

Vaccine Uptake in Children in Wales

COVER Annual report 2015

Data for the year ending 31st March 2015



Key points

- In 2014/15 uptake of all established routine immunisations in one year old children for Wales was over 95% for the seventh consecutive year. Twenty of the 22 Local Authority areas exceeded the 95% uptake target for the 5 in 1 immunisation in one year olds.
- Uptake of two doses of rotavirus vaccine was 83.6% at the first birthday representing uptake in the first cohort of children eligible for this new vaccine.
- Uptake of the first dose of MMR at 2 years remains above target at 95.8%.
- In 2014/15, 86.2% of children were up to date with recommended immunisations by their fourth birthday, an increase of 5.4% since 2011/12, although lower than last year overall, but increased in two Health Boards.
- Uptake of the second dose of MMR by 5 years of age increased to 93.1%, the highest ever annual uptake of MMR2 at five years of age, following a positive trend since 2006.
- Uptake of pre-school 4 in 1 booster in five year old children rose to 93.4%.
- Uptake of a complete three dose course of Human Papilloma Virus (HPV) vaccine in girls in the routine campaign (2013/14 School Year 8) was 83.5%, lower than in previous years.

Findings

1. These results are for children living in Wales in June 2015 and reaching their first, second, fourth, fifth, 15th and 16th birthdays in the year ending March 31st 2015, and girls in School Year 8 in 2013/2014.
2. Annual uptake of the completed course of '5 in 1'¹ vaccine, scheduled at 2, 3 and 4 months of age, in children reaching their first birthday decreased slightly to 96.6%. Uptake ranged by Health Board (HB) from 94.0% (Cardiff and Vale University HB) to 98.4% (Cwm Taf University HB) and by Local Authority (LA) from 93.4% (Cardiff) to 98.8% (Merthyr Tydfil). Twenty of the 22 LAs achieved the 95% target (Figures 1, 2, 4, 6 and Tables 2, 3).
3. Annual uptake of a completed one dose course of MenC² vaccine in children reaching their first birthday this year was 97.2% ranging by HB from 94.8% (Cardiff and Vale University HB) to 98.5% (Cwm Taf University HB) and by LA from 94.3% (Cardiff) to 99.2% (Blaenau Gwent) (Figures 1, 2 and Tables 2, 3).
4. Uptake of a complete two dose primary course of pneumococcal conjugate vaccination (PCV2³) in children at one year of age was 96.3%, ranging by HB from 93.1% (Cardiff and Vale University HB) to 98.2% (Cwm Taf University HB) and by LA from 92.5% (Cardiff) to 99.0% (Blaenau Gwent) (Figures 1, 2 and Table 3).
5. Uptake of two doses of rotavirus vaccine in children reaching their first birthday was 83.6%, ranging by HB from 78.6% (Cardiff & Vale University HB) to 89.4% (Cwm Taf University HB) and by LA from 77.1% (Cardiff) to 90.0% (Rhondda Cynon Taff) (Figure 2, Tables 2 and 3). This is the first group of children reported through the annual COVER scheme who would have been eligible to receive rotavirus vaccine. Quarterly COVER report data suggest that uptake will increase for the next annual COVER report.

¹ DTaP/IPV/Hib vaccine protects against diphtheria, tetanus, pertussis (Whooping Cough), polio and Hib infection.

² MenC vaccine protects against meningitis caused by meningococcus group C infection. Children reaching one year of age would have been offered one dose of MenC vaccine at 3 months of age.

³ PCV protects against pneumococcal meningitis, bacteraemia, pneumonia and otitis media. Children reaching one year of age would have been offered one dose of PCV at 2 months of age and one dose at 4 months of age. Children reaching two years would have been offered their third and final PCV dose at 12-13 months of age.

⁴ MMR protects against measles, mumps and rubella infections.

6. Uptake of one dose of MMR⁴ by two years of age decreased this year to 95.8% from 96.5% last year. Uptake ranged by HB from 94.3% (Cardiff and Vale University HB) to 96.8% (Cwm Taf University HB) and by LA from 93.9% (Cardiff) to 98.0% (Anglesey). Five HBs achieved the target uptake of 95% for one dose of MMR by two years of age, and 19 out of 22 LAs exceeded the 95% target (Figures 1, 4 and 7 and Tables 2, 4).
7. Annual uptake of the final dose of Pneumococcal Conjugate Vaccine (PCVf³) by two years of age was 95.7%. Uptake by HB ranged from 93.7% (Cardiff and Vale University HB) to 97.1% (Cwm Taf University HB) and by LA from 93.1% (Cardiff) to 98.3% (Anglesey) (Tables 2, 4).
8. Annual uptake of the Hib/MenC⁵ booster by two years of age was 95.0%, ranging by HB from 92.9% (Cardiff and Vale University HB) to 96.6% (Cwm Taf University HB) and by LA from 92.1% (Cardiff) to 97.6% (Anglesey) (Tables 2, 4).
9. Coverage of the Hib/MenC⁵ booster in children by the time of their fourth birthday was 95.3% and ranged by HB from 93.1% (Cardiff and Vale University HB) to 96.8% (Betsi Cadwaladr University HB) (Figure 2, Tables 1 and 5).
10. This year, coverage of the '4 in 1' DTaP/IPV⁶ pre-school booster in children by four years of age was 88.0%, this ranged by HB from 85.4% (Aneurin Bevan University HB) to 91.8% (Betsi Cadwaladr University HB) (Figure 3, Tables 1 and 5).
11. Coverage of a complete two dose course of MMR⁴ vaccine in children by four years of age was 89.6%, this ranged by HB from 86.7% (Cardiff and Vale University HB) to 91.4% (Betsi Cadwaladr University HB) (Figure 3, Tables 1 and 5).
12. The proportion of children who were up to date with their Hib/MenC⁵ booster, '4 in 1' DTaP/IPV⁶ pre-school booster and MMR vaccines by four years of age was 86.2%, a 1.7% decrease from 87.9% in 2013/14. (Table 1, Figure 3). This ranged by HB from 83.2% (Aneurin Bevan University HB) to 90.4% (Betsi Cadwaladr University HB) and by LA from 81.0% (Newport) to 92.2% (Anglesey).
13. Annual uptake of two doses of MMR in children at five years of age was 93.1% this year, compared to 92.6% last year (Figures 1, 5, 8, Tables 2, 6), ranging by HB from 90.4% (Powys Teaching HB) to 94.4% (Betsi Cadwaladr University HB and Cwm Taf University HB). Coverage of one dose of MMR in children at five years of age was 97.0% and ranged by HB from 95.4% (Powys Teaching HB) to 98.2% (Cwm Taf University HB).
14. Uptake of the '4 in 1' DTaP/IPV⁶ pre-school booster in children reaching their fifth birthday this year was 93.4%, compared to 93.2% in the previous year (Figures 5, 9, Tables 2, 6).
15. Coverage of all three doses of HPV vaccine in girls in the 2013/14 School Year 8 (reaching their 14th birthday between 01/09/14 and 31/08/15) was 83.5%, ranging by HB from 74.1% (Cardiff and Vale University HB) to 92.2% (Cwm Taf University HB) and by LA from 71.4% (Monmouthshire) to 92.3% (Rhondda Cynon Taf) (Table 7). This is the last group of girls to be offered a three dose course of HPV vaccination. Girls in the current School Year 8 group are scheduled to receive a two dose course of HPV vaccination, uptake in this group was recently reported in Public Health Wales [COVER Report 114](#).
16. Annual coverage of two doses of MMR in teenagers at 15 years of age was 90.1% (Table 8), ranging by HB from 87.1% (Powys Teaching HB) to 91.6% (Cwm Taf University HB) and by LA from 84.9% (Monmouthshire) to 93.9% (Wrexham). Coverage of one dose of MMR in 15 year olds was 95.3%, ranging by HB from 93.2% (Powys Teaching HB) to 96.7% (Cwm Taf University HB) and by LA from 90.9% (Monmouthshire) to 97.9% (Caerphilly). A breakdown by sex indicates that 90.8% of girls had received a full (two MMR doses) course of immunisation against rubella this year and coverage of only one dose was 95.6%.

⁵ Hib/MenC vaccine protects against Hib and MenC infections and a routine dose should be offered at 12-13 months of age

⁶ DTaP/IPV (and dTaP/IPV) vaccines boost protection against diphtheria, tetanus, pertussis and polio infection before school entry

17. National uptake of the Td/IPV⁷ teenage booster in children reaching 15 years of age in the year ending 31st March 2015 was 79.6%, an increase of 2.0% from 77.6% in the previous year (Table 8). Uptake ranged by HB from 68.1% (Aneurin Bevan University HB) to 88.8% (Cwm Taf University HB) and by LA from 64.9% (Monmouthshire) to 89.6% (Merthyr Tydfil).
18. Annual coverage of two doses of MMR in teenagers at 16 years of age was 90.1% (Tables 2, 9), ranging by HB from 87.3% (Cardiff and Vale University HB) to 92.8% (Cwm Taf University HB) and by LA from 81.7% (Monmouthshire) to 93.9% (Wrexham). Annual coverage of one dose of MMR in 16 year olds was 95.3%, ranging by LA from 88.8% (Monmouthshire) to 98.1% (Blaenau Gwent). A breakdown by sex indicates that 90.6% of girls had received a full (two MMR doses) course of immunisation against rubella this year and coverage of only one dose was 95.6%.
19. National uptake of the Td/IPV⁷ teenage booster in children reaching 16 years of age in the year ending 31st March 2015 was 82.0% (Tables 2 and 9).
20. The relationship between deprivation and uptake was examined. The percentage of children who were up to date with their routine vaccinations by four years of age is presented broken down by Health Board and the national quintile of deprivation of the Lower Super Output Area (LSOA) in which the children reside (Figure 9 and Table 10). National quintiles of deprivation were calculated according to the LSOA rankings contained in the Welsh Index of Multiple Deprivation (WIMD 2014). For the data presented here, quintile five represents the most deprived quintile of LSOA and quintile one represents the least deprived quintile of LSOA. Deprivation rankings contained in the WIMD are relative, not absolute values and they refer to an overall composite measure of factors related to deprivation for the LSOA as a whole, not the individual circumstances of residents within the LSOA. Nationally, the percentage of children up to date with their routine immunisations by four years of age ranged from 89.4% in the least deprived quintile of LSOA to 82.7% in the most deprived quintile of LSOA. The difference in uptake between the least deprived quintile and the most deprived quintile was 6.7%, an increase from 5.2% in 2013/14.
21. Uptake of hepatitis B immunisation, extracted from the Public Health Wales All Wales Neonatal Hepatitis B immunisation database, is presented in Table 11. The database was developed to assist the Public Health Wales Health Protection Team in the monitoring and follow up of hepatitis B immunisation of babies born to hepatitis B positive mothers and to provide a source for statistics on uptake of hepatitis B immunisation in this group. Uptake of three doses in children who were at risk of perinatal infection and reached their first birthday in the year ending 31st March 2015 was 98.3%. Uptake of four doses in children who were at risk of perinatal infection and reached their second birthday in the year ending 31st March 2015 was 95.1%. Uptake of four doses in children who were at risk of perinatal infection and reached their fifth birthday in the year ending 31st March 2015 was 96.4%.

⁷ Td/IPV boosts protection against diphtheria, tetanus and polio infection before entering adulthood

Comment

Uptake in 2014/15 overall continues on the positive trend seen since 2006, reflecting significant effort in practices and Health Boards to maintain and improve uptake, especially in adolescent immunisation and MMR. However, there remain areas for further work, in particular ensuring children are fully up to date with routine immunisations by school entry, reflected in the Welsh Government target at 4 years of age, and also establishing new immunisation programmes. Recent changes and additions to the routine schedule of childhood immunisations in 2013-14 included introduction of a teenage booster for MenC¹ and adding rotavirus and influenza vaccinations to the infant schedule^{2,3}. Although trends are positive over the last four years, slight falls were seen in the coverage of routine immunisations in children aged one and two years. Uptakes of all established immunisations remain above 95% in younger children up to two years of age.

