

#### **Infection report**

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# Quarterly vaccination coverage statistics for children aged up to five years in the UK (COVER programme): October to December 2016

This report summarises UK quarterly vaccine coverage data for each routine childhood vaccination for children who reached their first, second, or fifth birthday during the evaluation quarter. Analyses are presented at NHS England local and area team, country and UK levels.

#### Key points for the third quarterly report for 2016/17

- Quarterly UK coverage for most vaccines evaluated at one and two years increased, largely driven by England and probably as a result of improved data quality, between 0.1% and 0.6% compared to the previous quarter. All the devolved administrations achieved at least 94% coverage for these vaccines except rotavirus evaluated at 12 months. In England, only DTaP/IPV/Hib3 coverage at two years exceeded 94%.
- The second quarterly UK MenB vaccine coverage data shows\_that 92.7% of children received two doses by their first birthday. Country level coverage ranged from 95.8% in Scotland to 92.2% in England. UK coverage for rotavirus is now 90.6%, the highest level since reporting started.
- UK coverage of MMR1 at five years continues to exceed the WHO target of 95%, remaining at 95.4% for the third successive quarter. England achieved 95.2% whilst all three devolved administrations achieved at least 96%. UK MMR2 increased by 0.5% to 88.5% compared to the previous quarter. All countries achieved above 90% except England where coverage was 87.8%. Coverage at five years predominantly reflects vaccinations given more than two years ago.
- In England, neonatal hepatitis B coverage of three doses at one and four doses at two years increased by 1% to 84% and 72% respectively.
- This is the third quarterly COVER report to include experimental BCG coverage figures, extracted from Child Health Information Systems (CHISs), for local authorities running a universal neonatal programme in England. The BCG vaccine shortage which started in May 2015 is likely to have impacted on coverage for those evaluated in this quarter. Six of the nine London local authorities with a TB incidence over 40 per 100,000 reported BCG coverage at one year of age to be lower than that reported in the previous quarter. Coverage in these nine LAs ranged from 9.1% to 86.6% (compared with 16.0% to 88.8% in July to September and 22.3% to 92.6% in April to June 2016). Six LAs with a TB incidence below 40 per 100,000 reported increased coverage in this quarter.

## 1. Cohort definitions for October to December 2016

Children who reached their first birthday in the quarter (born October to December 2015) were scheduled for three doses of the combined diphtheria, tetanus, acellular pertussis, polio, and *Haemophilus influenzae* type b vaccine (DTaP/IPV/Hib vaccine), two doses of pneumococcal conjugate vaccine (PCV), one dose of meningococcal serogroup C conjugate vaccine (MenC vaccine) at three months of age and two doses of rotavirus vaccine at two and three months of age [1].

Children who reached their second birthday in the quarter (born October to December 2014) were scheduled to receive their third DTaP/IPV/Hib, second MenC and PCV vaccinations between February and April 2015, and their first measles, mumps, and rubella (MMR) vaccination, a booster dose of Hib and MenC (given as a combined Hib/MenC vaccine) and PCV vaccines at the same visit at 12 months of age, between November 2015 and January 2016.

Children who reached their fifth birthday in the quarter (born October to December 2011) were scheduled to receive their third dose DTaP/IPV/Hib and second MenC and PCV vaccinations between February and April 2012. They were also scheduled to receive their first MMR, Hib/MenC booster and PCV booster after their first birthday (October to December 2012) between November 2012 and January 2013, and their pre-school diphtheria, tetanus, acellular pertussis, inactivated polio booster (DTaP/IPV) and second dose MMR from January 2015.

Children born to hepatitis B surface antigen (HBsAg) positive mothers, who reached their first birthday in this quarter (October to December 2015) were scheduled to receive an initial dose of hepatitis B vaccine at birth, with further doses at one and two months of age, and those who reached their second birthday in this quarter (October to December 2014) were scheduled to receive a fourth dose at one year of age.

Children born in areas where there is a universal neonatal BCG programme (i.e.TB incidence  $\geq$ 40/100,000 and London boroughs regardless of TB incidence) who reach their first birthday in this quarter (October to December 2015) were scheduled to receive BCG at birth.

Appendix A describes coverage evaluated at the first, second and fifth birthdays by country and NHS England local and area teams.

#### 2. Participation and data quality

Data were received from all Health Boards (HBs) in Scotland, Northern Ireland and Wales. In England, Area Teams (ATs) and Child Health Record Departments (CHRDs) provided data for all upper tier local authorities (LAs).

In England, implementation of a new COVER Information Standard Notice (ISN) [2] by CHIS suppliers for the vaccination schedule changes introduced in 2013 is almost complete, with MenC coverage data at 12 months available for all 152 LAs and 12 month rotavirus coverage data for all but two LAs. This is the second quarterly COVER report to publish MenB coverage at 12 months and data were received from 142 of the 152 LAs.

Due to limitations in the current CHIS IT infrastructure, the requested change to collecting COVER data by resident rather than responsible LA population has been postponed, and for the foreseeable future COVER will only be requesting CHISs to submit data by responsible LA population. This is the second quarterly COVER report to publish data by LA responsible population and individual LA data, with relevant caveats, are available <u>here</u>.

### 3. Results

### 3.1 Coverage at 12 months

Vaccine coverage for the second cohort of children routinely offered MenB vaccine was evaluated in this quarter. UK two-dose MenB coverage (MenB2) was 92.7%, ranging from 95.8% in Scotland to 92.2% in England. England MenB2 coverage was estimated from data submitted by 142 of the 152 English LAs and therefore should be interpreted with caution where LT data do not represent all LAs in the area (see LA vaccine coverage statistics).

