

Vaccine Uptake in Children in Wales

COVER Annual Report 2018

Data for the year ending 31st March 2018



Key points

- In 2017/18 uptake of the '5 in 1' and pneumococcal conjugate vaccinations in one year old children in Wales was over 95% for the tenth consecutive year.
- MenB vaccine uptake in the first full cohort of eligible children reported on was over 95% for two doses. Uptake of two doses of rotavirus vaccine was 94%.
- MMR uptake was just below 95% for the first dose at two years.
- MenB uptake was 86% for the complete course at two years. Some children reaching their second birthday during 2017/18 would not have been offered this vaccine, only those born 01/05/2015 onwards were eligible.
- By the fourth birthday, 85% of children were up to date with recommended immunisations; this is stable compared to 2016/17.
- MMR dose two uptake in children at five years of age was just below 90%. Uptake of the pre-school '4 in 1' booster in this age-group was 92%.
- Human Papillomavirus (HPV) vaccine uptake in girls turning 14 years of age during the 2017/18 school year was 87% for the first dose. Uptake of the complete two-dose course in girls turning 15 years of age was 83%.
- MMR uptake, for a full two-dose course, was 88% and 87% for teenagers turning 15 and 16 years of age respectively during the 2017/18 school year.
- MenACWY vaccine uptake in teenagers turning 15 years of age during the 2017/18 school year was 83%. This is the second School Year 9 cohort to be offered the vaccine.

Background

These annual results for 2017/18 are for one year cohorts of children living in Wales in March 2018 and reaching their first, second, fourth and fifth birthdays between 01/04/2017 and 31/03/2018. Uptake of vaccinations in those reaching 15 and 16 years of age are presented by school year.

Inequalities in uptake of routine vaccinations at four years of age are also presented. National quintiles of deprivation were calculated according to the Lower Super Output Area (LSOA) rankings contained in the Welsh Index of Multiple Deprivation (WIMD 2014). 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 all residents in the LSOA as a whole, not the circumstances of individual residents within the LSOA.

Findings

1. '5 in 1'¹ vaccine uptake (the third dose) in children reaching their first birthday decreased to 95.9%, from 96.3% in the previous year. Uptake ranged by health board (HB) from 94.2% (Hywel Dda) to 97.4% (Cwm Taf) and by local authority (LA) from 93.9% (Ceredigion and Denbighshire) to 97.7% (Merthyr Tydfil). Sixteen of the 22 LAs achieved the 95% target (Figures 1, 2, 4, 6 and Tables 2, 3).

¹ DTaP/IPV/Hib vaccine protects against diphtheria, tetanus, pertussis (Whooping Cough), polio and Hib infection. Scheduled at two, three and four months of age.

2. Pneumococcal conjugate vaccination (PCV²) uptake of a complete two-dose primary course in children at one year of age was 95.9%, ranging by HB from 94.2% (Hywel Dda) to 97.5% (Cwm Taf) and by LA from 93.5% (Denbighshire) to 97.7% (Blaenau Gwent) (Figures 1, 2 and Tables 2, 3).
3. Rotavirus vaccine uptake of two doses in children reaching their first birthday was 93.8% compared to 94.1% in the previous year. Uptake ranged by HB from 92.3% (Hywel Dda) to 96.3% (Cwm Taf) and by LA from 90.4% (Ceredigion) to 96.7% (Merthyr Tydfil) (Figures 1, 2 and Tables 2, 3).
4. Meningococcal serotype B vaccination (MenB³) uptake of two doses in children at one year of age was 95.3%, ranging by HB from 93.5% (Cardiff and Vale) to 97.1% (Cwm Taf) and by LA from 93.0% (Cardiff and Ceredigion) to 97.5% (Merthyr Tydfil) (Table 3). This is the first annual report to report on a full cohort of children who would have been eligible for MenB vaccine, which was introduced in September 2015 for those born 1st May 2015 onwards [1].
5. MMR⁴ uptake of one dose by two years of age decreased to 94.7%, compared to 95.1% in the previous year. Uptake ranged by HB from 93.2% (Cardiff and Vale) to 96.3% (Cwm Taf) and by LA from 92.4% (Pembrokeshire) to 96.8% (Caerphilly). Three HBs achieved the target uptake of 95%, and 12 out of 22 LAs exceeded the 95% target (Figures 1, 4, 7 and Tables 2, 4).
6. Pneumococcal Conjugate Vaccine (PCVf) uptake of the final dose by two years of age was 95.2%. Uptake by HB ranged from 93.2% (Cardiff and Vale) to 96.8% (Cwm Taf) and by LA from 92.8% (Cardiff) to 96.9% (Caerphilly, Neath Port Talbot, Rhondda Cynon Taf and Torfaen) (Figure 2 and Tables 2, 4).
7. Hib/MenC⁵ booster uptake by two years of age was 94.5%, ranging by HB from 92.5% (Cardiff and Vale) to 96.2% (Cwm Taf) and by LA from 91.9% (Cardiff) to 96.7% (Neath Port Talbot) (Figures 1, 2 and Tables 2, 4).
8. MenB³ vaccine uptake of a complete course in children at two years of age was 85.5%, ranging by HB from 82.5% (Cardiff and Vale) to 87.1% (Cwm Taf). MenB vaccination was introduced in September 2015 for those born 1st May 2015 onwards, therefore infants turning 2 years of age in April 2017 would not have been eligible [1]. Excluding those who were not eligible, uptake of a complete course was 93.1%.
9. Hib/MenC booster coverage in children by their fourth birthday was 93.3% and ranged by HB from 91.0% (Powys) to 96.2% (Cwm Taf) (Table 5).
10. '4 in 1' DTaP/IPV⁶ 'pre-school booster' uptake in children by four years of age was 88.3%, this ranged by HB from 84.6% (Aneurin Bevan) to 91.8% (Powys) (Table 5).
11. MMR vaccine uptake of a complete two dose course in children by four years of age was 86.2% stable compared to 86.4% last year, this ranged by HB from 83.8% (Aneurin Bevan) to 88.9% (Cwm Taf) (Table 5).
12. The percentage of children who were up to date with their Hib/MenC booster, '4 in 1' DTaP/IPV pre-school booster and MMR vaccines by four years of age was 84.9, stable compared to 84.6% last year. This ranged by HB from 81.0% (Aneurin Bevan) to 88.2% (Cwm Taf) and by LA from 73.0% (Newport) to 91.0% (Merthyr Tydfil) (Figure 3 and Tables 1, 2, 5).

² 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.

³ MenB vaccination was introduced in July 2015 and all infants reaching 2 years of age from 1st May 2017 onwards would have been eligible. Three doses of MenB vaccine should be given at 2, 4 and 12-13 months of age. A small number of infants in the catch-up cohort would have been assigned to a two dose schedule.

⁴ MMR protects against measles, mumps and rubella infections.

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

13. The percentage of children who were up to date with their routine vaccinations by four years of age varied according to the national quintile of deprivation of the LSOA in which they resided. Nationally, the percentage of children up to date with their routine immunisations by four years of age ranged from 81.6% in the most deprived quintile of LSOAs to 87.7% in the least deprived quintile of LSOAs. The difference in uptake between the least deprived quintile and the most deprived quintile was 6.2%, stable compared to 6.0% in 2016/17 (Figures 10, 11 and Table 6).
14. MMR uptake of two doses in children at five years of age was 89.5% this year, compared to 90.3% last year, ranging by HB from 86.8% (Cardiff and Vale) to 91.4% (Betsi Cadwaladr). Coverage of one dose of MMR in children at five years of age was 96.5% and ranged by HB from 95.0% (Hywel Dda) to 97.4% (Cwm Taf) (Figures 1, 2, 5, 8 and Tables 2, 6).
15. '4 in 1' DTaP/IPV 'pre-school booster' uptake in children reaching their fifth birthday this year was stable at 92.3%, compared to 92.5% in the previous year (Figures 2, 5, 9 and Tables 2, 7).
16. HPV vaccine uptake of one dose in girls in the 2017/18 School Year 9 (reaching their 14th birthday between 01/09/17 and 31/08/18) was 86.6%, stable compared to 86.7% for the 2016/17 School Year 9 group at the time of the previous annual COVER report. Uptake ranged by HB from 79.2% (Aneurin Bevan) to 92.4% (Abertawe Bro Morgannwg) and by LA from 72.0% (Monmouthshire) to 94.7% (Neath Port Talbot). Coverage of two doses of HPV vaccine in girls in the 2017/18 School Year 10 is currently 83.0%, a decrease from 85.8% for the 2016/17 School Year 10 group at the time of the previous annual COVER report (Figure 12 and Table 8) [2].
17. MMR coverage of two doses in teenagers turning 15 years of age between 01/09/17 and 31/08/18 was 88.0%, ranging by HB from 78.3% (Powys) to 90.3% (Betsi Cadwaladr) and by LA from 78.3% (Powys) to 92.9% (Gwynedd). Coverage of one dose of MMR in 15 year olds was 92.8%, ranging by LA from 86.3% (Powys) to 95.9% (Gwynedd). A breakdown by sex indicates that 88.5% of girls had received a full (two MMR doses) course of immunisation against rubella and coverage of one dose was 93.1% (Figure 12 and Table 9).
18. Td/IPV⁷ 'teenage booster' uptake in teenagers reaching 15 years of age between 01/09/17 and 31/08/18 was 83.0%. Uptake ranged by HB from 73.9% (Cardiff and Vale) to 89.4% (Cwm Taf) and by LA from 71.9% (Cardiff) to 89.9% (Merthyr Tydfil) (Figure 12 and Table 9).
19. The MenACWY vaccination programme for teenagers was introduced at the start of the 2015/16 school year, replacing the single antigen meningococcal C teenage booster which was previously given to children in School Year 9 [3]. Coverage in the 2016-17 School Year 10 group, the first Year 9 routine cohort to be offered the new vaccine is currently 81.6%. Coverage in the in the 2017/18 School Year 10 group, the second Year 9 routine cohort to be offered the new vaccine is currently 83.4% (Figure 12 and Table 9).
20. MMR coverage of two doses in teenagers turning 16 years of age during the 2017/18 school year was 87.4%, ranging by HB from 82.0% (Powys) to 90.3% (Betsi Cadwaladr) and by LA from 78.2% (Monmouthshire) to 93.8% (Wrexham). Coverage of one dose of MMR in 16 year olds was 92.5%, ranging by LA from 84.5% (Monmouthshire) to 96.1% (Caerphilly). A breakdown by sex indicates that 88.1% of girls had received a full (two MMR doses) course of immunisation against rubella and coverage of one dose was 93.0% (Table 10).
21. Td/IPV 'teenage booster' uptake in teenagers reaching 16 years during the 2017/18 school year was 84.2%. Uptake ranged by HB from 74.8% (Cardiff and Vale) to 91.5% (Cwm Taf) and by LA from 72.2% (Cardiff) to 91.7% (Rhondda Cynon Taff) (Table 10).

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

22. 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 2018 was 79.6%. Uptake of four doses in children who were at risk of perinatal infection and reached their second birthday in the year ending 31st March 2018 was 75.5%. Uptake of four doses in children who were at risk of perinatal infection and reached their fifth birthday in the year ending 31st March 2018 was 94.6%.

Comment

This is the tenth consecutive year that uptake of both the '5 in 1' vaccine and pneumococcal conjugate vaccines remained above 95% in children at one year of age.

MenB vaccine uptake of two doses in the first full annual cohort of children who were eligible, now at one year of age, is reported. Uptake of a complete course in two-year-old infants born 1st May 2015 to 31st March 2016, the first group of children to be eligible, is also reported. Uptake of two doses at one year of age was over 95% and uptake of a complete course in eligible two year olds was 93%. Whilst the majority of infants turning two years of age between April 2017 and March 2018 would have been on the three-dose schedule, a small number of infants in the catch-up cohort would have been eligible for the two-dose schedule [1]. This suggests continued high levels of acceptability of this recent addition to the childhood vaccination schedule.

The proportion of children who were up to date with their routine immunisations by four years of age remained stable this year, following a decrease three years in a row. Of all the immunisations that are included in this composite measure, uptake of the second dose of MMR remains the lowest (86%), followed by the '4 in 1' preschool booster (88%) and Hib/MenC booster (93%).

The inequality gap in immunisation coverage between four year olds residing in the most and least deprived areas remained stable compared to 2016/17, at 6.2%. In every year since this surveillance began in 2012, vaccination uptake in four year olds has been consistently lower in the most deprived areas. Analyses previously carried out by Public Health Wales [4] have shown that inequalities in uptake increase as scheduled vaccination age increases and suggest that repeated offer of catch-up is key in addressing inequalities over the longer-term. Delivery of teenage vaccinations in school settings has also helped in reducing inequities in uptake in teenagers. Further work is needed to identify why inequalities exist and to identify interventions to help reduce this gap.

