose and (b) 2nd dose of Bexsero® (MenB vaccine) from eight weeks of age up to 26 weeks of age, including vaccinations given by other healthcare providers.

\* 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

Coverage at 12 months:

- *Denominator*: the number of infants in a GP practice who, in the survey month, reach 52 weeks of age;
- *Numerators*: the number of infants in the denominator who received (a) 1st dose and (b) 2nd dose of Bexsero® (MenB vaccine) from eight weeks of age up to 52 weeks of age, including vaccinations given by other healthcare providers.

Coverage at 18 months:

- *Denominator*: the number of infants in a GP practice who, in the survey month, reach 78 weeks of age;
- *Numerators*: the number of infants in the denominator who received (a) 1st dose (b) 2nd dose (c) booster dose of Bexsero® (MenB vaccine) from eight weeks of age up to 78 weeks of age, including vaccinations given by other healthcare providers.

**Table 1. Birth cohorts eligible for MenB vaccination following introduction of the programme in September 2015, evaluated at 78 weeks of age**

| Cohort                 | Birth dates        | Doses offered                | Coverage survey month |
|------------------------|--------------------|------------------------------|-----------------------|
| Catch-up cohort 1      | 03/05 – 01/06/2015 | 2 (One priming, one booster) | November 2016         |
| Catch-up cohort 2      | 02/06 – 02/07/2015 | 3 (Two priming, one booster) | December 2016         |
| (First) Routine cohort | 03/07 – 02/08/2015 | 3 (Two priming, one booster) | January 2017          |

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).

### Participation and data quality

MenB vaccine coverage data from one of four data suppliers representing approximately 1% of GP practices in the survey is consistently lower than other data suppliers. These data have been omitted from this coverage report and we are working with ImmForm to resolve this data issue.

Data for September and October 2016 comprises data from only two IT suppliers (representing approximately 57% of GP practices in the survey) as one further IT supplier was unable to submit reliable data. This supplier was able to provide data from November onwards.

Between November 2016 and February 2017 the largest IT supplier in the survey was unable to submit reliable data; this issue has not currently been resolved. The data for this period therefore represent only 41% of GP practices in the survey.

Data have been incomplete in previous reports [1, 2, 3] but due to issues with the largest IT supplier described above and its impact on data completeness and representativeness, only national estimates are provided within this publication. This report presents MenB coverage data for infants evaluated at six, 12 and 18 months. It is important to note that comparisons made between these two data extractions will not be based on the same cohort as:

- GPs participating in the data collections vary between months
- Date of birth range for the 26, 52 and 78 week cohorts differ
- Patients will change their GP registration as they move within England and outside the country

## Results

MenB vaccine coverage data was available for 3,065/7,456 (41.1%) GP practices in February 2017.

### *MenB coverage at 26 weeks of age*

National coverage at six months was  $\geq 96.7\%$  for dose one and  $\geq 87.9\%$  for dose two from November 2016 onwards (figure 1).

### *MenB coverage at 52 weeks of age – routine cohort*

Coverage at 12 months was  $\geq 96.0\%$  for dose one and  $\geq 93.0\%$  for dose two from November 2016 onwards (figure 2).

### *MenB coverage at 78 weeks of age – catch-up cohorts*

Coverage for the first **catch-up cohort** (born May 2015), eligible for only one dose of MenB vaccine with their infant immunisations followed by a booster at 12-13 months, was 87.5% for one dose (increasing 8.1% from 79.4% recorded at 52 weeks of age in May 2016 [1]), and 71.9% for the booster dose when evaluated at 18 months of age in November 2016 (figure 3).

Coverage for the second **catch-up cohort** (born June 2015), was 93.2% for one dose and 89.4% for two doses when evaluated at 18 months of age in December 2016 (increasing 3.6% and 7.1%, for one and two doses respectively from the evaluation at 12 months of age in June 2016 [1]), and 83.5% for the booster dose when evaluated at 18 months of age in November 2016 (figure 3).