Compared to the previous quarter (July to September 2016), UK coverage in October to December 2016 increased by 0.6% for Rota2 to 90.6%, by 0.3% for DTaP/IPV/Hib3 and PCV to 93.8% and 94.0% respectively, and decreased by 1.1% for MenC to 94.0% (table 1a) [3]. All devolved administrations achieved above 96% for DTaP/IPV/Hib3, PCV2 and MenC. In England, coverage was at least 93% for these three vaccines; all but two of the 13 LTs (London and South (South East)) achieving at least 90% and 5 of 13 LTs achieved the WHO 95% target for all three vaccines (table 1a). Improvements in 12 month data quality in South (South East) this quarter have contributed to improved England and UK level data.

Coverage at 12 months by former AT level is described in table 1b.

#### 3.2 Coverage at 24 months

UK coverage for the primary course (three doses) of DTaP/IPV/Hib at two years of age increased 0.3% to 95.6% compared to the previous quarter (table 2a) with all countries and all but two English LTs (London and South (South East)) achieved the 95% WHO target. (table 2a). UK coverage is 92.1% for MMR1 and the Hib/MenC and PCV boosters following increases of 0.4%, 0.3% and 0.1% for respectively (table 2a) [3]. Improvements in 24 month data quality in South (South East) this quarter have contributed to improved England and UK level data.

Coverage at 24 months by former AT level is described in table 2b.

#### 3.3 Coverage at five years

UK coverage evaluated at five years for both DTaP/IPV/Hib3 and MMR1 continues to exceed the 95% WHO target at 96.0%% and 95.4% respectively (table 3a) [3]. MMR1 coverage in Scotland, Wales and Northern Ireland achieved at least 97%, in England it was 95% overall with only two of the LTs in England (London, South East) failed to achieve 95% (table 3a). UK MMR2 coverage increased by 0.5% this quarter to 88.5% returning to a level similar to that reported a year ago (table 3a) [4].

Coverage at five years by former AT level is described in table 3b.

#### 3.4 Neonatal hepatitis B vaccine coverage in England

Vaccine coverage data in England for three doses of hepatitis B vaccine, in infants born to hepatitis B surface antigen (HBsAg) positive mothers, who reached the age of one year in this quarter (i.e. those born between October to December 2015), and coverage of four doses of vaccine in infants who reached two years of age (i.e. those born between October to December 2014) are presented by local team in table 4.

Participation increased this quarter to just over 90% of all LAs (138/152). The quality of these data is variable and coverage by former local team relies on small numbers. As such, data should be interpreted with caution. Where an area reported no vaccinated children, a check was

made to ensure that this was zero reporting rather than absence of available data. Compared with the previous quarter, coverage for three doses by 12 months of age increased by 1% to 84%, and by 1% to 72% for those receiving four doses by 24 months (table 4) [3].

## 3.5 BCG vaccine coverage in England

The BCG immunisation programme across England is based on risk of exposure to TB. The vaccine is recommended at birth for all children that live in an area that has a TB incidence of higher than 40 per 100,000 population. Due to large cross-boundary movement, the vaccine is also recommended in all London local authorities, regardless of TB incidence. Neonatal BCG has been included in the data extraction template from local CHISs since April 2015, as part of the COVER (Cover of vaccination evaluated rapidly) programme. This provides an opportunity to estimate BCG vaccine at 12 months for LAs offering a universal neonatal programme. For the first time, the 2016 annual TB report for England (published in September 2016) includes experimental annual 2015-16 BCG coverage figures for local authorities running a universal neonatal programme, collected as part of the annual 2015-16 COVER programme in England [5].

This quarterly COVER report presents BCG coverage data for the third quarter of 2016-17 alongside the first and second quarters data for comparison in table 5. There are currently 11 LAs in England with a high incidence of TB, of which 10 are running a universal programme, 9 of which are in London. A further 25 local authorities (24 in London, one outside) offer universal vaccination. Coverage estimates for children born between October and December 2015 in LAs with high TB incidence ranged from 4.3% to 86.6%. In the remaining 21 London LAs that provided data, coverage ranged from 3.6% to 93.0% (table 5).

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 quarter (born between October and December 2015). Estimates of low coverage may therefore in part be reflecting poor data quality but also vaccine supply issues, and should be interpreted with caution.

### Relevant links for country-specific coverage data

Quarterly England data: <u>https://www.gov.uk/government/collections/vaccine-uptake#cover-of-vaccination-evaluated-rapidly-programme</u>

Annual England data: <u>http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/immunisation</u>

Quarterly Northern Ireland: <u>http://www.publichealthagency.org/directorate-public-health/health-protection/vaccination-coverage</u>

Scotland: http://www.isdscotland.org/Health-Topics/Child-Health/Immunisation/

Wales: http://www.wales.nhs.uk/sites3/page.cfm?orgid=457&pid=54144/

#### COVER submission and publication dates:

https://www.gov.uk/government/publications/vaccine-coverage-statistics-publication-dates

