Key findings

Coverage declined in all routine vaccinations*†

Vaccinations measured at 12 months, 24 months or five years, in England in 2018-19, compared to the previous year.

The decreases ranged in size from 0.2 to 1.0 percentage points.

*NB. This excludes the MenB booster, which is reported for the first time this year.

† This key fact has been updated post-publication for clarity. It previously stated 'Coverage declined in all 13 routine vaccinations'.

In 2018-19, coverage declined in all 13 measures of coverage for 9 routine childhood vaccinations, compared to the previous year. Changes in coverage cannot be measured for the 10th routine vaccination, MenB booster, as this is reported for the first time in 2018-19, therefore no comparison to 2017-18 data is available.

Coverage for some vaccines is assessed at multiple ages resulting in more measures of coverage than vaccinations.

DTaP/IPV/Hib coverage declined for all ages

Coverage at 12 months was 92.1%, its lowest since 2008-09.

Coverage at 24 months was 94.2%, the first time it has dropped below the 95% target since 2008-09.

MMR1 and MMR2 coverage at 5 years dropped

MMR1 coverage at 5 years is 94.5%, down from 94.9% in 2017-18 and below the 95% target.

MMR2 coverage at 5 years is 86.4% (down from 87.2% in 2017-18).
## Contents

(Click on text to go to the related section of the report)

- [This is a National Statistics Publication](#) 4
- [Programme summary](#) 5
- [Publication resources](#) 6
- [Changes in 2018-19](#) 7
- [Summary of routine vaccinations up to the age of five years old](#) 8
- ’5-in-1’ (DTaP/IPV/Hib) or ’6-in-1’ (DTaP/IPV/Hib/HepB) 9
- [DTaP/IPV pre-school booster](#) 14
- [MMR vaccine](#) 15
- [Rotavirus vaccine](#) 20
- [PCV vaccine](#) 21
- [Hib/MenC vaccine](#) 23
- [Men B vaccine](#) 25
- [Coverage in UK countries](#) 27
- [Selective neonatal vaccination programmes](#) 28
- [Childhood Influenza (seasonal flu)](#) 29

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This is a National Statistics Publication

The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics Registration Service Act 2007 and signifying compliance with the Code of Practice for Statistics.

Designation can be broadly interpreted to mean that the statistics:

• meet identified user needs;
• are well explained and readily accessible;
• are produced according to sound methods; and
• are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

Find out more about the Code of Practice for Statistics at: https://www.statisticsauthority.gov.uk/code-of-practice/

These 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. They also help inform vaccine policy decisions, such as national and regional catch-up programmes for specific immunisations. At a local, regional and national level the statistics are used to monitor performance.

We would like to acknowledge the key contributions made by members of the Cover of vaccination evaluated rapidly (COVER) team at Public Health England (PHE), who have co-authored this report. The COVER team provide a significant contribution to the collection and interpretation of data, as well as acting as subject matter experts informing the production of this report.
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, neonatal tetanus, pertussis, polio, Haemophilus influenzae type b (Hib), Hepatitis B, measles, mumps and congenital rubella¹).

The routine childhood immunisation programme for the UK includes these immunisations recommended by WHO as well as a number of others as advised by the Joint Committee on Vaccination & Immunisation (JCVI) and defined by Public Health England (PHE)².

There is an expectation that the UK coverage estimates for all routine childhood immunisations evaluated up to five years of age achieve 95%.

Seasonal influenza vaccine coverage is also presented in this report, for children aged 2 and 3 years. The 95% target does not apply to influenza vaccinations.

Publication resources

Report bulletin

• Presents a detailed summary of the 2018-19 data collection.
• Further information on the data presented is available in the additional resources outlined here.

Interactive dashboard

• The main report is accompanied by an interactive data dashboard. Data are presented in maps and charts. This allows comparison between areas as well as showing changes over time.
• The geographic breakdowns included in the dashboard are upper tier local authority, region and country.

Data tables

• Contain all relevant statistics for 2018-19.
• Available in Excel or csv format.