Uptake of two doses of MMR in five year olds has fallen for the third consecutive year to below 90%. Uptake of two doses in children in the 2017/18 school years 10 and 11 also remains below 90%. During April to March 2017/18, there were two outbreaks of measles in South Wales. Spread was limited due to high levels of existing MMR uptake and supplementary immunisation activities to offer catch up immunisation [5, 6], but this highlights the potential for future outbreaks. Given large, ongoing outbreaks across Europe, the risk of imported cases leading to outbreaks in Wales remains high [7]. Vaccination status checking and opportunistic catch-up to ensure that children and teenagers in Wales have received two doses MMR remain key priorities.

Uptake of a complete course of HPV immunisation in year 10 girls (reaching 15 years of age) has decreased for the second year in a row and is now 83%, a fall of 2.8%. However, uptake of MMR1, MMR2 and the '3 in 1' teenage booster in the 2017/18 school year 10 were all higher than in the 2016/17 school year 10 at the same time last year.

Vaccination sessions for the MenACWY vaccine catch-up cohorts are mostly complete. Coverage in the 2017/18 School Years 10, 11 and 12 (turning 15 to 17 years of age) is currently 83.4%, 81.6% and 79.9% respectively [8]. Uptake in those turning 18 years of age during the 2017/18 school year was 78.2% when reported at this time last year, although this may have increased slightly as some individuals may have since been vaccinated in general practice [9]. Uptake in those cohorts eligible to only be vaccinated through General Practice (turning 19, 20 and 21 years of age), remains low (40.4%, 41.6% and 41.8% as at 14/05/2018) but has increased since the same time last year (27%, 37% and 39% as at 15/05/2017) [10].

Overall, in 2017/18, vaccine uptake in young infants remained high and stable. The continuing fall in MMR uptake in children in their early primary school years is of concern and should be actively addressed to maintain elimination of measles in the longer term. Uptake in teenagers continues on a positive trend although the fall in uptake of HPV vaccine over two years is noted. Once again, importance of catch-up is highlighted; and every opportunity should be taken to offer missing MMR and other vaccinations alongside routine teenage immunisations.

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Figure 1. Percentage uptake of childhood immunisations in Wales, quarter 1 1997 to quarter 1 2018. Data are for children reaching 1 year of age each quarter for '5 in 1', MenB (two doses), Rotavirus (two doses) and pneumococcal conjugate vaccine (PCV2), children reaching 2 years of age for MMR1 (first dose) and the Hib/MenC booster, 5 years of age for MMR2 (second dose) and 16 years of age for the '3 in 1' teenage booster*

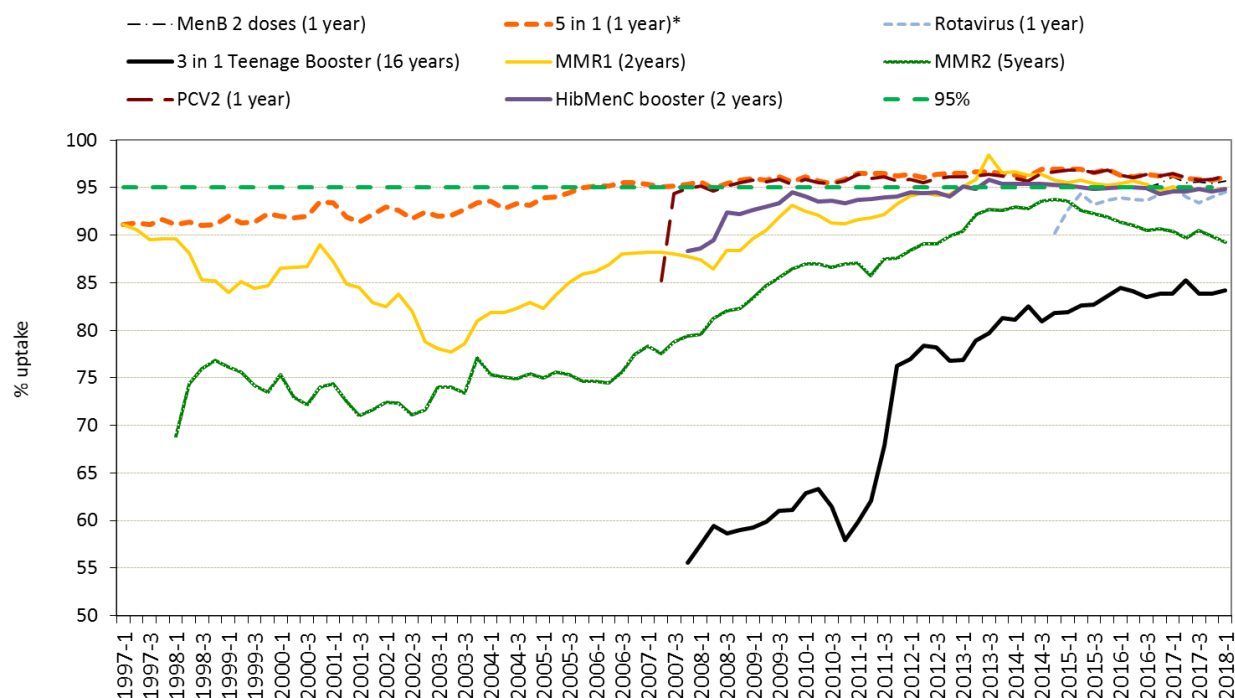


Figure 2. Summary of uptake rates for selected immunisations in resident children reaching their 1st, 2nd and 5th birthday between 01/04/2017 and 31/03/2018 and resident on 31/03/2018.

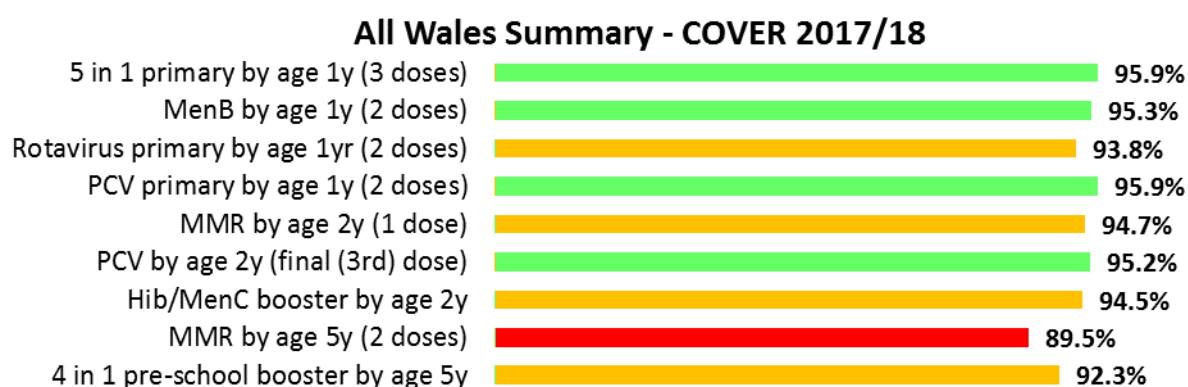


Figure 3. Percentage of resident children reaching their 4th birthday between 01/04/17 and 31/03/18 and are up to date with all scheduled vaccines⁸ by Health Board.



Table 1. Percentage of resident children reaching their 4th birthday and are up to date with all scheduled vaccines by Health Board, annually 2014/15 to 2017/18.

Area	Up to date in schedule			
	2014/15	2015/16	2016/17	2017/18
Abertawe Bro Morgannwg UHB	84.9	86.5	86.3	86.2
Aneurin Bevan UHB	83.2	80.0	80.7	81.0
Betsi Cadwaladr UHB	90.4	89.2	88.3	87.9
Cardiff and Vale UHB	83.8	82.7	81.7	82.6
Cwm Taf UHB	89.4	89.5	87.3	88.2
Hywel Dda UHB	85.5	85.3	83.0	84.0
Powys Teaching HB	87.7	84.9	86.2	86.2
Wales	86.2	85.3	84.6	84.9

⁸ Completed '4 in 1' pre-school booster, the Hib/MenC booster and second MMR dose by four years of age.

Table 2. Summary table with uptake of selected immunisations in resident children reaching their 1st, 2nd, 4th and 5th birthday between 01/04/2017 and 31/03/2018 and resident on 31/03/2018.

Area	Age 1 year									Age 2 years						Age 4 years			Age 5 years							
	Resident children (n)	5 in 1 ¹ (n) (%)		MenB ² (n) (%)		PCV2 (n) (%)		Rotavirus (n) (%)		Resident children (n)	MMR1 (n) (%)		PCVf ³ (n) (%)		MenB ⁴ (n) (%)		Hib/MenC booster (n) (%)	Resident children (n)	Up to date in schedule ⁵ (n) (%)		Resident children (n)	MMR2 (n) (%)		4 in 1 ¹ (n) (%)		
Abertawe Bro Morgannwg University LHB																										
Bridgend LA	1559	1512	97.0	1506	96.6	1514	97.1	1496	96.0	1561	1488	95.3	1490	95.5	1354	86.7	1474	94.4	1620	1426	88.0	1668	1531	91.8	1530	91.7
Neath Port Talbot LA	1524	1469	96.4	1463	96.0	1469	96.4	1451	95.2	1541	1479	96.0	1493	96.9	1348	87.5	1490	96.7	1534	1324	86.3	1549	1413	91.2	1428	92.2
Swansea LA	2431	2333	96.0	2308	94.9	2330	95.8	2286	94.0	2594	2427	93.6	2455	94.6	2211	85.2	2433	93.8	2581	2194	85.0	2732	2468	90.3	2508	91.8
Health Board Total	5514	5314	96.4	5277	95.7	5313	96.4	5233	94.9	5696	5394	94.7	5438	95.5	4913	86.3	5397	94.8	5735	4944	86.2	5949	5412	91.0	5466	91.9
Aneurin Bevan University LHB																										
Blaenau Gwent LA	730	711	97.4	711	97.4	713	97.7	676	92.6	717	684	95.4	689	96.1	637	88.8	683	95.3	808	644	79.7	807	733	90.8	744	92.2
Caerphilly LA	1961	1904	97.1	1907	97.2	1910	97.4	1851	94.4	2091	2025	96.8	2027	96.9	1828	87.4	2015	96.4	2108	1812	86.0	2167	1982	91.5	2007	92.6
Monmouthshire LA	791	752	95.1	744	94.1	751	94.9	733	92.7	840	808	96.2	808	96.2	715	85.1	805	95.8	879	737	83.8	975	844	86.6	905	92.8
Newport LA	2007	1897	94.5	1890	94.2	1902	94.8	1832	91.3	2082	1952	93.8	1952	93.8	1765	84.8	1923	92.4	2036	1487	73.0	2061	1780	86.4	1822	88.4
Torfaen LA	1017	988	97.1	982	96.6	992	97.5	949	93.3	1069	1023	95.7	1036	96.9	926	86.6	1028	96.2	1107	940	84.9	1157	1042	90.1	1064	92.0
Health Board Total	6506	6252	96.1	6234	95.8	6268	96.3	6041	92.9	6799	6492	95.5	6512	95.8	5871	86.4	6454	94.9	6938	5620	81.0	7167	6381	89.0	6542	91.3
Betsi Cadwaladr University LHB																										
Anglesey LA	731	712	97.4	705	96.4	710	97.1	701	95.9	689	663	96.2	666	96.7	613	89.0	663	96.2	753	681	90.4	806	754	93.5	782	97.0
Conwy LA	1025	982	95.8	983	95.9	985	96.1	969	94.5	1147	1087	94.8	1089	94.9	999	87.1	1084	94.5	1080	923	85.5	1196	1099	91.9	1143	95.6
Denbighshire LA	1030	967	93.9	959	93.1	963	93.5	956	92.8	1036	971	93.7	975	94.1	867	83.7	973	93.9	1078	909	84.3	1066	970	91.0	1013	95.0
Flintshire LA	1551	1501	96.8	1496	96.5	1501	96.8	1472	94.9	1579	1516	96.0	1521	96.3	1385	87.7	1516	96.0	1643	1461	88.9	1736	1568	90.3	1666	96.0
Gwynedd LA	1152	1121	97.3	1114	96.7	1121	97.3	1097	95.2	1199	1141	95.2	1148	95.7	1050	87.6	1140	95.1	1205	1057	87.7	1336	1212	90.7	1260	94.3
Wrexham LA	1505	1458	96.9	1458	96.9	1462	97.1	1419	94.3	1519	1448	95.3	1457	95.9	1301	85.6	1448	95.3	1609	1447	89.9	1667	1535	92.1	1585	95.1
Health Board Total	6994	6741	96.4	6715	96.0	6742	96.4	6614	94.6	7169	6826	95.2	6856	95.6	6215	86.7	6824	95.2	7368	6478	87.9	7807	7138	91.4	7449	95.4
Cardiff and Vale University LHB																										
Cardiff LA	4240	4008	94.5	3943	93.0	3986	94.0	3901	92.0	4405	4086	92.8	4087	92.8	3627	82.3	4050	91.9	4429	3634	82.1	4554	3921	86.1	4109	90.2
Vale of Glamorgan LA	1435	1373	95.7	1365	95.1	1367	95.3	1356	94.5	1438	1357	94.4	1357	94.4	1191	82.8	1353	94.1	1486	1253	84.3	1538	1365	88.8	1405	91.4
Health Board Total	5675	5381	94.8	5308	93.5	5353	94.3	5257	92.6	5843	5443	93.2	5444	93.2	4818	82.5	5403	92.5	5915	4887	82.6	6092	5286	86.8	5514	90.5
Cwm Taf University LHB																										
Merthyr Tydfil LA	688	672	97.7	671	97.5	671	97.5	665	96.7	760	729	95.9	731	96.2	648	85.3	726	95.5	676	615	91.0	750	691	92.1	706	94.1
Rhondda Cynon Taff LA	2655	2585	97.4	2575	97.0	2589	97.5	2554	96.2	2780	2679	96.4	2694	96.9	2434	87.6	2681	96.4	2849	2494	87.5	2872	2592	90.3	2651	92.3
Health Board Total	3343	3257	97.4	3246	97.1	3260	97.5	3219	96.3	3540	3408	96.3	3425	96.8	3082	87.1	3407	96.2	3525	3109	88.2	3622	3283	90.6	3357	92.7
Hywel Dda University LHB																										
Cardemarthenshire LA	1876	1772	94.5	1755	93.6	1761	93.9	1750	93.3	1937	1820	94.0	1833	94.6	1639	84.6	1808	93.3	1957	1644	84.0	2041	1795	87.9	1841	90.2
Ceredigion LA	586	550	93.9	545	93.0	553	94.4	530	90.4	651	609	93.5	615	94.5	553	84.9	615	94.5	663	573	86.4	695	626	90.1	655	94.2
Pembrokeshire LA	1179	1108	94.0	1110	94.1	1115	94.6	1082	91.8	1220	1127	92.4	1141	93.5	1008	82.6	1127	92.4	1220	1007	82.5	1318	1130	85.7	1184	89.8
Health Board Total	3641	3430	94.2	3410	93.7	3429	94.2	3362	92.3	3808	3556	93.4	3589	94.2	3200	84.0	3550	93.2	3840	3224	84.0	4054	3551	87.6	3680	90.8
Powys Teaching LHB	1119	1079	96.4	1069	95.5	1078	96.3	1049	93.7	1161	1099	94.7	1103	95.0	985	84.8	1101	94.8	1226	1057	86.2	1256	1104	87.9	1172	93.3
Unknown	15	13	86.7	13	86.7	13	0.0	12	80.0	9	8	88.9	8	88.9	985	84.8	8	88.9	70	55	78.6	64	62	96.9	61	95.3
Wales Total	32807	31468	95.9	31272	95.3	31456	95.9	30787	93.8	34025	32226	94.7	32375	95.2	29092	85.5	32144	94.5	34617	29374	84.9	36011	32217	89.5	33241	92.3