#### Other relevant links

https://www.gov.uk/government/collections/immunisation

#### References

- 1. Public Health England. The complete routine immunisation schedule. <u>https://www.gov.uk/government/publications/the-complete-routine-immunisation-schedule</u>
- 2. Public Health England. Cover of Vaccination Evaluated Rapidly (COVER) : Information Standards. <u>https://www.gov.uk/government/publications/cover-of-vaccination-evaluated-rapidly-cover-programme-information-standards</u>
- Public Health England (2016). Vaccination coverage statistics for children up to the age of five years in the United Kingdom, July to September 2016. HPR 10 (44). Available at <u>https://www.gov.uk/government/statistics/cover-of-vaccination-evaluated-rapidly-cover-programme-2016-to-2017-quarterly-data</u>
- Public Health England (2016). Vaccination coverage statistics for children up to the age of five years in the United Kingdom, October to December 2015. HPR 10 (12). Available at <u>https://www.gov.uk/government/statistics/cover-of-vaccination-evaluated-rapidly-cover-programme-2015-to-2016-quarterly-data</u>
- Public Health England (2016). Tuberculosis in England 2016 report: presenting data to end of 2015. Available at <u>https://www.gov.uk/government/publications/tuberculosis-in-englandannual-report</u>

#### **Appendix: Tables**

Table 1a. Completed UK primary immunisations at 12 months by country and English :October to December 2016 (*July to September 2016*)

Table 1b. Completed UK primary immunisations at 12 months by NHS England Area Teams: October to December 2016 (*July to September 2016*)

Table 2a. Completed UK primary immunisations at 24 months by country and NHS England local team: October to December 2016 (*July to September 2016*)

Table 2b. Completed primary immunisations at 24 months by NHS England Area Teams:October to December 2016 (*July to September 2016*)

Table 3a. Completed UK primary immunisations and boosters at five years by country and NHS England local team: October to December 2016 (*July to September 2016*)

Table 3b. Completed primary immunisations and boosters at five years by NHS England Area Team : October to December 2016 (*July to September 2016*)

Table 4. Neonatal hepatitis B coverage at 12 and 24 months in England by NHS England Area Team : October to December 2016 (*July to September 2016*)

Table 5. BCG vaccine coverage at 12 months in England by NHS England Area Team :October to December 2016 (*July to September 2016*)

 Table 1a. Completed UK primary immunisations at 12 months by country and English Local Teams:

 October to December 2016 (*July to September 2016*)

	Country	No. of LAs/HBs†	DTaP/IPV/Hib3 %	MenC%	PCV2%	Rota2%	MenB2%
	United Kingdom	177	93.8 (93.5)	94.0 ( <i>95.1</i> )	94.0 (93.7)	90.6 ( <i>90.0</i> )	92.7 (92.2 <sup>1</sup> )
	Wales	7	96.2 ( <i>96.4</i> )	96.2 ( <i>96.8</i> )	96.2 (96.1)	94.3 (93.7)	95.4 (95.0)
	Northern Ireland	4	96.6 ( <i>97.1</i> )	97.3 (97.8)	96.7 ( <i>97.1</i> )	94.3 (94.5)	95.7 (96.2)
	Scotland	14	96.6 ( <i>97.1</i> )	97.1 ( <i>97.6</i> )	96.7 ( <i>97.2</i> )	93.5 ( <i>93.0</i> )	95.8 (94.5)
	England (Total)	152	93.4 ( <i>92.9</i> )	93.6 ( <i>94.7)</i>	93.6 ( <i>93.1</i> )	90.1 ( <i>8</i> 9.3)	92.2 (91.6 <sup>1</sup> )
LT code	NHS England Local Teams						
Q70	Wessex	7	95.2 ( <i>95.6</i> )	95.1 ( <i>96.5</i> )	94.9 ( <i>95.4</i> )	94.0 (94.1)	95.6 ( <i>95.8</i> )
Q71	London	33	89.2 (88.7)	89.2 (90.1)	89.6 ( <i>89.0</i> )	86.3 (86.2)	86.3 (83.7)
Q72	North (Yorkshire & Humber)	15	95.1 ( <i>95.1</i> )	95.7 ( <i>96.8</i> )	95.1 ( <i>95.1</i> )	92.8 (91.6)	94.6 (93.9)
Q73	North (Lancashire & Grt. Manchester)	13	93.4 ( <i>93.9</i> )	94.4 ( <i>95.9</i> )	94.2 (93.8)	85.5 ( <i>84.5</i> )	94.6 ( <i>95.5)</i>
Q74	North (Cumbria & North East)	13	96.0 (96.1)	95.9 ( <i>97.2</i> )	96.2 (96.9)	94.1 ( <i>95.0</i> )	95.4 ( <i>95.3</i> )
Q75	North (Cheshire & Merseyside)	9	94.9 ( <i>94.8</i> )	95.8 ( <i>96.4</i> )	95.2 ( <i>94.7</i> )	92.3 (91.2)	95.1 ( <i>94.4</i> )
Q76	Midlands & East (North Midlands)	8	95.1 (95.2)	95.9 ( <i>96.6</i> )	95.2 (94.8)	93.3 (92.5)	94.5 (93.9)
Q77	Midlands & East (West Midlands)	10	92.4 (91.9)	93.2 ( <i>94.6</i> )	92.9 (92.2)	88.2 ( <i>87.4</i> )	91.6 ( <i>95.5</i> )
Q78	Midlands & East (Central Midlands)	10	95.8 ( <i>95.8</i> )	96.4 ( <i>96.8</i> )	96.0 ( <i>96.0</i> )	93.5 (93.7)	94.7 ( <i>94.5)</i>
Q79	Midlands & East (East)	7	95.0 ( <i>95.0</i> )	95.6 ( <i>96.4</i> )	95.2 (95.1)	91.6 ( <i>91.3</i> )	94.2 (93.6)
Q80	South (South West)	9	94.3 (94.2)	94.7 (95.7)	94.6 (94.3)	89.0 ( <i>88.8</i> )	93.8 ( <i>94.3</i> )
Q81	South (South East)	6	91.2 (86.3)	89.4 (91.7)	91.3 (87.6)	87.8 (84.3)	90.3 ( <i>83.9</i> )
Q82	South (South Central)	12	94.6 (94.7)	94.1 (95.2)	94.5 (94.5)	91.9 (91.4)	90.3 (93.2)

1. estimated figures based on data from only 142 of 152 English local authorities.