Appendices

• Further detail on a number of topics including:
  • Publication context
  • Coverage definitions
  • Changes to the programme
  • Data collection
  • Specific vaccines
  • Future collections
  • Related publications

Quality statement:

• Methods for data collection

All resources are available from the publication page: [http://digital.nhs.uk/pubs/childvaccstats1819](http://digital.nhs.uk/pubs/childvaccstats1819)

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Changes in 2018-19

Introduction of the Hexavalent vaccine

From autumn 2017, all babies born on or after 1 August 2017 have been eligible for a hexavalent vaccine which protects against six diseases (diphtheria, tetanus, pertussis, hepatitis B, poliomyelitis and disease caused by *Haemophilus influenzae* type b) for their primary immunisations.

This vaccine, called Infanrix hexa®, replaces the pentavalent infant vaccines Infanrix®-IPV+Hib and Pediace®l®, which protected against five diseases.

Hepatitis B is the additional disease that is now also protected against.

In 2018-19, children in the 12 month age cohort (those born between 1 April 2017 and 31 March 2018) are the first age cohort affected by this change. They will have received either the pentavalent or hexavalent vaccine, depending on the date they were vaccinated.

The 24 month and 5 year age cohorts will not be significantly impacted by this change.

Coverage figures in this report refer to the 5-in-1 vaccine throughout.

Meningococcal B (MenB) vaccination

Coverage data for the MenB booster, evaluated at 24 months, is included in the report as a National Statistic for the first time in 2018-19.

In 2017-18, MenB booster data, evaluated at 24 months, was included in the report as an experimental statistic.

See Appendix F for more details on the introduction of the MenB programme.

Data quality issues

Data quality issues were reported across the London region in 2018-19. Full details of these data quality issues can be found in Appendix D of the accompanying Appendices document.

Co-authorship

This report is now co-authored by NHS Digital and Public Health England.

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## Summary of routine vaccinations up to the age of five years old

<table>
<thead>
<tr>
<th>Disease (Vaccine)</th>
<th>Age</th>
<th>Notes</th>
<th>12m</th>
<th>24m</th>
<th>5yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphtheria, tetanus, pertussis, polio and <em>Haemophilus influenzae</em> type b (DTaP/IPV/Hib)**</td>
<td>1(^{st}) dose: 8 weeks</td>
<td>Primary course</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>2(^{nd}) dose: 12 weeks</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>3(^{rd}) dose: 16 weeks</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Diphtheria, tetanus, pertussis and polio (DTaP/IVP)</td>
<td>3 years/4 months to 5 years</td>
<td>Booster: 3 years after completion of primary course</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Pneumococcal disease (PCV)</td>
<td>1(^{st}) dose: 8 weeks</td>
<td>Primary course</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2(^{nd}) dose: 16 weeks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>One year</td>
<td>Booster</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Rotavirus</td>
<td>1(^{st}) dose: 8 weeks</td>
<td>Primary course (has to be competed before 24 weeks of age)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2(^{nd}) dose: 12 weeks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meningococcal group B (MenB) (from September 2015)</td>
<td>1(^{st}) dose: 8 weeks</td>
<td>Primary course</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2(^{nd}) dose: 16 weeks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>One year</td>
<td>Booster</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td><em>Haemophilus Influenzae</em> type b and meningococcal group C (Hib/MenC)</td>
<td>One year</td>
<td>MenC primary</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hib booster</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles/mumps/rubella (MMR)</td>
<td>One year</td>
<td>First dose</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>3 years/4 months to 5 years</td>
<td>Second dose</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Children’s flu vaccine (2018-19)</td>
<td>Aged 2 to 9 years on 31/08/2018</td>
<td>Annual vaccination</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

* Coverage is assessed when children reach specific ages. The ages presented in this report are marked with a tick ✓.

** From autumn 2017, all babies born on or after 1 August 2017 are eligible for a hexavalent vaccine which includes hepatitis B (HepB) for their primary immunisations.

In 2018-19, the 12 month birth cohort (children born between 01-April-2017 and 31-March-2018) received either the 5-in-1 or 6-in-1 vaccination.