This is the first annual report which contains rotavirus immunisation uptake figures for children aged one year, representing uptake in the first cohort of children who would have been scheduled to receive the vaccine introduced from 1st July 2013². Of the children reaching their first birthday during April 2014 to March 2015, those children born at the start of the period would have been near the upper age limit for eligibility to receive the first dose of rotavirus vaccine and would have not had the same follow-up opportunity as children born in subsequent months. As a result, it is expected that uptake of rotavirus vaccine will rise.

The trend in the proportion of children who are up to date with their routine immunisations by four years of age has been positive overall since 2011/12. However this year it decreased to 86.2% from 87.9% last year. One Health Board and five LA's achieved above 90%. Of all the immunisations that are included in this composite measure, uptake of the '4 in 1' pre-school booster saw the largest decrease followed by the second dose of MMR vaccine, both scheduled at three years four months of age. The gap in immunisation coverage between four year olds residing in the most and least deprived areas increased slightly to 6.7% this year but remained lower than the 9% gap reported in 2012-13.

Trends in uptake of routine immunisations in older children continue to be very positive. Uptake of one dose of MMR in 15 and 16 year olds exceeded 95% with over 90% of teenagers receiving the second dose of MMR. These figures represent the highest ever reported annual national coverage of MMR in teenagers. Uptake of the teenage booster against diphtheria, tetanus and polio increased further this year, particularly in 15 year olds which showed an 8% increase compared to last year. All Health Boards delivering the teenage booster in schools now offer the vaccines in academic Year 9. Some Health Boards previously offered teenage vaccines in practices or at a later age, but based on evidence of improved uptake have moved to a Year 9 school based service. Only one Health Board now offers a GP based service to teenagers.

This report contains the last routine group of girls to be offered a three dose course of HPV vaccination given the recent change in the HPV vaccination programme in September 2014 from a three dose to a two dose course schedule⁴. Uptake of two doses of HPV was 87.8% with uptake of three doses at 83.4% in girls reaching their 14th birthday (2013/14 School Year 8).

[1] Welsh Government (2013) Important changes to the schedule for Meningococcal Serogroup C Conjugate vaccine, CMO letter (2013)10. Available from: <http://gov.wales/docs/phhs/publications/130524changesen.pdf>

[2] Welsh Government (2013) Important changes to the National Immunisation Programme in 2013-14 and introduction of rotavirus vaccination for babies at 2 and 3 months of age, CMO letter (2013)09. Available from: <http://wales.gov.uk/docs/phhs/publications/130524rotavirusen.pdf>

[3] Welsh Government (2013) 2013-13 Seasonal Flu Vaccination Programme, CMO letter (2013)6. Available from: <http://gov.wales/docs/phhs/publications/130816fluen.pdf>

[4] Welsh Government (2014) Changes to the Human Papillomavirus (HPV) vaccination programme from September 2014, CMO letter (2014)13. Available from: <http://gov.wales/docs/phhs/publications/140707vaccinationen.pdf>

Report prepared by Public Health Wales Vaccine Preventable Disease Programme and Communicable Disease Surveillance Centre. Data for this report was provided by NHS Wales Informatics Service from the National Community Child Health Database (NCCHD). The data was sourced from Community Child Health databases maintained by local Child Health Office staff in Trusts throughout Wales based on regular returns from doctors and nurses who immunise or advise on immunisation. Uptake data presented throughout are for LHB resident population, not for LHB GP practice populations. The maps, graphs and Table 1 are best viewed in colour.

Figure 1. Percentage uptake of childhood immunisations in Wales, quarter 1 1997 to quarter 1 2015. Data are for children reaching 1 year of age each quarter for diphtheria, pertussis, Hib, MenC⁸ and pneumococcal conjugate vaccine, children reaching 2 years of age for MMR1 (first dose) and the Hib MenC booster, and 5 years of age for MMR2 (second dose).

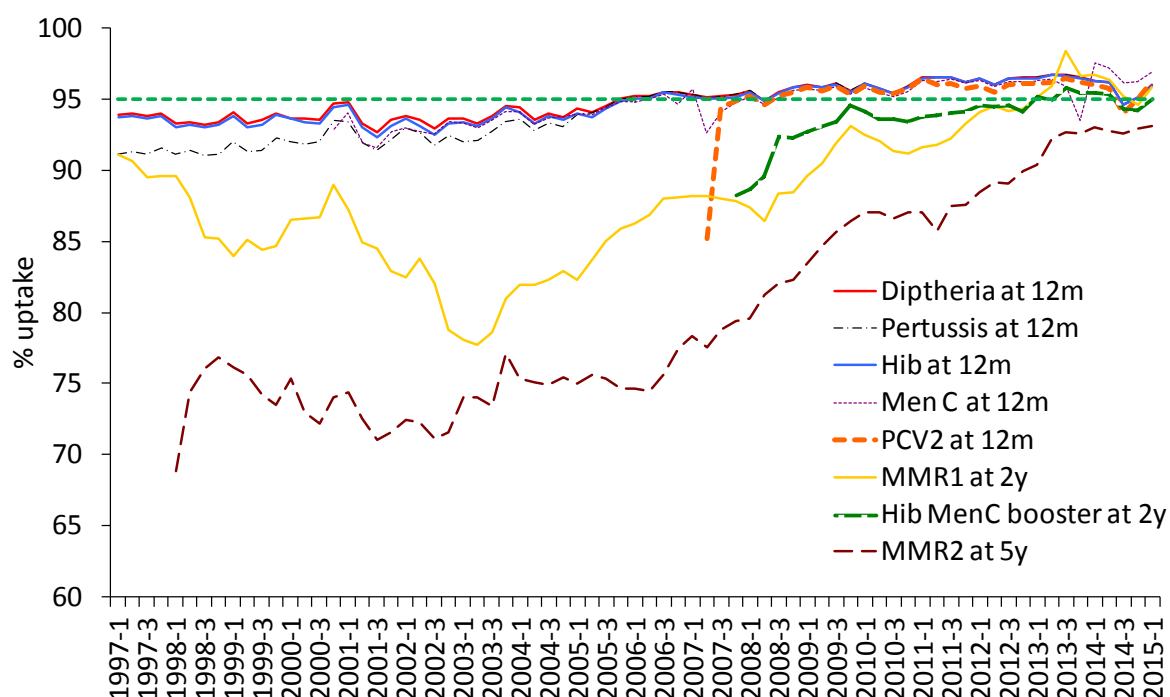


Figure 2. Summary of uptake rates for selected immunisations⁸ in resident children reaching their 1st, 2nd, 5th and 16th birthday between 01/04/2014 and 31/03/2015 and resident on 31/03/2015.

All Wales Summary - COVER 2014/15

5 in 1 primary by age 1y (3 doses)	96.6%
MenC primary by age 1y (1 dose)	97.2%
Rotavirus primary by age 1yr (2 doses)	83.6%
PCV primary by age 1y (2 doses)	96.3%
MMR by age 2y (1st dose)	95.8%
PCV by age 2y (final (3rd) dose)	95.7%
Hib/MenC booster by age 2y	95.0%
MMR by age 5y (2nd dose)	93.1%
4 in 1 pre-school booster by age 5y	93.4%
MMR coverage (1 dose) by age 16y	95.3%
MMR coverage (2 doses) by age 16y	90.1%
3 in 1 Teenage booster by age 16y	82.0%

⁸ MenC uptake for children reaching one year of age is based on a completed one dose course of MenC vaccination due to the MenC programme change from a two dose to a one dose primary course in June 2013.

Figure 3. Percentage uptake of resident children reaching their 4th birthday between 01/04/14 and 31/03/15 and are up to date with all scheduled vaccines⁹ by Health Board.

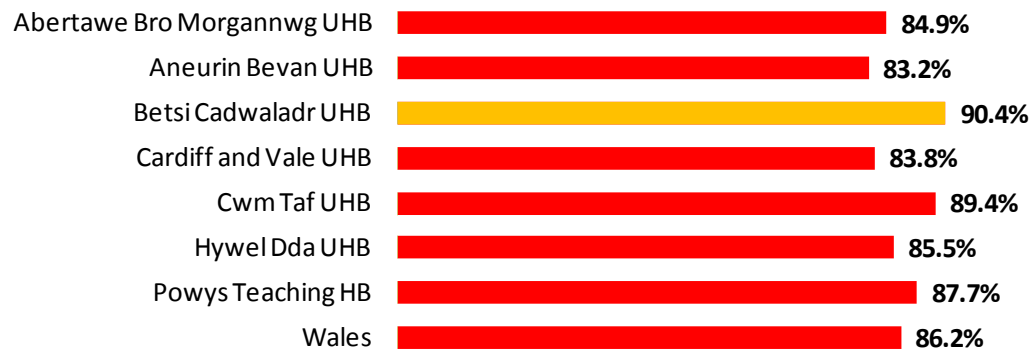


Table 1. Percentage uptake of resident children reaching their 4th birthday between 01/04/14 and 31/03/15 and are up to date with all scheduled vaccines⁹ by Health Board, annual 2011/12 to annual 2014/15.

Area	Up to date in schedule			
	2011/12	2012/13	2013/14	2014/15
Abertawe Bro Morgannwg UHB	80.7	82.6	87.4	84.9
Aneurin Bevan UHB	80.9	80.9	86.6	83.2
Betsi Cadwaladr UHB	83.3	85.1	89.9	90.4
Cardiff and Vale UHB	78.0	79.2	85.6	83.8
Cwm Taf UHB	83.1	85.0	90.8	89.4
Hywel Dda UHB	78.4	80.8	88.5	85.5
Powys Teaching HB	81.4	84.7	87.0	87.7
Wales	80.8	82.4	87.9	86.2

⁹ Completed 4 in 1 pre-school booster, the Hib/MenC booster and second MMR dose by four years of age. The calculation method for proportions of children up to date with routine immunisation by four years of age was revised during 2014 quarter 1, to remove the pneumococcal conjugate vaccine booster dose, as this is not clinically indicated after two years of age.

Table 2. Summary table with uptake of selected immunisations in resident children reaching their 1st, 2nd, 4th, 5th and 16th birthday between 01/04/2014 and 31/03/2015 and resident on 31/03/2015.

