



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 2014

Commentary on the third quarterly report (October to December 2014) for 2014/15

One year old children evaluated in the current quarter (born October to December 2013), are the second cohort to have been routinely offered rotavirus vaccine at two and three months, and the third quarterly cohort offered only one primary MenC dose at three months of age [1].

In Scotland, Northern Ireland and Wales the programmes extracting COVER data from Child Health Information Systems (CHISs) have been modified to reflect these changes. Data presented in this report shows that coverage of one dose of MenC is higher than the other vaccines evaluated at one year in those countries (98.2% in Scotland, 98.6% in Northern Ireland, and 96.2% in Wales). Coverage of two doses of rotavirus vaccine evaluated at one year is also high – in Scotland rotavirus coverage is 93.7%, in Northern Ireland 94.9%, and in Wales 90.2% (table 1a).

In England a new *Information Standards Notice* (ISN) for the COVER programme was approved by the Standardisation Committee for Care Information (SCCI) in September and published in November 2014 [2]. Some CHIS IT suppliers are still making the necessary changes to their systems in order to become compliant with the ISN and currently only eight Area Teams (ATs) are able to supply one dose MenC vaccine coverage data for their area, although in all of these areas coverage was similar to or exceeded that of other vaccines evaluated at one year. As a consequence we are not able to produce MenC vaccine coverage at one year for England or the UK (table 1a). This is a technical rather than a delivery issue which should resolve once all CHIS IT suppliers comply with the ISN, by the end of September 2015 at the latest.

English ATs were also unable to produce rotavirus vaccine coverage data for all former PCTs in their area from CHIS due to the delayed ISN implementation. However, PHE introduced a temporary sentinel collection via ImmForm to extract monthly coverage data directly from GP practices in England for children who had just reached the upper age for receiving the vaccine (25 weeks) in order to rapidly assess rotavirus vaccine coverage [3]. This early evaluation of vaccine coverage has provided assurance that the vaccine has been well accepted in England. Monthly coverage estimates at the national and AT levels have been published [4]. Those children born between October and December 2013, ie the cohort evaluated this quarter at 12 months, were assessed at aged 25 weeks in April to June 2014, and two-dose rotavirus coverage was estimated at 88% nationally during these months [4]. This sentinel GP data collection will remain in place until routine COVER rotavirus data from CHIS are available for all areas. UK coverage for the other antigens evaluated at 12 months (DTaP/IPV/Hib and PCV) both increased compared to the previous quarter to 94.5% and 94.4% respectively (table 1a).

UK coverage of all antigens evaluated at two years decreased marginally, between 0.1% and 0.4% this quarter when compared to the previous quarter [5]. Primary DTaP/IPV/Hib3 coverage is now 96.0% (down 0.1%), PCV booster is 92.4% (down 0.3%), and MMR and Hib/MenC booster are 92.3% (down 0.3% and 0.4% respectively). These decreases were also observed at country level (table 2a). Scotland and Northern Ireland achieved at least 95% coverage for MMR, PCV booster and Hib/MenC booster, as did two of the 25 ATs in England.

At five years coverage was at least 95% for the primary course of DTaP/IPV/Hib in all countries and all but two English ATs (Surrey and Sussex, and London) (tables 3a). UK coverage of MMR1 at five years reached 95% for the first time with all countries and all English ATs except Surrey and Sussex achieved at least 90%. Scotland, Northern Ireland, Wales and 20 English ATs achieved at least 95% coverage for MMR1 and 18 achieved at least 90% for MMR2 at five years (table 3a).

COVER data in England from April 2013

From April 2013, the responsibility for commissioning and coordinating immunisation programmes transferred to NHS England [6]. Population vaccination coverage is a key indicator included in the Public Health Outcomes Framework (PHOF) (Indicator 3.3) [7] with reporting expected for the Local Authority (LA) resident population.

COVER reports present data by English Area Teams (AT) (tables 1a-4a) while former Strategic Health Authority tabulations are provided for historical comparisons (tables 1b-4b).

From April 2014 England COVER data became Official Statistics and is subject to the code of practice associated with such data [8].

COVER Information Standards Notice and COVER user guide

A new *Information Standards Notice* (ISN) for the COVER programme was approved by the Standardisation Committee for Care Information (SCCI) in September and published by the Health and Social Care Information Centre (HSCIC) in November 2014 [2]. PHE published a new COVER User Guide, aimed at all those submitting COVER data, to support the implementation of the ISN. All these documents can be found here: <https://www.gov.uk/government/publications/cover-of-vaccination-evaluated-rapidly-cover-programme-information-standards>.