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‘5-in-1’ or ‘6-in-1’ vaccine – National coverage
DTaP/IPV/Hib or DTaP/IPV/Hib/HepB

Vaccine protects against:
5-in-1: diphtheria, pertussis, tetanus, polio, disease caused by *Haemophilus influenzae* type b
6-in-1 (post-August 2017): additionally protects against hepatitis B

Primary course scheduled at ages:
8, 12 and 16 weeks

Coverage measured at ages:
12 months, 24 months, 5 years

Note: For all babies born on or after 1 August 2017, the pentavalent (5-in-1) vaccine was replaced with a hexavalent (6-in-1) vaccine, this additionally protects against hepatitis B.

In 2018-19, children in the 12 month cohort received either the 5-in-1 or the 6-in-1 vaccination, depending on when they were vaccinated. As all vaccinated children in this cohort received the DTaP/IPV/Hib component of the vaccine (but not all received the HepB component), coverage is referred to as 5-in-1.

National coverage at 12 months

- In 2018-19, 92.1% of children were reported to have completed their primary course of three doses at 12 months. This compares with coverage of 93.1% in 2017-18.

- The chart shows 5-in-1 coverage at a national level has declined in each of the past six years, following a peak in 2012-13. The coverage decrease over six years is 2.6 percentage points.

Source: COVER – PHE. See Data Tables 1 and 6


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‘5-in-1’ or ‘6-in-1’ vaccine – Regional coverage – 12 months
DTaP/IPV/Hib or DTaP/IPV/Hib/HepB

Regional coverage at 12 months

- In 2018-19, eight of nine regions reached 90% coverage. One region exceeded the national target of 95%.
- Coverage in England was below the 95% target in both 2017-18 and 2018-19.

Upper Tier Local Authority (UTLA) coverage at 12 months

- 33 LAs (out of 149) have coverage levels of 95% and above.
- Coverage of less than 90% was reported for 33 LAs, 23 of which were in London.

Source: COVER – PHE. See Data Table 8a.
Data quality issues within the London region were reported in 2018-19. See Appendix D for details.

Source: COVER – PHE. See Data Table 8b.
‘5-in-1’ (DTaP/IPV/Hib) vaccine – 24 months

National coverage at 24 months

• In 2018-19, coverage for the 5-in-1 vaccine at 24 months was 94.2%, falling below the 95% national target for the first time since 2008-09.

Source: COVER – PHE. See Data Tables 2 and 4.

Regional coverage at 24 months

• In 2018-19, all regions reached 90% coverage. Four regions exceeded the national target of 95%.

• London has the lowest regional coverage. None of the London LAs met the 95% target (see Data Table 9b for LA level data).

Source: COVER – PHE. See Data Tables 4 and 9a (LA level data available in Table 9b). Data quality issues within the London region were reported in 2018-19. See Appendix D for details. Interactive dashboard available here: http://bit.ly/child_vacc_stats_annual
Regional coverage at 5 years

- In 2018-19, coverage was above 90% in all regions. Seven out of nine regions exceeded the national target of 95%.

- This is the sixth consecutive year that coverage assessed at 5 years has met the 95% target.

National coverage at 5 years

- In 2018-19, coverage for the 5-in-1 vaccine at 5 years was 95.0%, meeting the national target. However, this is a decrease from the 95.6% coverage reported in 2017-18.

Source: COVER – PHE. See Data Table 3


Source: COVER – PHE. See Data Table 10a (LA level data available in Table 10b). Data quality issues within the London region were reported in 2018-19. See Appendix D for details.
### ‘5-in-1’ (DTaP/IPV/Hib) vaccine - Cohort tracking

This page presents coverage for a single cohort of children, to show the changes in coverage as they age.

A ‘cohort’ refers to a group of children all born in the same year.

**Coverage** = number vaccinated / eligible population.

### Key message

- Coverage for this cohort has changed over time.
- The 95% WHO target was met when coverage was assessed at ages 24 months and 5 years.