† Local Authorities /health boards.

NHS England Local Team code*	English Area Team (AT code)	No. of formerLA's	DTaP/IPV/Hib3%	MenC%	PCV2%	Rota2%	MenB2% <sup>1</sup>
Q70	Wessex (Q70)	7	95.2 ( <i>95.6)</i>	95.1 ( <i>96.5</i> )	94.9 ( <i>95.4</i> )	94.0 (94.1)	95.6 <i>(95.8)</i>
Q71	London (Q71)	33	89.2 (88.7)	89.2 (90.1)	89.6 ( <i>89.0</i> )	86.3 (86.2)	86.3 <i>(83.7)</i>
	North Yorkshire and Humber (Q50)	6	96.1 (96.2)	97.3 ( <i>97.7</i> )	95.9 (96.1)	95.2 (93.6)	96.3 <i>(95.5)</i>
Q72	South Yorkshire and Bassetlaw (Q51)	4	94.8 (94.1)	94.4 (96.2)	94.8 (94.2)	93.1 ( <i>91.5</i> )	93.6 <i>(92.6)</i>
	West Yorkshire (Q52)	5	94.7 ( <i>95.0</i> )	95.4 (96.7)	94.8 (94.9)	91.9 ( <i>90.9</i> )	94.1 <i>(</i> 93.6)
070	Greater Manchester (Q46)	10	95.6 ( <i>94.8</i> )	95.3 (96.2)	95.6 ( <i>94.5</i> )	87.4 (86.1)	94.6 <i>(95.5)</i>
Q73	Lancashire (Q47)	3	88.6 ( <i>91.9</i> )	92.2 (95.1)	91.1 (92.2)	81.4 (81.0)	n/a <i>(n/a)</i>
074	Durham, Darlington and Tees (Q45)	6	96.7 ( <i>95.6</i> )	97.0 ( <i>96.7</i> )	96.9 (97.3)	95.1 ( <i>95.6</i> )	96.5 <i>(95.5)</i>
Q74	Cumbria, Northumberland, Tyne and Wear (Q49)	7	95.6 ( <i>96.6</i> )	95.1 ( <i>97.6</i> )	95.8 ( <i>96.6)</i>	93.5 (94.7)	94.6 <i>(95.0)</i>
075	Cheshire, Warrington and Wirral (Q44)	4	95.9 (96.3)	96.0 (97 <i>.4</i> )	96.1 ( <i>96.5</i> )	94.4 (94.0)	95.7 <i>(95.5)</i>
Q75	Merseyside (Q48)	5	93.9 (93.3)	95.5 ( <i>95.4</i> )	94.3 (92.9)	90.1 (88.5)	94.5 <i>(</i> 93. <i>4</i> )
070	Derbyshire and Nottinghamshire (Q55)	4	94.3 ( <i>94.0</i> )	95.2 ( <i>95.8</i> )	94.3 ( <i>94.0</i> )	92.8 (91.5)	93.4 (91.1)
Q76	Shropshire and Staffordshire (Q60)	4	96.3 (96.9)	97.0 ( <i>97.7</i> )	96.4 (96.1)	94.0 (93 <i>.9</i> )	95.9 <i>(</i> 97.9)
077	Arden, Herefordshire and Worcestershire (Q53)	4	94.4 (95.3)	95.4 ( <i>97.0</i> )	95.2 (95.7)	90.4 (92.1)	94.3 (97.6)
Q77	Birmingham and the Black Country (Q54)	6	91.4 (90.2)	92.1 (93.4)	91.7 ( <i>90.5</i> )	87.2 (85.0)	90.2 <i>(94.5)</i>
070	Hertfordshire and the S Midlands (Q58)	6	95.7 ( <i>95.7</i> )	96.3 ( <i>96.6</i> )	95.8 ( <i>95.9</i> )	93.6 (94.2)	94.4 <i>(94.3)</i>
Q78	Leicestershire and Lincolnshire (Q59)	4	95.9 ( <i>96.0</i> )	96.5 (97.2)	96.3 (96.2)	93.4 (92.9)	95.1 <i>(94.7)</i>
070	East Anglia (Q56)	4	95.2 (95.2)	95.8 ( <i>96.6)</i>	95.3 ( <i>95.1</i> )	91.6 ( <i>91.5</i> )	94.4 <i>(94.1)</i>
Q79	Essex (Q57)	3	94.8 ( <i>94.8</i> )	95.4 (96.2)	95.2 (95.1)	91.6 ( <i>91.1</i> )	93.8 <i>(</i> 93.0)
000	Bristol, N Somerset, Somerset and S Gloucestershire (Q65)	4	94.5 ( <i>94.9</i> )	95.0 ( <i>96.5</i> )	94.5 ( <i>94.9</i> )	91.1 <i>(90.8)</i>	93.5 <i>(</i> 93.6)
Q80	Devon, Cornwall, Isles of Scilly (Q66)	5	94.1 (93.5)	94.5 ( <i>94.9</i> )	94.7 (93.8)	86.8 (86.8)	94.0 <i>(95.0)</i>
004	Kent and Medway (Q67)	2	91.7 ( <i>80.1</i> )	83.4 (88.5)	91.6 (82.3)	86.1 ( <i>79.6</i> )	90.5 (77.4)
Q81	Surrey and Sussex (Q68)	4	90.8 ( <i>90.6)</i>	93.5 ( <i>93.9</i> )	91.1 ( <i>91.3)</i>	89.0 ( <i>87.6</i> )	90.2 <i>(88.5)</i>
000	Bath, Gloucestershire, Swindon and Wiltshire (Q64)	4	95.5 ( <i>94.4</i> )	95.1 ( <i>95.6</i> )	95.7 ( <i>94.6</i> )	92.6 (90.8)	94.3 <i>(94.1)</i>
Q82	Thames Valley (Q69)	8	94.0 ( <i>94.9</i> )	93.4 ( <i>94.8</i> )	93.7 ( <i>94.5</i> )	91.5 ( <i>91.7</i> )	87.6 (92.2)

