

# Vaccine Uptake in Children in Wales

## COVER Annual report 2011

Data for the year ending 31<sup>st</sup> March 2011



### Key points

- Annual uptake of all routine immunisations in one year old children for Wales as a whole now exceed the 95% target and 18 of the 22 Local Authority areas have exceeded the 95% uptake target for the 5 in 1 immunisation in one year olds for 2010/11.
- Annual uptake of the first dose of MMR at 2 years decreased slightly to 91.5%
- Uptake of the second dose of MMR by 5 years of age increased to 86.9%, the highest ever annual uptake of MMR2 at five years of age.
- Uptake of pre-school 4 in 1 booster in five year old children has increased to 90.0%.
- Uptake of a complete three dose course of Human Papilloma Virus (HPV) vaccine in girls in the first year of the routine campaign (2009/10 School Year 8) was 81.6%.

### Findings

1. These results are for children living in Wales in May 2011 and reaching their first, second, fifth, 15<sup>th</sup> and 16<sup>th</sup> birthdays in the year ending March 31<sup>st</sup> 2011, and girls in school year 8 in 2009/2010.
2. Annual uptake of the completed course of '5 in 1'<sup>1</sup> vaccine, scheduled at 2, 3 and 4 months of age, in children reaching their first birthday remained stable at 95.9%. Uptake ranged by Health Board (HB) from 95.3% (Cardiff and Vale University HB) to 97.3% (Cwm Taf HB) and by Local Authority (LA) from 93.8% (Conwy) to 98.2% (Merthyr Tydfil). Eighteen of the 22 LAs achieved the 95% target (Figures 1, 2, 4 and Tables 1, 2).
3. Annual uptake of a completed course of MenC<sup>2</sup> vaccine in children reaching their first birthday this year was 95.4% ranging by HB from 94.2 % (Cardiff and Vale University HB) to 97.3 % (Cwm Taf HB) and by LA from 93.5 % (Conwy and Monmouthshire) to 98.4 % (Merthyr Tydfil) (Figure 1 and Tables 1, 2).
4. Uptake of a complete two dose primary course of pneumococcal conjugate vaccination (PCV2<sup>3</sup>) in children at one year of age was 95.7%, ranging by HB from 94.5% (Cardiff and Vale University HB) to 97.3% (Cwm Taf HB) and by LA from 94.0% (Monmouthshire) to 98.1% (Merthyr Tydfil) (Figure 1 and Table 2).
5. Uptake of one dose of MMR<sup>4</sup> by two years of age decreased by 0.5% to 91.5%. Uptake ranged by HB from 89.5 % (Hywel Dda HB) to 93.2 % (Cwm Taf HB) and by LA from 88.3 % (Pembrokeshire) to 94.4 % (Merthyr Tydfil). No HB achieved the annual uptake of 95% for one dose of MMR by 2 years of age (Figures 1, 2 and 5 and Tables 1, 3), although uptake in 18 of the 22 LA areas exceeded 90%.
6. Annual uptake of the final dose of Pneumococcal Conjugate Vaccine (PCV3<sup>3</sup>) by 2 years of age was 91.0%. Uptake by HB ranged from 88.8% (Hywel Dda HB) to 92.8% (Powys Teaching HB) and by LA from 86.8% (Pembrokeshire) to 93.7% (Blaenau Gwent and Wrexham) (Tables 1,3).
7. Annual uptake of the Hib/MenC booster scheduled by 2 years of age was 93.3%, ranging by HB from 91.5% (Cardiff and Vale University HB) to 95.0% (Cwm Taf HB) and by LA from 90.9% (Cardiff) to 95.0% (Blaenau Gwent and Rhondda Cynon Taf) (Tables 1, 3).

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

<sup>2</sup> Men C vaccine protects against meningitis caused by meningococcus group C infection. Children reaching 1yr of age would have been offered one dose of MenC vaccine at 3 months of age and one dose at 4 months of age.

<sup>3</sup> PCV protects against pneumococcal meningitis, bacteraemia, pneumonia and otitis media. Children reaching 1yr 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 2yrs would have been offered their third and final PCV dose at around 13 months of age.

<sup>4</sup> MMR protects against measles, mumps and rubella infections.

<sup>5</sup> DTaP/IPV (and dTaP/IPV) vaccines boost protection against diphtheria, tetanus, pertussis and polio infection before school entry

<sup>6</sup> Td/IPV boosts protection against Diphtheria, Tetanus and Polio infection before entering adulthood

8. At five years of age annual uptake of two doses of MMR has increased by 1.1% to 86.9%. This is the highest ever annual uptake of MMR2 at five years of age (Figures 1, 3, 6, Tables 1, 4). Uptake of the second dose of MMR by five years of age ranged by HB from 83.3% (Powys Teaching HB) to 89.0% (Betsi Cadwaladr University HB) and by LA from 83.3% (Powys Teaching HB) to 90.7% (Wrexham). No LHB achieved the 95% target for this immunisation.
9. Uptake of the "4 in 1" DTaP/IPV<sup>5</sup> pre-school booster in children reaching their fifth birthday this year was 90.0%, ranging by HB from 87.9% (Cardiff and Vale University HB) to 91.6% (Cwm Taf HB) and by LA from 86.6% (Cardiff) to 92.8% (Gwynedd) (Figures 3, 7, Tables 1, 4).
10. Uptake of all three doses of HPV vaccine, routinely scheduled in School Year 8, in girls in the 2009/10 School Year 8 (reaching their 13<sup>th</sup> birthday between 01/09/09 and 31/08/10) was 81.6%, ranging by HB from 77.7% (Hywel Dda HB) to 87.9% (Cwm Taf HB) and by LA from 72.2% (Monmouthshire) to 90.4% (Blaenau Gwent) (Table 7). Uptake in girls in the 2009/10 School Year 8 group was lower than for girls in the 2008/9 School Year 8 group (85.3%). Immunisation sessions for the current (2010/11) School Year 8 are in progress and uptakes for one and two HPV doses in this group are reported in [COVER Report 98](#).
11. At 15 years of age, annual coverage of two doses of MMR was 82.1% (Table 5), ranging by HB from 72.1% (Powys Teaching HB) to 86.2% (Betsi Cadwaladr University HB) and by LA from 69.6% (Monmouthshire) to 88.5% (Wrexham). Coverage of one dose of MMR in 15 year olds was 91.1%, ranging by HB from 86.0% (Powys Teaching HB) to 94.5% (Betsi Cadwaladr University HB) and by LA from 79.9% (Monmouthshire) to 95.4% (Flintshire). A breakdown by sex indicates that 82.7% of girls had received a full (2 MMR doses) course of immunisation against rubella this year and coverage of only 1 dose was 91.4%.
12. At 16 years of age annual coverage of two doses of MMR was 83.5% (Tables 1, 6), ranging by HB from 78.4% (Powys Teaching HB) to 88.9% (Betsi Cadwaladr University HB) and by LA from 73.2% (Monmouthshire) to 91.4% (Wrexham). Annual coverage of one dose of MMR in 16 year olds was 91.9%, ranging by LA from 83.6% (Monmouthshire) to 96.9% (Wrexham). A breakdown by sex indicates that 84.0% of girls had received a full (2 MMR doses) course of immunisation against rubella this year and coverage of only 1 dose was 91.8%.
13. National uptake of the Td/IPV<sup>6</sup> teenage booster in children reaching 16 years of age in the year ending 31<sup>st</sup> March 2011 was 60.8% (Tables 1, 6), ranging by HB from 17.3% (Aneurin Bevan HB) to 77.9% (Cwm Taf HB) and by LA from 5.5% (Blaenau Gwent) to 83.1% (Denbighshire).