Area	Age 1 year					Age 2 years					Age 4 years			Age 5 years			Age 16 years												
	Resident children (n)	5 in 1* (n) (%)		MenC** (n) (%)		Rotavirus (n) (%)		Resident children (n)	MMR1 (n) (%)		PCV† (n) (%)		Hib/MenC booster (n) (%)	Resident children (n)	Up to date in schedule*** (n) (%)		Resident children (n)	MMR2 (n) (%)		4 in 1† (n) (%)		Resident children (n)	MMR1 (n) (%)		MMR2 (n) (%)		3 in 1 Teenage booster**** (n) (%)		
Abertawe Bro Morgannwg University LHB																													
Bridgend LA	1532	1492	97.4	1504	98.2	1340	87.5	1600	1552	97.0	1544	96.5	1536	96.0	1631	1372	84.1	1623	1528	94.1	1498	92.3	1586	1529	96.4	1469	92.6	1240	78.2
Neath Port Talbot LA	1462	1426	97.5	1441	98.6	1229	84.1	1498	1440	96.1	1420	94.8	1413	94.3	1617	1400	86.6	1562	1477	94.6	1464	93.7	1572	1539	97.9	1460	92.9	1338	85.1
Swansea LA	2501	2422	96.8	2440	97.6	2111	84.4	2587	2496	96.5	2487	96.1	2465	95.3	2685	2265	84.4	2654	2466	92.9	2464	92.8	2461	2366	96.1	2194	89.2	2098	85.2
Health Board Total	5495	5340	97.2	5385	98.0	4680	85.2	5685	5488	96.5	5451	95.9	5414	95.2	5933	5037	84.9	5839	5471	93.7	5426	92.9	5619	5434	96.7	5123	91.2	4676	83.2
Aneurin Bevan University LHB																													
Blaenau Gwent LA	799	786	98.4	793	99.2	658	82.4	790	770	97.5	770	97.5	767	97.1	775	644	83.1	782	728	93.1	735	94.0	776	761	98.1	722	93.0	626	80.7
Caerphilly LA	2013	1978	98.3	1992	99.0	1761	87.5	2085	2020	96.9	2022	97.0	2010	96.4	2175	1841	84.6	2160	2040	94.4	2033	94.1	2084	2024	97.1	1919	92.1	1705	81.8
Monmouthshire LA	768	735	95.7	738	96.1	632	82.3	866	819	94.6	819	94.6	817	94.3	886	766	86.5	901	823	91.3	825	91.6	1081	960	88.8	883	81.7	842	77.9
Newport LA	1898	1830	96.4	1852	97.6	1568	82.6	1931	1841	95.3	1840	95.3	1808	93.6	2010	1629	81.0	2002	1820	90.9	1806	90.2	1937	1824	94.2	1709	88.2	1480	76.4
Torfaen LA	1061	1045	98.5	1048	98.8	903	85.1	1122	1086	96.8	1083	96.5	1080	96.3	1108	908	81.9	1088	1012	93.0	1011	92.9	1116	1084	97.1	1037	92.9	915	82.0
Health Board Total	6539	6374	97.5	6423	98.2	5522	84.4	6794	6536	96.2	6534	96.2	6482	95.4	6954	5788	83.2	6933	6423	92.6	6410	92.5	6994	6653	95.1	6270	89.6	5568	79.6
Betsi Cadwaladr University LHB																													
Anglesey LA	739	719	97.3	730	98.8	616	83.4	805	789	98.0	791	98.3	786	97.6	803	740	92.2	781	740	94.8	743	95.1	745	720	96.6	693	93.0	637	85.5
Conwy LA	1057	1019	96.4	1034	97.8	894	84.6	1141	1092	95.7	1093	95.8	1084	95.0	1142	1007	88.2	1170	1096	93.7	1098	93.8	1197	1145	95.7	1104	92.2	1054	88.1
Denbighshire LA	1041	995	95.6	1010	97.0	825	79.3	1035	986	95.3	990	95.7	984	95.1	1091	962	88.2	1068	1000	93.6	1011	94.7	1148	1103	96.1	1026	89.4	974	84.8
Flintshire LA	1593	1559	97.9	1558	97.8	1336	83.9	1658	1606	96.9	1599	96.4	1591	96.0	1715	1560	91.0	1780	1676	94.2	1700	95.5	1743	1690	97.0	1612	92.5	1501	86.1
Gwynedd LA	1181	1145	97.0	1132	95.9	969	82.0	1298	1235	95.1	1234	95.1	1235	95.1	1223	1118	91.4	1270	1210	95.3	1213	95.5	1265	1212	95.8	1173	92.7	1093	86.4
Wrexham LA	1607	1567	97.5	1578	98.2	1339	83.3	1660	1616	97.3	1616	97.3	1597	96.2	1675	1524	91.0	1669	1582	94.8	1585	95.0	1418	1376	97.0	1331	93.9	1185	83.6
Health Board Total	7218	7004	97.0	7042	97.6	5979	82.8	7597	7324	96.4	7323	96.4	7277	95.8	7649	6911	90.4	7738	7304	94.4	7350	95.0	7516	7246	96.4	6939	92.3	6444	85.7
Cardiff and Vale University LHB																													
Cardiff LA	4530	4232	93.4	4273	94.3	3493	77.1	4563	4285	93.9	4248	93.1	4201	92.1	4588	3783	82.5	4509	4087	90.6	4111	91.2	3732	3473	93.1	3224	86.4	2853	76.4
Vale of Glamorgan LA	1340	1284	95.8	1293	96.5	1118	83.4	1409	1346	95.5	1349	95.7	1347	95.6	1448	1275	88.1	1566	1470	93.9	1486	94.9	1492	1402	94.0	1337	89.6	1240	83.1
Health Board Total	5870	5516	94.0	5566	94.8	4611	78.6	5972	5631	94.3	5597	93.7	5548	92.9	6036	5058	83.8	6075	5557	91.5	5597	92.1	5224	4875	93.3	4561	87.3	4093	78.3
Cwm Taf University LHB																													
Merthyr Tydfil LA	670	662	98.8	663	99.0	584	87.2	720	700	97.2	704	97.8	700	97.2	702	622	88.6	671	631	94.0	643	95.8	670	646	96.4	617	92.1	601	89.7
Rhondda Cynon Taff LA	2698	2653	98.3	2656	98.4	2428	90.0	2727	2636	96.7	2643	96.9	2631	96.5	2796	2505	89.6	2757	2604	94.5	2623	95.1	2568	2509	97.7	2388	93.0	2281	88.8
Health Board Total	3368	3315	98.4	3319	98.5	3012	89.4	3447	3336	96.8	3347	97.1	3331	96.6	3498	3127	89.4	3428	3235	94.4	3266	95.3	3238	3155	97.4	3005	92.8	2882	89.0
Hywel Dda University LHB																													
Carmarthenshire LA	1850	1784	96.4	1801	97.4	1585	85.7	1892	1805	95.4	1795	94.9	1786	94.4	2003	1685	84.1	1907	1776	93.1	1771	92.9	1684	1598	94.9	1512	89.8	1393	82.7
Ceredigion LA	642	610	95.0	610	95.0	513	79.9	695	661	95.1	669	96.3	669	96.3	717	647	90.2	661	624	94.4	629	95.2	684	648	94.7	612	89.5	588	86.0
Pembrokeshire LA	1180	1119	94.8	1141	96.7	990	83.9	1273	1199	94.2	1204	94.6	1189	93.4	1333	1135	85.1	1306	1200	91.9	1208	92.5	1399	1296	92.6	1213	86.7	1060	75.8
Health Board Total	3672	3513	95.7	3552	96.7	3088	84.1	3860	3665	94.9	3668	95.0	3644	94.4	4053	3467	85.5	3874	3600	92.9	3608	93.1	3767	3542	94.0	3337	88.6	3041	80.7
Powys Teaching LHB																													
Unknown	1150	1104	96.0	1106	96.2	952	82.8	1219	1161	95.2	1163	95.4	1161	95.2	1255	1101	87.7	1273	1151	90.4	1176	92.4	1495	1386	92.7	1312	87.8	1096	73.3
Unknown	99	98	99.0	97	98.0	79	79.8	103	96	93.2	97	94.2	96	93.2	77	72	93.5	102	92	90.2	93	91.2	185	150	81.1	135	73.0	122	65.9
Wales Total	33411	32266	96.6	32490	97.2	27923	83.6	34677	33237	95.8	33180	95.7	32953	95.0	35455	30561	86.2	35262	32833	93.1	32926	93.4	34038	32441	95.3	30682	90.1	27922	82.0

* Uptake of pertussis used as proxy

** MenC uptake for children reaching one year of age this quarter is based on a completed one dose primary course of MenC vaccination. This is due to the MenC programme change in June 2013 from a two dose MenC primary course given at 3 months and 4 months of age to a one dose primary course at 3 months of age.

*** Completed 4 in 1 preschool booster, the Hib/MenC booster and second MMR dose by four years of age

**** Uptake of diphtheria (reinforcing booster dose) used as proxy

† Children receiving the final dose of PCV

	95% and higher
	90% to less than 95%
	below 90%

Figure 4. (a) Uptake of 5 in 1 vaccine in Welsh Local Authority areas in children reaching their 1st birthday between 01/04/14 and 31/03/15. **(b)** Uptake of at least 1 dose of MMR immunisation in Welsh Local Authority areas in children reaching their 2nd birthday between 01/04/14 and 31/03/15.

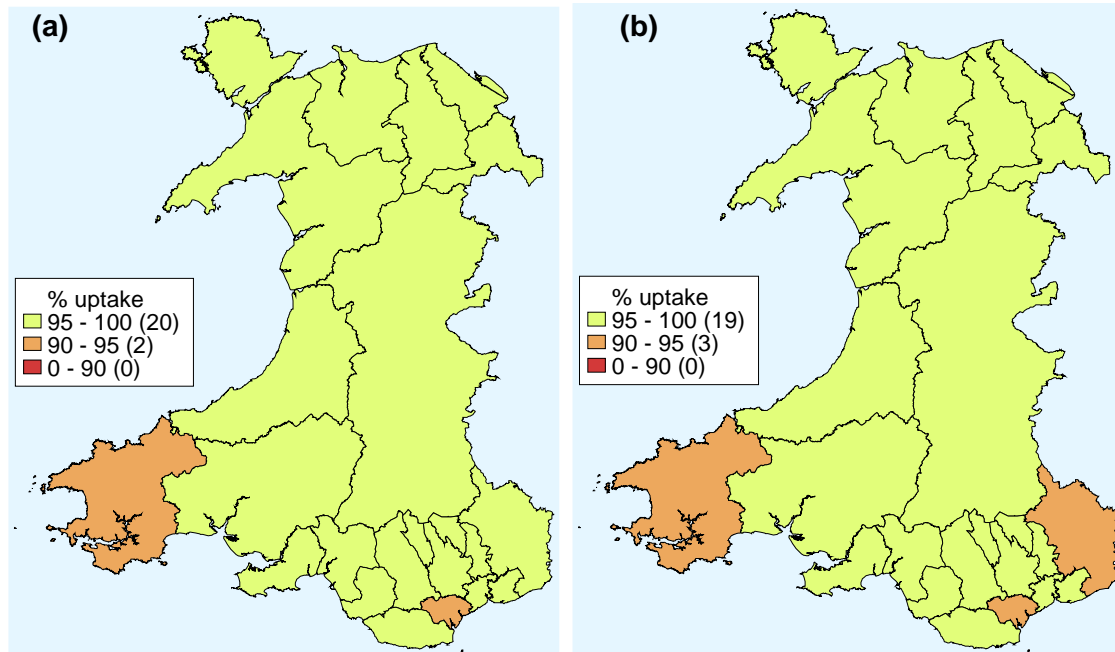


Figure 5. (a) Uptake of two doses of MMR vaccine in Welsh Local Authority areas in children reaching their 5th birthday between 01/04/14 and 31/03/15. **(b)** Uptake of 4 in 1 vaccine in Welsh Local Authority areas in children reaching their 5th birthday between 01/04/14 and 31/03/15.