#### Table 1b. Completed UK primary imms at 12 months by NHS England Area Teams: October to December 2016 (July to September 2016)

\* See table 1a for key to local team organisational code.1. Based on coverage data from 142/152 LAs, see full tables here;

## Table 2a. Completed UK primary immunisations at 24 months by country and NHSEngland local team:October to December 2016 (July to September 2016)

Country	No. of former LAs/ HBs†	DTaP/IPV/Hib3 %	PCV booster %	Hib/MenC %	MMR1 %
United Kingdom	177	95.6 ( <i>95.3</i> )	92.1 ( <i>92.0</i> )	92.1 ( <i>91.8</i> )	92.1 (91.7)
Wales	7	97.5 (97.4)	95.1 ( <i>96.0)</i>	94.3 ( <i>94.9</i> )	94.7 ( <i>95.3</i> )
Northern Ireland	4	97.9 ( <i>97.9</i> )	95.2 (94.9)	94.9 ( <i>95.0</i> )	94.8 (94.5)
Scotland	14	97.8 ( <i>97.7</i> )	95.2 (95.1)	95.3 ( <i>95.3</i> )	94.8 (94.8)
England (Total)	152	95.3 ( <i>94.9</i> )	91.5 ( <i>91.4)</i>	91.6 ( <i>91.2</i> )	91.6 ( <i>91.2)</i>
NHS England local teams*					
Q70	6	96.2 (96.2)	93.0 (93.7)	93.1 ( <i>93.5</i> )	93.2 (93.7)
Q71	33	91.8 ( <i>91.9</i> )	84.2 ( <i>84.8</i> )	84.6 ( <i>84.2</i> )	84.8 ( <i>85.0</i> )
Q72	15	96.8 (96.6)	94.6 ( <i>94.3</i> )	94.6 ( <i>94.1</i> )	94.4 (93.8)
Q73	13	95.9 ( <i>95.1)</i>	92.8 ( <i>92.3</i> )	92.7 ( <i>92.0</i> )	93.0 ( <i>92.6</i> )
Q74	12	97.9 (97.6)	95.5 (96.1)	95.5 (95.7)	95.3 ( <i>95.6</i> )
Q75	9	96.7 (96.8)	93.1 ( <i>93.2</i> )	93.7 ( <i>94.3</i> )	93.1 ( <i>93.7</i> )
Q76	8	96.2 (96.1)	93.0 (93.2)	92.9 (93.2)	92.8 ( <i>9</i> 2.8)
Q77	10	95.6 ( <i>95.4</i> )	92.1 ( <i>92.1</i> )	92.1 ( <i>9</i> 2. <i>1</i> )	92.2 ( <i>9</i> 2 <i>.0</i> )
Q78	10	96.7 (96.7)	94.3 ( <i>94.4</i> )	94.5 ( <i>94.6</i> )	93.9 ( <i>94.3</i> )
Q79	7	96.4 ( <i>96.0</i> )	94.4 (94.2)	94.4 (94.1)	94.0 ( <i>93.6</i> )
Q80	9	96.5 ( <i>96.4</i> )	92.8 (92.7)	92.7 (92.7)	92.8 ( <i>9</i> 2.6)
Q81	6	92.4 (90.1)	89.8 (87.3)	89.7 (87.2)	89.7 ( <i>86.4</i> )
Q82	12	96.4 (95.7)	92.8 ( <i>92.0</i> )	92.8 (92.2)	93.0 ( <i>93.8</i> )

\* See table 1a for key to local team organisational code.