### Key considerations

- Children are scheduled to receive the vaccine at 8, 12 and 16 weeks, but can still be vaccinated over this age and remain eligible until they have completed the three dose course.
- Coverage is assessed at the 3 age milestones to monitor change over time, accounting for later vaccinations.
- The composition of an age cohort may change over time; the eligible population (denominator) may change and this will affect coverage rates. (i.e. migration in/out of England).
- Some children receive the vaccine later than scheduled. Therefore, vaccine coverage for any given cohort tends to increase over time.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number vaccinated</th>
<th>Eligible population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013-14 Born</td>
<td>94.2%</td>
<td>624,803</td>
</tr>
<tr>
<td>2014-15 12 months</td>
<td>95.2%</td>
<td>631,852</td>
</tr>
<tr>
<td>2015-16 24 months</td>
<td>95.0%</td>
<td>660,756</td>
</tr>
</tbody>
</table>
DTaP/IPV pre-school booster – National and regional coverage

Children should receive their DTaP/IPV pre-school booster from between three years and four months of age and five years of age. (This vaccine is given to children who have received a three dose course of the 5-in-1 vaccination).

National coverage at 5 years

- In 2018-19, coverage was 84.8%. This is down from 85.6% in 2017-18 and represents a 4.1 percentage point decrease since the peak in 2012-13.

Regional coverage at 5 years

- In 2018-19, no region achieved coverage above 90%.

Source: COVER – PHE, NHS Digital. See Data Table 3.
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 reporting as well as real changes in vaccine coverage. See Appendix D for more details.
MMR vaccine – National coverage

Vaccine protects against:
Measles, mumps, rubella

Doses scheduled at ages:
Dose 1 (MMR1) 12 or 13 months
Dose 2 (MMR2) 3 years 4 months to 5 years

Coverage measured at ages:
24 months (for MMR1)
5 years (for MMR1 and MMR2)

Chart interpretation notes
A During the 1990s and early 2000s coverage was impacted by a since discredited potential link between the MMR vaccine and autism and Crohn’s disease.
B Subsequent recovery of coverage rates mean MMR1 coverage at 24 months remained above 90% for the past 8 years. This may be a result of national campaigns, a recommendation by the JCVI to offer the Hib/MenC and PCV booster vaccines and the first dose of MMR vaccine at the same visit, as well as local initiatives to improve coverage.

National coverage of MMR1 at 24 months

- In 2018-19, 90.3% of children completed their first dose of the MMR vaccine. This compares with 91.2% in 2017-18.

- Coverage at a national level has declined in each of the past five years following a peak of 92.7% in 2013-14.

Source: COVER – PHE, NHS Digital. See Data Tables 2 and 7.
NB. Due to variable data quality in recent years, some caution should be exercised when comparing 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 D for more details.
MMR1 vaccine - Regional coverage

MMR1 coverage at 24 months

• In 2018-19, eight of nine regions reached 90% coverage. **No regions exceeded the national target of 95%.**

• Coverage in England was below the 95% target in both 2017-18 and 2018-19.

Source: COVER – PHE, NHS Digital. See Data Tables 4 and 9a
Data quality issues within the London region were reported in 2018-19. See Appendix D for details.
MMR1 vaccine – Local Authority coverage (24 months)

Upper Tier Local Authority (LA) coverage at 24 months

- In 2018-19, 13 LAs (out of 149) had coverage levels of 95% and above.

- Coverage of less than 90% was reported for 51 LAs, including 31 of the 32 London LAs.

- Coverage did not reach 95% in any of the 13 NHS England Local Teams (see table 9d of the Data Tables excel file).

Statistics are presented for 149 LAs. 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. Data quality issues within the London region were reported in 2018-19. See Appendix D for details.

Source: COVER – PHE, NHS Digital. See Data Table 9b.

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MMR vaccine (MMR1) at 5 years – National and regional coverage

National MMR1 coverage at 5 years

• In 2018-19, MMR1 coverage at 5 years was 94.5%. A decrease from 94.9% in 2017-18 and below the 95% target.

• MMR1 coverage, assessed at 5 years, reached the 95% target for the first time in 2016-17. Coverage has declined in the two subsequent years.

Regional MMR1 coverage at 5 years

• In 2018-19, coverage is above 90% in all regions. Seven out of nine regions exceeded 95% coverage.

Source: COVER – PHE, NHS Digital. See Data Table 10a (LA level data available in Table 10b). Data quality issues within the London region were reported in 2018-19. See Appendix D for details.
MMR vaccine, second dose (MMR2) – National and regional coverage

National MMR2 coverage at 5 years

- In 2018-19, 86.4% of children received their second dose of MMR vaccine (MMR2) by their 5th birthday, a decrease from 87.2% in the previous year.

