Childhood Vaccination Coverage Statistics
England, 2016-17
Published 20 September 2017

This publication reports childhood vaccination statistics for England in 2016-17, and relates to routine vaccinations offered to all children up to the age of 5. The statistics show the number of children vaccinated as a proportion of the eligible population (coverage), and are derived from information collected by Public Health England through the Cover of Vaccination Evaluated Rapidly (COVER) and Seasonal Influenza programmes.

Key findings

- In 2016-17, 93.4% of children reaching their first birthday had completed their primary immunisation courses against Diphtheria, Tetanus and Pertussis, Polio and Haemophilus Influenzae type b (DTaP/IPV/Hib). This compares with 93.6% last year and 94.2% in 2014-15.
- Coverage for the first dose of the Measles, Mumps and Rubella (MMR1) vaccine for children reaching their fifth birthday rose to 95.0% for the first time in 2016-17. This continues an improving coverage trend which has seen figures improve year on year since 2006-07 (see Figure 1).

Figure 1: Coverage (%) of MMR vaccine 1st dose at 5 years, England from 2006-07 to 2016-17

Source: COVER - PHE, NHS Digital

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This is a National Statistics publication

National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with all aspects of the Code of Practice for Official Statistics. They are awarded National Statistics status following an assessment by the Authority’s regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is NHS Digital’s responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.


This report may be of interest to members of the public, policy officials and other stakeholders to make local and national comparisons and to monitor the quality and effectiveness of services.
Introduction

This publication reports childhood immunisation statistics for England for 2016-17. The statistics show the number of children vaccinated as a proportion of the eligible population (coverage), and are derived from information collected by Public Health England through the COVER (Cover of Vaccination Evaluated Rapidly) and Seasonal Influenza programmes.

The statistics are used to inform the development and evaluation of government policy on immunisation and to assess the delivery of different immunisations in the national programme. The statistics also help inform vaccine policy decisions, such as national and regional catch-up programmes for specific immunisations. At a local level the statistics are used to monitor performance. A number of the statistics from this publication also contribute to indicators for the government’s Public Health Outcomes Framework (PHOF)\(^1\).

We would like to acknowledge the key contributions made by members of the COVER team at Public Health England in the production of the data informing this report.

1.1 Routine Childhood Immunisations

The European Region of the World Health Organization (WHO) currently recommends that on a national basis at least 95% of children are immunised against diseases preventable by immunisation and targeted for elimination or control (specifically, diphtheria, tetanus, pertussis, polio, Hib, measles, mumps and rubella\(^2\)). Coverage at a regional level should be at least 90%. The routine childhood immunisation programme for the UK includes these immunisations recommended by WHO as well as a number of others as defined by Public Health England (PHE) in ‘Immunisation against infectious diseases’ – the Green Book\(^3\). There is an expectation that UK coverage for all routine childhood immunisations evaluated up to five years of age achieve 95%.

This publication only reports on vaccinations that are given to children up to five years of age. With the exception of the seasonal influenza vaccination, coverage for these vaccinations are evaluated as part of the COVER programme and are summarised for the period 2016-17 in Table A below.

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1 For more information on the Public Health Outcomes Framework see: \(\text{http://www.dh.gov.uk/health/2012/01/public-health-outcomes/}\)
2 Source: \(\text{http://www.euro.who.int/_data/assets/pdf_file/0010/98398/wa540ga19heeng.pdf}\)
Table A: Summary of routine vaccinations up to the age of 5 years old

<table>
<thead>
<tr>
<th>Disease (Vaccine)</th>
<th>Age</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphtheria, tetanus, pertussis, polio and <em>Haemophilus influenzae</em> type b (DTaP/IPV/Hib)</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; dose: 2 months  2&lt;sup&gt;nd&lt;/sup&gt; dose: 3 months  3&lt;sup&gt;rd&lt;/sup&gt; dose: 4 months</td>
<td>Primary course</td>
</tr>
<tr>
<td>Pneumococcal disease (PCV)</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; dose: 2 months  2&lt;sup&gt;nd&lt;/sup&gt; dose: 4 months</td>
<td>Primary course</td>
</tr>
<tr>
<td>Rotavirus</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; dose: 2 months  2&lt;sup&gt;nd&lt;/sup&gt; dose: 3 months</td>
<td>Primary course</td>
</tr>
<tr>
<td>Meningococcal group B (MenB) (from September 2015)*</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; dose: 2 months  2&lt;sup&gt;nd&lt;/sup&gt; dose: 4 months</td>
<td>Primary course</td>
</tr>
<tr>
<td><em>Haemophilus influenzae</em> type b and meningococcal group C (Hib / MenC)</td>
<td>One year</td>
<td>Booster</td>
</tr>
<tr>
<td>Measles/mumps/rubella (MMR)</td>
<td>One year</td>
<td>First dose</td>
</tr>
<tr>
<td>Pneumococcal disease (PCV)</td>
<td>One year</td>
<td>Booster</td>
</tr>
<tr>
<td>Meningococcal group B (MenB) (from September 2015)*</td>
<td>One year</td>
<td>Booster</td>
</tr>
<tr>
<td>Diphtheria, tetanus, pertussis, and polio (DTaP/IPV or DTaP/IPV)</td>
<td>3yrs/4 months to 5 years</td>
<td>Booster: 3 years after completion of primary course</td>
</tr>
<tr>
<td>Children’s flu vaccine</td>
<td>Aged 2 to 7 years on 31st August</td>
<td>Annual vaccination</td>
</tr>
<tr>
<td>Measles/mumps/rubella (MMR)</td>
<td>3yrs/4 months to 5 years</td>
<td>Second dose</td>
</tr>
</tbody>
</table>

* This is published for the first time in this publication. Please refer to Annex A for further information.

The current schedule for the entire routine immunisation programme, as at Autumn 2017, is shown in Appendix B. In 2013-14, the introduction of influenza vaccination for healthy children began with vaccines offered to all children aged two and three years of age. By 2016-17, this had been extended to also include all children aged two to seven years of age, and up to 8 years of age in 2017-18.

In addition, from July 2013 an infant rotavirus vaccination was introduced and a reduction from two to one dose of the meningococcal group C (MenC) vaccine to be offered in the first year of life. MenC was subsequently removed from the schedule in 2016 (protection is still offered against MenC through the Hib/MenC vaccine administered at 12-13 months). Infant meningitis B (MenB) vaccination was introduced in September 2015 and MenB data are presented in this publication for the first time.

The most recent change to the primary immunisation schedule is the replacement of the pentavalent vaccine (DTaP/IPV/Hib) with a hexavalent vaccine which includes hepatitis B (DTaP/IPV/Hib/HepB) for all babies born on or after 1 August 2017. Links to this announcement and the formal immunisation schedules are available on the following link:

1.2 Quality Statement

The Quality Statement presents information to aid understanding and presentation of the data. This is now published as a separate document on the publication webpage which can be accessed via the following link:

http://digital.nhs.uk/pubs/childvaccstats1617

1.3 Report Structure

Immunisation statistics are presented in the Analysis and Commentary section of this report in three sections as follows:

- Routine Childhood Vaccinations
- Selective Neonatal Vaccination Programmes
- Childhood Influenza Vaccinations

More detailed statistics are presented in the Data Tables section, which can be accessed via the following link:

http://digital.nhs.uk/pubs/childvaccstats1617

The Appendices include:

- Appendix A - Glossary
- Appendix B – Background
- Appendix C – Coverage Definitions
- Appendix D – Changes to the UK childhood immunisation programme
- Appendix E – Data Validation and Data Quality
- Appendix F – Uses of Statistics
- Appendix G – Feedback from Users
- Appendix H – Related Publications and useful web links
- Appendix I – COVER Data Collection Form

There is a single annex (Annex A) containing Experimental Statistics on the MenB primary vaccination offered at 12 months of age.
1.4 Changes to the Report

- Following user feedback, we have changed the title of this publication from ‘NHS Immunisations Statistics, England’ to ‘Childhood Vaccination Coverage Statistics, England’ as this more accurately reflects the content of the report. The publication has featured data on childhood vaccinations only since the adult flu data were last published as part of it in 2014-15.

- The local and regional statistics reported are based on a Local Authority (LA) dataset that no longer includes estimated data. As such, all figures reported are therefore based on actual LA data submissions. This is a change in methodology from previous years where the regional and national figures reported were based on both data where the LA was not coterminous with a former PCT and actual LA submitted data. Due to this methodological change, users should exercise some caution when comparing local figures with previous years due to the different methods used.

- Inclusion of Experimental Statistics on MenB primary coverage at 12 months under Annex A for the first time (not all of the 12m cohort were eligible for the vaccine – only those born from June 2015 were offered two doses (i.e. a 6th will not have been eligible) so coverage estimates may look very low).

- Rotavirus coverage at 12 months is no longer designated as ‘Experimental’ Statistics in the report. Analysis shows these data to be of sufficient quality to now be included under the National Statistics designation. This is discussed further in section 2.1.2 of the report and accompanied by a chart showing coverage variation at regional level.

- The 2016-17 report is accompanied by a single interactive data dashboard which has been developed for the first time in software called Microsoft Power BI. This dashboard allows users to visualise vaccine coverage data down to LA level and examine both local and national trends for the years 2013-14 to 2016-17 in greater detail. The dashboard can be accessed via the link below:


The purpose of offering this additional data resource is to:

- Enhance this publication by providing additional dynamic visualisations
- Enable us to publish reports and visualisations as refreshable web reports.