† Local Authorities/health boards

NHS England Local Team Code*	Area Team code*	No. of LAs †	DTaP/IPV/Hib3 %	PCV booster %	Hib/MenC %	MMR1 %
Q70	Q70	7	96.2 (96.2)	93.0 (93.7)	93.1 ( <i>93.5</i> )	93.2 (93.7)
Q71	Q71	33	91.8 ( <i>91.9</i> )	84.2 (84.8)	84.6 (84.2)	84.8 ( <i>85.0</i> )
	Q50	6	96.8 (96.5)	94.6 ( <i>95.0</i> )	94.3 ( <i>94.7</i> )	94.3 (94.2)
Q72	Q51	4	96.8 (96.5)	94.3 (93.5)	94.3 (93 <i>.3</i> )	94.1 (93.3)
	Q52	5	96.8 (96.7)	94.8 (94.3)	94.9 (94.2)	94.6 (93.9)
070	Q46	10	96.5 ( <i>95.9</i> )	93.5 ( <i>92.8</i> )	93.4 (92 <i>.3</i> )	93.8 (93.2)
Q73	Q47	3	94.6 (93.5)	91.4 ( <i>91.3</i> )	91.3 ( <i>91.3</i> )	91.3 ( <i>91.4</i> )
074	Q45	6	97.5 (96.5)	95.2 (95.2)	95.7 (95.1)	95.3 ( <i>95.1</i> )
Q74	Q49	7	98.1 ( <i>98.3</i> )	95.6 ( <i>96.8</i> )	95.3 (96.2)	95.3 ( <i>96.0</i> )
075	Q44	4	97.8 (97.6)	93.9 ( <i>93.9</i> )	95.4 (96.2)	94.2 (94.9)
Q75	Q48	5	95.7 (96.0)	92.4 (92.5)	92.0 (92.4)	92.1 (92.5)
070	Q55	4	95.2 (95.3)	91.8 ( <i>91.8</i> )	91.7 ( <i>91.8</i> )	91.5 ( <i>91.5</i> )
Q76	Q60	4	97.5 (97.4)	94.5 (95.2)	94.5 (95.2)	94.5 ( <i>94.8</i> )
077	Q53	4	97.5 (97.8)	95.2 (95.9)	95.2 (96.2)	95.6 ( <i>96.6)</i>
Q77	Q54	6	94.7 (94.3)	90.6 (90.2)	90.6 ( <i>90.0</i> )	90.5 (89.7)
070	Q58	6	96.6 (96.6)	94.2 (94.6)	94.6 ( <i>94.8)</i>	93.7 (94.3
Q78	Q59	4	96.8 (96.8)	94.3 (94.2)	94.4 ( <i>94.4</i> )	94.2 (94.3)
070	Q56	4	96.4 (96.3)	94.1 (93.8)	94.1 (93.8)	93.9 ( <i>93.7</i> )
Q79	Q57	3	96.4 (95.6)	94.7 (94.8)	94.8 ( <i>94.4</i> )	94.1 (93.6)
0.00	Q65	4	96.6 ( <i>96.4</i> )	92.6 (92.3)	92.5 (92.3)	92.1 (91.6)
Q80	Q66	5	96.5 (96.3)	93.1 ( <i>93.1</i> )	92.8 ( <i>92.8</i> )	93.5 ( <i>93.5</i> )
	Q67	2	95.0 (90.3)	89.9 ( <i>85.4</i> )	89.6 ( <i>85.2</i> )	89.5 ( <i>83.0</i> )
Q81	Q68	4	90.7 (89.9)	89.8 (88.6)	89.8.( <i>88.5</i> )	89.9 ( <i>88.6</i> )
000	Q64	4	96.7 (96.1)	93.7 (92.9)	93.7 (92.7)	93.8 ( <i>9</i> 2 <i>.8</i> )
Q82	Q69	8	96.2 (96.0)	92.3 (92.7)	92.2 (93. <i>3</i> )	92.5 (93.6)

Table 2b. Completed primary immunisations at 24 months by NHS England Area Teams:October to December 2016 (*July to September 2016*)

\* See table 1a and 1b for keys to NHS England local team/Area Team organisational code.

† Local Authorities

Table 3a. Completed UK primary immunisations and boosters at five years by country and NHS England local team: October to December 2016 (*July to September 2016*)

	Number of	Prin	nary		Booster	
Country	LAs/HBs†	DTaP/IPV Hib3%	MMR1%	MMR2%	DTaP/IPV%	Hib/ MenC%
United Kingdom	177	96.0 ( <i>95.9</i> )	95.4 (95.4)	88.5 ( <i>88.0</i> )	87.6 ( <i>87.0</i> )	93.1 ( <i>93.3</i> )
Wales	7	94.7 (95.5)	96.8 (97 <i>.0</i> )	90.7 ( <i>90.5</i> )	93.2 ( <i>92.4</i> )	93.1 ( <i>93.7</i> )
N. Ireland	4	96.9 ( <i>98.2</i> )	96.6 (97 <i>.6</i> )	92.2 (92.5)	92.7 (93. <i>0</i> )	95.9 ( <i>96.5</i> )
Scotland	14	98.0 (98.2)	96.8 (97.1)	93.4 (93.3)	94.0 (93.9)	96.1 ( <i>96.4</i> )
England (Total)	152	95.8 ( <i>95.7</i> )	95.2 (95 <i>.0</i> )	87.8 ( <i>87.3</i> )	86.5 ( <i>85.9</i> )	92.7 (92.9)
English Local Teams						
Q70	7	95.7 ( <i>96.0</i> )	94.8 ( <i>94.9</i> )	89.2 (89.2)	88.2 (88.3)	92.6 (93.2)
Q71	33	92.5 (92.7)	91.3 ( <i>91.5</i> )	79.1 ( <i>79.1</i> )	76.4 (76.8)	88.4 (88.7)
Q72	15	97.3 (97.1)	97.0 (96.7)	91.0 ( <i>90.4</i> )	90.9 ( <i>90.0</i> )	94.6 (94.2)
Q73	13	96.5 (96.1)	96.5 (96.2)	89.4 (88.6)	86.2 ( <i>86.8</i> )	93.0 ( <i>95.0</i> )
Q74	13	97.9 ( <i>97.8</i> )	98.0 ( <i>97.8</i> )	93.1 ( <i>93.5</i> )	92.2 (93.5)	95.7 ( <i>96.5)</i>
Q75	9	96.9 ( <i>97.3</i> )	96.9 ( <i>96.8</i> )	90.7 (91.5)	90.9 ( <i>91.7</i> )	94.6 ( <i>94.8)</i>
Q76	8	96.9 ( <i>96.6</i> )	96.4 (96.1)	89.4 ( <i>88.4</i> )	88.2 (87.3)	94.7 ( <i>94.3</i> )
Q77	10	97.0 (96.3)	96.6 ( <i>95.9)</i>	89.1 (88.2)	88.5 ( <i>86.5</i> )	94.9 ( <i>94.3</i> )
Q78	10	96.9 ( <i>97.2</i> )	96.3 (96.4)	90.4 (91.2)	90.6 (91.5)	93.7 ( <i>93.5</i> )
Q79	7	96.5 (96.7)	96.0 (96.0)	90.4 (89.6)	89.2 (88.5)	93.6 ( <i>92.9</i> )
Q80	9	97.4 (97.2)	96.1 (96.3)	90.2 (89.5)	88.5 ( <i>89.6</i> )	95.0 ( <i>95.3)</i>
Q81	6	93.2 (92.3)	92.3 (91.8)	84.2 (81.6)	82.5 (78.6)	89.1 ( <i>89.1</i> )
Q82	12	96.7 ( <i>96.4</i> )	95.8 ( <i>95.5</i> )	90.5 ( <i>90.2</i> )	89.9 ( <i>88.9</i> )	93.2 ( <i>94.3</i> )