### *MenB coverage at 78 weeks of age – routine cohort*

Coverage was  $\geq 95.6\%$  for dose one,  $\geq 93.1\%$  for dose two, and  $\geq 87.5\%$  for the booster dose for the first two months (January and February 2017) of evaluation of the **routine cohort** at 18 months (figure 3).

## Discussion

This is the fourth early assessment of vaccine coverage at six months of age, just two months after the second dose is scheduled, for the new routine childhood MenB programme and indicates that the vaccine has continued to be well accepted and implemented, with high completed course coverage achieved between September 2016 and February 2017 of around 88%. By 12 months of age 93% of infants have completed a two dose course indicating around 5% receive the second dose after 6 months of age.

This report also presents the first early estimates of MenB booster coverage at 18 months of age for the two catch-up cohorts and the first two months of routine cohort data, showing a similarly high proportion of children, almost 88% of the routine cohorts, are receiving their booster dose within five to six months of the vaccine being scheduled.

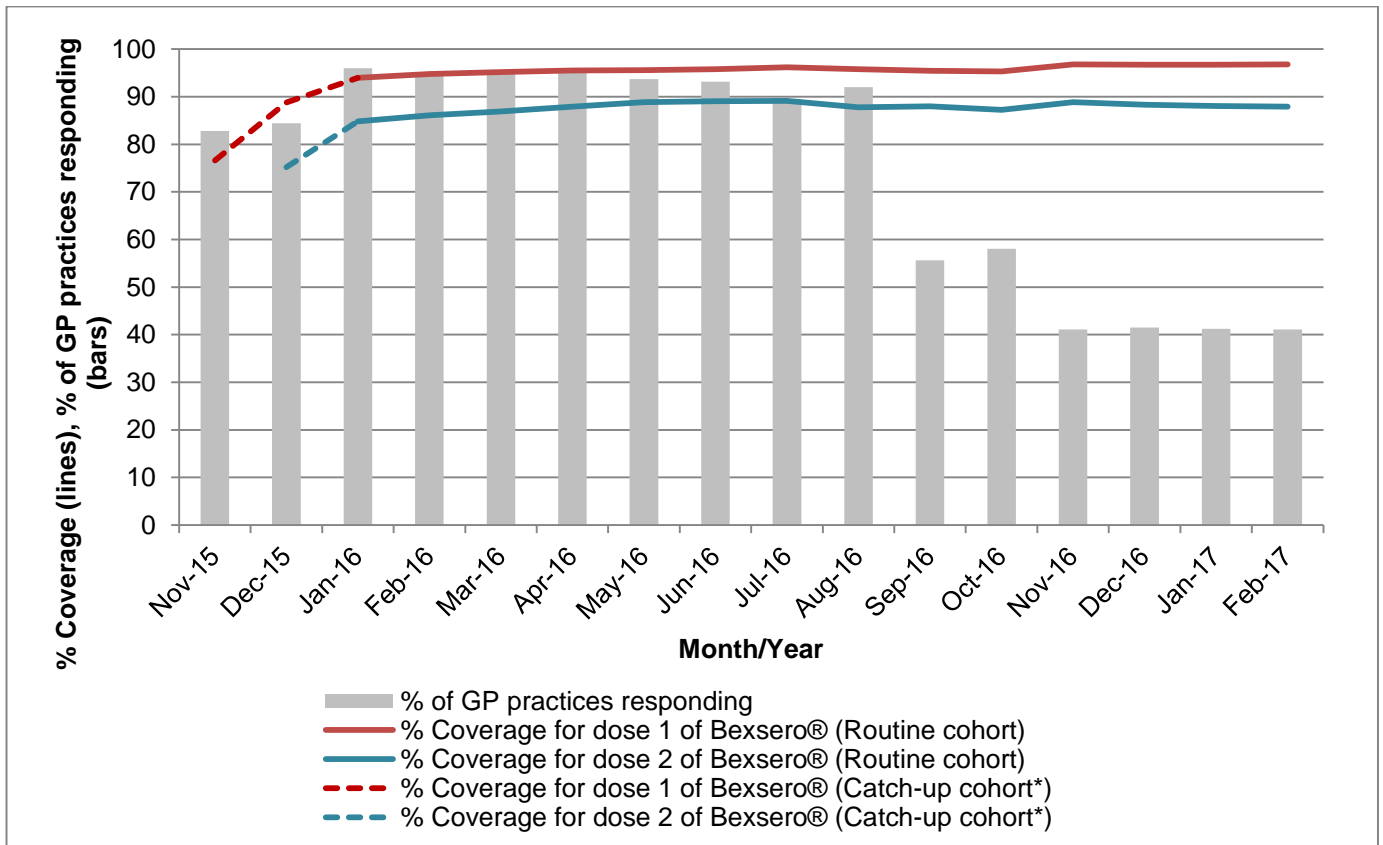
In parallel to the GP based coverage estimates published in this report, PHE estimates MenB coverage data from the routine quarterly COVER (Cover of vaccination evaluated rapidly) reporting scheme which evaluates two dose MenB vaccine coverage for children at 12 months of age and booster MenB coverage at 24 months of age using data extracted from Child Health Information Systems (CHISs). The first quarterly COVER evaluation to include MenB coverage was published in December 2016, for children aged 12 months of age in the July to September 2016 quarter [4]. The England COVER data for MenB2 at 12 months for children born between July and September 2015, were very similar to the ImmForm estimate of two-dose coverage evaluated at 52 weeks for children born in August 2015 (91.6% vs 91.5%) [4]. The COVER July to September 2017 quarterly report, to be published in December 2017, will provide more complete 24 month coverage estimates for the booster dose.