We would be particularly grateful if users accessing the data via Power BI would be able to provide feedback on their interactions with it on the following link:

  https://www.digital.nhs.uk/Contact-us
• Introduction of a ‘Selective Neonatal Immunisation Programmes’ chapter which discusses the Bacillus Calmette-Guérin (BCG) and Hepatitis B (HepB) for high risk babies vaccination programmes.

• Users should also be aware that as a result of some of the changes mentioned above, the numbering for some of the data tables has changed.

• Following its removal from the routine schedule in July 2016, MenC coverage data at 12 months are no longer published as part of this report.

1.5 User Feedback

NHS Digital welcomes feedback on all publications. If you wish to comment on this report, a feedback form (Have Your Say) is available on the NHS Digital website at:

https://www.digital.nhs.uk/Contact-us

We would be particularly interested in how you use the statistics in this report.

Feedback received from users via the publication webpage and other means is summarised in Appendix G along with any action that has been taken as a result of this feedback.
Analysis and Commentary

2.1 Routine Childhood Vaccinations

Routine childhood vaccine coverage statistics for children up to the age of five are calculated from figures extracted from Child Health Information Systems (CHISs) or from GP systems for a small number of LAs and reported through the COVER programme. Statistics are reported by responsible LA population in the main report.

Some caution should be exercised when comparing coverage figures over time due to the changes in reporting geographies in recent years and data quality issues reported by some data suppliers particularly when migrating to a new CHIS. Apparent changes in trends could reflect changes in the population denominators associated with the change in geographies, changes in reported quality of data as well as real changes in vaccine coverage. While these issues will be more apparent at a local level, it will also have an impact on the national figures. For more information see Appendix E on Data Quality and Validation.

As part of NHS England’s Healthy Children: Transforming Child Health Information the 19 CHIS providers in London have merged into 4 CHIS Hubs covering the whole of London from 1 April 2017, which may have affected data quality in a number of London LAs. It is anticipated that there may be further data quality issues in some London COVER returns for the next few reports as the new Hubs become responsible for generating coverage data. Changes in vaccine coverage within London should therefore be interpreted with caution for the time being.

2.1.1 Overview

Four out of the six routine vaccinations at 1 and 2 years showed small decreases in coverage compared to 2015-16. This includes coverage for the Measles Mumps and Rubella (MMR) vaccine as measured at 2 years which decreased in 2016-17 for the third year in a row, following a year on year increase since 2007-08. Coverage for this vaccine is now at 91.6%, slightly lower than in 2015/16 (91.9%) and at a similar level to that reported in 2011-12.

National coverage figures reported for the MMR 1st dose as measured at 5 years show coverage at the WHO recommended target level of 95% for the first time.

There was some regional variation in coverage across the country with levels of immunisation for 10 out of the 12 routine childhood vaccinations reported on highest in the North East and lowest for all 12 routine childhood vaccinations in London. Please refer to the data tables and interactive dashboard for more information.

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2.1.2 Vaccine coverage at 12 and 24 months

**Diphtheria, Tetanus, Pertussis, Polio and *Haemophilus influenzae* type b vaccine (DTaP/IPV/Hib, “5 in 1” Vaccine)**

Children should receive a primary course of three doses of diphtheria, tetanus, pertussis, polio and *Haemophilus influenzae* type b vaccine (DTaP/IPV/Hib ‘5 in 1’) at eight, twelve and sixteen weeks and then a booster dose of DTaP/IPV vaccine three years after completion of the primary course (Hib is boosted as part of the Hib/MenC vaccine given after the first birthday).

**Coverage at 12 months** – In 2016-17, 93.4% of children reaching their first birthday were reported to have completed their primary DTaP/IPV/Hib course (three doses). This compares with 93.6% in 2015-16, 94.2% in 2014-15 and 94.7% in 2012-13.

Figure 2 presents annual vaccine coverage at 12 months for the primary DTaP/IPV/Hib 5-in-1 for England over the last 10 years. This shows that coverage at a national level has improved each year from 2006-07 to 2012-13 and decreased year on year since then.

**Figure 2: DTaP/IPV/Hib 5-in-1 at 12 months**

*England 2006-07 to 2016-17*

![Figure 2: DTaP/IPV/Hib 5-in-1 at 12 months](image)

Source: COVER - PHE, NHS Digital. See Data Tables 1 and 6.

Figure 3 shows regional and national coverage for 2015-16 and 2016-17 against the national 95% target. In 2016-17, all regions except London reached 90% coverage and three exceeded 95%. Coverage in England was below the 95% target in both 2015-16 and 2016-17.

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5 Due to variable data quality in recent years, some caution should be exercised when comparing coverage figures over time, as apparent trends could reflect changes in the quality of data reported as well as real changes in vaccine coverage. See Appendix E for more details.
Figure 3: DTaP/IPV/Hib 5-in-1 coverage at 12 months
England by region, 2015-16 and 2016-17

At a local level, 68 LAs (out of 149) had coverage levels of 95% and above (see Figure 4). Coverage for less than 90% was reported for 22 LAs, most of which were in London – see Table 8b in Data Tables.
Figure 4: Coverage for DTaP/IPV/Hib 5-in-1 at 12 months

England by Upper Tier Local Authority*, 2016-17

Coverage was 95% or over in six out of 13 Local Teams – see Table 8d.

For a more detailed breakdown of the statistics in this section, see LA Tables 8b and 8c in the Data Tables. Table 8d contains a breakdown of the statistics by NHS England Local Team.
Coverage at 24 months – Coverage for three doses of the combined DTaP/IPV/Hib vaccine is reported again at 24 months to monitor any improvement in the proportion of children completing their primary course after their first birthday. For children reaching their second birthday, coverage for completed courses of DTaP/IPV/Hib vaccine in 2016-17 was 95.1%, 1.5% higher than when this cohort was evaluated at 12 months (see Figure 3) but marginally lower than the 95.2% 24 month coverage reported last year, and still exceeding the 95% target.

Figure 5 shows regional and national coverage for 2015-16 and 2016-17 against the 95% target. In 2016-17, coverage is above 90% in all regions and above the 95% level in seven of the nine regions. In both years, coverage was highest in the North East and lowest in London.

Figure 5: DTaP/IPV/Hib coverage at 24 months

Source: COVER - PHE, NHS Digital. See Tables 4 and 9a in the Data Tables.
Measles-Mumps-Rubella (MMR) vaccine

Children are scheduled to receive their first dose of MMR vaccine (MMR1) after their first birthday and a second dose between three years four months and five years.

Coverage for MMR vaccine in England for children reaching their second birthday fell to 91.6% in 2016-17 compared to 91.9% in 2015-16. This is the third consecutive year that MMR coverage has been decreasing. The MMR coverage figure of 92.7% reported in 2013-14 was the highest since the vaccine was introduced in 1988 (Figure 6) – please refer to Table 7 in the Data Tables for further information.

Figure 6 shows the trend in MMR coverage since it was first introduced in 1988. The controversy and associated publicity around a since discredited potential link between the MMR vaccination and autism and Crohn’s disease, which started in the late 1990s and continued through the early 2000s, has impacted on MMR coverage during that period.

A number of different factors may have contributed to increased coverage up to 2013-14, including national Measles, Mumps and Rubella (MMR) catch-up campaigns to increase vaccine coverage in 2008-09 and in 2013, a recommendation by the Joint Committee on Vaccination and Immunisation (JCVI) in October 2010 to offer the Hib/MenC and PCV booster vaccines and the first dose of MMR vaccine at the same visit, local initiatives to improve coverage and data collection, reporting and quality.
Figure 6: MMR1 coverage at 24 months

England 1988-89 to 2016-17

<table>
<thead>
<tr>
<th>Year</th>
<th>MMR1 Coverage</th>
<th>WHO Target (95%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988-89</td>
<td>91.8</td>
<td>95</td>
</tr>
<tr>
<td>1989-90</td>
<td>90.0</td>
<td></td>
</tr>
<tr>
<td>1990-91</td>
<td>89.5</td>
<td></td>
</tr>
<tr>
<td>1991-92</td>
<td>89.0</td>
<td></td>
</tr>
<tr>
<td>1992-93</td>
<td>88.5</td>
<td></td>
</tr>
<tr>
<td>1993-94</td>
<td>92.0</td>
<td></td>
</tr>
<tr>
<td>1994-95</td>
<td>91.5</td>
<td></td>
</tr>
<tr>
<td>1995-96</td>
<td>91.0</td>
<td></td>
</tr>
<tr>
<td>1996-97</td>
<td>90.5</td>
<td></td>
</tr>
<tr>
<td>1997-98</td>
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<tr>
<td>1998-99</td>
<td>88.5</td>
<td></td>
</tr>
<tr>
<td>1999-00</td>
<td>91.0</td>
<td></td>
</tr>
<tr>
<td>2000-01</td>
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<td></td>
</tr>
<tr>
<td>2001-02</td>
<td>90.0</td>
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</tr>
<tr>
<td>2002-03</td>
<td>89.5</td>
<td></td>
</tr>
<tr>
<td>2003-04</td>
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<td>2005-06</td>
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<td>2006-07</td>
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<td>2010-11</td>
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<td>2012-13</td>
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<td>2013-14</td>
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<tr>
<td>2015-16</td>
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<td></td>
</tr>
<tr>
<td>2016-17</td>
<td>91.6</td>
<td></td>
</tr>
</tbody>
</table>

NB: The MMR vaccine was introduced in 1988 when it replaced the single measles vaccine. Source: COVER - PHE, NHS Digital. See Tables 2 and 7 in the Data Tables.

Figure 7 shows regional and national coverage for 2015-16 and 2016-17 against the 95% target. In 2016-17, coverage has decreased by 0.3% to 91.6%, below the WHO target. All regions except London have achieved coverage above 90%, but none are at or above 95%. In both years, coverage was highest in the North East and lowest in London.