¹ Uptake of pertussis used as proxy.

² Uptake of two doses of meningococcal serogroup B (MenB) vaccine, scheduled at two and four months of age.

³ Children receiving the final dose of PCV.

⁴ MenB vaccination was introduced in July 2015 and all infants reaching 2 years of age from 1st May 2017 onwards would have been eligible. Three doses of MenB vaccine should be given at 2, 4 and 12-13 months of age. A small number of infants in the catch-up cohort would have been assigned to a two dose schedule.

⁵ Completed '4 in 1' preschool booster, the Hib/ MenC booster and second MMR dose by four years of age.

Figure 4. (a) Uptake of '5 in 1' vaccine in Welsh Local Authority areas in children reaching their 1st birthday between 01/04/17 and 31/03/18. **(b)** Uptake of at least 1 dose of MMR immunisation in Welsh Local Authority areas in children reaching their 2nd birthday between 01/04/17 and 31/03/18.

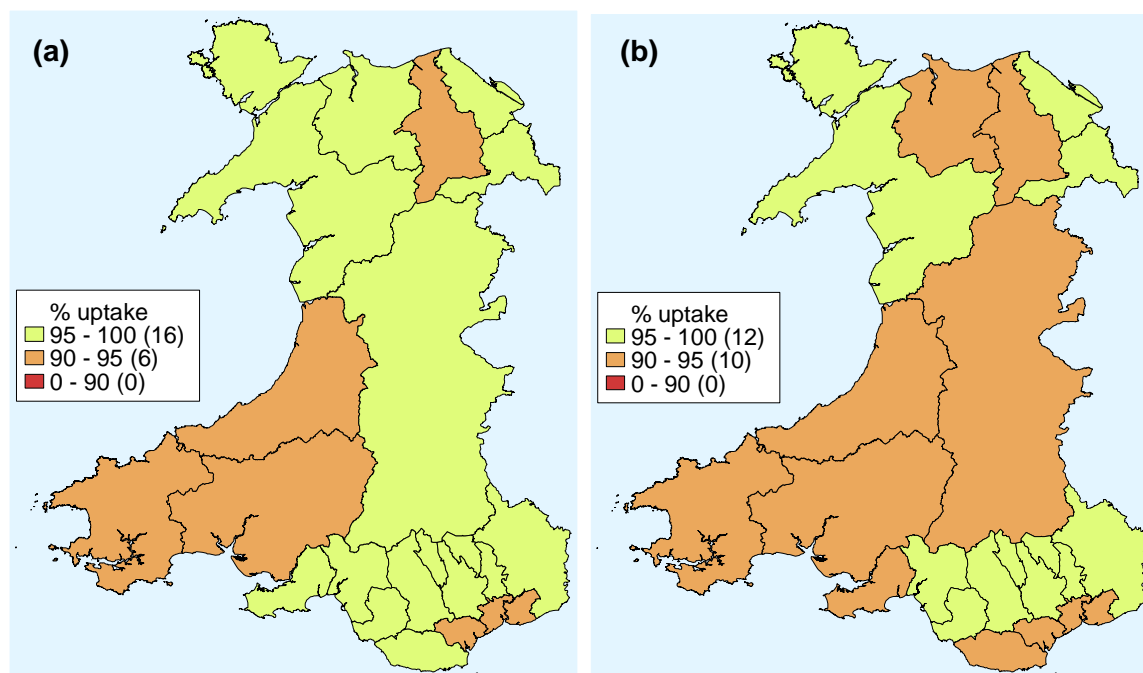


Figure 5. (a) Uptake of two doses of MMR vaccine in Welsh Local Authority areas in children reaching their 5th birthday between 01/04/17 and 31/03/18. **(b)** Uptake of '4 in 1' vaccine in Welsh Local Authority areas in children reaching their 5th birthday between 01/04/17 and 31/03/18.

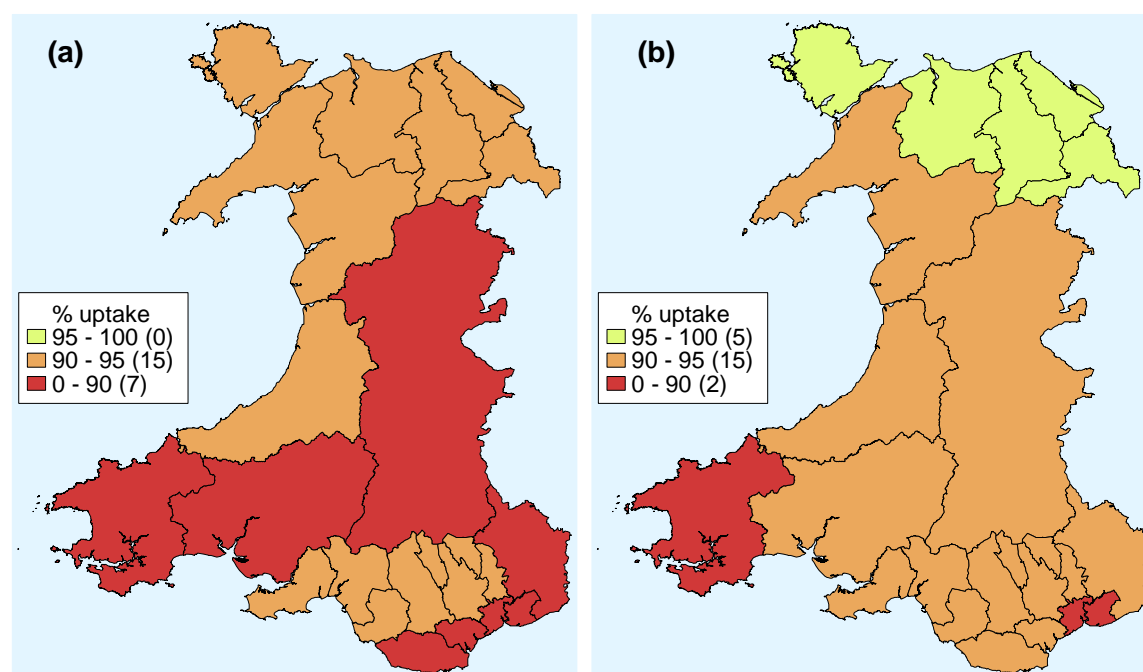


Figure 6. Annual uptake of '5 in 1' vaccine by 1 year of age (2014 – 2018 financial years, ranked by uptake in 2017/18).

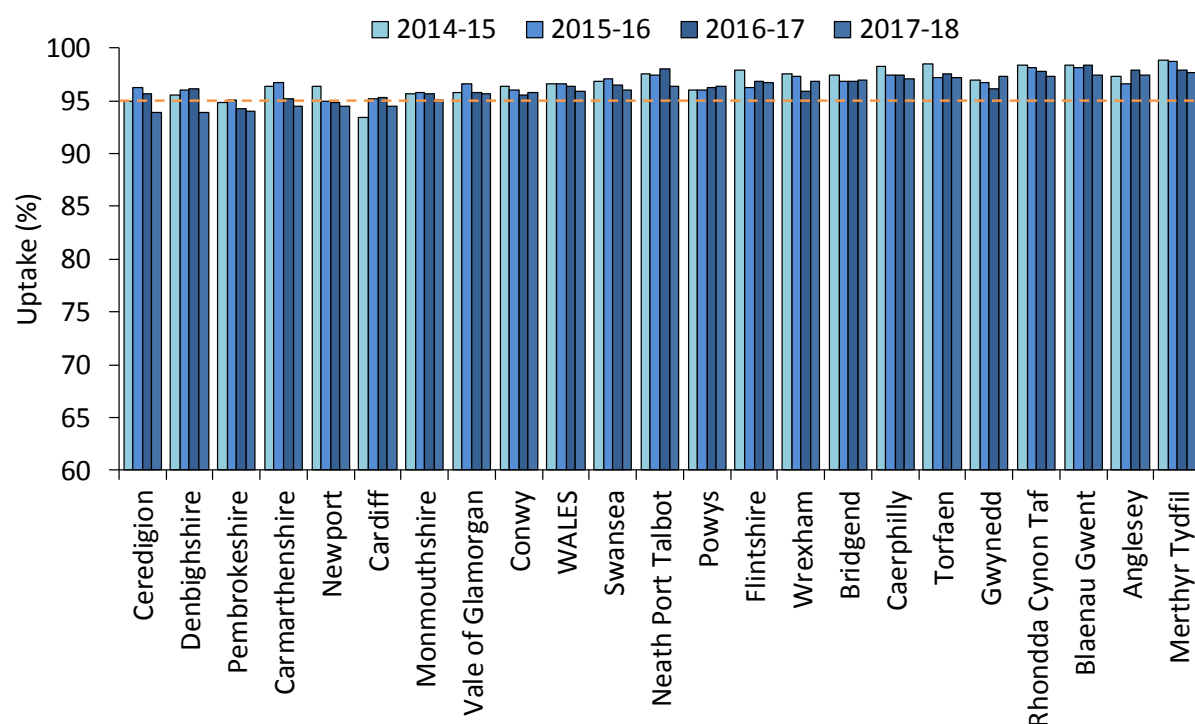


Figure 7. Annual uptake of 1 dose of MMR by 2 years of age (2014 – 2018 financial years, ranked by uptake in 2017/18).