\* See table 1a for key to NHS England local team organisational code.

3b. Completed primary immunisations and boosters at five years by NHS England Area Team: October to December 2016 (*July to September 2016*)

NHS England		No. of	Prim	nary		Booster	
local team Code*	Area Team (AT) code*	LAs†in AT	DTaP/IPV Hib3 %	MMR1 %	MMR2 %	DTaP/ IPV %	Hib/ MenC
Q70	Q70	7	95.7 ( <i>96.0</i> )	94.8 ( <i>94.9</i> )	89.2 (89.2)	88.2 ( <i>88.3</i> )	92.6 (93.2)
Q71	Q71	33	92.5 (92.7)	91.3 ( <i>91.5</i> )	79.1 ( <i>79.1</i> )	76.4 (76.8)	88.4 (88.7)
	Q50	6	97.3 (97.2)	97.0 ( <i>96.9</i> )	91.1 ( <i>90.9</i> )	91.1 (9 <i>1.0</i> )	94.7 (94.7)
Q72	Q51	4	97.1 ( <i>96.4</i> )	97.2 (96.0)	90.0 (87.5)	90.3 (88.1)	93.7 ( <i>92.0</i> )
	Q52	5	97.4 (97. <i>4</i> )	96.8 ( <i>97.0</i> )	91.4 ( <i>91.7</i> )	91.1 ( <i>90.5</i> )	95.0 (95.2)
070	Q46	10	97.2 (96.4)	97.0 (96.5)	91.6 ( <i>90.0</i> )	87.1 ( <i>87.7</i> )	94.5 ( <i>93.8</i> )
Q73	Q47	3	94.9 (95.5)	95.3 (95.7)	84.9 ( <i>85.9</i> )	84.3 ( <i>84.9</i> )	90.0 (97.5)
074	Q45	6	97.8 (97.9)	97.7 (97. <i>7</i> )	92.7 (93.6)	90.8 (95.1)	95.1 ( <i>96.5</i> )
Q74	Q49	7	97.9 (97.7)	98.1 ( <i>97.8</i> )	93.4 (93 <i>.4</i> )	93.1 (92.3)	96.2 (96.5)
075	Q44	4	97.3 (97.4)	97.0 (96.5)	93.6 ( <i>9</i> 2 <i>.3</i> )	93.8 ( <i>93.3</i> )	94.7 (94.3)
Q75	Q48	5	96.5 (97.2)	96.7 (97.2)	87.8 (90.5)	87.9 (90.1)	94.5 (95.3)
070	Q55	4	96.2 (96.2)	95.8 ( <i>95.9</i> )	87.3 (86.7)	87.2 ( <i>86.4</i> )	93.2 (93.2)
Q76	Q60	4	97.9 (97.2)	97.3 (96.5)	92.4 (90.9)	89.5 ( <i>88.4</i> )	96.8 ( <i>95.9</i> )
077	Q53	4	98.5 (97.5)	98.5 ( <i>97.6</i> )	94.4 ( <i>94.0</i> )	94.7 ( <i>92.4</i> )	96.3 (95.7)
Q77	Q54	6	96.2 (95.7)	95.7 ( <i>95.0</i> )	86.5 (85.1)	85.3 ( <i>83.3</i> )	94.1 (93.5)
0.70	Q58	6	96.8 (96.9)	96.2 (96.1)	90.3 ( <i>91.0</i> )	90.0 (88.8)	93.9 (93.5)
Q78	Q59	4	97.1 (97.6)	96.6 (97.1)	90.5 ( <i>91.5</i> )	91.6 ( <i>90.7</i> )	93.3 (93.7)
0.70	Q56	4	96.2 (96.2)	95.5 ( <i>95.6</i> )	90.1 ( <i>89.4</i> )	88.8 (88.1)	93.0 ( <i>91.8</i> )
Q79	Q57	3	96.9 (97.5)	96.6 (96.6)	90.7 (89.8)	89.7 ( <i>89.0</i> )	94.4 (94.2)
	Q65	4	97.4 (97.2)	96.3 ( <i>96.3</i> )	88.9 (88.2)	89.9 ( <i>91.3</i> )	95.5 ( <i>95.4</i> )
Q80	Q66	5	97.3 (97.2)	96.0 ( <i>96.3</i> )	91.3 <i>(90.8</i> )	87.2 (87.8)	94.6 (95.3)
	Q67	2	95.5 ( <i>94.9</i> )	96.0 (94.9)	87.1 (83.2)	83.7 (81.0)	92.3 (92.2)
Q81	Q68	4	91.7 (90.5)	89.9 (89.8)	82.3 ( <i>80.6</i> )	81.7 ( <i>77.0</i> )	87.0 ( <i>86.9)</i>
000	Q64	4	97.2 (96.7)	96.4 (96.3)	91.7 (89.6)	91.2 ( <i>87.4</i> )	94.7 (94.2)
Q82	Q69	8	96.4 (96.2)	95.4 ( <i>95.0</i> )	89.7 (90.5)	89.2 (89.7)	92.3 ( <i>94.4</i> )

\* See table 1a and 1b for keys to NHS England local team/Area Team organisational code.