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Due to variable data quality in recent years, some caution should be exercised when comparing coverage figures over time, as apparent trends could reflect changes in the quality of data reported as well as real changes in vaccine coverage. See Appendix E for more details.
Coverage for MMR1 at 24 months at LA level is shown in Figure 8. Vaccine coverage for 95% or more was reported for about a quarter of LAs (37 out of 149), the same as in 2015-16, whereas coverage levels of below 90% were reported for 42 LAs compared to 36 in 2015-16, predominantly in London.
Figure 8: MMR1 coverage at 24 months
England by Upper Tier Local Authority*, 2016-17

MMR1 coverage reached 95% in only one (Cumbria and North East) of the 13 Local Teams. Coverage was 90% or above in all but two (London and South East) NHS England Local Teams.

For a more detailed breakdown of the statistics in this section by Local Authority, see LA Tables 9b and 9c in the Data Tables. Table 9d contains a breakdown of the statistics by NHS England Local Team.

*Statistics in this report are presented by 149 Upper Tier Local Authorities. The eligible populations for Isles of Scilly, City of London and Rutland LAs are very small and are therefore reported under Cornwall, Hackney and Leicestershire respectively.

Source: COVER - PHE, NHS Digital. See also Table 9b in the Data Tables.
Rotavirus vaccine

A vaccine to protect babies against rotavirus infection was introduced into the childhood immunisation schedule in July 2013. This vaccine is offered routinely to all babies at the age of 8 weeks and again at 12 weeks when they attend for their first and second routine childhood immunisations. Opportunities for children to catch up missed doses are limited as rotavirus vaccine cannot be given beyond six months of age and so coverage measured at 12 months is likely to be lower than other vaccines offered at the same time as these can be caught up after six months.

This is the third year that rotavirus coverage data has been reported to the COVER programme and the second time it has been reported in this publication. As the quality and availability of data has improved since the 2015-16 collection year, rotavirus coverage is included under the designation of National Statistics for the first time in this publication.

In 2016-17, 89.6% of children in England were reported to have received the two doses rotavirus vaccine as measured at 12 months. Figure 9 below shows regional and national coverage for 2016-17.

Figure 9: Rotavirus coverage at 12 months

<table>
<thead>
<tr>
<th>Region</th>
<th>Coverage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>89.6</td>
</tr>
<tr>
<td>North East</td>
<td>93.3</td>
</tr>
<tr>
<td>North West</td>
<td>87.5</td>
</tr>
<tr>
<td>Yorkshire &amp; Humber</td>
<td>92.2</td>
</tr>
<tr>
<td>East Midlands</td>
<td>92.7</td>
</tr>
<tr>
<td>West Midlands</td>
<td>89.9</td>
</tr>
<tr>
<td>East of England</td>
<td>92.0</td>
</tr>
<tr>
<td>London</td>
<td>85.8</td>
</tr>
<tr>
<td>South East</td>
<td>89.8</td>
</tr>
<tr>
<td>South West</td>
<td>90.3</td>
</tr>
</tbody>
</table>

Source: COVER - PHE, NHS Digital. See Table 8a in the Data Tables

8 Islington, North Yorkshire and York LA’s were unable to submit data for 2016-17. These LA’s only form a small proportion of the national total and the impact on national outcomes is negligible.
**Haemophilus influenzae type b and meningococcal group C (Hib/MenC) vaccine**

In September 2006, a combined Hib/MenC booster vaccine was introduced into the immunisation programme and children are currently offered this vaccine after their first birthday.

In 2016-17, 91.5% of children in England were reported to have received the combined Hib/MenC booster as measured at two years. This compares with 91.6% in 2015-16 and 92.1% in 2014-15 (see Table B) and represents a slight decline in the trend for coverage in England since 2012-13.

**Table B: Coverage for Hib/MenC at 24 months**

<table>
<thead>
<tr>
<th>Year</th>
<th>Coverage for Hib/MenC at 24 months (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-12</td>
<td>92.3</td>
</tr>
<tr>
<td>2012-13</td>
<td>92.7</td>
</tr>
<tr>
<td>2013-14</td>
<td>92.5</td>
</tr>
<tr>
<td>2014-15</td>
<td>92.1</td>
</tr>
<tr>
<td>2015-16*</td>
<td>91.6</td>
</tr>
<tr>
<td>2016-17</td>
<td>91.5</td>
</tr>
</tbody>
</table>

* 2015-16 data contain a mixture of estimated LA data and submitted LA data. Data prior to 2015-16 national figures were derived from a PCO dataset. Source: COVER - PHE, NHS Digital. See Table 2 in the Data Tables.

Figure 10 shows regional and national coverage for 2015-16 and 2016-17. In 2016-17, all but one region (London) achieved 90% coverage or more but none of the nine regions achieved 95% coverage. In both years, coverage was highest in the North East and lowest in London.

---

9 Due to variable data quality in recent years, some caution should be exercised when comparing coverage figures over time, as apparent trends could reflect changes in the quality of data reported as well as real changes in vaccine coverage. See Appendix E for more details.
Figure 10: Hib/MenC coverage at 24 months
England by region, 2015-16 and 2016-17

Hib/MenC coverage was above 90% in all but two of 13 NHS England Local Teams (London and South East) and 95% or above in one (Cumbria and North East).

For a more detailed breakdown of the statistics in this section see LA Tables 9b and 9c in the Data Tables. Table 9d contains a breakdown of the statistics by NHS England Local Team.

Pneumococcal Conjugate Vaccine (PCV)

PCV was introduced into the routine immunisation programme in September 2006 and is offered at two and four months of age with a booster after the first birthday.

PCV coverage at 12 months

Figure 11 presents coverage for two doses of PCV vaccine at 12 months for England since 2007-08. Reported figures show that 93.5% of children in England had completed a primary immunisation course of PCV at 12 months in 2016-17, the same as the previous year. Coverage figures at a national level improved each year after the vaccine was introduced up until 2012-13, with a year on year decline in the years that followed up to 2015-16.
Figure 11: PCV coverage at 12 months

England, 2007-08 to 2016-17

![Graph showing PCV coverage at 12 months from 2007-08 to 2016-17.]

Source: COVER - PHE, NHS Digital. See also Table 1 in the Data Tables.

Figure 12 shows regional and national coverage for 2015-16 and 2016-17. In 2016-17, all but one region achieved 90% coverage or more and four of the nine regions achieved 95% or more. In both years, coverage was lowest in London.

---

Due to variable data quality in recent years, some caution should be exercised when comparing coverage figures over time, as apparent trends could reflect changes in the quality of data reported as well as real changes in vaccine coverage. See Appendix E for more details.
Figure 12: PCV coverage at 12 months

England by region, 2015-16 and 2016-17

PCV coverage was at or above 90% in all but one of 13 NHS England Local Teams (London) and 95% or above in five NHS England Local Teams - see Table 8d in the data tables.

For a more detailed breakdown of the statistics in this section, see LA Tables 8b and 8c in the Data Tables. Table 8d contains a breakdown of the statistics by NHS England Local Team.

PCV coverage at 24 months

National coverage for the PCV booster vaccine at 24 months was 91.5% in 2016-17, the same as in 2015-16 and lower than the 92.2% reported in 2014-15 (see Figure 13).

Prior to this, national coverage for the PCV booster vaccine at 24 months had improved each year up until 2012-13.
Figure 13: PCV coverage at 24 months\textsuperscript{11}

England, 2008-09 to 2016-17

Source: COVER - PHE, NHS Digital. See Table 2 in the Data Tables.

Figure 14 shows regional and national PCV coverage at 24 months for 2015-16 and 2016-17. In 2016-17, eight of the nine regions achieved 90% coverage but none achieved 95% coverage. In both years, coverage was highest in the North East and lowest in London.

\textsuperscript{11} Due to variable data quality in recent years, some caution should be exercised when comparing coverage figures over time, as apparent trends could reflect changes in the quality of data reported as well as real changes in vaccine coverage. See Appendix E for more details.
PCV coverage at 24 months was above 90% in all but two of the 13 NHS England Local Teams (London and South East) and 95% or above in only one NHS England Local Team (Cumbria and North East) – see Table 9d in the Data Tables.

For a more detailed breakdown of the statistics in this section, see LA Tables 9b and 9c in the Data Tables. Table 9d contains a breakdown of the statistics by NHS England Local Team.
Coverage in UK countries at 12 and 24 months

The COVER programme also collates equivalent coverage data from Northern Ireland, Scotland and Wales. Quarterly UK and country level vaccine coverage statistics are published in the Health Protection Report’s quarterly COVER report by PHE.\(^\text{12}\)

Table C summarises UK vaccine coverage at 12 and 24 months by country, and shows coverage in England to be below that in all other UK countries for all vaccines. Links to data for Northern Ireland, Scotland and Wales can be found in section 1.7 of the separate Quality Statement.

Table C: Completed vaccinations (all antigens) by 12 months and 24 months

<table>
<thead>
<tr>
<th>Country</th>
<th>Coverage at 12 months</th>
<th>Coverage at 24 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DTaP/ IPV/ Hib PCV</td>
<td>Hib/ MenC booster PCV booster MMR1</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>93.9 94.0 90.2</td>
<td>95.5 92.0 92.0 92.1</td>
</tr>
<tr>
<td>England</td>
<td>93.4 93.5 89.6</td>
<td>95.1 91.5 91.5 91.6</td>
</tr>
<tr>
<td>Wales</td>
<td>96.3 96.2 94.1</td>
<td>97.0 94.5 95.4 95.1</td>
</tr>
<tr>
<td>Scotland</td>
<td>96.8 96.8 93.1</td>
<td>97.7 95.0 94.9 94.9</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>97.0 97.0 94.4</td>
<td>97.9 95.0 95.1 94.9</td>
</tr>
</tbody>
</table>

*Rotavirus figures for England and the UK exclude North Yorkshire, York and Islington LAs as they were unable to provide data this year.