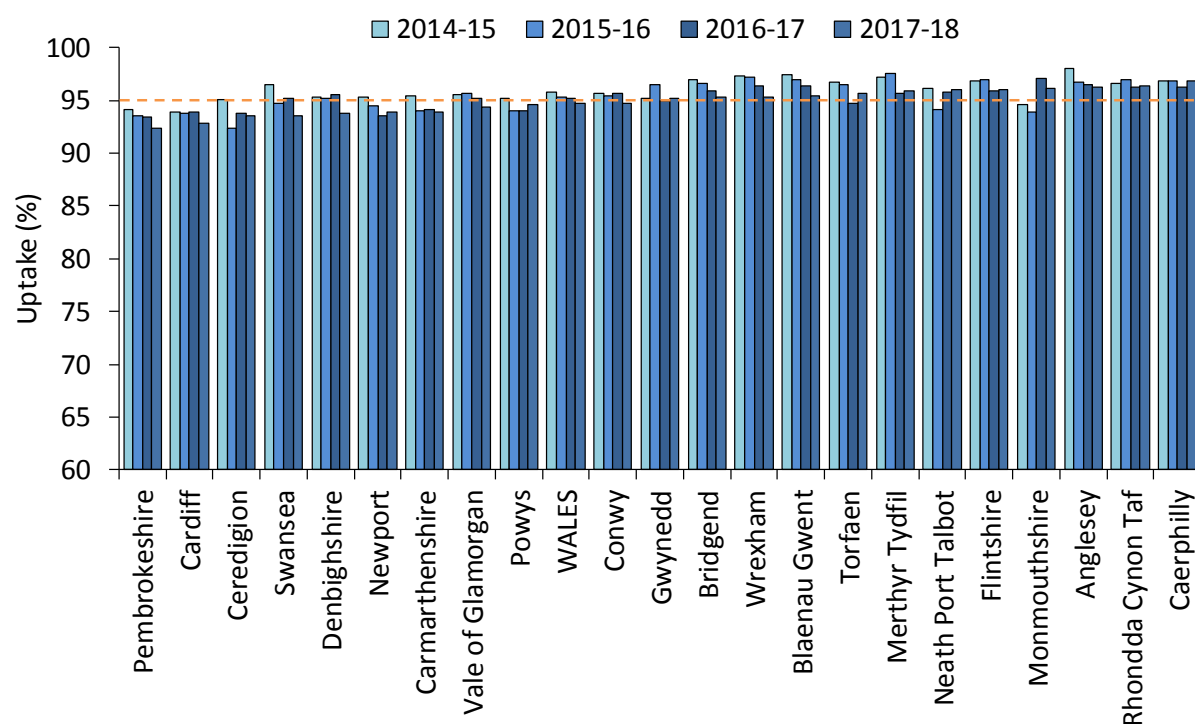


Figure 8. Annual uptake of 2 doses of MMR by 5 years of age (2014 – 2018 financial years, ranked by uptake in 2017/18).

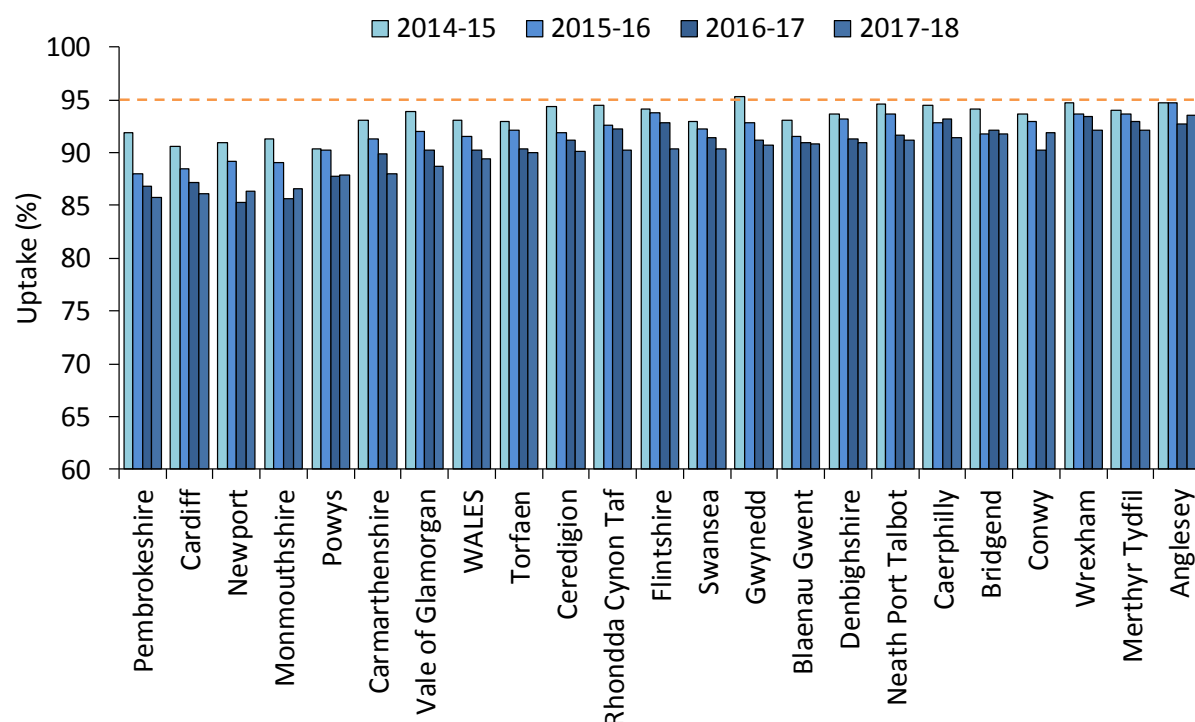


Figure 9. Annual uptake of the '4 in 1' pre-school booster by 5 years of age (2014 – 2018 financial years, ranked by uptake in 2017/18).

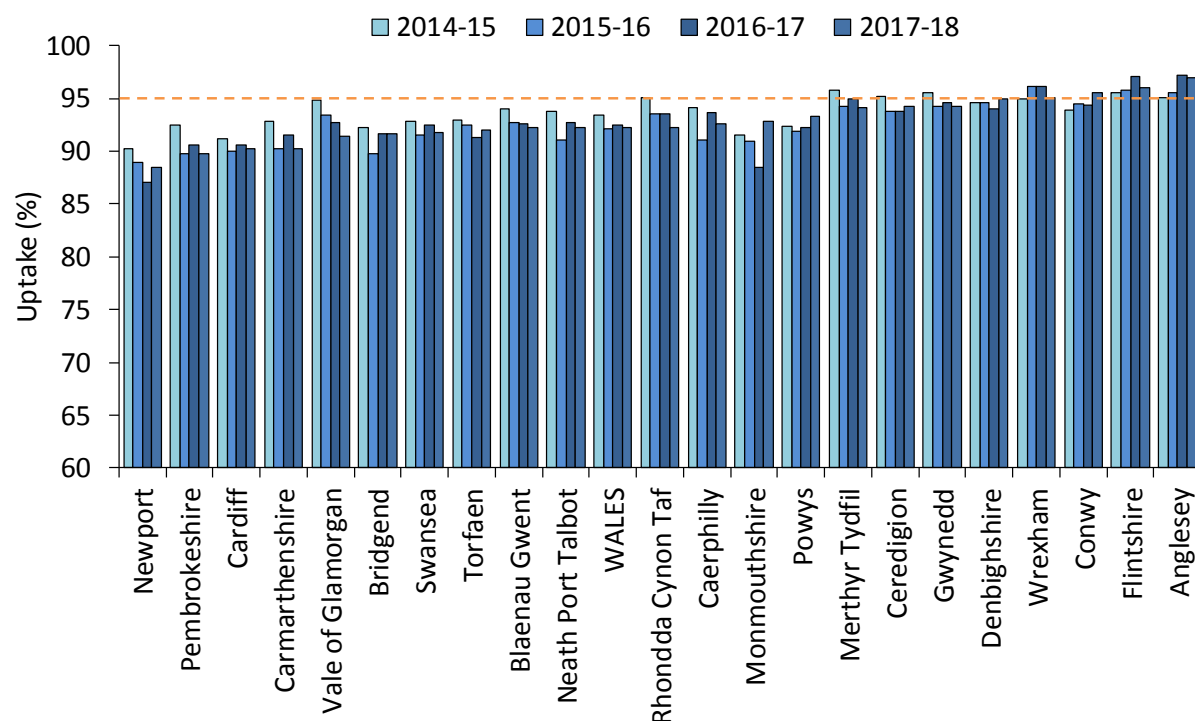


Figure 10. Percentage of children who are up to date with routine immunisations⁹ by four years of age, by quintile of deprivation of the Lower Super Output Area in which they reside. Vaccine uptake is presented for children reaching their 4th birthday between 01/04/2017 and 31/03/2018 and resident on 31/03/2018.

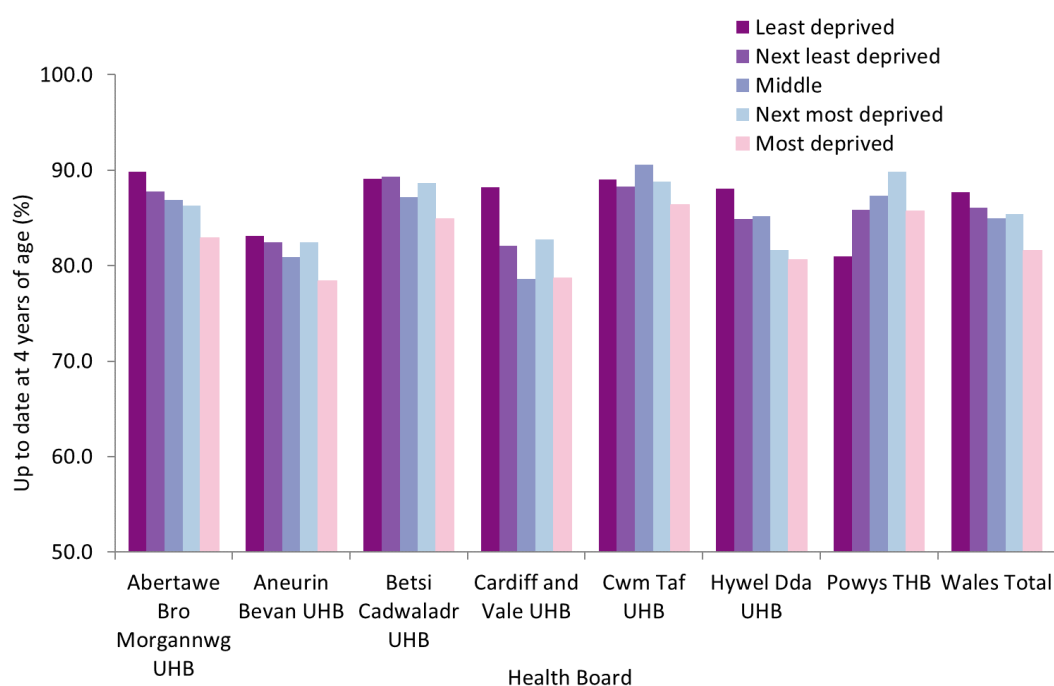
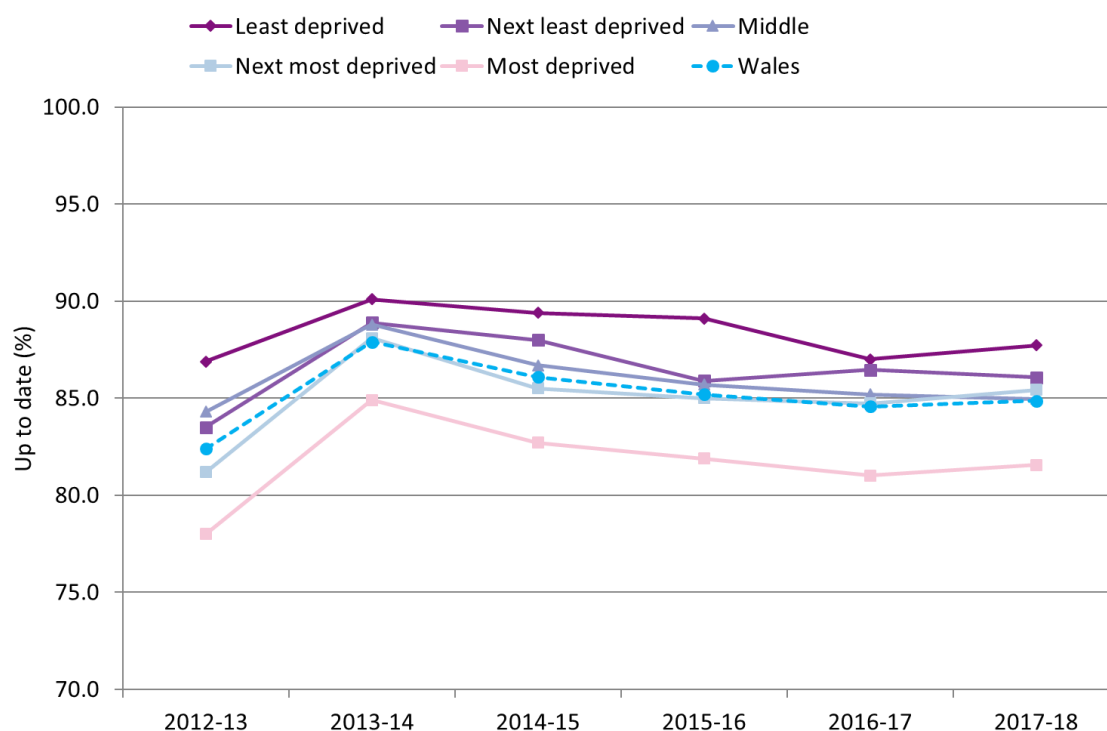
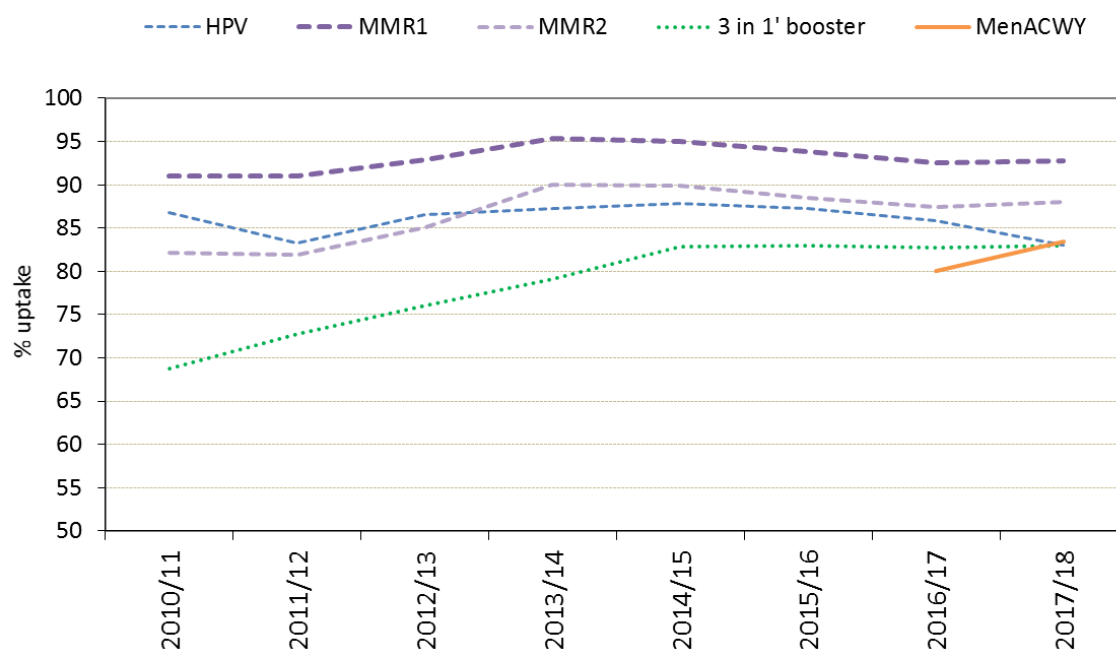