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 [5]. 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**

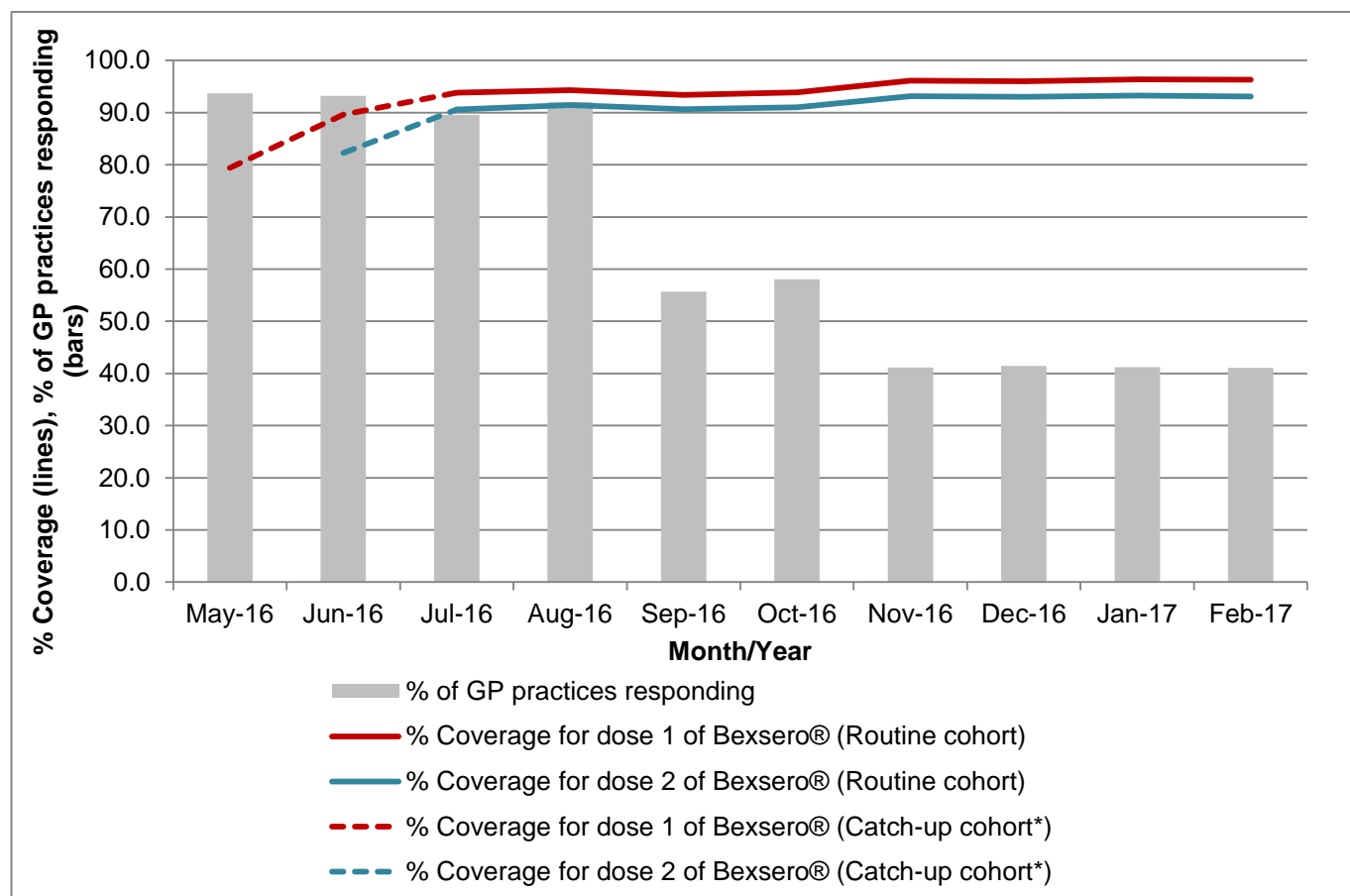
1. Public Health England. Preliminary vaccine coverage estimates for the meningococcal B (MenB) immunisation programme for England, update to the end of August 2016. 2016; Available from: <https://www.gov.uk/government/publications/meningococcal-b-immunisation-programme-vaccine-coverage-estimates>
2. Public Health England. MenB vaccine coverage estimates, report: to end of April 2016. 2016; Available from: <https://www.gov.uk/government/publications/meningococcal-b-immunisation-programme-vaccine-coverage-estimates>
3. Public Health England. MenB vaccine coverage estimates, report: January 2016. HPR 10(8) 2016; Available from: <https://www.gov.uk/government/publications/meningococcal-b-immunisation-programme-vaccine-coverage-estimates>
4. Public Health England. Quarterly vaccination coverage statistics for children aged up to five years in the UK (COVER programme): July to September 2016. 2016; Available from: <https://www.gov.uk/government/statistics/cover-of-vaccination-evaluated-rapidly-cover-programme-2016-to-2017-quarterly-data>
5. Public Health England. Documents relating to the new meningococcal B (MenB) vaccination (Bexsero®) programme starting from 1 September 2015. 2015 26 February 2016; Available from: <https://www.gov.uk/government/collections/meningococcal-b-menb-vaccination-programme>