Source: COVER - PHE, NHS Digital. See also Tables 5a and 5b in the Data Tables.

---

2.1.3 Vaccine coverage at 5 years

Diphtheria, Tetanus, Pertussis and Polio (DTaP/IPV) pre-school booster

Children should receive their DTaP/IPV pre-school booster from 3 years and four months of age and before they start school.

Reported vaccinations for DTaP/IPV indicate that 86.2% of children in England had received their booster by five years of age in 2016-17, a 0.1% decrease compared with the previous year. Coverage was 88.9% in 2012-13 and has decreased year on year since (see Figure 15 below).

Figure 15: Coverage for DTaP/IPV booster at 5 years

England, 2006-07 to 2016-07

Figure 16 shows regional and national coverage for 2015-16 and 2016-17. In 2016-17, the coverage reported is below 95% in all nine regions and two regions were at or above 90%. In both years, coverage was highest in the North East and lowest in London. Coverage in England remained below 95% in both 2015-16 and 2016-17.

---

Due to variable data quality in recent years, some caution should be exercised when comparing coverage figures over time, as apparent trends could reflect changes in the quality of data reported as well as real changes in vaccine coverage. See Appendix E for more details.
DTaP/IPV booster coverage was above 90% in two of the 13 NHS England Local Teams. However, none of them reached 95% coverage - see Table 10d in the data tables.

For a more detailed breakdown of the statistics in this section by Local Authority, see Tables 10b and 10c in the Data Tables. Table 10d contains a breakdown of the statistics by NHS England Local Team.
Measles-Mumps-Rubella (MMR) vaccine

Figure 17 shows regional and national coverage for 2015-16 and 2016-17 against the WHO target for the first dose of the MMR vaccine (MMR1). In 2016-17, coverage was above 95% in seven of the nine regions and above 90% in all regions. In both years, coverage was highest in the North East and lowest in London. Coverage in England was above the WHO target in 2016-17 for the first time.

Figure 17: MMR1 coverage at 5 years
England by region, 2015-16 and 2016-17

Coverage for MMR1 at 5 years met the WHO target of 95% for the first time in 2016-17.

Figure 18 shows coverage for one dose (MMR1) and two doses (MMR2) over the period 2007-08 to 2016-17 in England. Coverage for MMR1 improved year on year since 2006-07 and reached the 95% WHO target. In 2016-17 87.6% of children in England had received their first and second dose of MMR vaccine (MMR2) by their fifth birthday in 2016-17, representing a 0.6% decrease from 2015-16.
Figure 18: Coverage for MMR1 and MMR2 at 5 years\textsuperscript{14}

England, 2006-07 to 2016-17

<table>
<thead>
<tr>
<th>Year</th>
<th>MMR1 (primary dose) coverage</th>
<th>MMR2 (both doses) coverage</th>
<th>WHO target (95%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-07</td>
<td>72.8</td>
<td>85.9</td>
<td>95.0</td>
</tr>
<tr>
<td>2007-08</td>
<td>72.8</td>
<td>85.9</td>
<td>95.0</td>
</tr>
<tr>
<td>2008-09</td>
<td>72.8</td>
<td>85.9</td>
<td>95.0</td>
</tr>
<tr>
<td>2009-10</td>
<td>72.8</td>
<td>85.9</td>
<td>95.0</td>
</tr>
<tr>
<td>2010-11</td>
<td>72.8</td>
<td>85.9</td>
<td>95.0</td>
</tr>
<tr>
<td>2011-12</td>
<td>72.8</td>
<td>85.9</td>
<td>95.0</td>
</tr>
<tr>
<td>2012-13</td>
<td>72.8</td>
<td>85.9</td>
<td>95.0</td>
</tr>
<tr>
<td>2013-14</td>
<td>72.8</td>
<td>85.9</td>
<td>95.0</td>
</tr>
<tr>
<td>2014-15</td>
<td>72.8</td>
<td>85.9</td>
<td>95.0</td>
</tr>
<tr>
<td>2015-16</td>
<td>72.8</td>
<td>85.9</td>
<td>95.0</td>
</tr>
<tr>
<td>2016-17</td>
<td>72.8</td>
<td>85.9</td>
<td>95.0</td>
</tr>
</tbody>
</table>

Source: COVER - PHE, NHS Digital. See Table 3 in the Data Tables.

Figure 19 shows regional and national coverage for MMR2 in 2015-16 and 2016-17 against the 95% target. In 2016-17 no region reached 95% and four reached 90%. In both years, coverage was highest in the North East and lowest in London.

\textsuperscript{14} Due to variable data quality in recent years, some caution should be exercised when comparing coverage figures over time, as apparent trends could reflect changes in the quality of data reported as well as real changes in vaccine coverage. See Appendix E for more details.
MMR2 coverage was above 90% in four of 13 NHS England Local Teams but none reached 95% - see Table 10d in the data tables.

For a more detailed breakdown of the statistics in this section, see LA Tables 10b and 10c in the Data Tables. Table 10d contains a breakdown of the statistics by NHS England Team.

**Haemophilus influenzae type b and meningococcal group C (Hib/MenC) vaccine**

Coverage for the Hib/MenC booster currently given to children after their first birthday\(^{15}\) is reported again at 5 years to monitor any improvement in coverage amongst children since their second birthday. Coverage data for the combined Hib/MenC booster vaccination at 5 years are available for the sixth year.

In England, Hib/MenC booster coverage at five years was 92.6% in 2016-17, up 0.1% on coverage achieved for this cohort when evaluated at 24 months in 2013-14, and the same as the 5 year coverage in 2015-16.

\(^{15}\) Prior to January 2011, the Hib/MenC booster was given to children at around 12 months
Figure 20 shows regional and national coverage for 2015-16 and 2016-17. In 2016-17, eight of the nine regions reached 90% coverage but only one achieved coverage for 95% (North East). In both years, coverage was highest in the North East and lowest in London.

**Figure 20: Hib/MenC coverage at 5 years**

England by region, 2015-16 and 2016-17

<table>
<thead>
<tr>
<th>Region</th>
<th>2015-16</th>
<th>2016-17</th>
<th>95% target</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>92.6</td>
<td>92.6</td>
<td></td>
</tr>
<tr>
<td>North East</td>
<td>95.9</td>
<td>95.4</td>
<td></td>
</tr>
<tr>
<td>North West</td>
<td>93.9</td>
<td>93.7</td>
<td></td>
</tr>
<tr>
<td>Yorkshire &amp; Humber</td>
<td>94.4</td>
<td>94.4</td>
<td></td>
</tr>
<tr>
<td>East Midlands</td>
<td>93.4</td>
<td>93.1</td>
<td></td>
</tr>
<tr>
<td>West Midlands</td>
<td>93.1</td>
<td>94.9</td>
<td></td>
</tr>
<tr>
<td>East of England</td>
<td>93.6</td>
<td>93.2</td>
<td></td>
</tr>
<tr>
<td>London</td>
<td>88.7</td>
<td>88.2</td>
<td></td>
</tr>
<tr>
<td>South East</td>
<td>91.3</td>
<td>91.2</td>
<td></td>
</tr>
<tr>
<td>South West</td>
<td>94.8</td>
<td>94.8</td>
<td></td>
</tr>
</tbody>
</table>

Source: COVER - PHE, NHS Digital. See Table 10a in the Data Tables.

Hib/MenC coverage was above 90% in all but two of 13 NHS England Local Teams (London and South East) and 95% or above in two Local Teams (Cumbria and North East and South West) - see Table 10d in the data tables.

For a more detailed breakdown of the statistics in this section by Local Authority, see Tables 10b and 10c in the Data Tables. Table 10d contains a breakdown of the statistics by NHS England Local Team.
Coverage in UK countries at 5 years

Table D summarises UK vaccine coverage at 5 years and shows how England compares with other countries in the UK.

In 2016-17, vaccine coverage in England at 5 years was below that of other UK countries for all vaccinations except the DTaP/IPV/Hib primary. However, coverage for the MMR1 vaccine in the UK at 5 years reached the WHO 95% target for the first time.

Links to data for Northern Ireland, Scotland and Wales can be found under Section 1.7 of the separate Quality Statement.

Table D: Completed vaccinations (all antigens) by 5 years

<table>
<thead>
<tr>
<th>Country</th>
<th>Coverage at 5 years</th>
<th>DTaP/IPV/Hib Primary</th>
<th>DTaP/IPV Booster</th>
<th>MMR1 First dose</th>
<th>MMR2 First and second dose</th>
<th>Hib/ MenC Booster</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>95.8</td>
<td>87.3</td>
<td>95.3</td>
<td>88.2</td>
<td>93.0</td>
<td></td>
</tr>
<tr>
<td>England</td>
<td>95.6</td>
<td>86.2</td>
<td>95.0</td>
<td>87.6</td>
<td>92.6</td>
<td></td>
</tr>
<tr>
<td>Wales</td>
<td>94.8</td>
<td>92.5</td>
<td>96.7</td>
<td>90.3</td>
<td>92.9</td>
<td></td>
</tr>
<tr>
<td>Scotland</td>
<td>98.0</td>
<td>93.4</td>
<td>96.9</td>
<td>92.9</td>
<td>96.0</td>
<td></td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>97.7</td>
<td>93.3</td>
<td>97.4</td>
<td>92.8</td>
<td>96.4</td>
<td></td>
</tr>
</tbody>
</table>

Source: COVER - PHE, NHS Digital. See Table 5c in the Data Tables.
2.2 Selective Neonatal Vaccination Programmes

In addition to the routine vaccinations shown in Appendix B - Table F, there are two selective neonatal vaccination programmes – see Table E below.