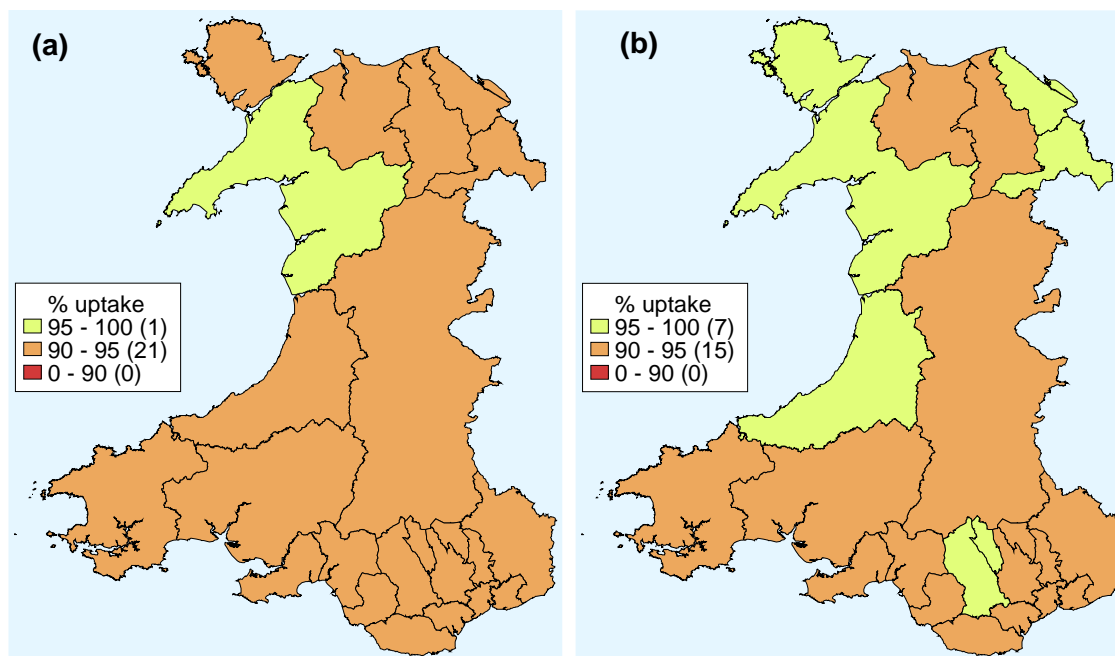


Figure 6. Annual uptake of 5 in 1 vaccine by 1 year of age (2011 – 2015 financial years, ranked by uptake in 2014-2015).

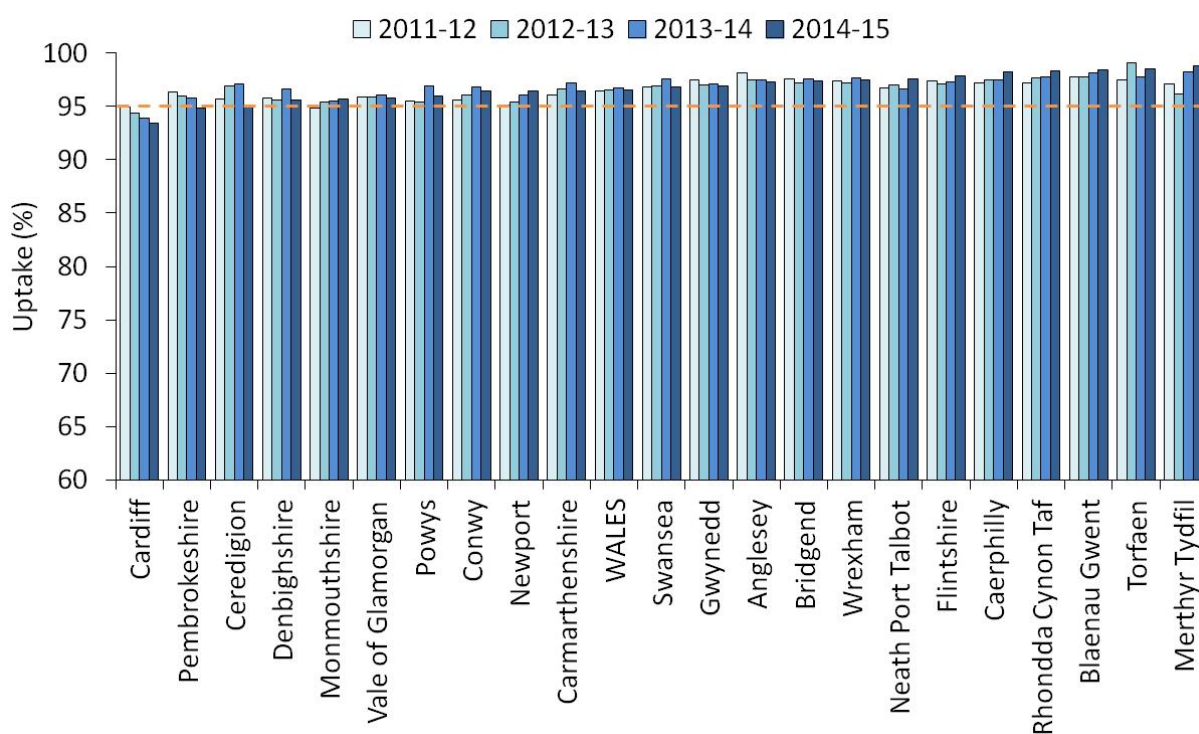


Figure 7. Annual uptake of 1 dose of MMR by 2 years of age (2011 – 2015 financial years, ranked by uptake in 2014-2015).

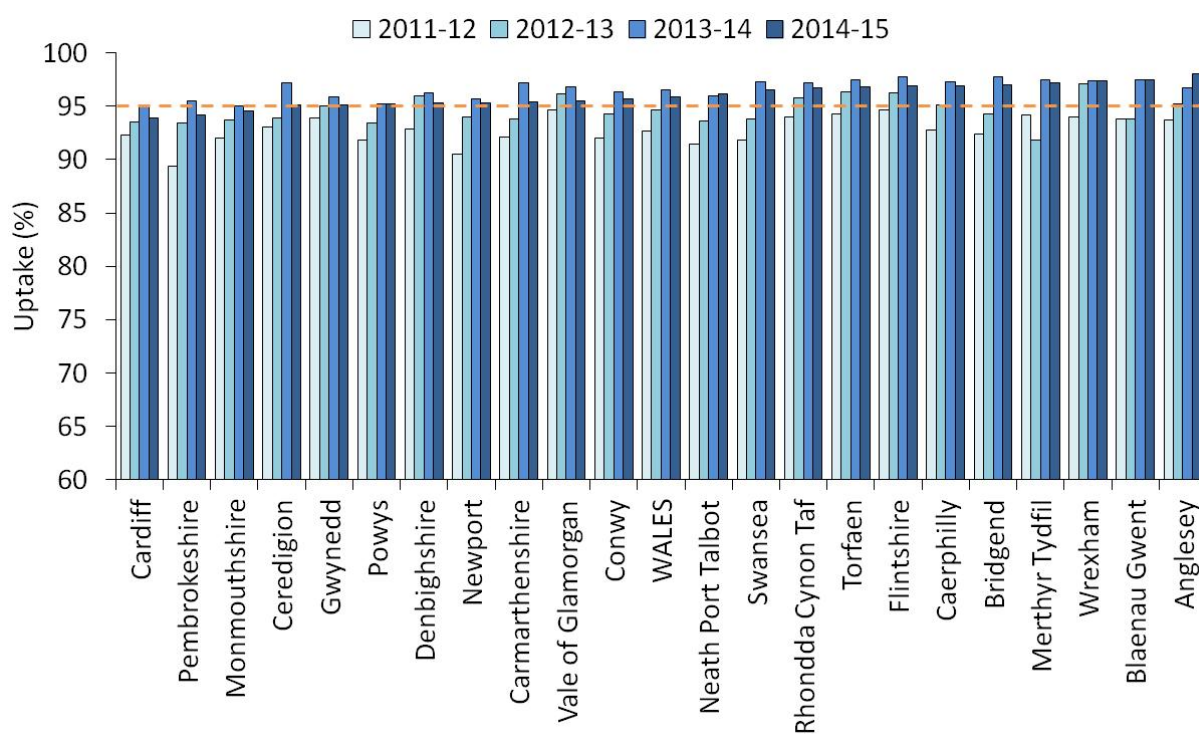


Figure 8. Annual uptake of 2 doses of MMR by 5 years of age (2011 – 2015 financial years, ranked by uptake in 2014-2015).

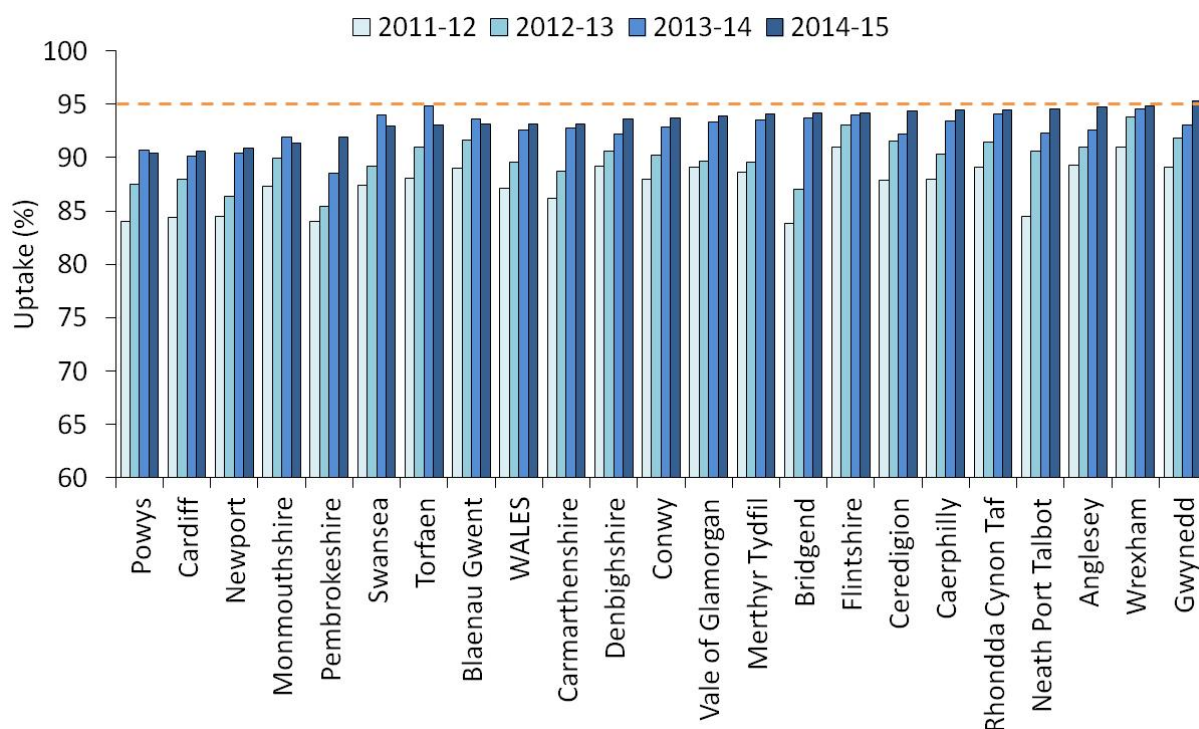


Figure 9. Annual uptake of the '4 in 1' pre-school booster by 5 years of age (2011 – 2015 financial years, ranked by uptake in 2014-2015).