Figure 11. Percentage of children who are up to date with routine immunisations by four years of age during 2012-2018 financial years, by quintile of deprivation of the Lower Super Output Area in which they reside.



⁹ Completed '4 in 1' pre-school booster, the Hib/MenC booster and second MMR dose by four years of age.

Figure 12. Percentage of uptake of the '3 in 1' Td/IPV teenage booster² vaccine in resident children and a complete course of HPV¹ vaccine in resident girls, in School Year 10 academic years 2010/11 to 2017/18.³



¹A complete three dose course of HPV vaccine in 2010/11 to 2015/16 school year 10 girls and a complete two dose course in 2016/17 and 2017/18 school year 10 girls.

²Teenage booster dose of diphtheria, tetanus and polio (diphtheria used as proxy)

³Data in resident children as at 31st March of the academic year reported on.

Table 3. Vaccine uptake in children reaching their 1st birthday between 01/04/2017 and 31/03/2018 and resident on 31/03/2018.

Area	Resident children	D3	T3	P3	Po3	Hib3	MMR1	Rotavirus	PCV2 ¹	HibMenCb	MenB ²										
	(n)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
<u>Abertawe Bro Morgannwg University HB</u>																					
Bridgend LA	1559	1512	97.0	1512	97.0	1512	97.0	1512	97.0	1512	97.0	5	0.3	1496	96.0	1514	97.1	2	0.1	1506	96.6
Neath Port Talbot LA	1524	1469	96.4	1469	96.4	1469	96.4	1469	96.4	1469	96.4	1	0.1	1451	95.2	1469	96.4	1	0.1	1463	96.0
Swansea LA	2431	2333	96.0	2333	96.0	2333	96.0	2333	96.0	2331	95.9	11	0.5	2286	94.0	2330	95.8	6	0.2	2308	94.9
Health Board Total	5514	5314	96.4	5314	96.4	5314	96.4	5314	96.4	5312	96.3	17	0.3	5233	94.9	5313	96.4	9	0.2	5277	95.7
<u>Aneurin Bevan University HB</u>																					
Blaenau Gwent LA	730	712	97.5	711	97.4	711	97.4	711	97.4	711	97.4	1	0.1	676	92.6	713	97.7	0	0.0	711	97.4
Caerphilly LA	1961	1904	97.1	1904	97.1	1904	97.1	1904	97.1	1903	97.0	3	0.2	1851	94.4	1910	97.4	5	0.3	1907	97.2
Monmouthshire LA	791	752	95.1	752	95.1	752	95.1	752	95.1	752	95.1	11	1.4	733	92.7	751	94.9	8	1.0	744	94.1
Newport LA	2007	1897	94.5	1897	94.5	1897	94.5	1897	94.5	1896	94.5	7	0.3	1832	91.3	1902	94.8	3	0.1	1890	94.2
Torfaen LA	1017	988	97.1	988	97.1	988	97.1	988	97.1	988	97.1	1	0.1	949	93.3	992	97.5	1	0.1	982	96.6
Health Board Total	6506	6253	96.1	6252	96.1	6252	96.1	6252	96.1	6250	96.1	23	0.4	6041	92.9	6268	96.3	17	0.3	6234	95.8
<u>Betsi Cadwaladr University HB</u>																					
Anglesey LA	731	712	97.4	712	97.4	712	97.4	712	97.4	712	97.4	8	1.1	701	95.9	710	97.1	9	1.2	705	96.4
Conwy LA	1025	982	95.8	982	95.8	982	95.8	982	95.8	982	95.8	6	0.6	969	94.5	985	96.1	5	0.5	983	95.9
Denbighshire LA	1030	967	93.9	967	93.9	967	93.9	967	93.9	967	93.9	7	0.7	956	92.8	963	93.5	6	0.6	959	93.1
Flintshire LA	1551	1501	96.8	1501	96.8	1501	96.8	1501	96.8	1501	96.8	9	0.6	1472	94.9	1501	96.8	6	0.4	1496	96.5
Gwynedd LA	1152	1121	97.3	1121	97.3	1121	97.3	1121	97.3	1120	97.2	6	0.5	1097	95.2	1121	97.3	5	0.4	1114	96.7
Wrexham LA	1505	1458	96.9	1458	96.9	1458	96.9	1456	96.7	1458	96.9	9	0.6	1419	94.3	1462	97.1	9	0.6	1458	96.9
Health Board Total	6994	6741	96.4	6741	96.4	6741	96.4	6739	96.4	6740	96.4	45	0.6	6614	94.6	6742	96.4	40	0.6	6715	96.0
<u>Cardiff and Vale University HB</u>																					
Cardiff LA	4240	4008	94.5	4007	94.5	4008	94.5	4007	94.5	4006	94.5	34	0.8	3901	92.0	3986	94.0	21	0.5	3943	93.0
Vale of Glamorgan LA	1435	1373	95.7	1373	95.7	1373	95.7	1373	95.7	1373	95.7	9	0.6	1356	94.5	1367	95.3	8	0.6	1365	95.1
Health Board Total	5675	5381	94.8	5380	94.8	5381	94.8	5380	94.8	5379	94.8	43	0.8	5257	92.6	5353	94.3	29	0.5	5308	93.5
<u>Cwm Taf University HB</u>																					
Merthyr Tydfil LA	688	672	97.7	672	97.7	672	97.7	672	97.7	672	97.7	2	0.3	665	96.7	671	97.5	2	0.3	671	97.5
Rhondda Cynon Taf LA	2655	2585	97.4	2585	97.4	2585	97.4	2585	97.4	2585	97.4	9	0.3	2554	96.2	2589	97.5	10	0.4	2575	97.0
Health Board Total	3343	3257	97.4	3257	97.4	3257	97.4	3257	97.4	3257	97.4	11	0.3	3219	96.3	3260	97.5	12	0.4	3246	97.1
<u>Hywel Dda University HB</u>																					
Carmarthenshire LA	1876	1772	94.5	1772	94.5	1772	94.5	1771	94.4	1771	94.4	14	0.7	1750	93.3	1761	93.9	11	0.6	1755	93.6
Ceredigion LA	586	550	93.9	550	93.9	550	93.9	550	93.9	550	93.9	1	0.2	530	90.4	553	94.4	1	0.2	545	93.0
Pembrokeshire LA	1179	1108	94.0	1108	94.0	1108	94.0	1107	93.9	1107	93.9	2	0.2	1082	91.8	1115	94.6	2	0.2	1110	94.1
Health Board Total	3641	3430	94.2	3430	94.2	3430	94.2	3428	94.1	3428	94.1	17	0.5	3362	92.3	3429	94.2	14	0.4	3410	93.7
<u>Powys Teaching HB</u>	1119	1079	96.4	1079	96.4	1079	96.4	1079	96.4	1079	96.4	5	0.4	1049	93.7	1078	96.3	4	0.4	1069	95.5
Unknown	15	13	86.7	13	86.7	13	86.7	13	86.7	13	86.7	0	0.0	12	80.0	13	86.7	0	0.0	13	86.7
Wales Total	32807	31468	95.9	31466	95.9	31467	95.9	31462	95.9	31458	95.9	161	0.5	30787	93.8	31456	95.9	125	0.4	31272	95.3

¹ Full primary 2 dose course of pneumococcal conjugate vaccine.

² Uptake of two doses of meningococcal serogroup B (MenB) vaccine, scheduled at two and four months of age.

Table 4. Vaccine uptake in children reaching their 2nd birthday between 01/04/2017 and 31/03/2018 and resident on 31/03/2018.