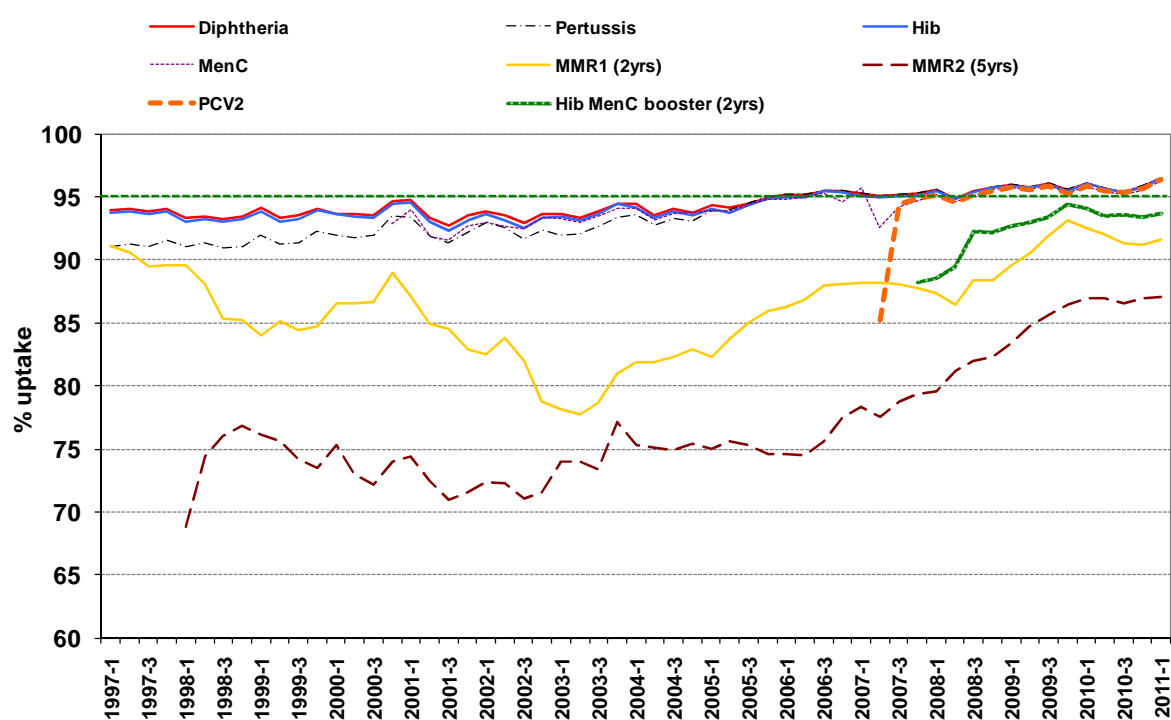
## Comment

Overall annual trends in immunisation uptake in Wales remain positive and 18 LA areas in Wales achieved annual uptakes in excess of 95% for the 5 in 1 primary and pneumococcal primaries given to children under one year of age. Annual uptake of the first dose of MMR in two year olds decreased slightly. Children reaching two years of age between April 2010 and March 2011 would have been scheduled to receive their routine first doses of MMR between May 2009 and April 2010. The slight decline in uptake in this age group could be due to increased pressure on Primary Care during the pandemic and the additional burden of the pandemic immunisation campaign. Uptake of the second dose of MMR in five year old children continues to improve; and although there is some way to go to meet the 95% uptake of two doses needed to eliminate the measles virus, uptake is now higher than it has ever been.

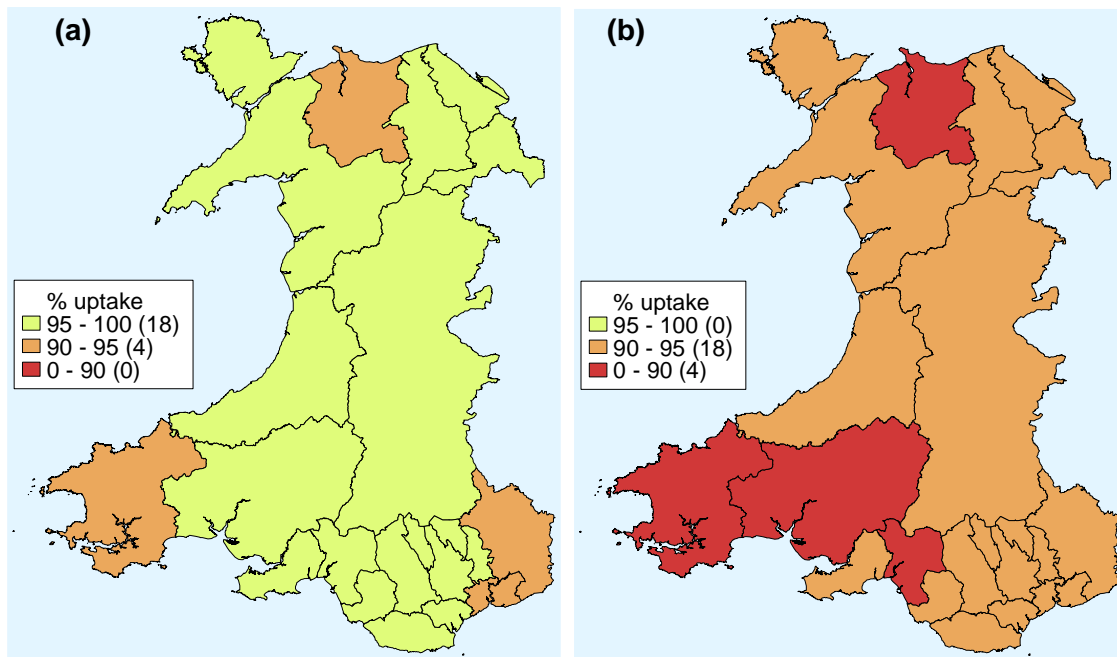
In addition to sustained improvement in annual uptake of immunisation, the gap between LA areas achieving the highest and lowest uptake of one MMR dose in two year olds and two MMR doses in five year olds has more than halved since 2005. Measles incidence in Europe has increased during 2010 and 2011, and many of those affected have been teenagers and younger adults. It is important that children and young people who have missed out scheduled measles vaccination are offered the chance to catch up.

**Report prepared by Public Health Wales Vaccine Preventable Disease Programme and Communicable Disease Surveillance Centre.** Data for this report was provided by Health Solutions Wales 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.