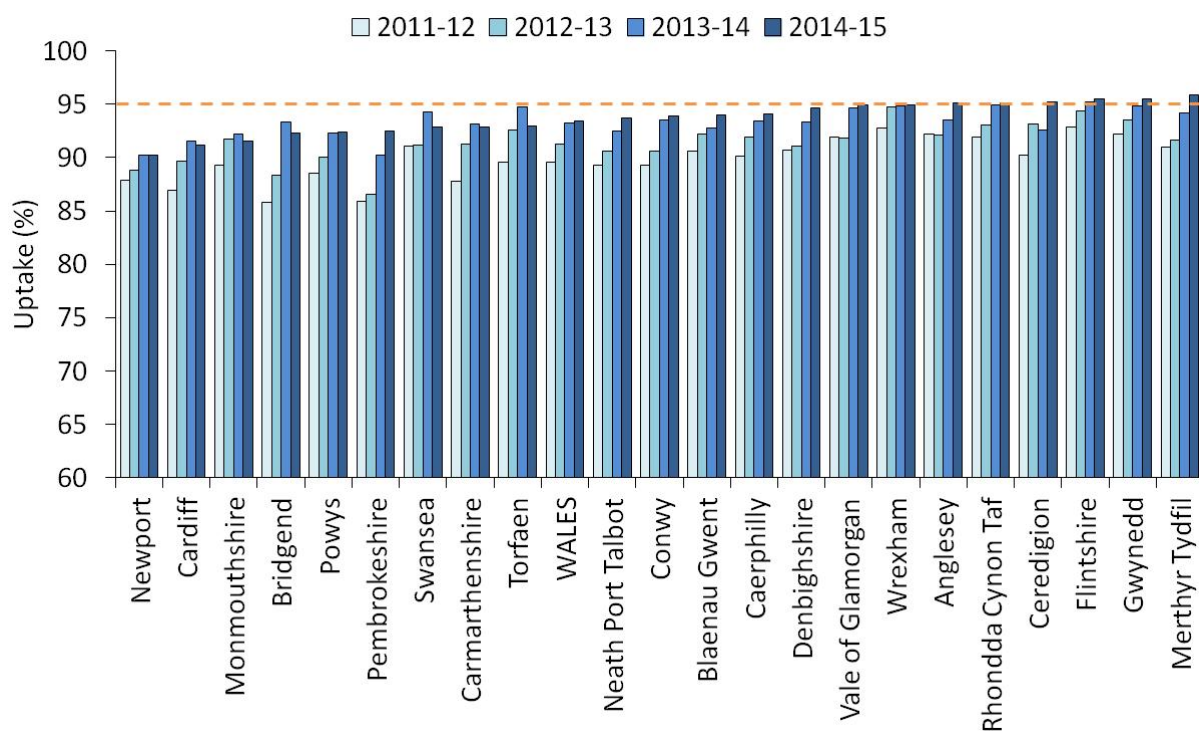
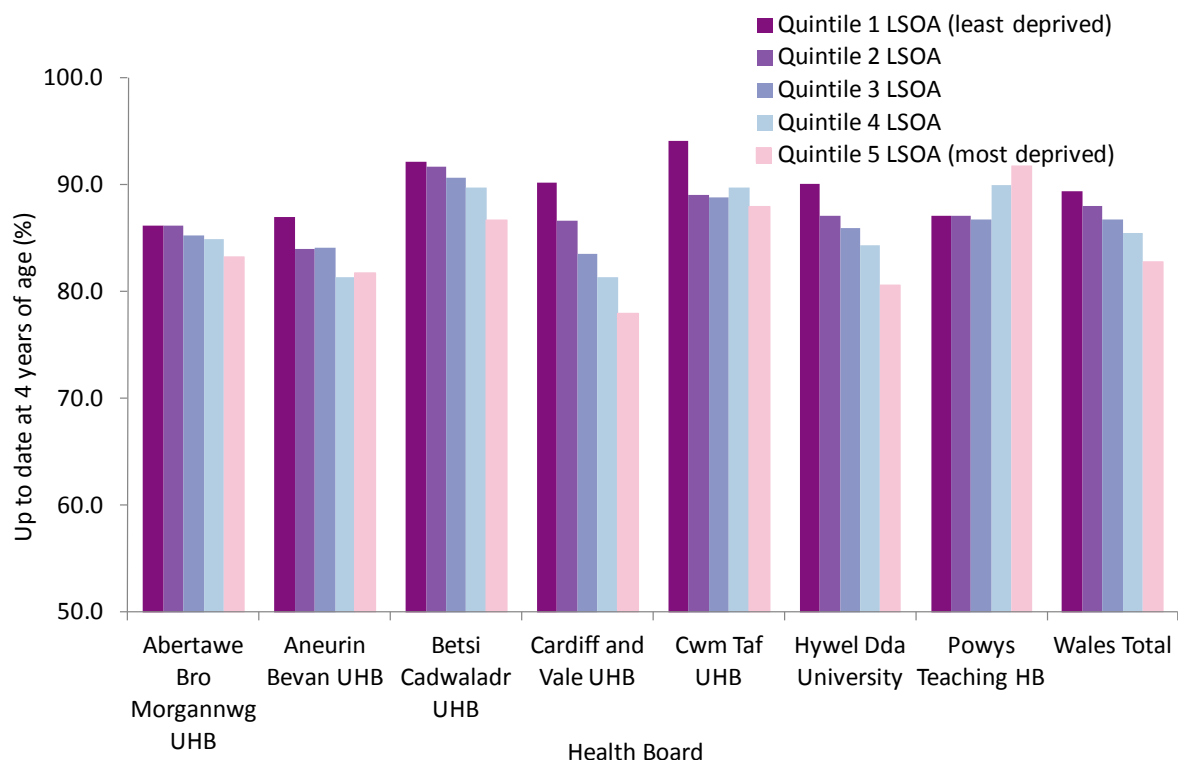


Figure 10. Percentages of children who are up to date with routine immunisations¹⁰ by four years of age, by quintile of deprivation of the Lower Super Output Area in which they reside. Vaccine uptake is presented for children reaching their 4th birthday between 01/04/2014 and 31/03/2015 and resident on 31/03/2015.



¹⁰ Completed 4 in 1 preschool booster, the Hib/ MenC booster and second MMR dose by four years of age. The calculation method for proportions of children up to date with routine immunisation by four years of age was revised during 2014 quarter 1, to remove the pneumococcal conjugate vaccine booster dose, as this is not clinically indicated after two years of age.

Table 3. Vaccine uptake in children reaching their 1st birthday between 01/04/2014 and 31/03/2015 and resident on 31/03/2015.

Area	Resident children	D3	T3	P3	Po3	Hib3	MMR1	MenC*	Rotavirus	PCV2**	HibMenCb
	(n)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)
<u>Abertawe Bro Morgannwg University HB</u>											
Bridgend LA	1532	1492 97.4	1492 97.4	1492 97.4	1490 97.3	1489 97.2	6 0.4	1504 98.2	1340 87.5	1488 97.1	3 0.2
Neath Port Talbot LA	1462	1426 97.5	1426 97.5	1426 97.5	1426 97.5	1426 97.5	8 0.5	1441 98.6	1229 84.1	1425 97.5	2 0.1
Swansea LA	2501	2422 96.8	2422 96.8	2422 96.8	2420 96.8	2419 96.7	7 0.3	2440 97.6	2111 84.4	2421 96.8	5 0.2
Health Board Total	5495	5340 97.2	5340 97.2	5340 97.2	5336 97.1	5334 97.1	21 0.4	5385 98.0	4680 85.2	5334 97.1	10 0.2
<u>Aneurin Bevan University HB</u>											
Blaenau Gwent LA	799	786 98.4	786 98.4	786 98.4	786 98.4	786 98.4	7 0.9	793 99.2	658 82.4	791 99.0	7 0.9
Caerphilly LA	2013	1978 98.3	1978 98.3	1978 98.3	1978 98.3	1978 98.3	2 0.1	1992 99.0	1761 87.5	1977 98.2	2 0.1
Monmouthshire LA	768	735 95.7	735 95.7	735 95.7	735 95.7	735 95.7	4 0.5	738 96.1	632 82.3	736 95.8	1 0.1
Newport LA	1898	1830 96.4	1830 96.4	1830 96.4	1830 96.4	1829 96.4	4 0.2	1852 97.6	1568 82.6	1818 95.8	1 0.1
Torfaen LA	1061	1045 98.5	1045 98.5	1045 98.5	1045 98.5	1045 98.5	0 0.0	1048 98.8	903 85.1	1045 98.5	0 0.0
Health Board Total	6539	6374 97.5	6374 97.5	6374 97.5	6374 97.5	6373 97.5	17 0.3	6423 98.2	5522 84.4	6367 97.4	11 0.2
<u>Betsi Cadwaladr University HB</u>											
Anglesey LA	739	719 97.3	719 97.3	719 97.3	719 97.3	719 97.3	5 0.7	730 98.8	616 83.4	721 97.6	5 0.7
Conwy LA	1057	1019 96.4	1019 96.4	1019 96.4	1019 96.4	1019 96.4	5 0.5	1034 97.8	894 84.6	1017 96.2	5 0.5
Denbighshire LA	1041	995 95.6	995 95.6	995 95.6	995 95.6	995 95.6	15 1.4	1010 97.0	825 79.3	994 95.5	13 1.2
Flintshire LA	1593	1559 97.9	1559 97.9	1559 97.9	1557 97.7	1555 97.6	8 0.5	1558 97.8	1336 83.9	1552 97.4	6 0.4
Gwynedd LA	1181	1145 97.0	1145 97.0	1145 97.0	1146 97.0	1145 97.0	14 1.2	1132 95.9	969 82.0	1140 96.5	12 1.0
Wrexham LA	1607	1567 97.5	1567 97.5	1567 97.5	1564 97.3	1566 97.4	5 0.3	1578 98.2	1339 83.3	1562 97.2	3 0.2
Health Board Total	7218	7004 97.0	7004 97.0	7004 97.0	7000 97.0	6999 97.0	52 0.7	7042 97.6	5979 82.8	6986 96.8	44 0.6
<u>Cardiff and Vale University HB</u>											
Cardiff LA	4530	4234 93.5	4233 93.4	4232 93.4	4233 93.4	4232 93.4	23 0.5	4273 94.3	3493 77.1	4192 92.5	27 0.6
Vale of Glamorgan LA	1340	1284 95.8	1284 95.8	1284 95.8	1284 95.8	1284 95.8	7 0.5	1293 96.5	1118 83.4	1274 95.1	5 0.4
Health Board Total	5870	5518 94.0	5517 94.0	5516 94.0	5517 94.0	5516 94.0	30 0.5	5566 94.8	4611 78.6	5466 93.1	32 0.5
<u>Cwm Taf University HB</u>											
Merthyr Tydfil LA	670	662 98.8	662 98.8	662 98.8	662 98.8	662 98.8	0 0.0	663 99.0	584 87.2	659 98.4	0 0.0
Rhondda Cynon Taf LA	2698	2653 98.3	2653 98.3	2653 98.3	2651 98.3	2650 98.2	3 0.1	2656 98.4	2428 90.0	2648 98.1	3 0.1
Health Board Total	3368	3315 98.4	3315 98.4	3315 98.4	3313 98.4	3312 98.3	3 0.1	3319 98.5	3012 89.4	3307 98.2	3 0.1
<u>Hywel Dda University HB</u>											
Carmarthenshire LA	1850	1784 96.4	1784 96.4	1784 96.4	1784 96.4	1784 96.4	10 0.5	1801 97.4	1585 85.7	1777 96.1	10 0.5
Ceredigion LA	642	610 95.0	610 95.0	610 95.0	608 94.7	610 95.0	4 0.6	610 95.0	513 79.9	607 94.5	2 0.3
Pembrokeshire LA	1180	1119 94.8	1119 94.8	1119 94.8	1119 94.8	1119 94.8	4 0.3	1141 96.7	990 83.9	1119 94.8	4 0.3
Health Board Total	3672	3513 95.7	3513 95.7	3513 95.7	3511 95.6	3513 95.7	18 0.5	3552 96.7	3088 84.1	3503 95.4	16 0.4
<u>Powys Teaching HB</u>	1150	1104 96.0	1104 96.0	1104 96.0	1104 96.0	1104 96.0	6 0.5	1106 96.2	952 82.8	1103 95.9	5 0.4
Unknown	99	98 99.0	98 99.0	98 99.0	98 99.0	98 99.0	0 0.0	97 98.0	79 79.8	97 98.0	0 0.0
Wales Total	33411	32266 96.6	32265 96.6	32264 96.6	32253 96.5	32249 96.5	147 0.4	32490 97.2	27923 83.6	32163 96.3	121 0.4

* MenC uptake for children reaching one year of age this quarter is based on a completed one dose primary course of MenC vaccination. This is due to the MenC programme change in June 2013 from a two dose MenC primary course given at 3 months and 4 months of age to a one dose primary course at 3 months of age.