† Local Authorities.

## Table 4. Neonatal hepatitis B coverage at 12 and 24 months in England by NHS England Local Team: October to December 2016 (*July to September 2016*)

NHSE Local Team Code	LA returns with 12 month data	12 month deno- minator	% Coverage at 12 months	LA returns with 24 month data	24 month deno- minator	% Coverage at 24 months
Q70	7 of 7	24	100 ( <i>100</i> )	7 of 7	12	100 ( <i>100</i> )
Q71	31 of 33	263	76 (81)	30 of 33	275	65 ( <i>64</i> )
Q72	14 of 15	46	96 (87)	14 of 15	47	98 ( <i>90</i> )
Q73	10 of 13	47	62 (51)	10 of 13	89	27 (42)
Q74	13 of 13	12	75 (58)	13 of 13	12	83 ( <i>80</i> )
Q75	4 of 9	4	100 ( <i>60</i> )	4 of 9	6	33 ( <i>50</i> )
Q76	7 of 8	20	95 ( <i>94</i> )	7 of 8	16	81 ( <i>100)</i>
Q77	8 of 10	54	100 ( <i>100</i> )	9 of 10	52	100 ( <i>100</i> )
Q78	10 of 10	44	98 (91)	9 of 10	45	89 ( <i>90</i> )
Q79	7 of 7	20	95 ( <i>100</i> )	7 of 7	29	100 <i>(96</i> )
Q80	9 of 9	7	100 ( <i>83</i> )	9 of 9	10	90 (67)
Q81	6 of 6	16	94 ( <i>100</i> )	6 of 6	25	100 ( <i>84</i> )
Q82	12 of 12	33	91 ( <i>93</i> )	12 of 12	24	100 (79)
England	138 of 152	590	84 (83)	137 of 152	642	72 (71)

\* See table 1a for key to NHS England Local Team organisational code

Upper Tier Local Authority ODS Code	Upper tier Local Authority	TB rate (per 100,000) 2014 estimates	Number of eligible children (1st birthday during October to December 2015)	Universal BCG coverage% (previous quarterly estimates)
	(a) TB incidence ≥40	0/100,00 and univ	ersal BCG vaccination po	licy
731	Newham	100	1363	86.6 (88.8, 92.6)
719	Brent	82.9	1160	24.5 (16.0, 22.3)
722	Ealing	65.3	1231	40.9 (50.8,57.6)
728	Hounslow	64	1093	55.4 (54.3, 62.2)
725	Harrow	60.4	856	26.1 (16.8, 27.2)
617	Slough	51.5	not available	4.3 (not available)
732	Redbridge	50.5	990	14.7 (36.6, 52.2)
703	Greenwich	42	1119	68.5 (73.7,81.0)
727	Hillingdon	41.9	987	52.8 (58.6, 67.6)
735	Waltham Forest	41.3	997	9.1 ( <i>40.5, 71.7</i> )
	(b) TB incidence ≥4	0/100,00 and sele	ctive BCG vaccination po	licy
509	Leicester	48	selective programme	
	(c) TB Inciden	ce <40/100,000 a	nd universal BCG policy	
711	Tower Hamlets	38.3	1119	93.0 (94.1, 85.0)
611	Luton	35.1	876	86.9 (84.3, 81.5)
716	Barking and Dagenham	35	914	6.0 ( <i>17.0, 37.7</i> )
724	Haringey	33.2	1071	8.7 (6.6, 6.6)
704	Hackney	32.4	1122	58.5 (59.3, 62.0)
710	Southwark	31.7	not available	not available
730	Merton	29.6	721	23.4 (24.7, 27.1)
706	Islington	29.3	611	85.6 (78.3, 81.8)
721	Croydon	27.6	not available	20.2 (not available)
708	Lambeth	26.6	not available	not available
709	Lewisham	25.9	1164	59.0 (52.4, 50.1)
705	Hammersmith and Fulham	24.2	558	27.4 (46.6, 49.0)
713	Westminster	24	627	18.3 (31.0, 34.8)
717	Barnet	23.2	1407	33.0 (37.5, n/a)
723	Enfield	22.5	1180	86.4 (1.9, 3.9)
707	Kensington and Chelsea	22.2	505	20.8 (35.6, 34.9)
702	Camden	21.8	626	46.5 (51.4, 48.5)
712	Wandsworth	21.7	1271	30.1 (29.1, 24.8)
729	Kingston upon Thames	15.8	723	9.0 (13.7, 16.0)
734	Sutton	13.3	670	23.4 (24.7, 27.0)
714	City of London	12.9	18	16.7 (52.6, 57.1)
726	Havering	10.9	829	3.6 (6.7, 7.9)
718	Bexley	10.7	781	51.0 (67.6, 77.9)
720	Bromley	8.1	1050	18.1 (22.1, 21.7)
733	Richmond upon Thames	5.9	639	20.8 (23.9, 21.4)

## Table 5. BCG vaccine coverage at 12 months in England by NHS England Area Team:October to December 2016 (July to September 2016, April to June 2016)