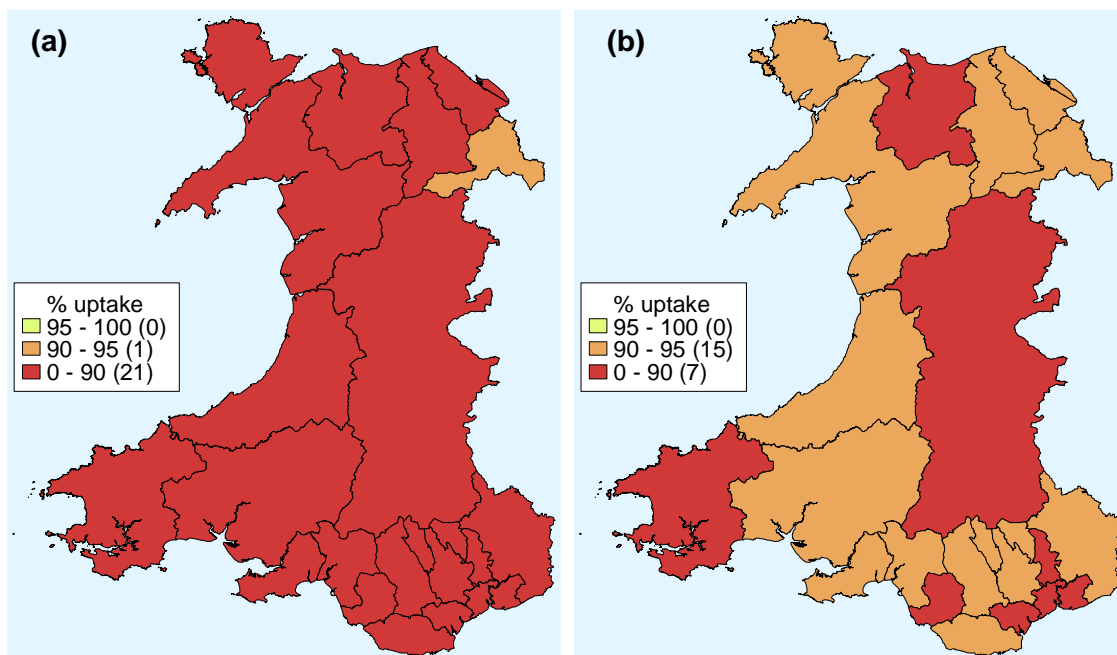
**Figure 1.** Percentage uptake of childhood immunisations in Wales, quarter 1 1997 to quarter 1 2011. Data are for: children reaching 1 year of age each quarter for diphtheria, pertussis, Hib, MenC and pneumococcal conjugate vaccine, children reaching 2 years of age for MMR1 (first dose) and the Hib MenC booster, and 5 years of age for MMR2 (second dose).



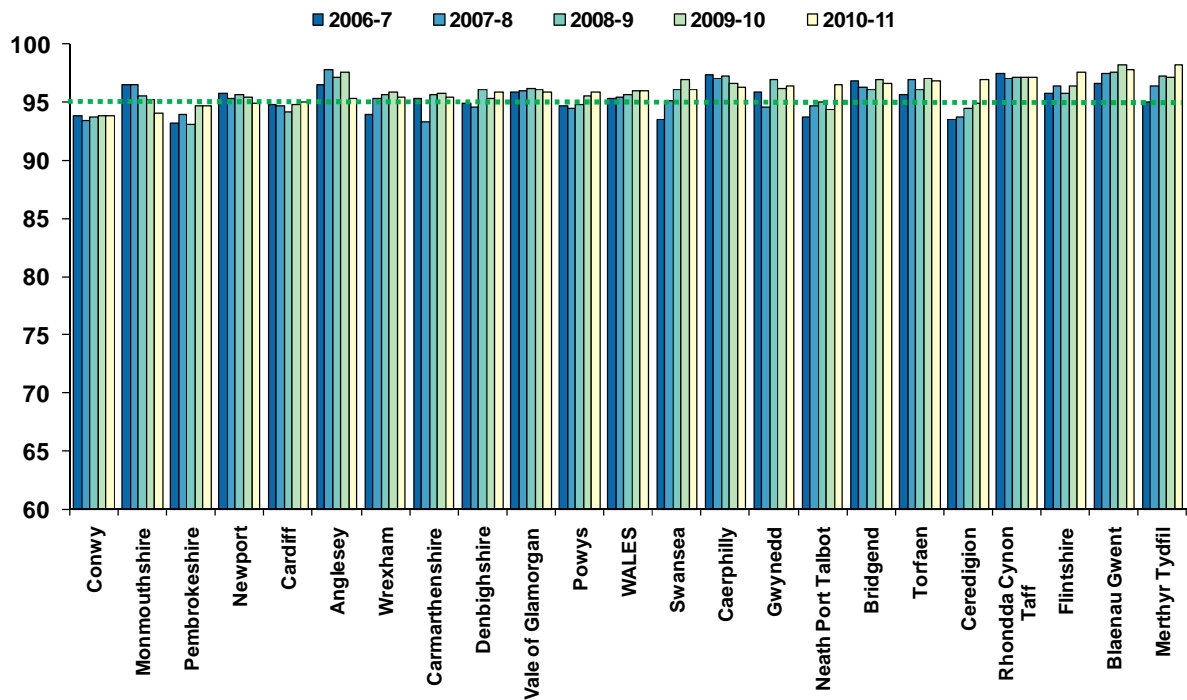
**Figure 2. (a)** Uptake of 5 in 1 vaccine in Welsh Local Authority areas in children reaching their 1<sup>st</sup> birthday between 01/04/10 and 31/03/11. **(b)** Uptake of at least 1 dose of MMR immunisation in Welsh Local Authority areas in children reaching their 2<sup>nd</sup> birthday between 01/04/10 and 31/03/11



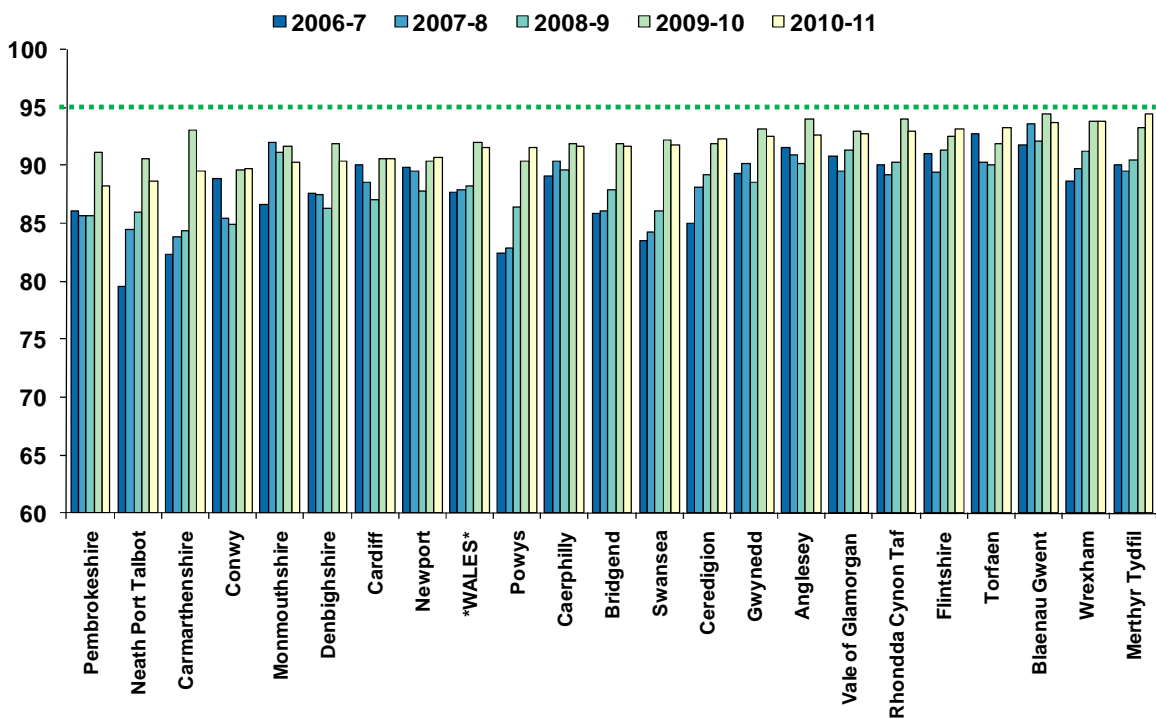
**Figure 3. (a)** Uptake of two doses of MMR vaccine in Welsh Local Authority areas in children reaching their 5<sup>th</sup> birthday between 01/04/10 and 31/03/11. **(b)** Uptake of 4 in 1 vaccine in Welsh Local Authority areas in children reaching their 5<sup>th</sup> birthday between 01/04/10 and 31/03/11.