Table E: Selective neonatal vaccinations as of September 2017

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Age</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis B</td>
<td>Birth to 12 months</td>
<td>Given to ‘At Risk’ infants*/4 Doses</td>
</tr>
<tr>
<td>BCG**</td>
<td>Birth onwards</td>
<td>Given to ‘At Risk’ infants***/1 Dose</td>
</tr>
</tbody>
</table>

* ‘At Risk’ infants: born to mothers who are chronically infected with HBV or to mothers who have had acute hepatitis B during pregnancy
** Data for BCG collected through COVER are included for the first time in 2016-17
*** At risk infants:

- All infants (aged 0 to 12 months) with a parent or grandparent who was born in a country where the annual incidence of TB is 40/100,000 or greater.
- All infants (aged 0 to 12 months) living in areas of the UK where the annual incidence of TB is 40/100,000 or greater.

The main body of this report does not cover statistics relating to either of the selective vaccinations as there are known issues around the quality of data submitted. Because of this, no regional or national data are published for BCG or Hepatitis B within the data tables and they are both designated as Official Statistics, rather than National Statistics.

Despite the known data quality issues for these selective vaccinations, it remains important to make the data available for a number of reasons;

- They are acknowledged as the best that they can be given the issues involved.
- To maintain public awareness.
- Justification of respondent/collection burden.
- Identification of trends at local level within an active programme.

BCG data can be found in Table 11a. HepB data can be found in tables 11b and 11c for children aged 12 months and 24 months old respectively.
2.2.1 Bacillus Calmette–Guérin (BCG) Vaccination

The BCG immunisation programme is a risk-based programme recommended for individuals at higher risk of exposure to TB. In addition to this risk-based approach all infants (0-12 months old) living in an area where the incidence of TB is greater than 40 per 100,000 should be offered the BCG vaccine.

From April 2015, as part of the COVER programme, neonatal BCG was included in the data extraction template from local Child Health Information Systems (CHISs), alongside extraction of coverage data for other vaccines offered under the age of five years. This provides an opportunity for BCG vaccine coverage to be estimated only for local authorities offering a universal neonatal programme\(^\text{16}\). It is not possible to calculate LA level coverage for the selective programme offered in the rest of England as the number eligible children is not defined in the CHISs.

For the 2016-17 collection, numbers of children vaccinated are reported for 131 LAs with 32 of these also reporting a coverage figure.

COVER collections for BCG data have only recently been established and data are of variable quality. A shortage of BCG vaccine since May 2015 is likely to have impacted on coverage for those evaluated in this year (born between 1 April 2015 and 31 March 2016). Estimates of low coverage may therefore in part be reflecting poor data quality but also vaccine supply issues, and should be interpreted with caution. In London, prior to the shortage, all boroughs were providing universal BCG vaccination. The BCG programme has not been fully re-established across all London boroughs and there may be delays before this occurs. This should be considered when interpreting London data. BCG Data can be found in Table 11a in the Data Tables.

2.2.2 Neonatal Hepatitis B (HepB) Vaccination

Information on neonatal hepatitis B (Hep B) vaccination can be found in the ‘Green Book’:


Following the introduction of universal antenatal testing for hepatitis B (and subsequent vaccination of babies born to mothers who are chronically infected with HBV) in April 2000, PHE has been collecting coverage data on infants born to hepatitis B positive mothers at their first and second birthdays. Since April 2005, this data collection has been

integrated into the routine COVER programme and has been a statutory requirement since 2006. HepB coverage statistics have been published in this bulletin since 2010 and were published at LA level for the first time in 2015-16.

The data presented in Tables 11b and 11c represents reported vaccine coverage for infants born to mothers who are chronically infected with HBV who received three doses of hepatitis B vaccine by one year of age, and coverage for four doses of vaccine in such infants who reached two years of age in the year (2016-17).

Given that some or all of the data required on infants born to hepatitis B positive mothers could not be supplied for all LAs, it would be inadvisable to draw conclusions from these data at national or regional level. Further details of the LAs for which full data could not be supplied are available in the HepB Excel Tables (11b and 11c).

For the 2016-17 collection, hepatitis B data reported for the 152 Upper Tier Local Authorities were derived as follows:

- For the 12 month cohort, 141 LAs submitted a full data set.
- For the 24 month cohort, 140 LAs submitted a full data set.

Despite the issues mentioned above with neonatal hepatitis B data, it remains important that these data continue to be reported for a number of reasons;

- The Joint Committee for Vaccination and Immunisation (JCVI) has recommended a universal infant hepatitis B programme. In addition to hepatitis B doses received at two, three and four months through this programme, infants born to hepatitis B positive mothers will continue to receive doses at birth and one month, as well as a booster dose at 12 months.
- Official and National Statistics are important drivers for improvements locally in systems and care pathways which include data reporting. Feedback from stakeholders has been positive.
- PHE hepatitis team is undertaking a mapping exercise to help local teams identify gaps in the infant hepatitis B pathway, including reporting of data. Published data helps to identify those gaps and to engage local teams to address them resulting in improving data quality.
- The data has been invaluable in monitoring and evaluating the impact of various interventions – e.g. dry blood spot testing service for infants at 12 months old; GP payments for hepatitis B vaccinations and testing.
2.3 Childhood Influenza Vaccinations

Influenza (seasonal flu) Vaccination – Children aged 2, 3 and 4 years

During the 2016-17 winter season, all GP practices in England were asked to offer the influenza (seasonal flu) vaccine to all registered children aged two, three and four years, irrespective of whether they were in a clinical risk group or not.

With the introduction of all two, three and now four year olds to the routine programme, GP practices were encouraged to ensure that coverage for the flu vaccine in these children was as high as possible. This was particularly important in order to maximise the health benefits that the extended programme was expected to bring, including reduced influenza-related illness, GP consultations, hospital admissions and deaths.

Figure 21 shows the percentage of children aged 2 immunised against influenza at national and regional level in 2015-16 and 2016-17. Coverage for two years olds in England was 38.9% in 2016-17. Regionally, coverage was highest in the South West (45.1%) and lowest in London (30.3%). However, coverage improved in all nine regions during the reporting period.

Figure 21: Percentage of children aged 2 immunised against influenza
England, by region, 2015-16 and 2016-17

<table>
<thead>
<tr>
<th>Region</th>
<th>2015-16</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>35.4</td>
<td>38.9</td>
</tr>
<tr>
<td>North East</td>
<td>38.7</td>
<td>40.6</td>
</tr>
<tr>
<td>North West</td>
<td>35.2</td>
<td>38.5</td>
</tr>
<tr>
<td>Yorkshire &amp; Humber</td>
<td>36.3</td>
<td>39.3</td>
</tr>
<tr>
<td>East Midlands</td>
<td>42.5</td>
<td>44.0</td>
</tr>
<tr>
<td>West Midlands</td>
<td>33.8</td>
<td>39.6</td>
</tr>
<tr>
<td>East of England</td>
<td>36.5</td>
<td>41.9</td>
</tr>
<tr>
<td>London</td>
<td>26.6</td>
<td>30.3</td>
</tr>
<tr>
<td>South East</td>
<td>37.5</td>
<td>40.2</td>
</tr>
<tr>
<td>South West</td>
<td>41.3</td>
<td>45.1</td>
</tr>
</tbody>
</table>

Source: ImmunForm website: Registered Patient GP practice data, Public Health England
See Table 12a in the Data Tables
For a more detailed breakdown of the statistics in this section by Local Authority, see Table 12b in the Data Tables.

Figure 22 shows the percentage of children aged 3 immunised against influenza at national and regional level in 2015-16 and 2016-17. Nationally, coverage for all three year olds was 41.5% in 2016-17 and was highest in the South West (46.6%) and lowest in London (32.6%) with improvements in coverage reported in every region.

**Figure 22: Percentage of children aged 3 immunised against influenza**

England, by region, 2015-16 and 2016-17

Source: ImmForm website: Registered Patient GP practice data, Public Health England
See Table 13a in the Data Tables

For a more detailed breakdown of the statistics in this section by Local Authority, see Table 13b in the Data Tables.
Figure 23 shows the percentage of children aged 4 immunised against influenza at national and regional level in 2015-16 and 2016-17. Coverage for all four years olds in England was 33.9%. At a regional level, coverage was highest in the East of England (45.5%) and lowest in London (24.9%).

**Figure 23: Percentage of children aged 4 immunised against influenza**

England, by region, 2015-16 and 2016-17

For a more detailed breakdown of the statistics in this section by Local Authority, see Table 14b in the Data Tables.