**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 February 2017\***



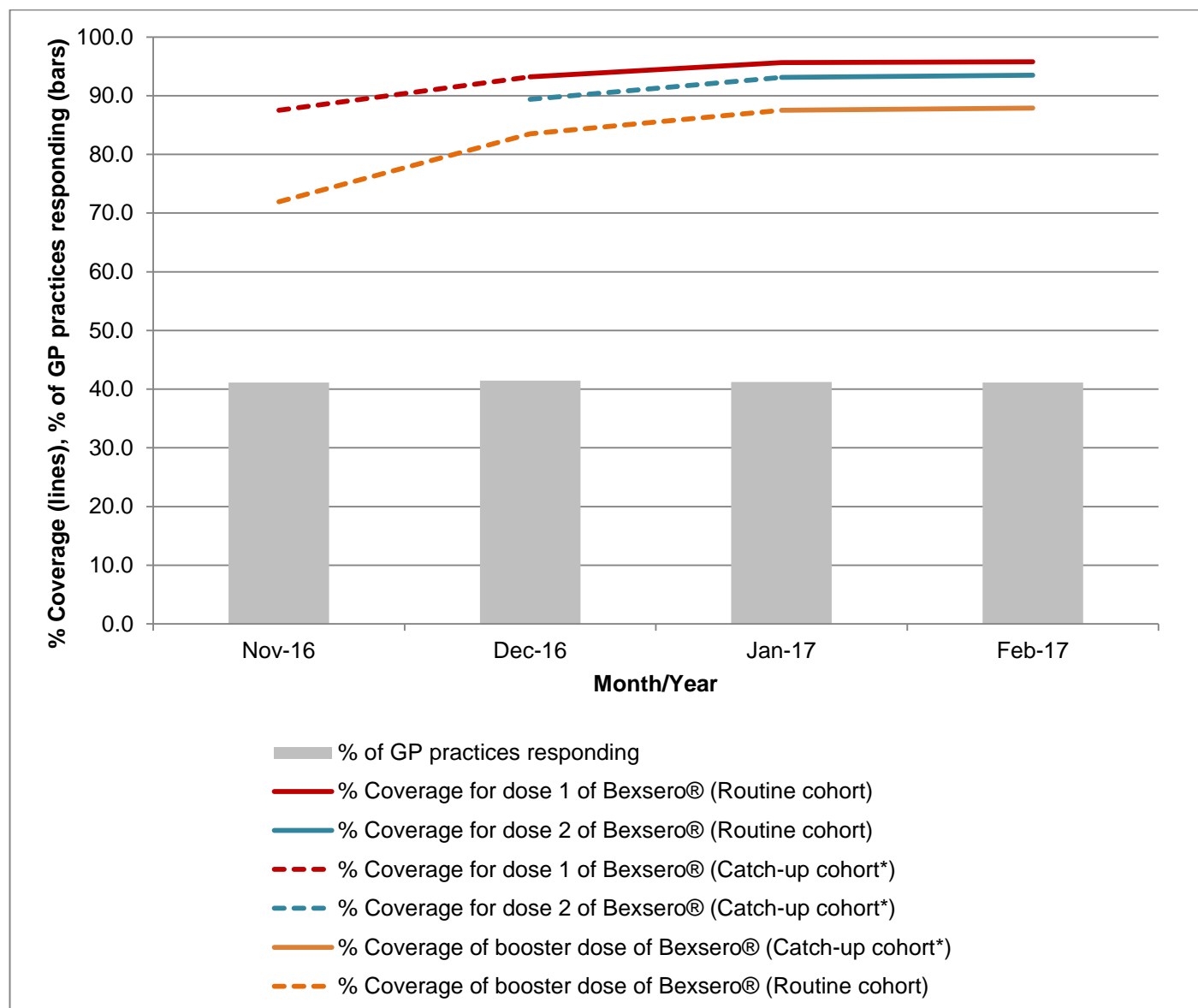
\*Data for November 2015 represent the first catch-up cohort (born between 03/05/2015 - 01/06/2015), offered one dose of vaccine. Data for December 2015 represent the second catch-up cohort (born between 02/06/2015 - 02/07/2015), offered two doses of vaccine. Due to data quality issues, these data are 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). Data quality issues for recent months are described above.

**Figure 2. Monthly Meningococcal B vaccine coverage evaluated at 12 months of age for one dose and two doses, and the percentage of GP practices reporting: England, May 2016 to February 2017\***



\* Data for May 2016 represent the first catch-up cohort (born between 03/05/2015 - 01/06/2015), offered one dose of vaccine. Data for June 2016 represent the second catch-up cohort (born between 02/06/2015 - 02/07/2015), offered two doses of vaccine. Data presented from July 2016 are for the routine cohort of infants (born on or after 03/07/2015). Data quality issues for recent months are described above.

**Figure 3. Monthly Meningococcal B vaccine coverage evaluated at 18 months of age for one dose, two doses, and booster dose, and the percentage of GP practices reporting: England, November 2016 to February 2017\***



\* Data for November 2016 represent the first catch-up cohort (born between 03/05/2015 - 01/06/2015), offered one dose of vaccine with their infant immunisations and a booster at 12-13 months. Data for December 2016 represent the second catch-up cohort (born between 02/06/2015 - 02/07/2015), offered two doses of vaccine and a booster at 12-13 months. Data presented from January 2017 are for the routine cohort of infants (born on or after 03/07/2015). Data quality issues for recent months are described above.