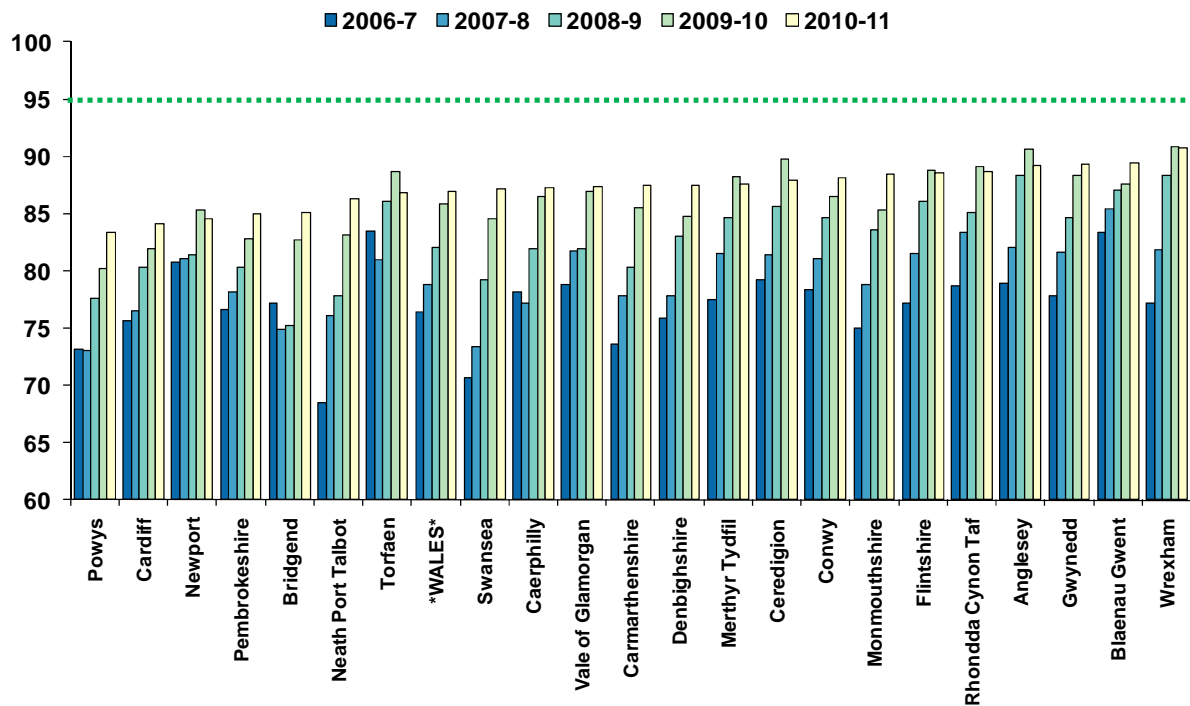
**Figure 4.** Annual uptake of 5 in 1 vaccine by 1 year of age (2006 – 2011 financial years, ranked by uptake in 2010-2011).



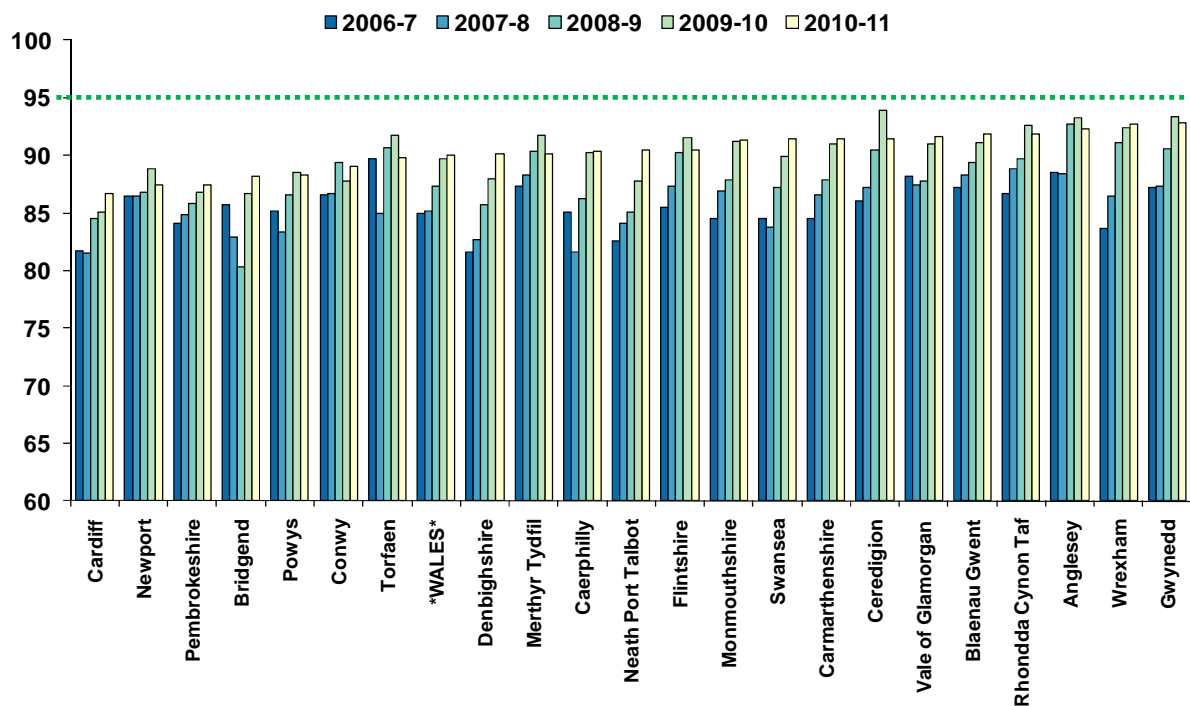
**Figure 5.** Annual uptake of 1 dose of MMR by 2 years of age (2006 – 2011 financial years, ranked by uptake in 2010-2011).



**Figure 6.** Annual uptake of 2 doses of MMR by 5 years of age (2006 – 2011 financial years, ranked by uptake in 2010-2011).



**Figure 7.** Annual uptake of the 4 in 1 pre-school booster by 6 years of age (2005 – 2011 financial years, ranked by uptake in 2010-2011).



**Table1.** Summary table with uptake of selected immunisations in resident children reaching their 1st, 2nd, 5th and 15th birthday between 01/04/10 and 31/03/11.