Area	Resident children	D3	T3	P3	Po3	Hib3	MMR1	MenB ¹	MenC ²	PCV2 ³	PCVf ⁴	HibMenCb
	(n)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)
<u>Abertawe Bro Morgannwg University LHB</u>												
Bridgend LA	1561	1513 96.9	1513 96.9	1513 96.9	1512 96.9	1513 96.9	1488 95.3	1354 86.7	1464 93.8	1496 95.8	1490 95.5	1474 94.4
Neath Port Talbot LA	1541	1519 98.6	1519 98.6	1519 98.6	1519 98.6	1519 98.6	1479 96.0	1348 87.5	1470 95.4	1498 97.2	1493 96.9	1490 96.7
Swansea LA	2594	2503 96.5	2503 96.5	2502 96.5	2502 96.5	2500 96.4	2427 93.6	2211 85.2	2377 91.6	2459 94.8	2455 94.6	2433 93.8
Health Board Total	5696	5535 97.2	5535 97.2	5534 97.2	5533 97.1	5532 97.1	5394 94.7	4913 86.3	5311 93.2	5453 95.7	5438 95.5	5397 94.8
<u>Aneurin Bevan University LHB</u>												
Blaenau Gwent LA	717	705 98.3	705 98.3	705 98.3	705 98.3	705 98.3	684 95.4	637 88.8	688 96.0	703 98.0	689 96.1	683 95.3
Caerphilly LA	2091	2054 98.2	2054 98.2	2054 98.2	2053 98.2	2054 98.2	2025 96.8	1828 87.4	1990 95.2	2035 97.3	2027 96.9	2015 96.4
Monmouthshire LA	840	795 94.6	795 94.6	795 94.6	795 94.6	795 94.6	808 96.2	715 85.1	778 92.6	793 94.4	808 96.2	805 95.8
Newport LA	2082	1986 95.4	1986 95.4	1985 95.3	1986 95.4	1981 95.1	1952 93.8	1765 84.8	1883 90.4	1960 94.1	1952 93.8	1923 92.4
Torfaen LA	1069	1053 98.5	1053 98.5	1053 98.5	1052 98.4	1052 98.4	1023 95.7	926 86.6	1030 96.4	1050 98.2	1036 96.9	1028 96.2
Health Board Total	6799	6593 97.0	6593 97.0	6592 97.0	6591 96.9	6587 96.9	6492 95.5	5871 86.4	6369 93.7	6541 96.2	6512 95.8	6454 94.9
<u>Betsi Cadwaladr University LHB</u>												
Anglesey LA	689	672 97.5	672 97.5	672 97.5	672 97.5	672 97.5	663 96.2	613 89.0	648 94.0	666 96.7	666 96.7	663 96.2
Conwy LA	1147	1102 96.1	1102 96.1	1102 96.1	1100 95.9	1102 96.1	1087 94.8	999 87.1	1061 92.5	1079 94.1	1089 94.9	1084 94.5
Denbighshire LA	1036	996 96.1	996 96.1	996 96.1	996 96.1	996 96.1	971 93.7	867 83.7	964 93.1	989 95.5	975 94.1	973 93.9
Flintshire LA	1579	1533 97.1	1533 97.1	1533 97.1	1533 97.1	1532 97.0	1516 96.0	1385 87.7	1479 93.7	1522 96.4	1521 96.3	1516 96.0
Gwynedd LA	1199	1156 96.4	1156 96.4	1156 96.4	1156 96.4	1157 96.5	1141 95.2	1050 87.6	1064 88.7	1136 94.7	1148 95.7	1140 95.1
Wrexham LA	1519	1465 96.4	1465 96.4	1465 96.4	1464 96.4	1465 96.4	1448 95.3	1301 85.6	1423 93.7	1451 95.5	1457 95.9	1448 95.3
Health Board Total	7169	6924 96.6	6924 96.6	6924 96.6	6921 96.5	6924 96.6	6826 95.2	6215 86.7	6639 92.6	6843 95.5	6856 95.6	6824 95.2
<u>Cardiff and Vale University LHB</u>												
Cardiff LA	4405	4210 95.6	4210 95.6	4210 95.6	4211 95.6	4208 95.5	4086 92.8	3627 82.3	3991 90.6	4095 93.0	4087 92.8	4050 91.9
Vale of Glamorgan LA	1438	1379 95.9	1379 95.9	1379 95.9	1379 95.9	1379 95.9	1357 94.4	1191 82.8	1344 93.5	1363 94.8	1357 94.4	1353 94.1
Health Board Total	5843	5589 95.7	5589 95.7	5589 95.7	5590 95.7	5587 95.6	5443 93.2	4818 82.5	5335 91.3	5458 93.4	5444 93.2	5403 92.5
<u>Cwm Taf University LHB</u>												
Merthyr Tydfil LA	760	746 98.2	746 98.2	746 98.2	746 98.2	746 98.2	729 95.9	648 85.3	737 97.0	738 97.1	731 96.2	726 95.5
Rhondda Cynon Taf LA	2780	2732 98.3	2733 98.3	2732 98.3	2733 98.3	2732 98.3	2679 96.4	2434 87.6	2668 96.0	2708 97.4	2694 96.9	2681 96.4
Health Board Total	3540	3478 98.2	3479 98.3	3478 98.2	3479 98.3	3478 98.2	3408 96.3	3082 87.1	3405 96.2	3446 97.3	3425 96.8	3407 96.2
<u>Hywel Dda University LHB</u>												
Carmarthenshire LA	1937	1859 96.0	1859 96.0	1859 96.0	1859 96.0	1859 96.0	1820 94.0	1639 84.6	1813 93.6	1821 94.0	1833 94.6	1808 93.3
Ceredigion LA	651	619 95.1	619 95.1	619 95.1	619 95.1	618 94.9	609 93.5	553 84.9	606 93.1	613 94.2	615 94.5	615 94.5
Pembrokeshire LA	1220	1158 94.9	1158 94.9	1158 94.9	1159 95.0	1158 94.9	1127 92.4	1008 82.6	1109 90.9	1138 93.3	1141 93.5	1127 92.4
Health Board Total	3808	3636 95.5	3636 95.5	3636 95.5	3637 95.5	3635 95.5	3556 93.4	3200 84.0	3528 92.6	3572 93.8	3589 94.2	3550 93.2
<u>Powys Teaching LHB</u>	1161	1107 95.3	1107 95.3	1107 95.3	1107 95.3	1107 95.3	1099 94.7	985 84.8	1065 91.7	1098 94.6	1103 95.0	1101 94.8
Unknown	9	9 100.0	9 100.0	9 100.0	9 100.0	9 100.0	8 88.9	985 84.8	7 77.8	9 100.0	8 88.9	8 88.9
Wales Total	34025	32871 96.6	32872 96.6	32869 96.6	32867 96.6	32859 96.6	32226 94.7	29092 85.5	31659 93.0	32420 95.3	32375 95.2	32144 94.5

¹ MenB vaccination was introduced in July 2015 and all infants reaching 2 years of age from 1st May 2017 onwards would have been eligible. Three doses of MenB vaccine should be given at 2, 4 and 12-13 months of age. A small number of infants in the catch-up cohort would have been assigned to a two dose schedule.

² This cohort of children was the last to be offered the MenC vaccine at 12 weeks of age therefore uptake will be lower as there has been less time for catch-up.

³ Full primary 2 dose course of pneumococcal conjugate vaccine

⁴ Final (booster) dose of pneumococcal conjugate vaccine

Table 5. Vaccine uptake in children reaching their 4th birthday between 01/04/2017 and 31/03/2018 and resident on 31/03/2018.

Area	Resident Children	4 in 1 Preschool booster ¹		HibMenCb		MMR dose 2		Up to date in schedule ²	
<u>Abertawe Bro Morgannwg University LHB</u>	(n)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
Bridgend LA	1620	1459	90.1	1543	95.2	1442	89.0	1426	88.0
Neath Port Talbot LA	1534	1360	88.7	1451	94.6	1335	87.0	1324	86.3
Swansea LA	2581	2265	87.8	2416	93.6	2213	85.7	2194	85.0
Health Board Total	5735	5084	88.6	5410	94.3	4990	87.0	4944	86.2
<u>Aneurin Bevan University LHB</u>									
Blaenau Gwent LA	808	664	82.2	777	96.2	652	80.7	644	79.7
Caerphilly LA	2108	1864	88.4	2016	95.6	1830	86.8	1812	86.0
Monmouthshire LA	879	797	90.7	790	89.9	746	84.9	737	83.8
Newport LA	2036	1588	78.0	1826	89.7	1631	80.1	1487	73.0
Torfaen LA	1107	960	86.7	1061	95.8	956	86.4	940	84.9
Health Board Total	6938	5873	84.6	6470	93.3	5815	83.8	5620	81.0
<u>Betsi Cadwaladr University LHB</u>									
Anglesey LA	753	701	93.1	714	94.8	684	90.8	681	90.4
Conwy LA	1080	958	88.7	1010	93.5	932	86.3	923	85.5
Denbighshire LA	1078	943	87.5	1008	93.5	919	85.3	909	84.3
Flintshire LA	1643	1512	92.0	1547	94.2	1472	89.6	1461	88.9
Gwynedd LA	1205	1094	90.8	1119	92.9	1067	88.5	1057	87.7
Wrexham LA	1609	1490	92.6	1533	95.3	1459	90.7	1447	89.9
Health Board Total	7368	6698	90.9	6931	94.1	6533	88.7	6478	87.9
<u>Cardiff and Vale University LHB</u>									
Cardiff LA	4429	3836	86.6	4042	91.3	3731	84.2	3634	82.1
Vale of Glamorgan LA	1486	1315	88.5	1374	92.5	1263	85.0	1253	84.3
Health Board Total	5915	5151	87.1	5416	91.6	4994	84.4	4887	82.6
<u>Cwm Taf University LHB</u>									
Merthyr Tydfil LA	676	630	93.2	654	96.7	618	91.4	615	91.0
Rhondda Cynon Taff LA	2849	2543	89.3	2736	96.0	2516	88.3	2494	87.5
Health Board Total	3525	3173	90.0	3390	96.2	3134	88.9	3109	88.2
<u>Hywel Dda University LHB</u>									
Carmarthenshire LA	1957	1726	88.2	1802	92.1	1673	85.5	1644	84.0
Ceredigion LA	663	613	92.5	606	91.4	581	87.6	573	86.4
Pembrokeshire LA	1220	1049	86.0	1105	90.6	1017	83.4	1007	82.5
Health Board Total	3840	3388	88.2	3513	91.5	3271	85.2	3224	84.0
Powys Teaching Health Board	1226	1125	91.8	1116	91.0	1065	86.9	1057	86.2
Unknown	70	58	82.9	62	88.6	55	78.6	55	78.6
Wales Total	34617	30550	88.3	32308	93.3	29857	86.2	29374	84.9

¹ Uptake of acellular pertussis used as proxy

² Completed '4 in 1' preschool booster, the Hib/MenC booster and second MMR dose by four years of age.

Table 6. 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 01/04/2017 and 31/03/2018 and resident on 31/03/2018.

Health Board	Least deprived			Next least deprived			Middle			Next most deprived			Most deprived		
	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	1135	1020	89.9	631	554	87.8	894	777	86.9	1293	1116	86.3	1782	1477	82.9
Aneurin Bevan	1026	853	83.1	906	747	82.5	1303	1054	80.9	1569	1294	82.5	2134	1672	78.4
Betsi Cadwalladr	1250	1114	89.1	1742	1556	89.3	1706	1487	87.2	1438	1275	88.7	1232	1046	84.9
Cardiff and Vale	1822	1607	88.2	753	618	82.1	632	497	78.6	858	710	82.8	1850	1455	78.6
Cwm Taf	338	301	89.1	333	294	88.3	519	470	90.6	1115	990	88.8	1220	1054	86.4
Hywel Dda	243	214	88.1	940	798	84.9	1361	1159	85.2	848	692	81.6	448	361	80.6
Powys Teaching	126	102	81.0	587	504	85.9	300	262	87.3	157	141	89.8	56	48	85.7
Wales Total	5940	5211	87.7	5892	5071	86.1	6715	5706	85.0	7278	6218	85.4	8722	7113	81.6

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

Table 7. Vaccine uptake in children reaching their 5th birthday between 01/04/2017 and 31/03/2018 and resident on 31/03/2018.