The ISN provides detailed instruction for Child Health Information System (CHIS) IT suppliers and all data providers on the:

- geographies required for data output (new LA resident output, continuation of PCT responsible population output for trend). This will bring COVER in line with expectations of reporting of population vaccination coverage for the PHOF [7].
- changes to the routine childhood immunisation schedule (primary MenC reduced from two to one dose, the introduction of Rotavirus immunisation at two and three months). The final sentence in the description section of the ISN states, '*...the implementation completion date of 01/10/15 is the full conformance date. Care providers and suppliers should aim on a best endeavours basis to achieve earlier implementation, in particular in respect of rotavirus and Meningitis C, to enable the commencement of national surveillance.*'
- inclusion of neonatal BCG coverage to be evaluated at 12 months for those areas offering a universal programme
- inclusion of a field for MenB vaccine reporting – this will only become active should the vaccine be procured at a cost-effective price and a national programme implemented
- need to refine the definition of completed doses for age-dependent vaccines in the COVER request parameters to ensure information on children who were immunised outside the UK is captured accurately.

The HSCIC alerted IT system suppliers of the publication of the new COVER ISN in November 2014. The PHE national COVER team has raised awareness of the new ISN via PHE's [Vaccine Update](#), DH's [Children, Families and Maternity e-bulletin](#) and the NHS England Area Team Bulletin. COVER data providers and NHS England Screening and Immunisation Teams have been contacted directly to keep them informed with developments. Area Teams have been asked to contact local CHIS suppliers and other stakeholders to alert them to the new ISN and engage with them to ensure compliance is achieved for all aspects.

New 'Output and information requirements specification: for the Child Health information service and systems' published

This document, published this week, is an update of the Information Requirements Specification (IRS) and the Output Based Specification (OBS) for Child Health Information Systems that was published as two documents in 2012 by the Department of Health (DH). It sets out the detailed information requirements for child health services and the technical output based specification for Child Health Information Systems to support the future health and care system for children in England announced in the Health and Social Care Bill 2012.

The document was developed through collaboration between PHE, NHS England, the DH and the Health and Social Care Information Centre and is informed by clinical practice and technical expertise. (<https://www.gov.uk/government/publications/child-health-information-systems-information-requirements-and-output-specifications>)

It aims to:

- support the delivery of child health services across multiple commissioners and providers
- support the delivery of child health services as part of the transition of children's public health to Local Authorities
- deliver consistency in functionality of these important information systems in order to promote better, safer and more effective care for children

It incorporates policy, standards and guidelines for child health programmes in England, such as immunisation, screening and the Healthy Child Programme.

It should be of interest to those involved in the commissioning or delivery of child health services, child health information services and child health information systems and to those who rely on such systems to deliver effective services to children. It should also be of interest to the suppliers of such IT systems.

It can be used as a checklist for either procurement or development of child health services and systems and includes data that drives the statutory requirements for delivery of child health services.

The document contains high level technical requirements for information systems to be procured to underpin the delivery of child health services in England.

Results for October to December 2014

This report presents quarterly coverage data for children in the UK who reached their first, second, or fifth birthday during the evaluation quarter (October to December 2014). Those reaching one year of age in the quarter are the second quarterly cohort to be offered rotavirus vaccine routinely at two and three months of age.

Children who reached their first birthday in the quarter (born October to December 2013) were scheduled for three doses of 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 2012) were scheduled to receive their third DTaP/IPV/Hib, second MenC and PCV vaccinations between February and April 2013, and their first measles, mumps, and rubella (MMR) vaccination, a booster dose of Hib and MenC vaccine (given as a combined Hib/MenC vaccine) and PCV vaccine at the same visit at 12 months of age, between November 2013 and January 2014 [9].

Children who reached their fifth birthday in the quarter (born October to December 2009) were scheduled to receive their third dose DTaP/IPV/Hib and second MenC and PCV vaccinations between February and April 2011. They were also scheduled to receive their first MMR between November 2010 and January 2011 and their pre-school diphtheria, tetanus, acellular pertussis, inactivated polio booster and second dose MMR from January 2013. Children born between October to December 2009 were scheduled to receive Hib/MenC booster vaccine at 12 months and PCV booster vaccine at 13 months.

Participation and data quality

Data were received from all Health Boards (HBs) in Scotland, Northern Ireland and Wales. In England, ATs and Child Health Record Departments (CHRDs) submitted data for all former PCTs. Six former PCTs reported data quality issues this quarter which were related to changes in information flows or incomplete data for unregistered children.