Source: ImmForm website: Registered Patient GP practice data, Public Health England
See Table 14a in the Data Tables
Appendices

Appendix A – Glossary

For further information on the diseases included in the glossary below see ‘Immunisation against Infectious Diseases – the Green Book’.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Team</td>
<td>An Area Team formed part of a new structure of health geographies in England that came into effect on 1 April 2013. That structure included clinical commissioning groups (CCG), and NHS commissioning regions (NHSCR). There were 25 NHS England Area Teams who were responsible for the delivery of Primary Care, including GP and dental services, pharmacy services and certain aspects of optical services. Area teams have since been replaced with NHS England Local Teams (see below)</td>
</tr>
<tr>
<td>BCG</td>
<td>The Bacillus Calmette-Guérin (BCG) vaccine provides protection against tuberculosis (TB), in particular severe childhood forms of the disease. TB is an infection caused by a bacterium called Mycobacterium tuberculosis.</td>
</tr>
<tr>
<td>Child Health Information System (CHIS)</td>
<td>Child Health Information Systems (CHIS) are computerised systems storing clinical records which support health promotion and prevention activities for children, including immunisation.</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>Diphtheria is a contagious and potentially fatal disease that usually involves the nose, throat, and air passages, but may also infect the skin.</td>
</tr>
<tr>
<td>DTaP/IPV/Hib</td>
<td>A combination childhood vaccine that includes diphtheria, tetanus, acellular pertussis, inactivated polio virus and Haemophilus influenzae b components, providing protection against Diphtheria, Tetanus, Pertussis, Polio and Haemophilus influenzae b diseases.</td>
</tr>
<tr>
<td>Haemophilus influenzae type b (Hib)</td>
<td>Hib (Haemophilus influenzae type b) is a bacterial infection that can cause a number of serious illnesses such as pneumonia, blood poisoning and meningitis, especially in young children.</td>
</tr>
<tr>
<td>HBV</td>
<td>The Hepatitis B Virus</td>
</tr>
</tbody>
</table>

19 Source: http://www.nhs.uk/Conditions/Diphtheria/Pages/Introduction.aspx
20 Source: http://www.nhs.uk/conditions/hib/Pages/Introduction.aspx
| **Hepatitis B** | A serious and potentially life-threatening viral infection that attacks the liver and can cause both acute and chronic disease. |
| **HPV** | Human papilloma virus (HPV) is the name of a family of viruses that affect the skin and the moist membranes that line the body, such as those in the cervix, anus, mouth and throat. Infection with some types of HPV can cause warts as well as abnormal tissue growth and other changes to cells, which can lead to cervical and other cancers. |
| **Influenza** | Seasonal flu (also known as influenza) is a highly infectious illness caused by a flu virus. The virus infects the lungs and upper airways, causing a sudden high temperature and general aches and pains. |
| **Local Authority** | A Local Authority is an administrative geography in England. Coverage figures presented in this report are for upper tier local authorities. |
| **Local Team** | A Local Team forms part of the new structure of geographies that came into effect on 1 April 2015. There are 13 Local Teams in England, and replace the old structure of 25 Area Teams. These Local teams have direct commissioning responsibilities for delivery of Primary Care, including GP services, dental services, pharmacy services and certain aspects of optical services. |
| **Measles** | Measles is a highly infectious viral illness. It causes a range of symptoms including fever, coughing and distinctive red-brown spots on the skin and can lead to serious complications. |
| **MenACWY vaccine** | The Men ACWY vaccine protects against four different groups of the Neisseria meningitidis bacterium: A, C, W and Y. |
| **MenB vaccine** | Childhood vaccine providing protection against meningococcal group B disease. |
| **MenC vaccine** | Childhood vaccine providing protection against meningococcal group C disease. |
| **Meningococcal disease** | Meningococcal disease can cause meningitis (infection of the protective membranes that surround the brain and spinal cord) and septicaemia (bacterial infection of the blood). Meningococcal disease is |

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22 Source: [http://www.nhs.uk/conditions/flu/Pages/Introduction.aspx](http://www.nhs.uk/conditions/flu/Pages/Introduction.aspx)


caused by a bacterium called Neisseria meningitidis (also called the meningococcus). There are 13 different N. meningitidis groups, of which five (A, B, C, W and Y) are responsible for nearly all serious meningococcal infections.

**MMR**  Vaccine providing protection against Measles, Mumps and Rubella.

**Mumps**  Mumps is a highly contagious viral infection that usually affects children. The most common symptom of mumps is a swelling of the parotid glands. The parotid glands are located on one side, or both sides, of the face. The swelling gives a person a distinctive ‘hamster face’ appearance.

**PCV**  Pneumococcal Conjugate Vaccine, providing protection against Pneumococcal Disease. From 2006 until 2009 the routine childhood vaccine programme used a PCV vaccine providing direct protection against seven strains of Streptococcus pneumoniae (PCV7). In 2010, this was changed to a vaccine providing direct protection against 13 strains (PCV13)

**Pertussis**  Pertussis, also sometimes referred to as whooping cough, is an infection of the lining of the airways.

**Pneumococcal disease**  Pneumococcal infections are acute infections caused by the *Streptococcus pneumoniae* (*S. pneumoniae*) bacterium. There are more than 90 different strains of *S. pneumoniae* bacteria. *S. pneumoniae* enters the human body through the nose and mouth.

**Polio**  Polio, also known as poliomyelitis, is caused by a highly infectious virus. For most people, polio is a mild illness and causes flu-like symptoms. However, polio can be potentially fatal. A severe case of polio attacks the nerve cells that help muscles to function and can cause severe muscle paralysis (paralytic polio).

**Rotavirus**  Rotavirus is a highly infectious virus that typically affects babies and young children, causing diarrhoea, sometimes with vomiting, abdominal pain and fever.

**Rubella**  Rubella (German measles) is a viral infection. It can cause a high temperature (fever) of 38°C (100.4°F) or over, and a distinctive red-pink rash. In most cases,

---

rubella is a mild condition, but it can be serious in pregnant women because it can harm the unborn baby.\textsuperscript{31}.

<table>
<thead>
<tr>
<th>Td/IPV</th>
<th>Teenage booster that boosts protection against tetanus, diphtheria and polio.\textsuperscript{32}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetanus</td>
<td>Tetanus is a serious, acute (severe but short-lived) condition that is caused by infection with a bacterium known as \textit{Clostridium tetani}. Tetanus causes severe muscle spasms and stiffness and is potentially fatal if untreated.</td>
</tr>
<tr>
<td>Tuberculosis (TB)</td>
<td>Tuberculosis is a bacterial infection. It is spread by inhaling tiny droplets of saliva from the coughs or sneezes of an infected person.\textsuperscript{34}.</td>
</tr>
</tbody>
</table>


\textsuperscript{32} Source: [http://www.nhs.uk/Conditions/vaccinations/Pages/3-in-1-teenage-booster.aspx](http://www.nhs.uk/Conditions/vaccinations/Pages/3-in-1-teenage-booster.aspx)

\textsuperscript{33} Source: [http://www.nhs.uk/conditions/tetanus/pages/introduction.aspx](http://www.nhs.uk/conditions/tetanus/pages/introduction.aspx)

\textsuperscript{34} Source: [http://www.nhs.uk/conditions/Tuberculosis/Pages/Introduction.aspx](http://www.nhs.uk/conditions/Tuberculosis/Pages/Introduction.aspx)
Appendix B – Background

Immunity is the ability of the body to protect itself from infectious disease. Immunisation programmes provide protection to vaccinated individuals and can provide protection to the wider unvaccinated population. Where this occurs it is known as ‘herd immunity’.

Herd immunity is a term used to describe:

“….a form of immunity that occurs when the vaccination of a significant portion of a population (or herd) provides a measure of protection for individuals who have not developed immunity”.

(John and Samuel, 2000)

Herd immunity only applies to diseases that are contagious. It does not apply to diseases such as tetanus which is not passed from person-to-person and where the vaccine protects only the vaccinated person from disease.

The statistics in this report are used to inform the development and evaluation of government policy on immunisation and to assess the delivery of different immunisations in the national programme. The statistics also help inform vaccine policy decisions, such as national and regional catch-up programmes for specific immunisations. At a local level the statistics are used to monitor performance. A number of the statistics from this publication also contribute to indicators for the government’s Public Health Outcomes Framework (PHOF).

Most of the vaccination data used in this report are collected annually from Child Health Record Departments (CHRDs) and NHS England Local Teams, and are extracted from Child Health Information Systems (CHISs). Data on seasonal flu are collected from GP practices. The statistics are presented at a national and regional level and by Upper Tier Local Authority (LA). Statistics are also presented by NHS England Local Team in the Data Tables.

35 For more information on the Public Health Outcomes Framework see: http://www.dh.gov.uk/health/2012/01/public-health-outcomes/
### Routine Immunisations