Area	Resident children	D3		T3		P3		Po3		Hib3		MenC		PCVf ¹		HibMenCb		MMR1		MMR2		D4		T4		aP		Po4	
<u>Abertawe Bro Morgannwg University LHB</u>	(n)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
Bridgend LA	1668	1587	95.1	1587	95.1	1587	95.1	1586	95.1	1587	95.1	1342	80.46	1563	93.7	1572	94.2	1615	96.8	1531	91.8	1530	91.7	1530	91.7	1530	91.7	1530	91.7
Neath Port Talbot LA	1549	1472	95.0	1472	95.0	1472	95.0	1472	95.0	1472	95.0	1235	79.73	1437	92.8	1449	93.5	1502	97.0	1413	91.2	1428	92.2	1428	92.2	1428	92.2	1428	92.2
Swansea LA	2732	2533	92.7	2533	92.7	2533	92.7	2529	92.6	2537	92.9	2166	79.28	2499	91.5	2526	92.5	2617	95.8	2468	90.3	2509	91.8	2509	91.8	2508	91.8	2509	91.8
Health Board Total	5949	5592	94.0	5592	94.0	5592	94.0	5587	93.9	5596	94.1	4743	79.7	5499	92.4	5547	93.2	5734	96.4	5412	91.0	5467	91.9	5467	91.9	5466	91.9	5467	91.9
<u>Aneurin Bevan University LHB</u>																													
Blaenau Gwent LA	807	778	96.4	778	96.4	778	96.4	779	96.5	778	96.4	643	79.7	765	94.8	765	94.8	786	97.4	733	90.8	744	92.2	744	92.2	744	92.2	744	92.2
Caerphilly LA	2167	2105	97.1	2105	97.1	2105	97.1	2103	97.0	2104	97.1	1771	81.7	2079	95.9	2082	96.1	2123	98.0	1982	91.5	2007	92.6	2007	92.6	2007	92.6	2007	92.6
Monmouthshire LA	975	864	88.6	864	88.6	864	88.6	864	88.6	865	88.7	710	72.8	854	87.6	860	88.2	926	95.0	844	86.6	905	92.8	905	92.8	905	92.8	905	92.8
Newport LA	2061	1887	91.6	1887	91.6	1887	91.6	1887	91.6	1886	91.5	1531	74.3	1847	89.6	1829	88.7	1972	95.7	1780	86.4	1822	88.4	1822	88.4	1822	88.4	1823	88.5
Torfaen LA	1157	1108	95.8	1108	95.8	1108	95.8	1107	95.7	1107	95.7	931	80.5	1087	93.9	1089	94.1	1126	97.3	1042	90.1	1064	92.0	1064	92.0	1064	92.0	1064	92.0
Health Board Total	7167	6742	94.1	6742	94.1	6742	94.1	6740	94.0	6740	94.0	5586	77.9	6632	92.5	6625	92.4	6933	96.7	6381	89.0	6542	91.3	6542	91.3	6542	91.3	6543	91.3
<u>Betsi Cadwaladr University LHB</u>																													
Anglesey LA	806	762	94.5	762	94.5	762	94.5	762	94.5	763	94.7	683	84.7	760	94.3	760	94.3	792	98.3	754	93.5	782	97.0	782	97.0	782	97.0	782	97.0
Conwy LA	1196	1127	94.2	1127	94.2	1127	94.2	1127	94.2	1127	94.2	953	79.7	1101	92.1	1113	93.1	1167	97.6	1099	91.9	1143	95.6	1143	95.6	1143	95.6	1143	95.6
Denbighshire LA	1066	1000	93.8	1000	93.8	1000	93.8	999	93.7	1000	93.8	868	81.4	984	92.3	992	93.1	1036	97.2	970	91.0	1013	95.0	1013	95.0	1013	95.0	1013	95.0
Flintshire LA	1736	1588	91.5	1588	91.5	1588	91.5	1587	91.4	1587	91.4	1366	78.7	1574	90.7	1581	91.1	1690	97.4	1568	90.3	1666	96.0	1666	96.0	1666	96.0	1666	96.0
Gwynedd LA	1336	1244	93.1	1244	93.1	1244	93.1	1243	93.0	1245	93.2	1037	77.6	1218	91.2	1235	92.4	1282	96.0	1212	90.7	1260	94.3	1260	94.3	1260	94.3	1260	94.3
Wrexham LA	1667	1573	94.4	1573	94.4	1573	94.4	1574	94.4	1573	94.4	1345	80.7	1559	93.5	1561	93.6	1629	97.7	1535	92.1	1585	95.1	1585	95.1	1585	95.1	1585	95.1
Health Board Total	7807	7294	93.4	7294	93.4	7294	93.4	7292	93.4	7295	93.4	6252	80.1	7196	92.2	7242	92.8	7596	97.3	7138	91.4	7449	95.4	7449	95.4	7449	95.4	7449	95.4
<u>Cardiff and Vale University LHB</u>																													
Cardiff LA	4554	4149	91.1	4149	91.1	4149	91.1	4148	91.1	4139	90.9	3501	76.9	4022	88.3	4092	89.9	4356	95.7	3921	86.1	4111	90.3	4111	90.3	4109	90.2	4111	90.3
Vale of Glamorgan LA	1538	1437	93.4	1437	93.4	1436	93.4	1437	93.4	1437	93.4	1258	81.8	1436	93.4	1446	94.0	1494	97.1	1365	88.8	1405	91.4	1405	91.4	1405	91.4	1405	91.4
Health Board Total	6092	5586	91.7	5586	91.7	5585	91.7	5585	91.7	5576	91.5	4759	78.1	5458	89.6	5538	90.9	5850	96.0	5286	86.8	5516	90.5	5516	90.5	5514	90.5	5516	90.5
<u>Cwm Taf University LHB</u>																													
Merthyr Tydfil LA	750	725	96.7	725	96.7	725	96.7	724	96.5	725	96.7	647	86.3	716	95.5	711	94.8	729	97.2	691	92.1	706	94.1	706	94.1	706	94.1	706	94.1
Rhondda Cynon Taff LA	2872	2757	96.0	2758	96.0	2757	96.0	2757	96.0	2757	96.0	2406	83.8	2725	94.9	2716	94.6	2800	97.5	2592	90.3	2651	92.3	2651	92.3	2651	92.3	2650	92.3
Health Board Total	3622	3482	96.1	3483	96.2	3482	96.1	3481	96.1	3482	96.1	3053	84.3	3441	95.0	3427	94.6	3529	97.4	3283	90.6	3357	92.7	3357	92.7	3357	92.7	3356	92.7
<u>Hywel Dda University LHB</u>																													
Cardiffmarthenshire LA	2041	1904	93.3	1904	93.3	1904	93.3	1904	93.3	1904	93.3	1661	81.4	1849	90.6	1852	90.7	1944	95.2	1795	87.9	1841	90.2	1841	90.2	1841	90.2	1841	90.2
Ceredigion LA	695	643	92.5	643	92.5	643	92.5	642	92.4	641	92.2	546	78.6	638	91.8	643	92.5	659	94.8	626	90.1	655	94.2	655	94.2	655	94.2	655	94.2
Pembrokeshire LA	1318	1216	92.3	1216	92.3	1216	92.3	1216	92.3	1215	92.2	1011	76.7	1188	90.1	1188	90.1	1247	94.6	1130	85.7	1184	89.8	1184	89.8	1184	89.8	1184	89.8
Health Board Total	4054	3763	92.8	3763	92.8	3763	92.8	3762	92.8	3760	92.7	3218	79.4	3675	90.7	3683	90.8	3850	95.0	3551	87.6	3680	90.8	3680	90.8	3680	90.8	3680	90.8
<u>Powys Teaching LHB</u>	1256	1140	90.8	1140	90.8	1140	90.8	1141	90.8	1141	90.8	943	75.1	1128	89.8	1132	90.1	1199	95.5	1104	87.9	1172	93.3	1172	93.3	1172	93.3	1172	93.3
Unknown	64	61	95.3	61	95.3	61	95.3	61	95.3	61	95.3	49	76.6	62	96.9	62	96.9	62	96.9	62	96.9	61	95.3	61	95.3	61	95.3	61	95.3
Wales Total	36011	33660	93.5	33661	93.5	33659	93.5	33649	93.4	33651	93.4	28603	79.4	33091	91.9	33256	92.3	34753	96.5	32217	89.5	33244	92.3	33244	92.3	33241	92.3	33244	92.3

¹ Final (booster) dose of pneumococcal conjugate vaccine

Table 8. HPV Vaccine uptake in girls reaching their 14th, 15th and 16th birthdays between 01/09/2017 and 31/08/2018 and resident on 31/03/2018 (School Year 9, 10 and 11 during 2017/18).

Area	14 years (2017-18 School Year 9)			15 years (2017-18 School Year 10)				16 years (2017-18 School Year 11)				
	Resident girls	HPV 1 dose		Resident girls	HPV 1 dose		HPV 2 doses	Resident girls	HPV 1 dose		HPV 2 doses	
		(n)	(%)		(n)	(%)	(n)		(n)	(%)	(n)	(%)
<u>Abertawe Bro Morgannwg University LHB</u>												
Bridgend LA	813	752	92.5	784	730	93.1	706	740	694	93.8	673	90.9
Neath Port Talbot LA	748	708	94.7	704	658	93.5	636	721	683	94.7	663	92.0
Swansea LA	1240	1129	91.0	1242	1136	91.5	1082	1224	1150	94.0	1122	91.7
Health Board Total	2801	2589	92.4	2730	2524	92.5	2424	2685	2527	94.1	2458	91.5
<u>Aneurin Bevan University LHB</u>												
Blaenau Gwent LA	373	307	82.3	320	290	90.6	266	377	353	93.6	339	89.9
Caerphilly LA	1022	860	84.1	982	835	85.0	815	943	889	94.3	836	88.7
Monmouthshire LA	539	388	72.0	544	446	82.0	412	506	408	80.6	385	76.1
Newport LA	903	686	76.0	899	758	84.3	649	916	793	86.6	738	80.6
Torfaen LA	488	394	80.7	487	431	88.5	395	499	456	91.4	432	86.6
Health Board Total	3325	2635	79.2	3232	2760	85.4	2537	3241	2899	89.4	2730	84.2
<u>Betsi Cadwaladr University LHB</u>												
Anglesey LA	344	296	86.0	344	311	90.4	275	365	326	89.3	296	81.1
Conwy LA	578	508	87.9	546	488	89.4	446	546	497	91.0	474	86.8
Denbighshire LA	501	425	84.8	468	426	91.0	386	492	444	90.2	425	86.4
Flintshire LA	793	707	89.2	731	664	90.8	634	795	739	93.0	685	86.2
Gwynedd LA	541	477	88.2	558	502	90.0	490	558	495	88.7	484	86.7
Wrexham LA	700	598	85.4	676	594	87.9	542	647	586	90.6	552	85.3
Health Board Total	3457	3011	87.1	3323	2985	89.8	2773	3403	3087	90.7	2916	85.7
<u>Cardiff and Vale University LHB</u>												
Cardiff LA	1895	1613	85.1	1853	1584	85.5	1467	1734	1492	86.0	1413	81.5
Vale of Glamorgan LA	729	651	89.3	705	629	89.2	574	662	606	91.5	565	85.3
Health Board Total	2624	2264	86.3	2558	2213	86.5	2041	2396	2098	87.6	1978	82.6
<u>Cwm Taf University LHB</u>												
Merthyr Tydfil LA	319	287	90.0	330	306	92.7	289	287	267	93.0	263	91.6
Rhondda Cynon Taff LA	1301	1196	91.9	1385	1299	93.8	1224	1233	1176	95.4	1155	93.7
Health Board Total	1620	1483	91.5	1715	1605	93.6	1513	1520	1443	94.9	1418	93.3
<u>Hywel Dda University LHB</u>												
Carmarthenshire LA	970	860	88.7	997	901	90.4	837	947	860	90.8	847	89.4
Ceredigion LA	319	277	86.8	294	252	85.7	246	296	260	87.8	259	87.5
Pembrokeshire LA	629	539	85.7	612	517	84.5	483	532	455	85.5	441	82.9
Health Board Total	1918	1676	87.4	1903	1670	87.8	1566	1775	1575	88.7	1547	87.2
<u>Powys Teaching LHB</u>	658	551	83.7	647	551	85.2	511	617	527	85.4	507	82.2
Unknown	50	40	80.0	44	39	88.6	38	51	45	88.2	43	84.3
Wales Total	16453	14249	86.6	16152	14347	88.8	13403	15688	14201	90.5	13597	86.7

Table 9. Vaccine uptake in children reaching their 15th birthday between 01/09/2017 and 31/08/2018 and resident on 31/03/2018 (with breakdown of MMR1 and MMR2 coverage by sex).