Across England there are some challenges with maintaining data flows for the PCT level collection as these organisations formally ceased to exist on 1 April 2013. Some CHISs have moved to extracting data at the Clinical Commissioning Group (CCG) level and we have aggregated these returns to produce a PCT report, based on postcode. Many CHISs are still not able to provide accurate LA resident population coverage data, however, where LAs are coterminous with a former PCT boundary, coverage data for the PCT responsible population will approximate to the LA responsible population. Twenty of the 41 LAs that are not coterminous with PCT boundaries are currently not able to provide LA responsible population data.

Children evaluated in the current quarter (born October to December 2013), are the second cohort to have been routinely offered two doses of rotavirus vaccine at two and three months of age, and the third to be exclusively offered one dose of MenC at three months of age. In Scotland, Wales and Northern Ireland the programmes extracting COVER data from Child Health Information Systems (CHISs) have already been modified to reflect these changes and coverage is presented in table 1a.

In England, some CHIS IT suppliers required the publication of the ISN to make the appropriate changes to their COVER data extraction report. As a consequence only eight ATs are currently able to supply one dose MenC vaccine coverage data for most former PCTs in their area and so MenC vaccine coverage at one year is not published for England or the UK (table 1a). This is a technical rather than a delivery issue and, as evidenced by the areas that have made the change, MenC coverage is expected to be similar to DTaP/IPV/Hib3 and PCV2 coverage at one year (table 1a).

No AT is able to produce rotavirus vaccine coverage data for all former PCTs in their area from CHIS. However, in order to rapidly assess rotavirus vaccine coverage PHE, introduced a temporary sentinel collection via ImmForm to extract monthly coverage data directly from GP practices in England for

children who had just reached the upper age for receiving the vaccine (25 weeks) [3]. This early evaluation of vaccine coverage has provided assurance that the vaccine has been well accepted in England. This collection will remain in place until routine COVER rotavirus data are available for all areas.

Coverage at 12 months

UK coverage at 12 months for DTaP/IPV/Hib3 increased 0.2% to 94.5% and PCV2 increased 0.4% to 94.4% (table 1a) when compared to the previous quarter [5]. Country-specific minimum coverage levels achieved for DTaP/IPV/Hib3 and PCV2 evaluated at 12 months show that Scotland and Northern Ireland achieved at least 97% coverage, Wales at least 95%, and England at least 94%. Within England 17 out of 25 ATs achieved at least 95% coverage at 12 months (table 1a).

UK coverage of one dose of MenC at 12 months cannot be calculated this quarter (see commentary above), however, accurate data were provided by all HBs in Scotland, Wales, Northern Ireland and from eight English ATs (Q44, Q47, Q53, Q60, Q64, Q65, Q66 and Q69). At the country and English AT level (where data available) MenC coverage ranged from 95.9% in Thames Valley (Q69) to 98.1% in Shropshire and Staffordshire (Q60). Where available, MenC coverage at the national or AT level, always exceeded coverage of other vaccines evaluated at 12 months (table 1a).

Quarterly coverage of two doses of rotavirus vaccine, evaluated at 12 months, was available for the all the devolved administrations. Northern Ireland reported the highest coverage at 94.9%, Scotland achieved 93.7% and Wales achieved 90.2%. Although English data were not available through COVER, rotavirus coverage estimates have been published at the national and AT levels using data from the ImmForm GP practice-based sentinel collection. Monthly coverage data for children who had just reached the upper age for receiving the vaccine (25 weeks) was 88% for children born between February and September 2014 [4], and remained at this level for children born between October and December 2014 [4].

Table 1a. Completed primary immunisations at 12 months by country and English Area Team: October to December 2014 (July to September 2014)