** Full primary 2 dose course of pneumococcal conjugate vaccine

Table 4. Vaccine uptake in children reaching their 2nd birthday between 01/04/2014 and 31/03/2015 and resident on 31/03/2015.

Area	Resident children	D3	T3	P3	Po3	Hib3	MMR1	MenC*	PCV2**	PCVf***	HibMenCb										
	(n)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)										
<u>Abertawe Bro Morgannwg University LHB</u>																					
Bridgend LA	1600	1577	98.6	1576	98.5	1577	98.6	1576	98.5	1575	98.4	1552	97.0	1578	98.6	1560	97.5	1544	96.5	1536	96.0
Neath Port Talbot LA	1498	1471	98.2	1471	98.2	1471	98.2	1471	98.2	1471	98.2	1440	96.1	1480	98.8	1452	96.9	1420	94.8	1413	94.3
Swansea LA	2587	2539	98.1	2539	98.1	2539	98.1	2535	98.0	2536	98.0	2496	96.5	2520	97.4	2505	96.8	2487	96.1	2465	95.3
Health Board Total	5685	5587	98.3	5586	98.3	5587	98.3	5582	98.2	5582	98.2	5488	96.5	5578	98.1	5517	97.0	5451	95.9	5414	95.2
<u>Aneurin Bevan University LHB</u>																					
Blaenau Gwent LA	790	781	98.9	781	98.9	781	98.9	781	98.9	781	98.9	770	97.5	782	99.0	773	97.8	770	97.5	767	97.1
Caerphilly LA	2085	2051	98.4	2051	98.4	2051	98.4	2049	98.3	2049	98.3	2020	96.9	2047	98.2	2035	97.6	2022	97.0	2010	96.4
Monmouthshire LA	866	833	96.2	833	96.2	833	96.2	833	96.2	833	96.2	819	94.6	827	95.5	822	94.9	819	94.6	817	94.3
Newport LA	1931	1891	97.9	1891	97.9	1891	97.9	1892	98.0	1891	97.9	1841	95.3	1854	96.0	1851	95.9	1840	95.3	1808	93.6
Torfaen LA	1122	1104	98.4	1104	98.4	1104	98.4	1103	98.3	1103	98.3	1086	96.8	1104	98.4	1099	98.0	1083	96.5	1080	96.3
Health Board Total	6794	6660	98.0	6660	98.0	6660	98.0	6658	98.0	6657	98.0	6536	96.2	6614	97.4	6580	96.9	6534	96.2	6482	95.4
<u>Betsi Cadwaladr University LHB</u>																					
Anglesey LA	805	798	99.1	798	99.1	798	99.1	798	99.1	797	99.0	789	98.0	796	98.9	790	98.1	791	98.3	786	97.6
Conwy LA	1141	1125	98.6	1125	98.6	1125	98.6	1125	98.6	1125	98.6	1092	95.7	1125	98.6	1108	97.1	1093	95.8	1084	95.0
Denbighshire LA	1035	1014	98.0	1014	98.0	1014	98.0	1013	97.9	1014	98.0	986	95.3	1018	98.4	1003	96.9	990	95.7	984	95.1
Flintshire LA	1658	1626	98.1	1626	98.1	1625	98.0	1624	97.9	1624	97.9	1606	96.9	1626	98.1	1607	96.9	1599	96.4	1591	96.0
Gwynedd LA	1298	1263	97.3	1263	97.3	1263	97.3	1262	97.2	1262	97.2	1235	95.1	1231	94.8	1250	96.3	1234	95.1	1235	95.1
Wrexham LA	1660	1643	99.0	1643	99.0	1643	99.0	1643	99.0	1643	99.0	1616	97.3	1640	98.8	1626	98.0	1616	97.3	1597	96.2
Health Board Total	7597	7469	98.3	7469	98.3	7468	98.3	7465	98.3	7465	98.3	7324	96.4	7436	97.9	7384	97.2	7323	96.4	7277	95.8
<u>Cardiff and Vale University LHB</u>																					
Cardiff LA	4563	4372	95.8	4372	95.8	4371	95.8	4369	95.7	4359	95.5	4285	93.9	4304	94.3	4220	92.5	4248	93.1	4201	92.1
Vale of Glamorgan LA	1409	1370	97.2	1370	97.2	1370	97.2	1369	97.2	1369	97.2	1346	95.5	1367	97.0	1357	96.3	1349	95.7	1347	95.6
Health Board Total	5972	5742	96.1	5742	96.1	5741	96.1	5738	96.1	5728	95.9	5631	94.3	5671	95.0	5577	93.4	5597	93.7	5548	92.9
<u>Cwm Taf University LHB</u>																					
Merthyr Tydfil LA	720	714	99.2	714	99.2	714	99.2	713	99.0	714	99.2	700	97.2	710	98.6	703	97.6	704	97.8	700	97.2
Rhondda Cynon Taf LA	2727	2696	98.9	2696	98.9	2696	98.9	2696	98.9	2696	98.9	2636	96.7	2691	98.7	2666	97.8	2643	96.9	2631	96.5
Health Board Total	3447	3410	98.9	3410	98.9	3410	98.9	3409	98.9	3410	98.9	3336	96.8	3401	98.7	3369	97.7	3347	97.1	3331	96.6
<u>Hywel Dda University LHB</u>																					
Carmarthenshire LA	1892	1847	97.6	1847	97.6	1847	97.6	1846	97.6	1847	97.6	1805	95.4	1845	97.5	1825	96.5	1795	94.9	1786	94.4
Ceredigion LA	695	679	97.7	679	97.7	679	97.7	677	97.4	676	97.3	661	95.1	675	97.1	672	96.7	669	96.3	669	96.3
Pembrokeshire LA	1273	1237	97.2	1237	97.2	1237	97.2	1237	97.2	1236	97.1	1199	94.2	1234	96.9	1210	95.1	1204	94.6	1189	93.4
Health Board Total	3860	3763	97.5	3763	97.5	3763	97.5	3760	97.4	3759	97.4	3665	94.9	3754	97.3	3707	96.0	3668	95.0	3644	94.4
<u>Powys Teaching LHB</u>	1219	1187	97.4	1187	97.4	1187	97.4	1187	97.4	1187	97.4	1161	95.2	1161	95.2	1174	96.3	1163	95.4	1161	95.2
Unknown	103	98	95.1	98	95.1	98	95.1	98	95.1	97	94.2	96	93.2	98	95.1	93	90.3	97	94.2	96	93.2
Wales Total	34677	33916	97.8	33915	97.8	33914	97.8	33897	97.8	33885	97.7	33237	95.8	33713	97.2	33401	96.3	33180	95.7	32953	95.0

* Reflects uptake of the completed two dose primary course in this age group (before June 2013 changes)

** Full primary 2 dose course of pneumococcal conjugate vaccine

*** Final (booster) dose of pneumococcal conjugate vaccine

Table 5. Vaccine uptake in children reaching their 4th birthday between 01/04/2014 and 31/03/2015 and resident on 31/03/2015.

Area	Resident Children	4 in 1 Preschool booster*		HibMenCb		MMR dose 2		Up to date in schedule**	
	(n)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
<u>Abertawe Bro Morgannwg University LHB</u>									
Bridgend LA	1631	1396	85.6	1569	96.2	1462	89.6	1372	84.1
Neath Port Talbot LA	1617	1424	88.1	1571	97.2	1501	92.8	1400	86.6
Swansea LA	2685	2316	86.3	2551	95.0	2449	91.2	2265	84.4
Health Board Total	5933	5136	86.6	5691	95.9	5412	91.2	5037	84.9
<u>Aneurin Bevan University LHB</u>									
Blaenau Gwent LA	775	658	84.9	741	95.6	667	86.1	644	83.1
Caerphilly LA	2175	1871	86.0	2107	96.9	1956	89.9	1841	84.6
Monmouthshire LA	886	787	88.8	831	93.8	787	88.8	766	86.5
Newport LA	2010	1699	84.5	1856	92.3	1748	87.0	1629	81.0
Torfaen LA	1108	925	83.5	1075	97.0	958	86.5	908	81.9
Health Board Total	6954	5940	85.4	6610	95.1	6116	87.9	5788	83.2
<u>Betsi Cadwaladr University LHB</u>									
Anglesey LA	803	748	93.2	786	97.9	742	92.4	740	92.2
Conwy LA	1142	1018	89.1	1108	97.0	1017	89.1	1007	88.2
Denbighshire LA	1091	972	89.1	1056	96.8	975	89.4	962	88.2
Flintshire LA	1715	1592	92.8	1666	97.1	1582	92.2	1560	91.0
Gwynedd LA	1223	1136	92.9	1178	96.3	1128	92.2	1118	91.4
Wrexham LA	1675	1555	92.8	1610	96.1	1549	92.5	1524	91.0
Health Board Total	7649	7021	91.8	7404	96.8	6993	91.4	6911	90.4
<u>Cardiff and Vale University LHB</u>									
Cardiff LA	4588	3926	85.6	4229	92.2	3931	85.7	3783	82.5
Vale of Glamorgan LA	1448	1298	89.6	1389	95.9	1304	90.1	1275	88.1
Health Board Total	6036	5224	86.5	5618	93.1	5235	86.7	5058	83.8
<u>Cwm Taf University LHB</u>									
Merthyr Tydfil LA	702	653	93.0	658	93.7	651	92.7	622	88.6
Rhondda Cynon Taff LA	2796	2551	91.2	2710	96.9	2543	91.0	2505	89.6
Health Board Total	3498	3204	91.6	3368	96.3	3194	91.3	3127	89.4
<u>Hywel Dda University LHB</u>									
Cardiganshire LA	2003	1736	86.7	1892	94.5	1793	89.5	1685	84.1
Ceredigion LA	717	667	93.0	678	94.6	656	91.5	647	90.2
Pembrokeshire LA	1333	1161	87.1	1267	95.0	1156	86.7	1135	85.1
Health Board Total	4053	3564	87.9	3837	94.7	3605	88.9	3467	85.5
Powys Teaching Health Board	1255	1124	89.6	1180	94.0	1135	90.4	1101	87.7
Unknown	77	72	93.5	76	98.7	74	96.1	72	93.5
Wales Total	35455	31213	88.0	33784	95.3	31764	89.6	30561	86.2

* Uptake of acellular pertussis used as proxy

** Completed 4 in 1 preschool booster, the Hib/MenC booster and second MMR dose by four years of age. The calculation method for proportions of children up to date with routine immunisation by four years of age was revised during 2014 quarter 1, to remove the pneumococcal conjugate vaccine booster dose, as this is not clinically indicated after two years of age.

Table 6. Vaccine uptake in children reaching their 5th birthday between 01/04/2014 and 31/03/2015 and resident on 31/03/2015.