Area	Age 1 year				Age 2 years						Age 5 years				Age 16 years									
	Resident children (n)	5 in 1* (n) (%)		MenC (n) (%)		Resident children (n)	MMR1 (n) (%)		PCV† (n) (%)		Hib/MenC booster (n) (%)		Resident children (n)	MMR2 (n) (%)		4 in 1* (n) (%)		Resident children (n)	MMR1 (n) (%)		MMR2 (n) (%)		3 in 1 Teenage booster** (n) (%)	
<b>Abertawe Bro Morgannwg University LHB</b>	1610	1555	96.6	1549	96.2	1539	1410	91.6	1398	90.8	1452	94.3	1502	1278	85.1	1324	88.1	1563	1414	90.5	1291	82.6	1144	73.2
Bridgend LA	1571	1516	96.5	1509	96.1	1500	1330	88.7	1338	89.2	1390	92.7	1517	1309	86.3	1372	90.4	1651	1557	94.3	1408	85.3	1240	75.1
Neath Port Talbot LA	2649	2545	96.1	2528	95.4	2672	2452	91.8	2462	92.1	2531	94.7	2450	2136	87.2	2239	91.4	2598	2417	93.0	2124	81.8	2021	77.8
Swansea LA	5830	5616	96.3	5586	95.8	5711	5192	90.9	5198	91.0	5373	94.1	5469	4723	86.4	4935	90.2	5812	5388	92.7	4823	83.0	4405	75.8
<b>Aneurin Bevan LHB</b>	808	790	97.8	789	97.6	806	755	93.7	755	93.7	766	95.0	738	660	89.4	678	91.9	856	801	93.6	748	87.4	47	5.5
Blaenau Gwent LA	2164	2085	96.3	2084	96.3	2118	1940	91.6	1933	91.3	1990	94.0	2033	1775	87.3	1837	90.4	2142	1948	90.9	1747	81.6	258	12.0
Caerphilly LA	832	784	94.1	778	93.5	904	816	90.3	820	90.7	846	93.6	860	761	88.5	785	91.3	1217	1017	83.6	891	73.2	494	40.6
Monmouthshire LA	1895	1799	94.9	1792	94.6	1967	1783	90.6	1768	89.9	1812	92.1	1728	1462	84.6	1511	87.4	1955	1736	88.8	1565	80.1	318	16.3
Newport LA	1063	1029	96.8	1027	96.6	1079	1006	93.2	993	92.0	1020	94.5	1102	957	86.8	990	89.8	1267	1208	95.3	1123	88.6	172	13.6
Torfaen LA	6762	6487	95.9	6470	95.7	6874	6300	91.6	6269	91.2	6434	93.6	6461	5615	86.9	5801	89.8	7437	6710	90.2	6074	81.7	1289	17.3
<b>Betsi Cadwaladr University LHB</b>	751	716	95.3	714	95.1	748	693	92.6	690	92.2	707	94.5	688	614	89.2	635	92.3	830	788	94.9	728	87.7	585	70.5
Anglesey LA	1134	1064	93.8	1060	93.5	1167	1047	89.7	1040	89.1	1077	92.3	1067	940	88.1	950	89.0	1267	1205	95.1	1111	87.7	1012	79.9
Conwy LA	1016	974	95.9	974	95.9	1024	925	90.3	925	90.3	949	92.7	991	867	87.5	893	90.1	1133	1070	94.4	982	86.7	942	83.1
Denbighshire LA	1725	1683	97.6	1676	97.2	1681	1565	93.1	1560	92.8	1575	93.7	1641	1453	88.5	1485	90.5	1825	1761	96.5	1639	89.8	1376	75.4
Flintshire LA	1284	1238	96.4	1227	95.6	1257	1162	92.4	1171	93.2	1188	94.5	1241	1108	89.3	1152	92.8	1373	1306	95.1	1222	89.0	1002	73.0
Gwynedd LA	1669	1593	95.4	1580	94.7	1710	1603	93.7	1602	93.7	1611	94.2	1575	1429	90.7	1460	92.7	1442	1397	96.9	1318	91.4	1142	79.2
Wrexham LA	7579	7268	95.9	7231	95.4	7587	6995	92.2	6988	92.1	7107	93.7	7203	6411	89.0	6575	91.3	7870	7527	95.6	7000	88.9	6059	77.0
<b>Health Board Total</b>	7579	7268	95.9	7231	95.4	7587	6995	92.2	6988	92.1	7107	93.7	7203	6411	89.0	6575	91.3	7870	7527	95.6	7000	88.9	6059	77.0
<b>Cardiff and Vale University LHB</b>	4545	4320	95.0	4256	93.6	4558	4130	90.6	4027	88.4	4143	90.9	3998	3363	84.1	3464	86.6	3972	3587	90.3	3221	81.1	2817	70.9
Cardiff LA	1513	1452	95.9	1448	95.7	1494	1385	92.7	1382	92.5	1397	93.5	1380	1205	87.3	1264	91.6	1616	1502	92.9	1387	85.8	1312	81.2
Vale of Glamorgan LA	6058	5772	95.3	5704	94.2	6052	5515	91.1	5409	89.4	5540	91.5	5378	4568	84.9	4728	87.9	5588	5089	91.1	4608	82.5	4129	73.9
<b>Health Board Total</b>	6058	5772	95.3	5704	94.2	6052	5515	91.1	5409	89.4	5540	91.5	5378	4568	84.9	4728	87.9	5588	5089	91.1	4608	82.5	4129	73.9
<b>Cwm Taf LHB</b>	673	661	98.2	662	98.4	720	680	94.4	669	92.9	683	94.9	619	542	87.6	558	90.1	728	675	92.7	620	85.2	579	79.5
Merthyr Tydfil LA	2833	2752	97.1	2750	97.1	2822	2622	92.9	2605	92.3	2681	95.0	2666	2363	88.6	2450	91.9	2734	2597	95.0	2409	88.1	2119	77.5
Rhondda Cynon Taff LA	3506	3413	97.3	3412	97.3	3542	3302	93.2	3274	92.4	3364	95.0	3285	2905	88.4	3008	91.6	3462	3272	94.5	3029	87.5	2698	77.9
<b>Health Board Total</b>	3506	3413	97.3	3412	97.3	3542	3302	93.2	3274	92.4	3364	95.0	3285	2905	88.4	3008	91.6	3462	3272	94.5	3029	87.5	2698	77.9
<b>Hywel Dda LHB</b>	1918	1831	95.5	1820	94.9	1915	1713	89.5	1707	89.1	1762	92.0	1814	1587	87.5	1658	91.4	2023	1794	88.7	1587	78.4	1221	60.4
Carmarthenshire LA	664	644	97.0	643	96.8	607	560	92.3	558	91.9	563	92.8	620	545	87.9	567	91.5	722	667	92.4	596	82.5	555	76.9
Ceredigion LA	1297	1228	94.7	1224	94.4	1252	1105	88.3	1087	86.8	1145	91.5	1220	1037	85.0	1067	87.5	1433	1275	89.0	1147	80.0	354	24.7
Pembrokeshire LA	3879	3703	95.5	3687	95.1	3774	3378	89.5	3352	88.8	3470	91.9	3654	3169	86.7	3292	90.1	4178	3736	89.4	3330	79.7	2130	51.0
<b>Health Board Total</b>	3879	3703	95.5	3687	95.1	3774	3378	89.5	3352	88.8	3470	91.9	3654	3169	86.7	3292	90.1	4178	3736	89.4	3330	79.7	2130	51.0
<b>Powys Teaching LHB</b>	1201	1152	95.9	1143	95.2	1249	1143	91.5	1159	92.8	1179	94.4	1253	1044	83.3	1107	88.3	1502	1328	88.4	1178	78.4	1169	77.8
Unknown	166	154	92.8	154	92.8	230	213	92.6	214	93.0	215	93.5	166	135	81.3	139	83.7	370	249	67.3	196	53.0	152	41.1
<b>Wales Total</b>	34981	33565	95.9	33387	95.4	35019	32038	91.5	31863	91.0	32682	93.3	32869	28570	86.9	29585	90.0	36219	33299	91.9	30238	83.5	22031	60.8