Area	Resident children		Teenage 3 in 1								Resident girls	MMR1 (girls)		MMR2 (girls)		HPV 2 doses		Resident boys	MMR1 (boys)		MMR2 (boys)	
Abertawe Bro Morgannwg University LHB	(n)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(n)	(%)	(n)	(%)	
Bridgend LA	1566	1466	93.6	1380	88.1	1380	88.1	1395	89.1	784	740	94.4	701	89.4	706	90.1	782	726	92.8	679	86.8	
Neath Port Talbot LA	1431	1366	95.5	1286	89.9	1260	88.1	1281	89.5	704	679	96.4	648	92.0	636	90.3	727	687	94.5	638	87.8	
Swansea LA	2604	2364	90.8	2225	85.4	2295	88.1	2301	88.4	1242	1118	90.0	1057	85.1	1082	87.1	1362	1246	91.5	1168	85.8	
Health Board Total	5601	5196	92.8	4891	87.3	4935	88.1	4977	88.9	2730	2537	92.9	2406	88.1	2424	88.8	2871	2659	92.6	2485	86.6	
Aneurin Bevan University LHB																						
Blaenau Gwent LA	688	649	94.3	620	90.1	588	85.5	590	85.8	320	303	94.7	290	90.6	266	83.1	368	346	94.0	330	89.7	
Caerphilly LA	2090	1996	95.5	1904	91.1	1777	85.0	1767	84.5	982	935	95.2	896	91.2	815	83.0	1107	1061	95.8	1008	91.1	
Monmouthshire LA	1091	955	87.5	900	82.5	882	80.8	887	81.3	544	469	86.2	433	79.6	412	75.7	547	486	88.8	467	85.4	
Newport LA	1860	1724	92.7	1613	86.7	1478	79.5	1474	79.2	899	839	93.3	791	88.0	649	72.2	958	885	92.4	822	85.8	
Torfaen LA	975	923	94.7	885	90.8	824	84.5	825	84.6	487	462	94.9	445	91.4	395	81.1	488	461	94.5	440	90.2	
Health Board Total	6704	6247	93.2	5922	88.3	5549	82.8	5543	82.7	3232	3008	93.1	2855	88.3	2537	78.5	3468	3239	93.4	3067	88.4	
Betsi Cadwaladr University LHB																						
Anglesey LA	707	665	94.1	637	90.1	569	80.5	574	81.2	344	329	95.6	315	91.6	275	79.9	363	336	92.6	322	88.7	
Conwy LA	1165	1073	92.1	1035	88.8	1018	87.4	1020	87.6	546	508	93.0	491	89.9	446	81.7	616	562	91.2	541	87.8	
Denbighshire LA	1008	925	91.8	880	87.3	848	84.1	859	85.2	468	430	91.9	410	87.6	386	82.5	539	495	91.8	470	87.2	
Flintshire LA	1506	1422	94.4	1364	90.6	1210	80.3	1218	80.9	731	690	94.4	660	90.3	634	86.7	775	732	94.5	704	90.8	
Gwynedd LA	1180	1132	95.9	1096	92.9	963	81.6	978	82.9	558	536	96.1	523	93.7	490	87.8	622	596	95.8	573	92.1	
Wrexham LA	1419	1332	93.9	1295	91.3	1154	81.3	1165	82.1	676	634	93.8	610	90.2	542	80.2	743	698	93.9	685	92.2	
Health Board Total	6985	6549	93.8	6307	90.3	5762	82.5	5814	83.2	3323	3127	94.1	3009	90.6	2773	83.4	3658	3419	93.5	3295	90.1	
Cardiff and Vale University LHB																						
Cardiff LA	3788	3474	91.7	3227	85.2	2724	71.9	2731	72.1	1853	1714	92.5	1606	86.7	1467	79.2	1935	1760	91.0	1621	83.8	
Vale of Glamorgan LA	1479	1388	93.8	1309	88.5	1169	79.0	1167	78.9	705	656	93.0	612	86.8	574	81.4	774	732	94.6	697	90.1	
Health Board Total	5267	4862	92.3	4536	86.1	3893	73.9	3898	74.0	2558	2370	92.7	2218	86.7	2041	79.8	2709	2492	92.0	2318	85.6	
Cwm Taf University LHB																						
Merthyr Tydfil LA	663	621	93.7	587	88.5	596	89.9	596	89.9	330	315	95.5	300	90.9	289	87.6	333	306	91.9	287	86.2	
Rhondda Cynon Taff LA	2805	2657	94.7	2533	90.3	2506	89.3	2520	89.8	1385	1322	95.5	1271	91.8	1224	88.4	1420	1335	94.0	1262	88.9	
Health Board Total	3468	3278	94.5	3120	90.0	3102	89.4	3116	89.9	1715	1637	95.5	1571	91.6	1513	88.2	1753	1641	93.6	1549	88.4	
Hywel Dda University LHB																						
Carmarthenshire LA	2044	1863	91.1	1810	88.6	1770	86.6	1775	86.8	997	911	91.4	891	89.4	837	84.0	1047	952	90.9	919	87.8	
Ceredigion LA	619	579	93.5	553	89.3	534	86.3	534	86.3	294	276	93.9	262	89.1	246	83.7	325	303	93.2	291	89.5	
Pembrokeshire LA	1214	1128	92.9	1057	87.1	958	78.9	963	79.3	612	571	93.3	533	87.1	483	78.9	602	557	92.5	524	87.0	
Health Board Total	3877	3570	92.1	3420	88.2	3262	84.1	3272	84.4	1903	1758	92.4	1686	88.6	1566	82.3	1974	1812	91.8	1734	87.8	
Powys Teaching LHB	1330	1148	86.3	1041	78.3	1096	82.4	1106	83.2	647	561	86.7	515	79.6	511	79.0	683	587	85.9	526	77.0	
Unknown	93	78	83.9	74	79.6	73	78.5	72	77.4	44	41	93.2	38	86.4	38	86.4	49	37	75.5	36	73.5	
Wales Total	33325	30928	92.8	29311	88.0	27672	83.0	27798	83.4	16152	15039	93.1	14298	88.5	13403	83.0	17165	15886	92.5	15010	87.4	

¹ Teenage booster dose of diphtheria, tetanus and polio (diphtheria used as proxy)

Table 10. Vaccine uptake in children reaching their 16th birthday between 01/09/2017 and 31/08/2018 and resident on 31/03/2018 (with breakdown of MMR1 and MMR2 coverage by sex).

Area	Resident children		Teenage 3 in 1						Resident girls	MMR1		MMR2		HPV complete course ²		Resident boys	MMR1		MMR2		
	children		MMR1	MMR2	1 booster ¹	MenACWY ²		(girls)		(girls)	(girls)	(girls)	(boys)	(boys)	(boys)						
<u>Abertawe Bro Morgannwg University LHB</u>	(n)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(n)	(%)	(n)	(%)
Bridgend LA	1522	1421	93.4	1326	87.1	1366	89.8	1372	90.1	740	696	94.1	654	88.4	673	90.9	782	725	92.7	672	85.9
Neath Port Talbot LA	1473	1359	92.3	1257	85.3	1329	90.2	1348	91.5	721	681	94.5	632	87.7	661	91.7	752	678	90.2	625	83.1
Swansea LA	2503	2284	91.3	2123	84.8	2223	88.8	2233	89.2	1224	1127	92.1	1051	85.9	1117	91.3	1279	1157	90.5	1072	83.8
Health Board Total	5498	5064	92.1	4706	85.6	4918	89.5	4953	90.1	2685	2504	93.3	2337	87.0	2451	91.3	2813	2560	91.0	2369	84.2
<u>Aneurin Bevan University LHB</u>																					
Blaenau Gwent LA	704	664	94.3	632	89.8	627	89.1	629	89.3	377	356	94.4	343	91.0	339	89.9	327	308	94.2	289	88.4
Caerphilly LA	2016	1938	96.1	1845	91.5	1746	86.6	1735	86.1	943	906	96.1	859	91.1	832	88.2	1073	1032	96.2	986	91.9
Monmouthshire LA	1034	874	84.5	809	78.2	800	77.4	796	77.0	506	427	84.4	402	79.4	385	76.1	527	447	84.8	407	77.2
Newport LA	1852	1727	93.3	1618	87.4	1490	80.5	1475	79.6	916	860	93.9	805	87.9	735	80.2	934	866	92.7	813	87.0
Torfaen LA	1024	974	95.1	930	90.8	890	86.9	890	86.9	499	473	94.8	456	91.4	432	86.6	525	501	95.4	474	90.3
Health Board Total	6630	6177	93.2	5834	88.0	5553	83.8	5525	83.3	3241	3022	93.2	2865	88.4	2723	84.0	3386	3154	93.1	2969	87.7
<u>Betsi Cadwaladr University LHB</u>																					
Anglesey LA	733	687	93.7	669	91.3	604	82.4	594	81.0	365	341	93.4	334	91.5	292	80.0	368	346	94.0	335	91.0
Conwy LA	1136	1047	92.2	1001	88.1	983	86.5	991	87.2	546	507	92.9	482	88.3	475	87.0	589	539	91.5	518	87.9
Denbighshire LA	1056	962	91.1	920	87.1	882	83.5	876	83.0	492	440	89.4	423	86.0	425	86.4	564	522	92.6	497	88.1
Flintshire LA	1588	1488	93.7	1428	89.9	1287	81.0	1273	80.2	795	745	93.7	718	90.3	681	85.7	793	743	93.7	710	89.5
Gwynedd LA	1177	1107	94.1	1074	91.2	985	83.7	991	84.2	558	527	94.4	511	91.6	483	86.6	619	580	93.7	563	91.0
Wrexham LA	1313	1253	95.4	1231	93.8	1105	84.2	1105	84.2	647	618	95.5	614	94.9	551	85.2	666	635	95.3	617	92.6
Health Board Total	7003	6544	93.4	6323	90.3	5846	83.5	5830	83.3	3403	3178	93.4	3082	90.6	2907	85.4	3599	3365	93.5	3240	90.0
<u>Cardiff and Vale University LHB</u>																					
Cardiff LA	3664	3311	90.4	3056	83.4	2647	72.2	2027	55.3	1734	1560	90.0	1438	82.9	1406	81.1	1929	1751	90.8	1618	83.9
Vale of Glamorgan LA	1352	1254	92.8	1182	87.4	1103	81.6	876	64.8	662	626	94.6	597	90.2	564	85.2	690	628	91.0	585	84.8
Health Board Total	5016	4565	91.0	4238	84.5	3750	74.8	2903	57.9	2396	2186	91.2	2035	84.9	1970	82.2	2619	2379	90.8	2203	84.1
<u>Cwm Taf University LHB</u>																					
Merthyr Tydfil LA	627	594	94.7	550	87.7	567	90.4	569	90.7	287	276	96.2	256	89.2	263	91.6	339	318	93.8	294	86.7
Rhondda Cynon Taff LA	2536	2395	94.4	2257	89.0	2326	91.7	2333	92.0	1233	1175	95.3	1117	90.6	1154	93.6	1303	1220	93.6	1140	87.5
Health Board Total	3163	2989	94.5	2807	88.7	2893	91.5	2902	91.7	1520	1451	95.5	1373	90.3	1417	93.2	1642	1538	93.7	1434	87.3
<u>Hywel Dda University LHB</u>																					
Carmarthenshire LA	2035	1863	91.5	1810	88.9	1798	88.4	1793	88.1	947	865	91.3	839	88.6	843	89.0	1088	998	91.7	971	89.2
Ceredigion LA	593	546	92.1	523	88.2	517	87.2	515	86.8	296	274	92.6	266	89.9	259	87.5	297	272	91.6	257	86.5
Pembrokeshire LA	1180	1081	91.6	1014	85.9	926	78.5	908	76.9	532	492	92.5	463	87.0	441	82.9	648	589	90.9	551	85.0
Health Board Total	3808	3490	91.6	3347	87.9	3241	85.1	3216	84.5	1775	1631	91.9	1568	88.3	1543	86.9	2033	1859	91.4	1779	87.5
<u>Powys Teaching LHB</u>	1291	1156	89.5	1058	82.0	1087	84.2	1103	85.4	617	563	91.2	521	84.4	502	81.4	674	593	88.0	537	79.7
Unknown	100	92	92.0	90	90.0	81	81.0	84	84.0	51	47	92.2	46	90.2	42	82.4	49	45	91.8	44	89.8
Wales Total	32509	30077	92.5	28403	87.4	27369	84.2	26516	81.6	15688	14582	93.0	13827	88.1	13555	86.4	16815	15493	92.1	14575	86.7

¹ Teenage booster dose of diphtheria, tetanus and polio (diphtheria used as proxy).

Table 11. Uptake of hepatitis B immunisation in children born to hepatitis B positive mothers reaching their 1st, 2nd and 5th birthdays during 01/04/2017 and 31/03/2018 and resident on 31/03/2018.

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	5514	11	100.0	100.0	100.0	5696	8	100.0	100.0	100.0	87.5	5949	3	100.0	100.0	100.0	100.0
Aneurin Bevan UHB	6506	11	100.0	54.5	36.4	6799	6	100.0	83.3	50.0	16.7	7167	7	100.0	100.0	100.0	100.0
Betsi Cadwaladr UHB	6994	7	100.0	100.0	100.0	7169	6	100.0	100.0	100.0	100.0	7807	8	100.0	100.0	100.0	100.0
Cardiff and Vale UHB	5675	18	100.0	100.0	83.3	5843	26	100.0	100.0	100.0	80.8	6092	17	100.0	100.0	100.0	88.2
Cwm Taf UHB	3343	2	100.0	100.0	100.0	3540	4	100.0	100.0	100.0	50.0	3622	0	0.0	0.0	0.0	0.0
Hywel Dda UHB	3641	0	0.0	0.0	0.0	3808	1	100.0	100.0	100.0	100.0	4054	1	100.0	100.0	100.0	100.0
Powys Teaching HB	1119	0	0.0	0.0	0.0	1161	1	100.0	100.0	100.0	100.0	1256	1	100.0	100.0	100.0	100.0
Unknown	15	0	0.0	0.0	0.0	9	0	0.0	0.0	0.0	0.0	64	0	0.0	0.0	0.0	0.0
Wales Total	32807	49	100.0	89.8	79.6	34025	53	100.0	98.1	94.3	75.5	36011	37	100.0	100.0	100.0	94.6

¹Data 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

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>

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