- MMR1 (first dose only) at 5 years shown in chart for comparison.

Regional MMR2 coverage at 5 years

- In 2018-19, coverage is above 90% in two regions. No regions reached the 95% target.

Source: COVER – PHE, NHS Digital. See Data Tables 2 and 3.

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Rotavirus vaccine – National and regional coverage

Vaccine protects against: Rotavirus

Vaccine scheduled at ages: 8 weeks and 12 weeks

Coverage measured at age: 12 months

Note: Unlike other vaccines offered in the primary schedule, opportunities for children to catch up missed doses are limited as it cannot be given beyond six months of age and so coverage at 12 months is likely to be lower than other vaccines offered at the same time.

National and regional coverage at 12 months

- Third year Rotavirus coverage has been reported as a National Statistic.
- In 2018-19, 89.7% of children in England were reported to have received two doses of the rotavirus vaccine as measured at 12 months, a decrease from 90.1% in 2017-18. Similar to the 2016-17 coverage of 89.6%.
- Coverage in six regions was above 90%. None achieved 95% coverage.

Source: COVER – PHE, NHS Digital. See Data Tables 8a. Data quality issues within the London region were reported in 2018-19. See Appendix D for more details.
Vaccine protects against:
Pneumococcal disease

Vaccine scheduled at ages:
Primary course (2 doses) 8 and 16 weeks
Booster dose 12 to 13 months

Coverage measured at ages:
12 months (primary course)
24 months (booster)

National coverage at 12 months (PCV first dose):
- In 2018-19, 92.8% of children had completed a primary immunisation course of PCV, a decrease from 93.3% the previous year.

National coverage at 24 months (PCV booster):
- In 2018-19, 90.2% of children received the PCV booster, a decrease from 91.0% the previous year.

Source: COVER – PHE, NHS Digital. See Data Tables 1 and 2.
# PCV vaccine - Regional coverage

## Regional coverage at 12 months (first dose)
- In 2018-19, eight of the nine regions reached 90% coverage. One region (North East) exceeded the national target of 95%.
- Coverage in England was below the 95% target in both 2017-18 and 2018-19.

![Regional coverage at 12 months (first dose) chart]

## Regional coverage at 24 months (booster)
- In 2018-19, eight of the nine regions reached 90% coverage. No regions exceeded the national target of 95%.
- Coverage in England was below the 95% target in both 2017-18 and 2018-19.

![Regional coverage at 24 months (booster) chart]

---

Source: COVER – PHE, NHS Digital. See Data Table 8a.
Data quality issues within the London region were reported in 2018-19. See Appendix D for details.

Source: COVER – PHE, NHS Digital. See Data Table 9a.
Data quality issues within the London region were reported in 2018-19. See Appendix D for details.

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Hib/MenC vaccine – National coverage

Vaccine protects against: *Haemophilus influenzae* type b (Hib), meningococcal disease group C (MenC)

Combined vaccine scheduled at ages:
12 to 13 months

Coverage measured at ages:
24 month and five years

Note: The Hib/Men C is a combined vaccine. It is a booster for Hib *(also offered in the first year of life as part of the DTaP/IPV/Hib/HepB primary course)* and the primary dose for MenC.

National coverage at 24 months

- In 2018-19, 90.4% of children in England were reported to have received the combined Hib/MenC vaccine.
- This is the sixth consecutive year that coverage has decreased, down from 92.7% in 2012-13.

Source: COVER – PHE, NHS Digital. See Data Table 2.
Hib/MenC vaccine - Regional coverage

Regional coverage at 24 months

- In 2018-19, eight out of nine regions reached 90% coverage. No regions reached the national target of 95%.
- Coverage in England was below the 95% target in both 2017-18 and 2018-19.

Regional coverage at 5 years

- In 2018-19, eight out of nine regions reached 90% coverage. None reached 95%, but two regions (North East and South West*) achieved coverage above 94.9%.
- Coverage in England was below the 95% target in 2018-19, at 92.2%. However, coverage is higher than when assessed at 24 months, 91.6% in 2015-16.