Country and English Area Team (AT code)	Number of PCTs/HBs†	DTaP/IPV/Hib3 %	MenC%	PCV2%	Rota2%
United Kingdom	176	94.5 (94.3)	n/a (n/a)	94.4 (94.0)	n/a (n/a)
Wales	7	95.1 (94.6)	96.2 (96.1)	95.0 (94.0)	90.2 (89.2)
Northern Ireland	4	97.9 (97.6)	98.6 (96.6)	97.8 (97.6)	94.9 (96.3)
Scotland	14	97.7 (97.5)	98.2 (98.0)	97.7 (97.5)	93.7 (92.7)
England (Total)	151	94.1 (93.9)	n/a (n/a)	94.0 (93.5)	See commentary
<i>English Area Teams</i>					
Cheshire, Warrington and Wirral (Q44)	4	96.5 (96.4)	97.8 (97.5)	96.3 (96.6)	n/a
Durham, Darlington and Tees (Q45)	6	97.1 (96.6)	n/a (n/a)	97.0 (96.1)	n/a
Greater Manchester (Q46)	10	95.7 (95.7)	n/a (n/a)	95.3 (95.4)	n/a
Lancashire (Q47)	5	91.5 (89.7)	93.1 (96.8 ¹)	89.5 (88.2)	n/a
Merseyside (Q48)	4	94.9 (93.1)	n/a (n/a)	95.2 (93.3)	n/a
Cumbria, Northumberland, Tyne and Wear (Q49)	7	96.9 (97.1)	n/a (n/a)	96.7 (96.9)	n/a
N Yorkshire and Humber (Q50)	5	94.9 (96.6)	n/a (n/a)	95.1 (96.7)	n/a
S Yorkshire and Bassetlaw (Q51)	5	95.6 (95.4)	n/a (n/a)	95.4 (95.3)	n/a
W Yorkshire (Q52)	5	96.0 (96.3)	n/a (n/a)	95.8 (96.1)	n/a
Arden, Herefordshire and Worcestershire (Q53)	4	96.5 (96.6)	96.5 (98.0)	96.2 (96.1)	n/a
Birmingham and the Black Country (Q54)	8	93.1 (93.1)	n/a (n/a)	92.9 (93.3)	n/a
Derbyshire and Nottinghamshire (Q55)	4	95.4 (95.3)	n/a (n/a)	94.9 (94.7)	n/a
East Anglia (Q56)	5	95.8 (95.0)	n/a (n/a)	95.8 (94.6)	n/a
Essex (Q57)	5	96.0 (95.8)	n/a (n/a)	95.7 (95.7)	n/a
Hertfordshire and the S Midlands (Q58)	5	96.9 (96.6)	n/a (n/a)	96.8 (96.5)	n/a
Leicestershire and Lincolnshire (Q59)	3	96.1 (96.4)	n/a (n/a)	95.9 (96.3)	n/a
Shropshire and Staffordshire (Q60)	5	96.5 (96.9)	98.1 (98.3)	96.4 (96.8)	n/a
Bath, Gloucestershire, Swindon and Wiltshire (Q64)	4	95.3 (95.6)	98.0 (97.0)	96.5 (95.5)	n/a
Bristol, N Somerset, Somerset and S Gloucestershire (Q65)	4	96.1 (96.0)	97.8 (97.4)	96.1 (95.9)	n/a
Devon, Cornwall, Isles of Scilly (Q66)	4	95.7 (95.3)	97.4 (97.7 ²)	95.5 (94.9)	n/a
Kent and Medway (Q67)	3	89.5 (90.7)	n/a (n/a)	89.2 (87.3)	n/a
Surrey and Sussex (Q68)	5	89.7 (88.7)	n/a (n/a)	89.7 (88.8)	n/a
Thames Valley (Q69)	4	95.4 (95.2)	95.9 (95.7)	95.1 (94.5)	n/a
Wessex (Q70)	6	95.7 (95.2)	n/a (96.1 ³)	95.8 (95.1)	n/a
London (Q71)	31	90.0 (89.6)	n/a (n/a)	90.3 (89.1)	n/a

† Primary Care Trusts/health boards.

n/a accurate estimate not available (see commentary above)

¹based on coverage data from 4 of 5 PCTs

²based on coverage data from 3 of 4 PCTs

³based on coverage data from 5 of 6 PCTs

Table 1b. UK completed primary immunisations at 12 months by former Strategic Health Authority, England: October to December 2014 (*July to September 2014*)

Former English Strategic Health Authorities (SHAs)	PCT/HB†	DTaP/IPV /Hib3 %	MenC%	PCV2%
North East	12	97.0 (97.0)	n/a (n/a)	96.9 (96.6)
North West	24	94.9 (94.2)	n/a (n/a)	94.4 (93.9)
Yorkshire and Humber	14	95.6 (96.1)	n/a (n/a)	95.5 (96.0)
East Midlands	9	96.1 (96.3)	n/a (n/a)	95.8 (95.9)
West Midlands	17	94.8 (94.9)	n/a (n/a)	94.6 (94.8)
East of England	13	96.2 (95.6)	n/a (n/a)	96.0 (95.4)
London	31	90.0 (89.6)	n/a (n/a)	90.3 (89.1)
South Central	9	95.6 (95.4)	n/a (n/a)	95.5 (95.0)
SE Coast	8	89.6 (89.6)	n/a (n/a)	89.5 (88.2)
South West	14	96.0 (95.6)	n/a (n/a)	96.0 (95.3)

† Primary Care Trusts/health boards

n/a = accurate estimate not available (see commentary above)

Coverage at 24 months

UK coverage of DTaP/IPV/Hib3 at 24 months decreased by 0.1% to 96.0% compared to the previous quarter [5]. Kent and Medway (Q67), Surrey and Sussex (Q68) and London (Q71) are the only ATs with DTaP/IPV/Hib3 coverage below the 95% target at 94.1%, 92.7% and 91.9% respectively (table 2a).