\* Uptake of pertussis used as proxy

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

‡ Children receiving the final dose of PCV

	95% and higher
	90% to 95%
	below 90%



**Table 2.** Vaccine uptake in children reaching their 1st birthday between 01/04/10 and 31/03/11 and resident on 01/05/2011

Area	Resident children	D3	T3	P3	Po3	Hib3	MMR1	MenC	PCV2*	HibMenCb
	(n)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)
<b><u>Abertawe Bro Morgannwg University LHB</u></b>										
Bridgend LA	1610	1555 96.6	1555 96.6	1555 96.6	1555 96.6	1554 96.5	4 0.2	1549 96.2	1549 96.2	110 6.8
Neath Port Talbot LA	1571	1516 96.5	1516 96.5	1516 96.5	1516 96.5	1516 96.5	1 0.1	1509 96.1	1517 96.6	64 4.1
Swansea LA	2649	2545 96.1	2545 96.1	2545 96.1	2544 96	2540 95.9	2 0.1	2528 95.4	2534 95.7	125 4.7
<b>Health Board Total</b>	<b>5830</b>	<b>5616 96.3</b>	<b>5616 96.3</b>	<b>5616 96.3</b>	<b>5615 96.3</b>	<b>5610 96.2</b>	<b>7 0.1</b>	<b>5586 95.8</b>	<b>5600 96.1</b>	<b>299 5.1</b>
<b><u>Aneurin Bevan LHB</u></b>										
Blaenau Gwent LA	808	790 97.8	790 97.8	790 97.8	790 97.8	789 97.6	0 0	789 97.6	789 97.6	27 3.3
Caerphilly LA	2164	2085 96.3	2085 96.3	2085 96.3	2085 96.3	2085 96.3	8 0.4	2084 96.3	2086 96.4	89 4.1
Monmouthshire LA	832	784 94.2	784 94.2	783 94.1	784 94.2	783 94.1	3 0.4	778 93.5	782 94	35 4.2
Newport LA	1895	1799 94.9	1799 94.9	1799 94.9	1798 94.9	1799 94.9	3 0.2	1792 94.6	1804 95.2	86 4.5
Torfaen LA	1063	1029 96.8	1029 96.8	1029 96.8	1029 96.8	1029 96.8	4 0.4	1027 96.6	1024 96.3	59 5.6
<b>Health Board Total</b>	<b>6762</b>	<b>6487 95.9</b>	<b>6487 95.9</b>	<b>6486 95.9</b>	<b>6486 95.9</b>	<b>6485 95.9</b>	<b>18 0.3</b>	<b>6470 95.7</b>	<b>6485 95.9</b>	<b>296 4.4</b>
<b><u>Betsi Cadwaladr University LHB</u></b>										
Anglesey LA	751	716 95.3	716 95.3	716 95.3	716 95.3	715 95.2	2 0.3	714 95.1	716 95.3	41 5.5
Conwy LA	1134	1064 93.8	1064 93.8	1064 93.8	1063 93.7	1063 93.7	3 0.3	1060 93.5	1068 94.2	43 3.8
Denbighshire LA	1016	974 95.9	974 95.9	974 95.9	974 95.9	974 95.9	3 0.3	974 95.9	975 96	20 2.0
Flintshire LA	1725	1683 97.6	1683 97.6	1683 97.6	1682 97.5	1683 97.6	5 0.3	1676 97.2	1675 97.1	31 1.8
Gwynedd LA	1284	1238 96.4	1238 96.4	1238 96.4	1238 96.4	1237 96.3	5 0.4	1227 95.6	1236 96.3	50 3.9
Wrexham LA	1669	1593 95.4	1593 95.4	1593 95.4	1591 95.3	1590 95.3	1 0.1	1580 94.7	1586 95	75 4.5
<b>Health Board Total</b>	<b>7579</b>	<b>7268 95.9</b>	<b>7268 95.9</b>	<b>7268 95.9</b>	<b>7264 95.8</b>	<b>7262 95.8</b>	<b>19 0.3</b>	<b>7231 95.4</b>	<b>7256 95.7</b>	<b>260 3.4</b>
<b><u>Cardiff and Vale University LHB</u></b>										
Cardiff LA	4545	4320 95	4320 95	4320 95	4317 95	4313 94.9	25 0.6	4256 93.6	4277 94.1	168 3.7
Vale of Glamorgan LA	1513	1452 96	1452 96	1451 95.9	1452 96	1452 96	4 0.3	1448 95.7	1450 95.8	90 5.9
<b>Health Board Total</b>	<b>6058</b>	<b>5772 95.3</b>	<b>5772 95.3</b>	<b>5771 95.3</b>	<b>5769 95.2</b>	<b>5765 95.2</b>	<b>29 0.5</b>	<b>5704 94.2</b>	<b>5727 94.5</b>	<b>258 4.3</b>
<b><u>Cwm Taf LHB</u></b>										
Merthyr Tydfil LA	673	661 98.2	661 98.2	661 98.2	660 98.1	661 98.2	3 0.4	662 98.4	660 98.1	31 4.6
Rhondda Cynon Taff LA	2833	2752 97.1	2752 97.1	2752 97.1	2752 97.1	2752 97.1	11 0.4	2750 97.1	2752 97.1	115 4.1
<b>Health Board Total</b>	<b>3506</b>	<b>3413 97.3</b>	<b>3413 97.3</b>	<b>3413 97.3</b>	<b>3412 97.3</b>	<b>3413 97.3</b>	<b>14 0.4</b>	<b>3412 97.3</b>	<b>3412 97.3</b>	<b>146 4.2</b>
<b><u>Hywel Dda LHB</u></b>										
Carmarthenshire LA	1918	1831 95.5	1831 95.5	1831 95.5	1828 95.3	1828 95.3	5 0.3	1820 94.9	1828 95.3	103 5.4
Ceredigion LA	664	644 97	644 97	644 97	644 97	644 97	0 0	643 96.8	641 96.5	25 3.8
Pembrokeshire LA	1297	1228 94.7	1228 94.7	1228 94.7	1227 94.6	1226 94.5	1 0.1	1224 94.4	1228 94.7	63 4.9
<b>Health Board Total</b>	<b>3879</b>	<b>3703 95.5</b>	<b>3703 95.5</b>	<b>3703 95.5</b>	<b>3699 95.4</b>	<b>3698 95.3</b>	<b>6 0.2</b>	<b>3687 95.1</b>	<b>3697 95.3</b>	<b>191 4.9</b>
<b><u>Powys Teaching LHB</u></b>										
	<b>1201</b>	<b>1152 95.9</b>	<b>1152 95.9</b>	<b>1152 95.9</b>	<b>1151 95.8</b>	<b>1152 95.9</b>	<b>10 0.8</b>	<b>1143 95.2</b>	<b>1144 95.3</b>	<b>59 4.9</b>
Unknown	166	154 92.8	154 92.8	154 92.8	154 92.8	154 92.8	2 1.2	154 92.8	154 92.8	11 6.6
<b>Wales Total</b>	<b>34981</b>	<b>33565 96</b>	<b>33565 96</b>	<b>33563 95.9</b>	<b>33550 95.9</b>	<b>33539 95.9</b>	<b>105 0.3</b>	<b>33387 95.4</b>	<b>33475 95.7</b>	<b>1520 4.3</b>

\* Full primary 2 dose course of pneumococcal conjugate vaccine



**Table 3.** Vaccine uptake in children reaching their 2nd birthday between 01/04/10 and 31/03/11 and resident on 01/05/2011.