Source: COVER – PHE, NHS Digital. See Data Table 9a
Data quality issues within the London region were reported in 2018-19. See Appendix D for details.

Source: COVER – PHE, NHS Digital. See Data Table 10a.
Data quality issues within the London region were reported in 2018-19. See Appendix D for details.

*If a number rounds up to 95.0%, but the true figure is below 95%, the target has not been met.
MenB vaccine – National and regional coverage

Vaccine protects against: Meningococcal disease (group b)

Combined vaccine scheduled at ages:
Primary course 8 and 16 weeks
Booster 12 to 13 months

Coverage measured at ages:
12 months and 24 months

Note: Children are not eligible for the MenB booster after their second birthday.

The MenB vaccine was first introduced from 1 September 2015 alongside other routine vaccinations. The primary course was first reported at 12 months as a National Statistic in the 2017-18 reporting year. MenB booster data, evaluated at 24 months, is available in this report for the first time.

National and Regional coverage at 12 months

- In 2018-19, 92.0% of children in England received two doses of the Men B vaccine. A decrease from 92.5% in 2017-18.

- In 2018-19, eight of the nine regions reached 90% coverage, one region exceeded the 95% national target.

Source: COVER – PHE, NHS Digital. See Data Table 8a. Data quality issues with the London region were reported in 2018-19. See Appendix D for details.
Vaccine summary

Coverage for the Men B booster was 87.8% in 2018-19.

- Three of the nine regions reached 90% coverage.
- No regions achieved 95% coverage.

Note: Men B booster vaccine (24 months) data is reported as a National Statistic for the first time in this report.

In 2017-18, partial data was published as an experimental statistic.

For more information on the MenB programme, see Appendix F.

National and Regional coverage at 24 months

<table>
<thead>
<tr>
<th>Region</th>
<th>Coverage 2018-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>87.8</td>
</tr>
<tr>
<td>North East</td>
<td>92.3</td>
</tr>
<tr>
<td>North West</td>
<td>88.0</td>
</tr>
<tr>
<td>Yorkshire and the Humber</td>
<td>91.4</td>
</tr>
<tr>
<td>East Midlands</td>
<td>89.7</td>
</tr>
<tr>
<td>West Midlands</td>
<td>88.8</td>
</tr>
<tr>
<td>East of England</td>
<td>89.4</td>
</tr>
<tr>
<td>London</td>
<td>79.5</td>
</tr>
<tr>
<td>South East</td>
<td>89.1</td>
</tr>
<tr>
<td>South West</td>
<td>91.8</td>
</tr>
</tbody>
</table>

Source: COVER – PHE, NHS Digital. See Data Table 9a. Data quality issues with the London region were reported in 2018-19. See Appendix D for details.
### Coverage in UK countries – 2018-19


Quarterly UK and country level vaccine coverage statistics are published in the quarterly COVER Health Protection Report by PHE.5.