Compared to the previous quarter, UK coverage for PCV booster decreased by 0.3% to 92.4%, Hib/MenC booster decreased by 0.4% to 92.3%, and MMR1 coverage at 24 months decreased by 0.3% to 92.3% (table 2a) [5]. Country-specific comparisons for minimum coverage levels achieved for these three vaccines evaluated at 24 months show that Scotland and Northern Ireland achieved at least 95% coverage, Wales at least 94% and England at least 92%. Within England two ATs achieved at least 95% for all three vaccines (table 2a).

Table 2a. Completed primary immunisations at 24 months by country and English Area Team: October to December 2014 (July to September 2014)

Country and English Area Team (AT code*)	PCT/HB†	DTaP/IPV/Hib3 %	PCV booster %	Hib/MenC %	MMR1 %
United Kingdom	176	96.0 (96.1)	92.4 (92.7)	92.3 (92.7)	92.3 (92.6)
Wales	7	96.9 (97.1)	94.6 (94.9)	94.2 (94.3)	94.6 (95.2)
Northern Ireland	4	98.4 (98.7)	95.9 (96.6)	95.9 (96.5)	95.5 (96.4)
Scotland	14	98.2 (98.3)	95.3 (96.0)	95.5 (96.0)	95.4 (95.7)
England (Total)	151	95.6 (95.8)	91.9 (92.4)	91.8 (92.1)	91.8 (92.0)
<i>English Area Teams</i>					
Q44	4	97.1 (97.8)	94.1 (95.1)	93.4 (95.3)	95.4 (96.0)
Q45	6	97.8 (97.6)	95.5 (95.8)	95.3 (96.0)	94.5 (94.3)
Q46	10	97.1 (97.5)	93.6 (94.3)	92.9 (93.8)	93.7 (94.5)
Q47	5	95.5 (93.8)	88.2 (89.9)	87.7 (89.9)	91.7 (92.8)
Q48	4	97.0 (95.5)	94.2 (92.7)	93.7 (92.6)	93.6 (91.9)
Q49	7	96.0 (98.3)	93.6 (96.3)	93.8 (96.4)	93.6 (96.2)
Q50	5	97.4 (97.2)	95.2 (95.0)	94.1 (94.4)	94.6 (94.7)
Q51	5	96.5 (97.3)	93.1 (94.1)	93.9 (94.7)	92.8 (93.2)
Q52	5	97.4 (97.4)	95.2 (95.3)	95.2 (95.2)	94.7 (94.7)
Q53	4	98.3 (98.4)	96.2 (96.2)	95.2 (95.1)	96.5 (96.3)
Q54	8	94.8 (95.6)	91.4 (91.9)	90.7 (91.3)	91.0 (91.4)
Q55	4	97.7 (97.1)	94.1 (93.2)	94.2 (93.7)	93.7 (93.1)
Q56	5	96.9 (96.6)	94.0 (93.7)	94.0 (93.7)	93.3 (93.2)
Q57	5	97.1 (97.1)	94.6 (95.2)	95.1 (95.6)	93.9 (94.6)
Q58	5	97.3 (97.3)	95.0 (95.2)	95.2 (95.6)	94.6 (94.8)
Q59	3	97.0 (97.3)	93.5 (94.4)	93.6 (94.2)	93.5 (93.9)
Q60	5	98.1 (98.4)	95.9 (95.7)	95.3 (95.2)	95.4 (95.4)
Q64	4	97.0 (97.4)	94.5 (95.5)	93.7 (94.8)	93.5 (95.3)
Q65	4	97.1 (97.7)	93.7 (95.0)	93.1 (94.5)	93.2 (94.6)
Q66	4	96.9 (96.5)	94.2 (93.4)	93.2 (92.6)	93.9 (93.3)
Q67	3	94.1 (96.1)	88.0 (88.2)	88.4 (89.1)	87.5 (87.4)
Q68	5	91.5 (91.7)	88.0 (87.8)	87.7 (87.3)	87.5 (87.3)
Q69	4	95.7 (96.2)	93.5 (93.1)	93.5 (92.8)	93.7 (92.7)
Q70	6	96.5 (96.8)	94.4 (94.6)	93.8 (94.1)	94.0 (94.3)
Q71	31	92.3 (91.9)	85.5 (85.1)	86.1 (86.0)	86.0 (85.8)