Area	Resident children	D3	T3	P3	Po3	Hib3	MMR1	MenC*	PCV2**	PCVf***	HibMenCb
	(n)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)	(n) (%)
<b>Abertawe Bro Morgannwg University LHE</b>											
Bridgend LA	1539	1516 98.5	1516 98.5	1516 98.5	1514 98.4	1512 98.2	1410 91.6	1503 97.7	1500 97.5	1398 90.8	1452 94.3
Neath Port Talbot LA	1500	1451 96.7	1451 96.7	1451 96.7	1447 96.5	1448 96.5	1330 88.7	1431 95.4	1442 96.1	1338 89.2	1390 92.7
Swansea LA	2672	2617 97.9	2617 97.9	2617 97.9	2616 97.9	2607 97.6	2452 91.8	2570 96.2	2581 96.6	2462 92.1	2531 94.7
<b>Health Board Total</b>	<b>5711</b>	<b>5584 97.8</b>	<b>5584 97.8</b>	<b>5584 97.8</b>	<b>5577 97.7</b>	<b>5567 97.5</b>	<b>5192 90.9</b>	<b>5504 96.4</b>	<b>5523 96.7</b>	<b>5198 91.0</b>	<b>5373 94.1</b>
<b>Aneurin Bevan LHB</b>											
Blaenau Gwent LA	806	795 98.6	795 98.6	795 98.6	795 98.6	795 98.6	755 93.7	794 98.5	794 98.5	755 93.7	766 95.0
Caerphilly LA	2118	2077 98.1	2077 98.1	2077 98.1	2077 98.1	2077 98.1	1940 91.6	2060 97.3	2066 97.5	1933 91.3	1990 94.0
Monmouthshire LA	904	864 95.6	864 95.6	864 95.6	864 95.6	863 95.5	816 90.3	860 95.1	860 95.1	820 90.7	846 93.6
Newport LA	1967	1917 97.5	1917 97.5	1917 97.5	1914 97.3	1911 97.2	1783 90.6	1880 95.6	1887 95.9	1768 89.9	1812 92.1
Torfaen LA	1079	1062 98.4	1062 98.4	1062 98.4	1062 98.4	1062 98.4	1006 93.2	1058 98.1	1055 97.8	993 92.0	1020 94.5
<b>Health Board Total</b>	<b>6874</b>	<b>6715 97.7</b>	<b>6715 97.7</b>	<b>6715 97.7</b>	<b>6712 97.6</b>	<b>6708 97.6</b>	<b>6300 91.6</b>	<b>6652 96.8</b>	<b>6662 96.9</b>	<b>6269 91.2</b>	<b>6434 93.6</b>
<b>Betsi Cadwaladr University LHB</b>											
Anglesey LA	748	732 97.9	732 97.9	732 97.9	732 97.9	731 97.7	693 92.6	728 97.3	730 97.6	690 92.2	707 94.5
Conwy LA	1167	1130 96.8	1130 96.8	1130 96.8	1130 96.8	1130 96.8	1047 89.7	1121 96.1	1125 96.4	1040 89.1	1077 92.3
Denbighshire LA	1024	989 96.6	989 96.6	989 96.6	989 96.6	989 96.6	925 90.3	980 95.7	980 95.7	925 90.3	949 92.7
Flintshire LA	1681	1643 97.7	1643 97.7	1643 97.7	1642 97.7	1641 97.6	1565 93.1	1619 96.3	1623 96.5	1560 92.8	1575 93.7
Gwynedd LA	1257	1215 96.7	1215 96.7	1215 96.7	1216 96.7	1213 96.5	1162 92.4	1197 95.2	1200 95.5	1171 93.2	1188 94.5
Wrexham LA	1710	1668 97.5	1668 97.5	1668 97.5	1668 97.5	1667 97.5	1603 93.7	1646 96.3	1648 96.4	1602 93.7	1611 94.2
<b>Health Board Total</b>	<b>7587</b>	<b>7377 97.2</b>	<b>7377 97.2</b>	<b>7377 97.2</b>	<b>7377 97.2</b>	<b>7371 97.2</b>	<b>6995 92.2</b>	<b>7291 96.1</b>	<b>7306 96.3</b>	<b>6988 92.1</b>	<b>7107 93.7</b>
<b>Cardiff and Vale University LHB</b>											
Cardiff LA	4558	4423 97.0	4423 97.0	4423 97.0	4421 97.0	4414 96.8	4130 90.6	4287 94.1	4306 94.5	4027 88.4	4143 90.9
Vale of Glamorgan LA	1494	1467 98.2	1467 98.2	1466 98.1	1467 98.2	1465 98.1	1385 92.7	1451 97.1	1452 97.2	1382 92.5	1397 93.5
<b>Health Board Total</b>	<b>6052</b>	<b>5890 97.3</b>	<b>5890 97.3</b>	<b>5889 97.3</b>	<b>5888 97.3</b>	<b>5879 97.1</b>	<b>5515 91.1</b>	<b>5738 94.8</b>	<b>5758 95.1</b>	<b>5409 89.4</b>	<b>5540 91.5</b>
<b>Cwm Taf LHB</b>											
Merthyr Tydfil LA	720	699 97.1	699 97.1	699 97.1	698 96.9	699 97.1	680 94.4	696 96.7	696 96.7	669 92.9	683 94.9
Rhondda Cynon Taff LA	2822	2767 98.1	2767 98.1	2767 98.1	2767 98.1	2766 98.0	2622 92.9	2764 97.9	2764 97.9	2605 92.3	2681 95.0
<b>Health Board Total</b>	<b>3542</b>	<b>3466 97.9</b>	<b>3466 97.9</b>	<b>3466 97.9</b>	<b>3465 97.8</b>	<b>3465 97.8</b>	<b>3302 93.2</b>	<b>3460 97.7</b>	<b>3460 97.7</b>	<b>3274 92.4</b>	<b>3364 95.0</b>
<b>Hywel Dda LHB</b>											
Carmarthenshire LA	1915	1853 96.8	1853 96.8	1853 96.8	1853 96.8	1852 96.7	1713 89.5	1828 95.5	1830 95.6	1707 89.1	1762 92.0
Ceredigion LA	607	579 95.4	579 95.4	579 95.4	579 95.4	579 95.4	560 92.3	567 93.4	572 94.2	558 91.9	563 92.8
Pembrokeshire LA	1252	1200 95.8	1200 95.8	1200 95.8	1198 95.7	1195 95.4	1105 88.3	1186 94.7	1184 94.6	1087 86.8	1145 91.5
<b>Health Board Total</b>	<b>3774</b>	<b>3632 96.2</b>	<b>3632 96.2</b>	<b>3632 96.2</b>	<b>3630 96.2</b>	<b>3626 96.1</b>	<b>3378 89.5</b>	<b>3581 94.9</b>	<b>3586 95.0</b>	<b>3352 88.8</b>	<b>3470 91.9</b>
<b>Powys Teaching LHB</b>	<b>1249</b>	<b>1206 96.6</b>	<b>1206 96.6</b>	<b>1206 96.6</b>	<b>1204 96.4</b>	<b>1202 96.2</b>	<b>1143 91.5</b>	<b>1190 95.3</b>	<b>1190 95.3</b>	<b>1159 92.8</b>	<b>1179 94.4</b>
Unknown	230	221 96.1	221 96.1	221 96.1	221 96.1	221 96.1	213 92.6	215 93.5	217 94.3	214 93.0	215 93.5
<b>Wales Total</b>	<b>35019</b>	<b>34091 97.4</b>	<b>34091 97.4</b>	<b>34090 97.3</b>	<b>34074 97.3</b>	<b>34039 97.2</b>	<b>32038 91.5</b>	<b>33631 96.0</b>	<b>33702 96.2</b>	<b>31863 91.0</b>	<b>32682 93.3</b>

\* Reflects uptake of the completed primary course in this age group

\*\* Full primary 2 dose course of pneumococcal conjugate vaccine

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

**Table 4.** Vaccine uptake in children reaching their 5th birthday between 01/04/10 and 31/03/11 and resident on 01/05/2011.