Area	Resident children	D3	T3	P3	Po3	Hib3	MenC*	PCVf**	HibMenCb	MMR1	MMR2	D4	T4	aP	Po4
	(n)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
Abertawe Bro Morgannwg University LHB															
Bridgend LA	1623	1595	98.3	1595	98.3	1595	98.3	1594	98.2	1594	98.2	1566	96.5	1531	94.3
Neath Port Talbot LA	1562	1538	98.5	1538	98.5	1538	98.5	1538	98.5	1499	96.0	1469	94.0	1496	95.8
Swansea LA	2654	2568	96.8	2568	96.8	2568	96.8	2566	96.7	2564	96.6	2488	93.7	2456	92.5
Health Board Total	5839	5701	97.6	5701	97.6	5701	97.6	5698	97.6	5696	97.6	5553	95.1	5456	93.4
Aneurin Bevan University LHB															
Blaenau Gwent LA	782	771	98.6	771	98.6	771	98.6	770	98.5	770	98.5	761	97.3	741	94.8
Caerphilly LA	2160	2126	98.4	2126	98.4	2126	98.4	2126	98.4	2105	97.5	2043	94.6	2060	95.4
Monmouthshire LA	901	847	94.0	847	94.0	847	94.0	847	94.0	846	93.9	818	90.8	822	91.2
Newport LA	2002	1918	95.8	1918	95.8	1918	95.8	1913	95.6	1911	95.5	1839	91.9	1803	90.1
Torfaen LA	1088	1069	98.3	1069	98.3	1069	98.3	1069	98.3	1052	96.7	1033	94.9	1041	95.7
Health Board Total	6933	6731	97.1	6731	97.1	6731	97.1	6725	97.0	6721	96.9	6575	94.8	6438	92.9
Betsi Cadwaladr University LHB															
Anglesey LA	781	764	97.8	764	97.8	764	97.8	764	97.8	762	97.6	740	94.8	726	93.0
Conwy LA	1170	1144	97.8	1144	97.8	1144	97.8	1143	97.7	1143	97.7	1114	95.2	1092	93.3
Denbighshire LA	1068	1037	97.1	1037	97.1	1037	97.1	1037	97.1	1020	95.5	997	93.4	1019	95.4
Flintshire LA	1780	1741	97.8	1740	97.8	1741	97.8	1738	97.6	1740	97.8	1705	95.8	1681	94.4
Gwynedd LA	1270	1232	97.0	1232	97.0	1232	97.0	1232	97.0	1231	96.9	1188	93.5	1186	93.4
Wrexham LA	1669	1634	97.9	1634	97.9	1634	97.9	1631	97.7	1631	97.7	1588	95.1	1571	94.1
Health Board Total	7738	7552	97.6	7551	97.6	7552	97.6	7545	97.5	7544	97.5	7355	95.1	7253	93.7
Cardiff and Vale University LHB															
Cardiff LA	4509	4347	96.4	4347	96.4	4346	96.4	4336	96.2	4318	95.8	4089	90.7	4061	90.1
Vale of Glamorgan LA	1566	1538	98.2	1538	98.2	1538	98.2	1538	98.2	1502	95.9	1493	95.3	1487	95.0
Health Board Total	6075	5885	96.9	5885	96.9	5884	96.9	5874	96.7	5856	96.4	5591	92.0	5554	91.4
Cwm Taf University LHB															
Merthyr Tydfil LA	671	659	98.2	659	98.2	659	98.2	658	98.1	657	97.9	653	97.3	636	94.8
Rhondda Cynon Taff LA	2757	2717	98.5	2717	98.5	2717	98.5	2716	98.5	2715	98.5	2673	97.0	2640	95.8
Health Board Total	3428	3376	98.5	3376	98.5	3376	98.5	3374	98.4	3372	98.4	3326	97.0	3276	95.6
Hywel Dda University LHB															
Cardiff and Vale LA	1907	1841	96.5	1841	96.5	1841	96.5	1836	96.3	1836	96.3	1796	94.2	1762	92.4
Ceredigion LA	661	636	96.2	636	96.2	636	96.2	636	96.2	635	96.1	619	93.6	618	93.5
Pembrokeshire LA	1306	1260	96.5	1260	96.5	1260	96.5	1259	96.4	1258	96.3	1227	94.0	1188	91.0
Health Board Total	3874	3737	96.5	3737	96.5	3737	96.5	3731	96.3	3729	96.3	3642	94.0	3568	92.1
Powys Teaching LHB	1273	1216	95.5	1216	95.5	1216	95.5	1211	95.1	1209	95.0	1167	91.7	1165	91.5
Unknown	102	97	95.1	97	95.1	97	95.1	97	95.1	97	95.1	92	90.2	90	88.2
Wales Total	35262	34295	97.3	34294	97.3	34294	97.3	34255	97.1	34224	97.1	33301	94.4	32800	93.0

* Refers to full completed courses of MenC (before the 2006 schedule change)

** Final (booster) dose of pneumococcal conjugate vaccine

Table 7. HPV Vaccine uptake in girls reaching their 14th birthday between 01/09/2014 and 31/08/2015 and resident on 31/03/2015 (School Year 8 during 2013-14).

Area	Resident girls	HPV 1 dose		HPV 2 doses		HPV 3 doses	
		(n)	(%)	(n)	(%)	(n)	(%)
<u>Abertawe Bro Morgannwg University LHB</u>							
Bridgend LA	815	744	91.3	730	89.6	680	83.4
Neath Port Talbot LA	663	619	93.4	595	89.7	545	82.2
Swansea LA	1244	1134	91.2	1103	88.7	1039	83.5
Health Board Total	2722	2497	91.7	2428	89.2	2264	83.2
<u>Aneurin Bevan University LHB</u>							
Blaenau Gwent LA	344	332	96.5	321	93.3	301	87.5
Caerphilly LA	907	851	93.8	831	91.6	803	88.5
Monmouthshire LA	469	359	76.5	350	74.6	335	71.4
Newport LA	832	710	85.3	681	81.9	648	77.9
Torfaen LA	511	476	93.2	460	90.0	434	84.9
Health Board Total	3063	2728	89.1	2643	86.3	2521	82.3
<u>Betsi Cadwaladr University LHB</u>							
Anglesey LA	355	318	89.6	313	88.2	287	80.8
Conwy LA	606	539	88.9	536	88.4	523	86.3
Denbighshire LA	516	461	89.3	461	89.3	450	87.2
Flintshire LA	805	730	90.7	725	90.1	702	87.2
Gwynedd LA	591	529	89.5	525	88.8	517	87.5
Wrexham LA	682	619	90.8	610	89.4	601	88.1
Health Board Total	3555	3196	89.9	3170	89.2	3080	86.6
<u>Cardiff and Vale University LHB</u>							
Cardiff LA	1707	1469	86.1	1419	83.1	1244	72.9
Vale of Glamorgan LA	633	574	90.7	560	88.5	491	77.6
Health Board Total	2340	2043	87.3	1979	84.6	1735	74.1
<u>Cwm Taf University LHB</u>							
Merthyr Tydfil LA	279	259	92.8	257	92.1	256	91.8
Rhondda Cynon Taff LA	1152	1094	95.0	1085	94.2	1063	92.3
Health Board Total	1431	1353	94.5	1342	93.8	1319	92.2
<u>Hywel Dda University LHB</u>							
Carmarthenshire LA	827	767	92.7	760	91.9	751	90.8
Ceredigion LA	280	256	91.4	254	90.7	252	90.0
Pembrokeshire LA	541	468	86.5	463	85.6	446	82.4
Health Board Total	1648	1491	90.5	1477	89.6	1449	87.9
<u>Powys Teaching LHB</u>	602	491	81.6	483	80.2	466	77.4
Unknown	87	66	75.9	66	75.9	63	72.4
Wales Total	15448	13865	89.8	13588	88.0	12897	83.5

Table 8. Vaccine uptake in children reaching their 15th birthday between 01/04/2014 and 31/03/2015 and resident on 31/03/2015 (with breakdown of MMR1 and MMR2 coverage by sex).

Area	Resident children	MMR1	MMR2	Teenage 3 in 1 booster*		Resident girls	MMR1 (girls)	MMR2 (girls)	Resident boys	MMR1 (boys)	MMR2 (boys)
	(n)	(n) (%)	(n) (%)	(n)	(%)	(n)	(n) (%)	(n) (%)	(n)	(n) (%)	(n) (%)
Abertawe Bro Morgannwg University LHB											
Bridgend LA	1549	1495 96.5	1437 92.8	1250	80.7	751	727 96.8	701 93.3	798	768 96.2	736 92.2
Neath Port Talbot LA	1382	1337 96.7	1249 90.4	1182	85.5	644	623 96.7	588 91.3	738	714 96.7	661 89.6
Swansea LA	2538	2412 95.0	2270 89.4	2222	87.5	1219	1165 95.6	1096 89.9	1319	1247 94.5	1174 89.0
Health Board Total	5469	5244 95.9	4956 90.6	4654	85.1	2614	2515 96.2	2385 91.2	2855	2729 95.6	2571 90.1
Aneurin Bevan University LHB											
Blaenau Gwent LA	778	752 96.7	713 91.6	557	71.6	383	370 96.6	351 91.6	395	382 96.7	362 91.6
Caerphilly LA	1993	1952 97.9	1857 93.2	1359	68.2	955	930 97.4	889 93.1	1038	1022 98.5	968 93.3
Monmouthshire LA	1063	966 90.9	903 84.9	690	64.9	531	489 92.1	469 88.3	531	477 89.8	434 81.7
Newport LA	1874	1777 94.8	1649 88.0	1289	68.8	891	850 95.4	793 89.0	983	927 94.3	856 87.1
Torfaen LA	1017	994 97.7	946 93.0	688	67.6	503	494 98.2	469 93.2	513	500 97.5	477 93.0
Health Board Total	6725	6441 95.8	6068 90.2	4583	68.1	3263	3133 96.0	2971 91.1	3460	3308 95.6	3097 89.5
Betsi Cadwaladr University LHB											
Anglesey LA	713	676 94.8	652 91.4	558	78.3	368	349 94.8	342 92.9	345	327 94.8	310 89.9
Conwy LA	1236	1164 94.2	1100 89.0	1069	86.5	599	566 94.5	534 89.1	636	597 93.9	566 89.0
Denbighshire LA	1075	1009 93.9	933 86.8	901	83.8	510	487 95.5	461 90.4	565	522 92.4	472 83.5
Flintshire LA	1642	1577 96.0	1508 91.8	1393	84.8	796	770 96.7	736 92.5	846	807 95.4	772 91.3
Gwynedd LA	1255	1192 95.0	1146 91.3	1047	83.4	610	579 94.9	559 91.6	645	613 95.0	587 91.0
Wrexham LA	1428	1387 97.1	1341 93.9	1158	81.1	711	693 97.5	672 94.5	717	694 96.8	669 93.3
Health Board Total	7349	7005 95.3	6680 90.9	6126	83.4	3594	3444 95.8	3304 91.9	3754	3560 94.8	3376 89.9
Cardiff and Vale University LHB											
Cardiff LA	3565	3348 93.9	3142 88.1	2706	75.9	1811	1708 94.3	1604 88.6	1754	1640 93.5	1538 87.7
Vale of Glamorgan LA	1472	1419 96.4	1355 92.1	1221	82.9	717	692 96.5	661 92.2	754	727 96.4	694 92.0
Health Board Total	5037	4767 94.6	4497 89.3	3927	78.0	2528	2400 94.9	2265 89.6	2508	2367 94.4	2232 89.0
Cwm Taf University LHB											
Merthyr Tydfil LA	666	637 95.6	597 89.6	597	89.6	313	299 95.5	280 89.5	353	338 95.8	317 89.8
Rhondda Cynon Taff LA	2481	2405 96.9	2285 92.1	2197	88.6	1224	1193 97.5	1138 93.0	1257	1212 96.4	1147 91.2
Health Board Total	3147	3042 96.7	2882 91.6	2794	88.8	1537	1492 97.1	1418 92.3	1610	1550 96.3	1464 90.9
Hywel Dda University LHB											
Carmarthenshire LA	1590	1509 94.9	1419 89.2	1318	82.9	753	724 96.1	685 91.0	837	785 93.8	734 87.7
Ceredigion LA	632	600 94.9	568 89.9	560	88.6	307	293 95.4	281 91.5	325	307 94.5	287 88.3
Pembrokeshire LA	1268	1192 94.0	1123 88.6	992	78.2	620	572 92.3	539 86.9	648	620 95.7	584 90.1
Health Board Total	3490	3301 94.6	3110 89.1	2870	82.2	1680	1589 94.6	1505 89.6	1810	1712 94.6	1605 88.7
Powys Teaching LHB	1386	1292 93.2	1207 87.1	1034	74.6	663	618 93.2	574 86.6	722	674 93.4	633 87.7
Unknown	186	166 89.2	157 84.4	125	67.2	75	69 92.0	64 85.3	110	97 88.2	93 84.5
Wales Total	32789	31258 95.3	29557 90.1	26113	79.6	15954	15260 95.6	14486 90.8	16829	15997 95.1	15071 89.6

* Teenage booster dose of diphtheria, tetanus and polio (diphtheria used as proxy)

Table 9. Vaccine uptake in children reaching their 16th birthday between 01/04/2014 and 31/03/2015 and resident on 31/03/2015 (with breakdown of MMR1 and MMR2 coverage by sex).