* See table 1a for key to Area Team organisational code

† Primary Care Trusts/health boards

Table 2b. Completed primary immunisations at 24 months by former Strategic Health Authority, England: October to December 2014 (*July to September 2014*)

Former English Strategic Health Authorities (SHAs)	PCT/HB†	DTaP/IPV /Hib3 %	PCV booster %	Hib/MenC %	MMR1 %
North East	12	98.0 (98.0)	95.5 (96.0)	95.5 (96.2)	94.9 (95.2)
North West	24	96.3 (96.5)	92.4 (93.5)	91.8 (93.3)	93.2 (94.1)
Yorkshire and Humber	14	97.1 (97.3)	94.7 (94.9)	94.6 (94.8)	94.2 (94.3)
East Midlands	9	97.5 (97.4)	94.2 (94.4)	94.2 (95.5)	94.0 (94.0)
West Midlands	17	96.5 (97.0)	93.7 (94.0)	93.0 (93.2)	93.5 (93.7)
East of England	13	97.1 (96.9)	94.4 (94.4)	94.8 (94.8)	93.8 (93.9)
London	31	92.3 (91.9)	85.5 (85.1)	86.1 (86.0)	86.0 (85.8)
South Central	9	96.0 (96.4)	93.7 (93.9)	93.4 (93.4)	93.8 (93.7)
SE Coast	8	92.5 (93.5)	88.0 (88.0)	88.0 (88.0)	87.5 (87.3)
South West	14	96.9 (97.1)	94.3 (94.6)	93.5 (94.0)	93.6 (94.3)

† Primary Care Trusts/health boards

Coverage at five years

UK coverage evaluated at five years increased by 0.2% for Hib/MenC booster, 0.1% for DTaP/IPV/Hib and MMR1 and decreased by 0.1% for MMR2 and DTaP/IPV booster compared to the previous quarter [5] and at least 95% coverage was achieved for the primary course of DTaP/IPV/Hib for all countries and all but two English ATs (Surrey and Sussex (Q68), and London (Q71)) (tables 3a).

UK coverage of MMR1 at five years reached 95% for the first time. All countries and all English ATs except for Surrey and Sussex (Q68) achieved at least 90%. Scotland, Northern Ireland, Wales and 20 English ATs achieved at least 95% coverage for MMR1 and 18 achieved at least 90% for MMR2 at five years (tables 3a).

All devolved administrations and all but six English ATs achieved at least 90% coverage of the DTaP/IPV booster.

Table 3a. UK completed primary immunisations and boosters at five years by country and English Area Team: October to December 2014 (*July to September 2014*)