<table>
<thead>
<tr>
<th>Coverage at 12 months (%)</th>
<th>United Kingdom</th>
<th>England</th>
<th>Wales</th>
<th>Scotland</th>
<th>Northern Ireland</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTaP/IPV/Hib</td>
<td>92.6</td>
<td>92.1</td>
<td>95.4</td>
<td>95.8</td>
<td>94.5</td>
</tr>
<tr>
<td>PCV</td>
<td>93.2</td>
<td>92.8</td>
<td>95.5</td>
<td>96.3</td>
<td>94.8</td>
</tr>
<tr>
<td>Rota</td>
<td>90.2</td>
<td>89.7</td>
<td>93.6</td>
<td>92.7</td>
<td>92.3</td>
</tr>
<tr>
<td>MenB</td>
<td>92.5</td>
<td>92.0</td>
<td>95.1</td>
<td>95.4</td>
<td>94.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coverage at 24 months (%)</th>
<th>United Kingdom</th>
<th>England</th>
<th>Wales</th>
<th>Scotland</th>
<th>Northern Ireland</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTaP/IPV/Hib</td>
<td>94.6</td>
<td>94.2</td>
<td>96.9</td>
<td>97.2</td>
<td>97.0</td>
</tr>
<tr>
<td>MMR1</td>
<td>90.8</td>
<td>90.3</td>
<td>94.5</td>
<td>94.0</td>
<td>92.6</td>
</tr>
<tr>
<td>Hib/MenC booster</td>
<td>90.9</td>
<td>90.4</td>
<td>94.2</td>
<td>94.4</td>
<td>92.8</td>
</tr>
<tr>
<td>PCV booster</td>
<td>90.8</td>
<td>90.2</td>
<td>94.8</td>
<td>94.5</td>
<td>93.9</td>
</tr>
<tr>
<td>MenB Booster</td>
<td>88.6</td>
<td>87.8</td>
<td>93.8</td>
<td>93.6</td>
<td>92.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coverage at 5 years (%)</th>
<th>United Kingdom</th>
<th>England</th>
<th>Wales</th>
<th>Scotland</th>
<th>Northern Ireland</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTaP/IPV/Hib Primary</td>
<td>95.4</td>
<td>95.0</td>
<td>97.3</td>
<td>97.8</td>
<td>97.3</td>
</tr>
<tr>
<td>Dtap/IPV booster</td>
<td>85.9</td>
<td>84.8</td>
<td>92.6</td>
<td>91.9</td>
<td>93.1</td>
</tr>
<tr>
<td>MMR1 first dose</td>
<td>94.8</td>
<td>94.5</td>
<td>96.8</td>
<td>96.8</td>
<td>96.7</td>
</tr>
<tr>
<td>MMR2 first and second dose</td>
<td>87.2</td>
<td>86.4</td>
<td>92.2</td>
<td>91.5</td>
<td>91.6</td>
</tr>
<tr>
<td>Hib/MenC booster</td>
<td>92.7</td>
<td>92.2</td>
<td>95.0</td>
<td>95.9</td>
<td>95.8</td>
</tr>
</tbody>
</table>

Source: COVER – PHE, NHS Digital. See Data Tables 5a, 5b and 5c.

Values highlighted in bold represent those at or above the 95% target. (If a number rounds up to 95.0%, but the true figure is below 95.0%, the number is not in bold)

Links to vaccine statistics publications for Northern Ireland, Scotland and Wales can be found in the Quality statement (Coherence and Comparability section).


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Selective neonatal vaccination programmes

In addition to the routine vaccines listed in this report, there are two selective neonatal vaccination programmes

<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>Bacillus Calmette–Guérin (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 were included for the first time in 2016-17

*** At risk infants:
1. 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.
2. 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

Due to known data quality issues there are no regional or national data published for BCG or Hepatitis B within the data tables and both are designated as official statistics, rather than National Statistics.

Despite the data quality issues, it remains important to make the data available for the following 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 so that action can be taken to improve uptake where needed.

**BCG data** can be found in Table 11a of the accompanying data tables. Coverage and eligible population data are only published for LAs running a universal vaccination programme.

**HepB data** can be found in Tables 11b and 11c for children aged 12 months and 24 months old respectively.


Appendix E of the accompanying Appendices document has more information.
Childhood Influenza (seasonal flu)

Vaccine protects against:
Seasonal influenza

Vaccine scheduled at ages:
Annual vaccination, given between 1 September 2018 and 31 March 2019

Coverage measured at ages:
2 years and 3 years

**Note:** In 2018-19, seasonal influenza coverage data was collected for the period 1 September 2018 to 28 February 2019. In previous years, this data was collected for the period 1 September to 31 January.

The 2017-18 flu data presented in this report is for the period 1 September 2017 to 28 February 2018. This was collected last year as experimental statistics and is included in this report for the first time this year. The 2018-19 data is classed as official statistics.

**Influenza vaccine**

- During the 2018-19 winter season (1 September 2018 to 31 March 2019), all GP practices in England were asked to offer the influenza (seasonal flu) vaccine to all registered children aged two and three years.

- Primary school age children (aged 4 to 9 years) are also vaccinated, but this data is not presented in this report.\(^6\)

- Age is defined as age on 31 August 2018.

- Data is collected for the period 1 September 2018 to 28 February 2019.

- Regional data for 2 and 3 year olds is presented on the next page.