Area	Resident children		MMR1		MMR2		Teenage 3 in 1 booster*		Resident girls		MMR1 (girls)		MMR2 (girls)		Resident boys		MMR1 (boys)		MMR2 (boys)	
	(n)	(n)	(%)	(n)	(%)	(n)	(%)		(n)	(n)	(%)	(n)	(%)	(n)	(n)	(%)	(n)	(%)		(%)
Abertawe Bro Morgannwg University LHB																				
Bridgend LA	1586	1529	96.4	1469	92.6	1240	78.2		770	747	97.0	719	93.4		815	782	96.0	750	92.0	
Neath Port Talbot LA	1572	1539	97.9	1460	92.9	1338	85.1		784	763	97.3	721	92.0		788	776	98.5	739	93.8	
Swansea LA	2461	2366	96.1	2194	89.2	2098	85.2		1167	1122	96.1	1039	89.0		1294	1244	96.1	1155	89.3	
Health Board Total	5619	5434	96.7	5123	91.2	4676	83.2		2721	2632	96.7	2479	91.1		2897	2802	96.7	2644	91.3	
Aneurin Bevan University LHB																				
Blaenau Gwent LA	776	761	98.1	722	93.0	626	80.7		383	380	99.2	357	93.2		393	381	96.9	365	92.9	
Caerphilly LA	2084	2024	97.1	1919	92.1	1705	81.8		1043	1016	97.4	969	92.9		1041	1008	96.8	950	91.3	
Monmouthshire LA	1081	960	88.8	883	81.7	842	77.9		506	457	90.3	425	84.0		575	503	87.5	458	79.7	
Newport LA	1937	1824	94.2	1709	88.2	1480	76.4		960	912	95.0	855	89.1		976	912	93.4	854	87.5	
Torfaen LA	1116	1084	97.1	1037	92.9	915	82.0		549	537	97.8	508	92.5		567	547	96.5	529	93.3	
Health Board Total	6994	6653	95.1	6270	89.6	5568	79.6		3441	3302	96.0	3114	90.5		3552	3351	94.3	3156	88.9	
Betsi Cadwaladr University LHB																				
Anglesey LA	745	720	96.6	693	93.0	637	85.5		342	334	97.7	319	93.3		403	386	95.8	374	92.8	
Conwy LA	1197	1145	95.7	1104	92.2	1054	88.1		601	587	97.7	571	95.0		594	557	93.8	533	89.7	
Denbighshire LA	1148	1103	96.1	1026	89.4	974	84.8		577	548	95.0	507	87.9		571	555	97.2	519	90.9	
Flintshire LA	1743	1690	97.0	1612	92.5	1501	86.1		839	816	97.3	781	93.1		904	874	96.7	831	91.9	
Gwynedd LA	1265	1212	95.8	1173	92.7	1093	86.4		633	609	96.2	592	93.5		631	602	95.4	580	91.9	
Wrexham LA	1418	1376	97.0	1331	93.9	1185	83.6		659	634	96.2	615	93.3		759	742	97.8	716	94.3	
Health Board Total	7516	7246	96.4	6939	92.3	6444	85.7		3651	3528	96.6	3385	92.7		3862	3716	96.2	3553	92.0	
Cardiff and Vale University LHB																				
Cardiff LA	3732	3473	93.1	3224	86.4	2853	76.4		1787	1669	93.4	1556	87.1		1944	1803	92.7	1668	85.8	
Vale of Glamorgan LA	1492	1402	94.0	1337	89.6	1240	83.1		730	682	93.4	650	89.0		762	720	94.5	687	90.2	
Health Board Total	5224	4875	93.3	4561	87.3	4093	78.3		2517	2351	93.4	2206	87.6		2706	2523	93.2	2355	87.0	
Cwm Taf University LHB																				
Merthyr Tydfil LA	670	646	96.4	617	92.1	601	89.7		324	311	96.0	297	91.7		346	335	96.8	320	92.5	
Rhondda Cynon Taff LA	2568	2509	97.7	2388	93.0	2281	88.8		1241	1211	97.6	1152	92.8		1327	1298	97.8	1236	93.1	
Health Board Total	3238	3155	97.4	3005	92.8	2882	89.0		1565	1522	97.3	1449	92.6		1673	1633	97.6	1556	93.0	
Hywel Dda University LHB																				
Cardiff LA	1684	1598	94.9	1512	89.8	1393	82.7		822	785	95.5	748	91.0		862	813	94.3	764	88.6	
Ceredigion LA	684	648	94.7	612	89.5	588	86.0		332	316	95.2	303	91.3		352	332	94.3	309	87.8	
Pembrokeshire LA	1399	1296	92.6	1213	86.7	1060	75.8		673	628	93.3	589	87.5		726	668	92.0	624	86.0	
Health Board Total	3767	3542	94.0	3337	88.6	3041	80.7		1827	1729	94.6	1640	89.8		1940	1813	93.5	1697	87.5	
Powys Teaching LHB																				
Unknown	1495	1386	92.7	1312	87.8	1096	73.3		724	678	93.6	643	88.8		771	708	91.8	669	86.8	
Wales Total	34038	32441	95.3	30682	90.1	27922	82.0		16526	15803	95.6	14969	90.6		17506	16635	95.0	15712	89.8	

* Teenage booster dose of diphtheria, tetanus and polio (diphtheria used as proxy).

Table 10. Percentages of children who are up to date with routine immunisations* by four years of age, by quintile of deprivation of the Lower Super Output Area in which they reside. Vaccine uptake is presented for children reaching their 4th birthday between 01/04/2014 and 31/03/2015 and resident on 31/03/2015.

Health Board	Lower Super Output Areas in Deprivation Quintile 1			Lower Super Output Areas in Deprivation Quintile 2			Lower Super Output Areas in Deprivation Quintile 3			Lower Super Output Areas in Deprivation Quintile 4			Lower Super Output Areas in Deprivation Quintile 5		
	Resident children		Up to date by 4y	Resident children		Up to date by 4y	Resident children		Up to date by 4y	Resident children		Up to date by 4y	Resident children		Up to date by 4y
	(n)	(n)	(%)	(n)	(n)	(%)	(n)	(n)	(%)	(n)	(n)	(%)	(n)	(n)	(%)
Abertawe Bro Morgannwg	1161	1001	86.2	686	591	86.2	999	852	85.3	1262	1072	84.9	1824	1518	83.2
Aneurin Bevan	1039	904	87.0	852	716	84.0	1277	1074	84.1	1595	1297	81.3	2189	1790	81.8
Betsi Cadwalladr	1304	1202	92.2	1799	1650	91.7	1728	1567	90.7	1545	1386	89.7	1272	1103	86.7
Cardiff and Vale	1684	1519	90.2	770	667	86.6	654	546	83.5	898	731	81.4	2025	1578	77.9
Cwm Taf	322	303	94.1	339	302	89.1	472	419	88.8	1155	1036	89.7	1210	1064	87.9
Hywel Dda	211	190	90.0	1060	923	87.1	1462	1257	86.0	869	733	84.3	448	361	80.6
Powys Teaching	139	121	87.1	550	479	87.1	341	296	86.8	160	144	90.0	61	56	91.8
Wales Total	5860	5240	89.4	6056	5328	88.0	6933	6011	86.7	7484	6399	85.5	9029	7470	82.7

* Completed 4 in 1 preschool booster, the Hib/MenC booster and second MMR dose by four years of age. The calculation method for proportions of children up to date with routine immunisation by four years of age was revised during 2014 quarter 1, to remove the pneumococcal conjugate vaccine booster dose, as this is not clinically indicated after two years of age.

Table 11. Uptake of hepatitis B immunisation in children born to hepatitis B positive mothers reaching their 1st, 2nd and 5th birthdays during 01/04/2014 and 31/03/2015 and resident on 31/03/2015.

Area	1yr					2yrs						5yrs					
	Resident children	Babies at risk of perinatal infection	1 dose	2 doses	3 doses	Resident children	Babies at risk of perinatal infection	1 dose	2 doses	3 doses	4 doses	Resident children	Babies at risk of perinatal infection	1 dose	2 dose	3 doses	4 doses
	(n)	(n)	(%)	(%)	(%)	(n)	(n)	(%)	(%)	(%)	(%)	(n)	(n)	(%)	(%)	(%)	(%)
Abertawe Bro Morgannwg UHB	5495	7	100.0	100.0	100.0	5685	4	100.0	100.0	100.0	100.0	5839	10	100.0	100.0	100.0	100.0
Aneurin Bevan UHB	6539	13	100.0	100.0	100.0	6794	8	100.0	100.0	100.0	100.0	6933	9	100.0	100.0	100.0	88.9
Betsi Cadwaladr UHB	7218	8	100.0	100.0	100.0	7597	8	100.0	100.0	100.0	100.0	7738	9	100.0	100.0	100.0	100.0
Cardiff and Vale UHB	5870	28	100.0	100.0	100.0	5972	19	100.0	100.0	100.0	89.5	6075	22	100.0	100.0	100.0	95.5
Cwm Taf UHB	3368	0	0.0	0.0	0.0	3447	0	0.0	0.0	0.0	0.0	3428	1	100.0	100.0	100.0	100.0
Hywel Dda UHB	3672	2	100.0	100.0	100.0	3860	1	100.0	100.0	100.0	100.0	3874	3	100.0	100.0	100.0	100.0
Powys Teaching HB	1150	0	0.0	0.0	0.0	1219	1	100.0	100.0	100.0	100.0	1273	1	100.0	100.0	100.0	100.0
Unknown	99	2	50.0	50.0	50.0	103	0	0.0	0.0	0.0	0.0	102	0	0.0	0.0	0.0	0.0
Wales Total	33411	60	98.3	98.3	98.3	34677	41	100.0	100.0	100.0	95.1	35262	55	100.0	100.0	100.0	96.4

Data reflects immunisations given and recorded on the Public Health Wales All Wales Neonatal Hepatitis B database of babies born to hepatitis B positive mothers.

Links

Welsh Health Circular (2005) 081 – MMR immunisation catch-up:

http://www.wales.nhs.uk/documents/WHC_2005_081.pdf

Public Health Wales Vaccination and Immunisation intranet site HPV pages:

<http://howis.wales.nhs.uk/sites3/page.cfm?orgId=474&pid=21297>

Link to guidance on follow up of children who have missed scheduled MMR doses (WHC (2005)81):

http://www.wales.nhs.uk/documents/WHC_2005_081.pdf

Public Health Wales Vaccination and Immunisation intranet (NHS Wales only):

<http://howis.wales.nhs.uk/sites3/home.cfm?orgid=474>

Public Health Wales Health Protection internet:

<http://www.wales.nhs.uk/sites3/home.cfm?orgid=457>

Report Team

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