**Table F: Routine childhood immunisations as of Autumn 2017**

<table>
<thead>
<tr>
<th>Disease (Vaccine)</th>
<th>Age</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphtheria, tetanus, pertussis, polio and <em>Haemophilus influenzae</em> type b, HepB (DTaP/IPV/Hib/HepB)</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; dose: 2 months</td>
<td>Primary course</td>
</tr>
<tr>
<td></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; dose: 3 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; dose: 4 months</td>
<td></td>
</tr>
<tr>
<td>Pneumococcal disease (PCV)</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; dose: 2 months</td>
<td>Primary course</td>
</tr>
<tr>
<td></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; dose: 4 months</td>
<td></td>
</tr>
<tr>
<td>Rotavirus (from July 2013)&lt;sup&gt;*&lt;/sup&gt;</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; dose: 2 months</td>
<td>Primary course</td>
</tr>
<tr>
<td></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; dose: 3 months</td>
<td></td>
</tr>
<tr>
<td>Meningococcal group B (MenB) (from September 2015)</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; dose: 2 months</td>
<td>Primary course</td>
</tr>
<tr>
<td></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; dose: 4 months</td>
<td></td>
</tr>
<tr>
<td><em>Haemophilus influenzae</em> type b and meningococcal group C (Hib/MenC)</td>
<td>Between 12 and 13 months</td>
<td>Booster</td>
</tr>
<tr>
<td>Measles/mumps/rubella (MMR)</td>
<td>Between 12 and 13 months</td>
<td>First dose</td>
</tr>
<tr>
<td>Pneumococcal disease (PCV)</td>
<td>Between 12 and 13 months</td>
<td>Booster</td>
</tr>
<tr>
<td>Meningococcal group B (MenB) (from September 2015)</td>
<td>Between 12 and 13 months</td>
<td>Booster</td>
</tr>
<tr>
<td>Children’s flu vaccine</td>
<td>Aged 2, 3 or 4 on 31&lt;sup&gt;st&lt;/sup&gt; August</td>
<td>Annual vaccination</td>
</tr>
<tr>
<td>Diphtheria, tetanus, pertussis, and polio (DTaP/IPV)</td>
<td>3yrs/4 months to 5 years</td>
<td>Booster: 3 years after completion of primary course</td>
</tr>
<tr>
<td>Measles/mumps/rubella (MMR)</td>
<td>3yrs/4 months to 5 years</td>
<td>Second dose</td>
</tr>
<tr>
<td>Human papillomavirus (HPV)**</td>
<td>Girls aged from 12-13 years</td>
<td>Primary</td>
</tr>
<tr>
<td></td>
<td>1&lt;sup&gt;st&lt;/sup&gt; dose in year 8</td>
<td>Booster</td>
</tr>
<tr>
<td></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; dose 6 to 24 months later</td>
<td></td>
</tr>
<tr>
<td>Diphtheria, tetanus and polio (Td/IPV)**</td>
<td>Around 14 years</td>
<td>Booster</td>
</tr>
<tr>
<td>Meningococcal group C and Meningococcal group W disease (MenACWY) **</td>
<td>Around 14 years</td>
<td>Booster</td>
</tr>
</tbody>
</table>

<sup>*</sup> This is published as a National Statistic for the first time in this publication.

**Information related to these vaccinations is not included in this publication.**

The complete vaccination schedule can be found on the link below

[http://www.nhs.uk/Conditions/vaccinations/Pages/vaccination-schedule-age-checklist.aspx](http://www.nhs.uk/Conditions/vaccinations/Pages/vaccination-schedule-age-checklist.aspx)

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**Influenza Immunisations for eligible GP patient groups**

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The PHE influenza surveillance team collate and report on seasonal influenza vaccine uptake reported by GP practices. The figures are for all flu vaccinations administered from the 1st September to the 31st January (inclusive of both dates). This publication only includes information on children aged two, three and four years on the 31st August 2016 receiving the seasonal flu vaccine. More information on the seasonal flu vaccination and the other groups vaccinated in 2016-17 is available from PHE via the following link:


PHE produces an annual summary of seasonal influenza activity in the UK which is available through the following link:

https://www.gov.uk/government/statistics/annual-flu-reports
Appendix C – Coverage Definitions

Coverage definitions for all vaccinations from the COVER programme are available from the following link;


Seasonal Flu for children aged 2, 3 and 4 years

This includes all children aged two, three and four years old (but not five years or older) on 31st August 2016 and is calculated as follows:

\[
\frac{\text{Total number of persons aged 2, 3 or 4 on 31 August 2016 at the time of data extraction, registered with a GP practice from 1 September 2016 to 31 January 2017 who have been immunised}}{\text{Total number of persons aged 2, 3 or 4 on 31 August 2016 at the time of data extraction, registered with a GP practice from 1 September 2016 to 31 January 2017}} \times 100
\]
Appendix D – Changes to the UK childhood immunisation programme

Changes to the UK childhood immunisation programme since April 2003 are detailed below.

2017: From autumn 2017, all babies born on or after 1 August 2017 will become eligible for a hexavalent vaccine which includes hepatitis B (HepB) for their primary immunisations. This vaccine will replace the pentavalent infant vaccines.

2016: On 1st July 2016, the infant dose of the MenC vaccine given at 12 weeks was removed from the routine schedule. Furthermore, the Haemophilus influenzae type b and meningococcal group C (Hib/MenC) vaccine offered after the first birthday is the first MenC dose in the schedule followed by the MenACWY vaccine in school year 9.

2015: Meningococcal B vaccine was added to the programme in September 2015. See section 1.7 of the separate Quality Statement on Coherence and Comparability for more information. In addition meningococcal ACWY vaccine replaced the meningococcal C booster vaccine at around 14 years.

2014: The HPV schedule for 12 to 13-year-old girls (school year 8) changed from three to two doses. Childhood flu vaccine extended to include all 4 year olds.

2013: Rotavirus and childhood flu (only offered to 2 and 3 year olds) vaccines were added to the programme in 2013 and the schedule for administering the MenC vaccine changed from two to only primary dose at 3 months. See section 1.7 of the separate Quality Statement on Coherence and Comparability for more information.

2010: Vaccines that were previously been given separately at 12 months of age (Hib/MenC vaccine) and 13 months of age (MMR and PCV) were to be given at the same visit, between 12 and 13 months of age (i.e. within a month after the first birthday). In 2010, PCV7 was changed to a vaccine providing direct protection against 13 strains (PCV13).

2008: A new programme to vaccinate all 12 to 13-year-old girls (school year 8) against HPV started at the beginning of the 2008-09

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37 https://www.gov.uk/government/collections/immunisation
school year. HPV immunisation is offered to protect girls against their future risk of cervical cancer.

2006\textsuperscript{45} PCV 7 vaccine was introduced to the routine childhood programme. This is given at two and four months with a booster dose around 13 months of age. Data on the primary course (given at two and four months) evaluated at 12 months of age were first published in this bulletin in 2007-08 as experimental statistics. Coverage data for the PCV booster evaluated at 24 months were first published in 2008-09, again, as Experimental Statistics.

2006 A combined Hib/MenC booster vaccine was introduced for children at around 12 months of age. Vaccine coverage data for the Hib/MenC booster evaluated at 24 months was first published in this bulletin in 2008-09 as Experimental Statistics. Coverage statistics for the Hib/MenC booster vaccination at 5 years were first published as Experimental Statistics in 2011-12.

2004\textsuperscript{46} Following recommendations from JCVI that live oral polio vaccine (OPV) be replaced with inactivated polio vaccine (IPV) and acellular pertussis vaccines replaced the whole cell pertussis vaccine in the routine childhood immunisation programme, a number of vaccine changes were introduced. DTaP/IPV/Hib replaced the DTwP-Hib and OPV vaccines previously used for primary immunisation, DTaP/IPV replaced the DTaP and OPV vaccines for the pre-school booster and Td/IPV replaced the Td and OPV vaccines for the teenage booster.

\textsuperscript{45}http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Professionalleters/Chiefmedicalofficerletters/DH_4137171
\textsuperscript{46}http://webarchive.nationalarchives.gov.uk/20080819103701/http://dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Professionalleters/Chiefmedicalofficerletters/DH_4087345
Appendix E – Data Validation and Data Quality

COVER Data

Information on childhood immunisation coverage at ages one, two and five are collected through the Cover of Vaccination Evaluated Rapidly (COVER) data collection from Child Health Information Systems (CHISs) for most LAs or from GP systems for a small number of LAs. Please refer to section 2.1 in this report for further details.

Data collections were quality assured at the time of collection by PHE and further data validation and quality assurance was carried out by NHS Digital prior to publication.

PHE’s quality assurance processes include the following:

- Checks on data completeness.
- Comparisons with previous years’ data are made to identify any large changes and ensure they are explained. Comparisons are made on the numbers of individuals eligible for vaccination and on coverage.
- Comparisons are made with coverage submitted for the same cohort of children in previous years to identify any unexpected changes in coverage.
- Where there are unexpected changes, the data provider is asked to verify the data and where possible provide an explanation(s).

On receipt of the COVER data from PHE, NHS Digital second check the data for completeness and to ensure that wherever there are unexpected/large changes, as described above, that an adequate explanation(s) has been given. Data submitted are also compared at a regional and local level for accuracy. Checks are also undertaken on the calculated coverage figures.

Issues with some CHISs over recent years (including issues associated with the implementation of new IT systems) have affected the quality of COVER data.
Appendix F - Uses of Statistics by Known Users

This section details known users of the report and outlines the purposes for which they use the statistics. All these users have found the information in the report useful for the purposes set out.

Public Health England (PHE)

PHE uses the report as a validated authoritative source of figures for annual coverage data for use when referring to immunisation programmes at all levels within England. The statistics are used by PHE to report United Kingdom (UK) vaccine coverage data to the World Health Organization (WHO) and UNICEF. At a local level, Screening and Immunisation Teams use the report to review statistics for their local populations and compare these against regional and national statistics.

Department of Health (DH)

The Department of Health (DH) use the statistics from this publication, together with provisional quarterly COVER data published by PHE, to inform the development and evaluation of government policy on immunisation and to assess the delivery of different immunisations in the national programme. The statistics also help inform vaccine policy decisions, such as national and regional catch-up programmes for specific immunisations. DH uses the statistics to respond to public and parliamentary business. A number of the statistics from this publication will also contribute to indicators for the government’s Public Health Outcomes Framework47.

NHS England and Local Teams

The Local Teams use the report, in conjunction with the quarterly COVER statistics, as a validated authoritative source of figures for annual coverage data for use when referring to the immunisation programme at their area level. One Local Team reported that the statistics are used to highlight potential quality issues to the Clinical Commissioning Group and provide a basis for discussions between relevant stakeholders around local performance.

Local Authorities (LAs)

The statistics are used by LAs to monitor local performance.

Organisation for Economic Co-operation and Development (OECD)

The seasonal flu statistics are supplied to the OECD by NHS Digital and are used in OECD Health Database and also for the Health Care Quality Indicator project.