- For further information, see the PHE report, which contains additional information, such as a coverage broken-down by children ‘in a clinical risk group’ and ‘not in a clinical risk group’

  - [https://www.gov.uk/government/collections/vaccine-uptake#seasonal-flu-vaccine-uptake-figures](https://www.gov.uk/government/collections/vaccine-uptake#seasonal-flu-vaccine-uptake-figures)

- Information on recommended components of vaccine:
  - [https://www.who.int/influenza/vaccines/virus/recommendations/en/](https://www.who.int/influenza/vaccines/virus/recommendations/en/)

Childhood Influenza (seasonal flu)

During the 2018-19 winter season (1 September 2018 to 31 March 2019), all GP practices in England were asked to offer the influenza (seasonal flu) vaccine to all registered children aged two and three years. Coverage data shown was collected for the period 1 September to 28 February.

Percentage of children vaccinated at two years

- In 2018-19 influenza vaccination coverage was 43.8% for two year olds, an increase from 43.3% in 2017-18.

Percentage of children vaccinated at three years

- In 2018-19 influenza vaccination coverage was 45.9% for three year olds, an increase from 44.7% in 2017-18.

### Data Tables

#### Percentage of children vaccinated at two years

<table>
<thead>
<tr>
<th>Region</th>
<th>2017-18</th>
<th>2018-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>43.3</td>
<td>43.8</td>
</tr>
<tr>
<td>North East</td>
<td>42.7</td>
<td>42.3</td>
</tr>
<tr>
<td>North West</td>
<td>43.4</td>
<td>41.8</td>
</tr>
<tr>
<td>Yorkshire and the Humber</td>
<td>42.1</td>
<td>40.0</td>
</tr>
<tr>
<td>East Midlands</td>
<td>52.0</td>
<td>51.2</td>
</tr>
<tr>
<td>West Midlands</td>
<td>45.5</td>
<td>43.3</td>
</tr>
<tr>
<td>East of England</td>
<td>43.2</td>
<td>31.0</td>
</tr>
<tr>
<td>London</td>
<td>34.1</td>
<td>31.8</td>
</tr>
<tr>
<td>South East</td>
<td>45.9</td>
<td>47.1</td>
</tr>
<tr>
<td>South West</td>
<td>48.9</td>
<td>56.1</td>
</tr>
</tbody>
</table>

#### Percentage of children vaccinated at three years

<table>
<thead>
<tr>
<th>Region</th>
<th>2017-18</th>
<th>2018-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>44.7</td>
<td>45.9</td>
</tr>
<tr>
<td>North East</td>
<td>45.7</td>
<td>45.9</td>
</tr>
<tr>
<td>North West</td>
<td>46.2</td>
<td>45.1</td>
</tr>
<tr>
<td>Yorkshire and the Humber</td>
<td>44.4</td>
<td>43.1</td>
</tr>
<tr>
<td>East Midlands</td>
<td>51.5</td>
<td>51.4</td>
</tr>
<tr>
<td>West Midlands</td>
<td>46.6</td>
<td>46.2</td>
</tr>
<tr>
<td>East of England</td>
<td>44.3</td>
<td>51.0</td>
</tr>
<tr>
<td>London</td>
<td>34.0</td>
<td>33.0</td>
</tr>
<tr>
<td>South East</td>
<td>47.9</td>
<td>50.2</td>
</tr>
<tr>
<td>South West</td>
<td>50.0</td>
<td>56.7</td>
</tr>
</tbody>
</table>

Source: ImmForm website – Registered Patient GP practice data, PHE. See Data Tables 12a, 12b and 12c for regional, LA and Local Team data.

See Data Tables 13a, 13b and 13c for regional, LA and Local Team data.

Data is final end of season and represents 96.2% of all GP practices in England responding to the February 2019 Child GP Flu Survey (green) compared with 97.2% of practices in the same survey month in 2017/18. February data for 2017/18 presented above was collected as experimental statistics last year, but not published in last year’s report. For further info. see Appendix B PHE report available: https://www.gov.uk/government/statistics/seasonal-flu-vaccine-uptake-in-gp-patients-winter-2018-to-2019

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