ENGLAND Area Team (AT) code*	Number of PCTs in AT	Primary		Booster		
		DTaP/IPV Hib %	MMR1 %	MMR2 %	DTaP/ IPV %	Hib/ MenC
United Kingdom	176	96.1 (96.0)	95.0 (94.9)	89.2 (89.3)	89.3 (89.4)	93.1 (92.9)
Wales	7	97.1 (96.4)	97.0 (96.3)	93.0 (92.6)	93.5 (92.9)	94.1 (93.2)
N. Ireland	4	97.6 (97.7)	96.8 (97.2)	93.2 (92.9)	94.3 (93.9)	96.0 (96.2)
Scotland	14	98.1 (98.4)	97.3 (97.7)	93.8 (93.9)	94.5 (94.6)	96.4 (96.4)
England (Total)	151	95.8 (95.7)	94.6 (94.5)	88.5 (88.5)	88.4 (88.6)	92.7 (92.5)
<i>English Area Teams</i>						
Q44	4	96.7 (96.7)	95.9 (95.9)	91.0 (91.3)	91.7 (91.7)	93.5 (93.4)
Q45	6	97.9 (98.0)	96.0 (95.4)	93.6 (93.6)	94.2 (94.3)	96.3 (96.0)
Q46	10	97.1 (97.1)	96.6 (96.7)	92.1 (92.3)	92.2 (92.3)	93.0 (93.1)
Q47	5	96.7 (96.3)	96.2 (96.5)	87.5 (87.1)	83.9 (84.4)	93.7 (93.4)
Q48	4	96.8 (96.0)	97.0 (95.4)	91.1 (88.1)	91.1 (88.0)	95.3 (93.1)
Q49	7	98.4 (97.8)	98.0 (96.9)	94.5 (93.6)	95.0 (94.2)	95.6 (94.5)
Q50	5	96.9 (96.5)	95.8 (95.8)	92.4 (92.3)	93.1 (92.9)	93.5 (93.0)
Q51	5	96.7 (96.9)	95.3 (95.7)	90.0 (90.6)	90.7 (91.3)	95.1 (95.7)
Q52	5	97.0 (97.3)	96.8 (96.6)	93.0 (92.8)	93.0 (93.2)	95.8 (95.8)
Q53	4	97.3 (97.3)	96.5 (97.2)	93.8 (93.9)	94.9 (94.7)	92.5 (91.8)
Q54	8	96.2 (95.8)	94.9 (94.5)	88.4 (87.7)	88.6 (88.3)	92.3 (91.2)
Q55	4	97.6 (98.1)	96.1 (96.1)	91.6 (90.9)	91.6 (91.6)	95.8 (94.7)
Q56	5	96.3 (95.7)	94.2 (93.5)	89.8 (89.4)	90.8 (90.1)	93.1 (92.7)
Q57	5	97.4 (97.1)	95.9 (95.2)	92.8 (92.0)	93.8 (93.2)	96.2 (95.7)
Q58	5	96.2 (96.3)	95.4 (95.2)	91.6 (91.5)	92.5 (92.7)	94.6 (94.3)
Q59	3	96.8 (97.3)	96.0 (96.2)	91.0 (91.4)	91.6 (94.7)	93.3 (94.5)
Q60	5	98.0 (97.6)	96.5 (96.5)	92.5 (92.8)	93.2 (93.6)	96.0 (95.3)
Q64	4	96.7 (97.0)	95.5 (96.6)	91.7 (91.3)	92.6 (92.3)	93.9 (93.9)
Q65	4	97.8 (97.7)	96.8 (96.1)	91.5 (91.1)	91.8 (92.2)	95.0 (93.8)
Q66	4	96.9 (96.6)	95.5 (95.5)	91.4 (91.4)	92.3 (92.4)	93.6 (93.2)
Q67	3	95.2 (94.9)	93.3 (92.9)	80.2 (81.3)	81.0 (82.2)	92.9 (92.6)
Q68	5	91.9 (91.9)	89.8 (90.0)	82.7 (82.8)	83.4 (83.3)	88.5 (89.3)
Q69	4	95.8 (95.8)	95.1 (95.0)	89.5 (89.9)	89.3 (89.5)	93.1 (93.4)
Q70	6	96.6 (96.2)	95.0 (94.6)	90.7 (90.8)	91.3 (91.5)	93.1 (92.9)
Q71	31	92.8 (92.4)	91.2 (91.3)	80.5 (80.8)	78.0 (78.2)	88.0 (88.1)

* See table 1a for key to Area Team organisational code.

3b. Completed primary immunisations and boosters at five years by former Strategic Health Authority, England: October to December 2014 (*July to September 2014*)

Former English SHAs	PCT/ HB †	Primary		Booster		
		DTaP/IPV /Hib3 %	MMR1%	MMR2 %	DTaP/ IPV %	Hib/ MenC
North East	12	98.1 (98.0)	97.0 (96.7)	93.9 (93.5)	94.4 (94.2)	95.9 (95.6)
North West	24	97.0 (96.7)	96.6 (96.3)	91.1 (90.6)	90.6 (90.1)	93.7 (93.1)
Yorkshire and Humber	14	96.9 (97.0)	96.1 (96.2)	92.2 (92.2)	92.5 (92.8)	95.0 (95.0)
East Midlands	9	97.2 (97.6)	96.1 (96.1)	91.3 (91.4)	92.1 (93.3)	94.6 (94.7)
West Midlands	17	96.9 (96.7)	95.7 (95.7)	90.9 (90.7)	91.4 (91.4)	93.3 (92.4)
East of England	13	96.5 (96.3)	95.1 (94.5)	91.1 (90.7)	92.0 (91.6)	94.6 (94.0)
London	31	92.8 (92.4)	91.2 (91.3)	80.5 (80.8)	78.0 (78.2)	88.0 (88.1)
South Central	9	95.8 (95.7)	94.9 (94.7)	89.9 (90.0)	90.1 (90.2)	92.6 (92.9)
SE Coast	8	93.2 (93.1)	91.2 (91.1)	81.7 (82.2)	82.5 (82.9)	90.3 (90.6)
South West	14	97.2 (97.2)	95.9 (96.0)	91.6 (91.4)	92.3 (92.6)	94.4 (93.8)

† Primary Care Trusts/health boards

Neonatal hepatitis B vaccine coverage in England: October to December 2014

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 and December 2013), and coverage of four doses of vaccine in infants who reached two years of age (i.e. those born between October and December 2012) are presented by Area Team in table 4a below. Table 4b shows coverage by SHA for historical comparison.