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47 For more information on the Public Health Outcomes Framework see: http://www.dh.gov.uk/health/2012/01/public-health-outcomes/
Compendium of Population Health Indicators

Statistics on vaccinations for MMR and whooping cough (pertussis) from the publication are included in the Compendium of Population Health Indicators which is widely used within the NHS as well as outside it. See: https://indicators.hscic.gov.uk/webview

Child and Maternal Health Observatory (ChiMat)

Statistics from the publication are used in the Child Health Profiles published by ChiMat. See: https://www.gov.uk/guidance/child-and-maternal-health-data-and-intelligence-a-guide-for-health-professionals

Unknown Users

The Childhood Vaccination Coverage Statistics publication is free to access via the NHS Digital website and therefore the majority of users will access the report without being known to NHS Digital. It is important to put mechanisms in place to try to understand how these additional users are using the statistics and also to gain feedback on how we can make the data more useful to them.

On the webpage where the report is published, there is a link to a feedback web form, which NHS Digital uses for all its reports.

The specific questions asked on the form are:

- How useful did you find the content in this publication?
- How did you find out about this publication?
- What type of organisation do you work for?
- What did you use the report for?
- What information was the most useful?
- Were you happy with the data quality?
- To help us improve our publications, what changes would you like to see (for instance content or timing)?
- Would you like to take part in future consultations on our publications?

Any responses via this web form are passed to the team responsible for the report to consider.
Appendix G – Feedback from Users

NHS Digital publishes around 90 series of Official Statistics and National Statistics each year. Use of health and care statistics helps those involved to manage the system more effectively, commission better services, understand public health trends in more detail, develop new treatments and monitor the safety and effectiveness of care providers.

In our 2016 consultation on changes to our statistics, we proposed a series of changes over the next three years which will help us to better prioritise resources from our stretched budget while developing our statistical products to better meet the needs of our users. We are making the changes necessary to enable us to produce high quality statistics suited to support a modern health and care system and help Britain make better decisions. Full results of the consultation can be found here on the NHS Digital web site.

In terms of this publication, we proposed to reduce commentary and increase use of infographic type presentation.

The responses received showed a high level of support for this proposal, particularly for the increased use of infographics as an innovative means of presenting the key information and findings visually. Furthermore, the responses showed an overwhelming support to reduce commentary and retain the data tables as these are used for performance monitoring, peer comparator and trend analysis, as well as contributing towards Health Needs Assessment for service delivery.

There was also support to make coverage data available at a more granular level, i.e. GP Practice and/or CCG split by ethnicity and deprivation to understand differences/highlight inequalities across local areas.

As a result of this consultation, we will continue to work collaboratively with key stakeholders such as Public Health England and Department of Health to make the changes proposed.

For this year’s annual publication, we have increased the use of visual presentation of the data, and replaced an interactive excel dashboard with an online dashboard, developed in a software called Microsoft Power BI which offers users much greater flexibility and greater insights to the data at, national, regional and local level.

The main purposes for offering this additional data resource are to:

- Enhance our publication by providing additional dynamic visualisations.
- Enable us to publish reports and visualisations as refreshable web reports.
Some of the end user benefits of Power BI over a macro-driven spreadsheet are that:

- It is more interactive: users can amend their selections with the report updating immediately.
- It is viewable on any internet browser, meaning there is no requirement to download the file and enable macros.
- Once a report has been created, it is simple and efficient to update when the data is updated in the future.

We would be particularly grateful if users accessing the data via Power BI would be able to provide feedback on their interactions with it through the following link:

http://digital.nhs.uk/contact-us
Appendix H – Related Publications and Useful Web Links

This bulletin can be found on the internet at:

http://digital.nhs.uk/pubs/childvaccstats1617

Copies of previous editions published by NHS Digital can also be accessed via this link.

Prior to 2004-05 this bulletin was published by the Department of Health. These editions can be found at:

The COVER programme data are reported quarterly by Public Health England.
https://www.gov.uk/government/collections/vaccine-uptake

Historic quarterly COVER data can be found on the following link

Background information and guidance on the COVER data collection can be found at:

‘Immunisation against Infectious Diseases – the Green Book’, Public Health England

Further immunisation information for health professionals and immunisation practitioners can be found at:
https://www.gov.uk/government/collections/immunisation

Data and reports for England on the coverage for all vaccinations routinely offered under the national immunisation programme
https://www.gov.uk/government/collections/vaccine-uptake

Statistics relating to hepatitis B are available from PHE through the following link:

More information on the seasonal flu vaccination is available from PHE through the following link:
https://www.gov.uk/government/collections/annual-flu-programme
Data on seasonal flu vaccine coverage amongst people with long-term medical conditions can be found at:
https://www.gov.uk/government/organisations/public-health-england/series/immunisation#publications

And

Quarterly PHE *Health Protection Reports* and Communicable Disease Reports on the COVER programme for childhood immunisation are available at:

Routine childhood immunisation data at GP Practice and CCG levels are published as Experimental management information by NHS England and are available at:

The numbers of vaccinations GP Practices are paid for administering (not coverage data) are published as part of the GP Contract Services 2015-16, available on the link below:
http://content.digital.nhs.uk/pubs/gpprac1516
## Appendix I – COVER Data Collection Form

### COVER PROGRAMME

<table>
<thead>
<tr>
<th>FISCAL YEAR</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>FISCAL QUARTER</td>
<td>ANNUAL</td>
</tr>
<tr>
<td>EVALUATION DATES</td>
<td>01/04/2016 to 31/03/2017</td>
</tr>
<tr>
<td>COLLECTION AREA</td>
<td>LOCAL AUTHORITY RESPONSIBLE POPULATION</td>
</tr>
</tbody>
</table>

### DATA REQUEST PARAMETERS

<table>
<thead>
<tr>
<th>FISCAL YEAR</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>LA Name:</td>
<td></td>
</tr>
<tr>
<td>LA ODS Code:</td>
<td></td>
</tr>
<tr>
<td>Data source:</td>
<td></td>
</tr>
</tbody>
</table>

### REQUEST 1: 12 Month Cohort

**DENOMINATOR**

<table>
<thead>
<tr>
<th>Number</th>
</tr>
</thead>
</table>

| LINE 2 | (a) DTaP/IPV/Hib (b) MenC (c) PCV (d) Rota (e) BCG (f) MenB |
|--------|--------|--------|--------|--------|--------|
| Numerator | % | % | % | % | % | % |

<table>
<thead>
<tr>
<th>DATE 1</th>
<th>31/03/2017</th>
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</thead>
</table>

**REQUEST 2: 24 Month Cohort**

**DENOMINATOR**

<table>
<thead>
<tr>
<th>Number</th>
</tr>
</thead>
</table>

| LINE 3 | (a) Hib/MenC** (b) PCV (c) MenB |
|--------|--------|--------|
| Numerator | % | % | % |

<table>
<thead>
<tr>
<th>DATE 2</th>
<th>31/03/2017</th>
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**REQUEST 3: 5 Year Cohort**

**DENOMINATOR**

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<table>
<thead>
<tr>
<th>LINE 4</th>
<th>(g) DTaP/IPV/Hib (h) MMR</th>
</tr>
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<tbody>
<tr>
<td>Numerator</td>
<td>%</td>
</tr>
</tbody>
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<table>
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<tr>
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### REQUEST 4 (i): HEPATITIS 12 Month Cohort

**DENOMINATOR**

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<thead>
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<table>
<thead>
<tr>
<th>LINE 5</th>
<th>(i) Hep B</th>
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<tbody>
<tr>
<td>Numerator</td>
<td>%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DATE 4</th>
<th>31/03/2016</th>
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### REQUEST 4 (ii): HEPATITIS 24 Month Cohort

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<tr>
<th>LINE 6</th>
<th>(j) Hep B</th>
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### Data Caveats/Comments

- Please fill in all fields in yellow.
- CHIS IT supplier: 
- Email address (of submitter): 
- Data collection comments:

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**GUIDANCE NOTES**
References


Annex A – Meningococcal B (MenB) – Experimental Statistics

The 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 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 (one dose only) and June 2015 (two doses).

This report presents data for the first financial year (i.e. 2016-17) that MenB data have been available. As such they are designated as Experimental Statistics within this report as the quality and completeness of the data continue to be assessed. Given the status of these data it would be inadvisable to draw conclusions from them at this stage.

Preliminary vaccine coverage figures for MenB collected by PHE indicate that the vaccine has been positively accepted and delivered well, achieving high coverage levels in the first year of adoption.

Data were originally collected by PHE via a temporary sentinel surveillance programme from GP IT systems, then once the first cohort routinely vaccinated with MenB reached their first birthday they have been reported through the quarterly COVER programme. Quarterly MenB coverage estimates for children aged 12 months in the period January 2017 to March 2017 show national coverage reaching 92.6% (published in June 2017).

MenB data are presented, where available, at LA and regional level. National figures are not given due to the incompleteness of the data. Please see data table Annex A accompanying the main publication.

Due to the timing of the introduction of MenB into the schedule, not all the children evaluated in this period were eligible to receive a completed course (two doses) of MenB vaccine (i.e. those born in April and May). This will have an adverse effect on coverage statistics as all children with a first birthday in the financial year are included in the LA’s denominator, resulting in a maximum possible coverage for approximately 86% if all eligible children were vaccinated. Data for LAs reporting coverage above this should be treated with caution. A number of LAs data have been marked as unavailable due to some known data quality issues.

The data can be found in the Annex A MenB Data Table on the main publication page.

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48 Quarterly coverage statistics were first published by PHE in February 2016 and related to the September – December 2015 quarter.