PHE received 12 month coverage and 24 month coverage returns for 138 (91%) former PCTs, the highest participation rate recorded for this collection. The quality of these data is still variable and should be interpreted with caution. Where a zero was reported a check was made to ensure that this was a true zero rather than due to no data being available. Eighteen of the 25 ATs were able to provide data for the whole patch (table 4a).

12 month coverage of three doses of Hep B in England decreased by 2% to 85% when compared to the last quarter [5], and coverage of four doses at 24 months decreased by 7% to 72%, returning to the level reported in the April to June 2014 report [10].

**Table 4a. Neonatal hepatitis B coverage in England by English Area Team:
October to December 2014 (*July to September 2014*)**

Area Team (AT code)	PCT returns with 12 month data	12 month deno- minator	Coverage at 12 months	PCT returns with 24 month data	24 month deno- minator	Coverage at 24 months
Q44	4 of 4	9	100 (100)	4 of 4	5	100 (100)
Q45	6 of 6	3	100 (100)	6 of 6	4	100 (100)
Q46	9 of 10	63	70 (77)	9 of 10	103	44 (40)
Q47	2 of 5	0	– (–)	2 of 5	0	– (–)
Q48	4 of 4	3	33 (86)	4 of 4	9	78 (100)
Q49	7 of 7	6	100 (100)	7 of 7	10	100 (100)
Q50	5 of 5	7	71 (100)	5 of 5	2	100 (100)
Q51	5 of 5	19	100 (100)	5 of 5	13	92 (100)
Q52	5 of 5	30	97 (100)	5 of 5	38	76 (97)
Q53	3 of 4	9	100 (100)	3 of 4	8	88 (100)
Q54	5 of 8	20	70 (42)	5 of 8	23	52 (67)
Q55	4 of 4	10	100 (94)	4 of 4	13	75 (67)
Q56	5 of 5	11	100 (75)	5 of 5	11	91 (100)
Q57	5 of 5	19	100 (71)	5 of 5	18	94 (88)
Q58	5 of 5	30	100 (100)	5 of 5	27	93 (93)
Q59	2 of 3	3	33 (–)	2 of 3	12	58 (–)
Q60	5 of 5	6	100(100)	5 of 5	10	67 (100)
Q64	4 of 4	6	83 (100)	4 of 4	6	83 (100)
Q65	4 of 4	9	78 (100)	4 of 4	0	– (50)
Q66	4 of 4	1	100 (100)	4 of 4	2	100 (100)
Q67	3 of 3	8	13 (40)	3 of 3	12	75 (50)
Q68	5 of 5	11	82 (100)	5 of 5	21	76 (90)
Q69	4 of 4	27	96 (100)	4 of 4	29	79 (93)
Q70	5 of 6	6	100(67)	5 of 6	5	100 (50)
Q71	28 of 31	163	85 (93)	28 of 31	161	75 (87)
England	138 of 151	479	85 (87)	138 of 151	542	72 (79)

Notes: "–" indicates "no data available" for the denominator but "not applicable" for coverage; see table 1a for key to Area Team organisational codes.

**Table 4b. Neonatal hepatitis B coverage in England by former Strategic Health Authority:
October to December 2014 (*July to September 2014*)**

English SHAs	PCT returns with 12 month data	12 month denominator	Coverage at 12 months	PCT returns with 24 month data	24 month denominator	Coverage at 24 months
North East	12 of 12	9	100 (100)	12 of 12	14	100 (100)
North West	20 of 24	75	72 (78)	20 of 24	117	49 (48)
Yorkshire and Humber	14 of 14	56	95 (100)	14 of 14	53	81 (98)
East Midlands	8 of 9	16	88 (95)	8 of 9	35	71 (79)
West Midlands	13 of 17	35	83 (68)	13 of 17	41	68 (78)
East of England	13 of 13	47	100 (81)	13 of 13	41	95 (91)
London	28 of 31	163	85 (93)	28 of 31	161	75 (87)
South Central	8 of 9	42	98 (100)	8 of 9	39	82 (94)
SE Coast	8 of 8	19	53 (63)	8 of 8	33	76 (75)
South West	14 of 14	17	82 (92)	14 of 14	8	88 (86)
England	139 of 151	495	83 (87)	136 of 151	557	69 (79)

Relevant links for country-specific coverage data

England

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

Northern Ireland

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

Scotland

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

Wales

<http://www.wales.nhs.uk/sitesplus/888/page/43510>

Other relevant links

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

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 10. Public Health England (2014). Vaccination coverage statistics for children up to the age of five years in the United Kingdom, April to June 2014. *HPR* 8(37). Available at: <https://www.gov.uk/government/statistics/cover-of-vaccination-evaluated-rapidly-cover-programme-2014-to-2015-quarterly-data>.
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