Area	Resident children (n)	D3		T3		P3		Po3		Hib3		MenC*		PCVf***		HibMenCb		MMR1		MMR2		D4		T4		aP		Po4		
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	
<b>Abertawe Bro Morgannwg University LHB</b>																														
Bridgend LA	1502	1464	97.5	1464	97.5	1463	97.4	1463	97.4	1458	97.1	1458	97.1	1096	73.0	819	54.5	1423	94.7	1278	85.1	1324	88.1	1324	88.1	1324	88.1	1324	88.1	
Neath Port Talbot LA	1517	1478	97.4	1478	97.4	1478	97.4	1472	97.0	1466	96.6	1461	96.3	1171	77.2	848	55.9	1420	93.6	1309	86.3	1372	90.4	1372	90.4	1372	90.4	1370	90.3	
Swansea LA	2450	2365	96.5	2365	96.5	2365	96.5	2359	96.3	2352	96.0	2311	94.3	1802	73.6	1388	56.7	2293	93.6	2136	87.2	2241	91.5	2241	91.5	2239	91.4	2241	91.5	
<b>Health Board Total</b>	<b>5469</b>	<b>5307</b>	<b>97.0</b>	<b>5307</b>	<b>97.0</b>	<b>5306</b>	<b>97.0</b>	<b>5294</b>	<b>96.8</b>	<b>5276</b>	<b>96.5</b>	<b>5230</b>	<b>95.6</b>	<b>4069</b>	<b>74.4</b>	<b>3055</b>	<b>55.9</b>	<b>5136</b>	<b>93.9</b>	<b>4723</b>	<b>86.4</b>	<b>4937</b>	<b>90.3</b>	<b>4937</b>	<b>90.3</b>	<b>4935</b>	<b>90.2</b>	<b>4935</b>	<b>90.2</b>	
<b>Aneurin Bevan LHB</b>																														
Blaenau Gwent LA	738	720	97.6	720	97.6	720	97.6	721	97.7	719	97.4	719	97.4	633	85.8	424	57.5	711	96.3	660	89.4	678	91.9	678	91.9	678	91.9	678	91.9	
Caerphilly LA	2033	1987	97.7	1987	97.7	1987	97.7	1985	97.6	1985	97.6	1981	97.4	1662	81.8	1072	52.7	1931	95.0	1775	87.3	1837	90.4	1837	90.4	1837	90.4	1837	90.4	
Monmouthshire LA	860	824	95.8	824	95.8	824	95.8	822	95.6	822	95.6	816	94.9	742	86.3	487	56.6	806	93.7	761	88.5	787	91.5	787	91.5	785	91.3	785	91.3	
Newport LA	1728	1659	96.0	1659	96.0	1659	96.0	1656	95.8	1651	95.5	1619	93.7	1380	79.9	908	52.5	1610	93.2	1462	84.6	1511	87.4	1511	87.4	1511	87.4	1512	87.5	
Torfaen LA	1102	1077	97.7	1077	97.7	1077	97.7	1076	97.6	1076	97.6	1066	96.7	920	83.5	618	56.1	1056	95.8	957	86.8	990	89.8	990	89.8	990	89.8	990	89.8	
<b>Health Board Total</b>	<b>6461</b>	<b>6267</b>	<b>97.0</b>	<b>6267</b>	<b>97.0</b>	<b>6267</b>	<b>97.0</b>	<b>6260</b>	<b>96.9</b>	<b>6253</b>	<b>96.8</b>	<b>6201</b>	<b>96.0</b>	<b>5337</b>	<b>82.6</b>	<b>3509</b>	<b>54.3</b>	<b>6114</b>	<b>94.6</b>	<b>5615</b>	<b>86.9</b>	<b>5803</b>	<b>89.8</b>	<b>5803</b>	<b>89.8</b>	<b>5801</b>	<b>89.8</b>	<b>5802</b>	<b>89.8</b>	
<b>Betsi Cadwaladr University LHB</b>																														
Anglesey LA	688	662	96.2	662	96.2	662	96.2	662	96.2	660	95.9	656	95.3	558	81.1	359	52.2	657	95.5	614	89.2	635	92.3	635	92.3	635	92.3	634	92.2	
Conwy LA	1067	1026	96.2	1026	96.2	1026	96.2	1024	96.0	1025	96.1	1013	94.9	795	74.5	605	56.7	1013	94.9	940	88.1	950	89.0	950	89.0	950	89.0	949	88.9	
Denbighshire LA	991	964	97.3	964	97.3	964	97.3	964	97.3	960	96.9	947	95.6	770	77.7	557	56.2	942	95.1	867	87.5	893	90.1	893	90.1	893	90.1	893	90.1	
Flintshire LA	1641	1596	97.3	1596	97.3	1596	97.3	1596	97.3	1592	97.0	1578	96.2	1293	78.8	879	53.6	1563	95.2	1453	88.5	1485	90.5	1485	90.5	1485	90.5	1484	90.4	
Gwynedd LA	1241	1202	96.9	1202	96.9	1202	96.9	1202	96.9	1195	96.3	1178	94.9	997	80.3	737	59.4	1175	94.7	1108	89.3	1152	92.8	1152	92.8	1152	92.8	1148	92.5	
Wrexham LA	1575	1537	97.6	1537	97.6	1536	97.5	1535	97.5	1527	97.0	1505	95.6	1353	85.9	928	58.9	1528	97.0	1429	90.7	1460	92.7	1460	92.7	1460	92.7	1460	92.7	
<b>Health Board Total</b>	<b>7203</b>	<b>6987</b>	<b>97.0</b>	<b>6987</b>	<b>97.0</b>	<b>6986</b>	<b>97.0</b>	<b>6983</b>	<b>96.9</b>	<b>6959</b>	<b>96.6</b>	<b>6877</b>	<b>95.5</b>	<b>5766</b>	<b>80.0</b>	<b>4065</b>	<b>56.4</b>	<b>6878</b>	<b>95.5</b>	<b>6411</b>	<b>89.0</b>	<b>6575</b>	<b>91.3</b>	<b>6575</b>	<b>91.3</b>	<b>6575</b>	<b>91.3</b>	<b>6568</b>	<b>91.2</b>	
<b>Cardiff and Vale University LHB</b>																														
Cardiff LA	3998	3863	96.6	3864	96.6	3861	96.6	3858	96.5	3815	95.4	3659	91.5	3034	75.9	2148	53.7	3790	94.8	3363	84.1	3465	86.7	3465	86.7	3464	86.6	3463	86.6	
Vale of Glamorgan LA	1380	1345	97.5	1345	97.5	1345	97.5	1345	97.5	1344	97.4	1328	96.2	1079	78.2	737	53.4	1298	94.1	1205	87.3	1265	91.7	1265	91.7	1264	91.6	1265	91.7	
<b>Health Board Total</b>	<b>5378</b>	<b>5208</b>	<b>96.8</b>	<b>5209</b>	<b>96.9</b>	<b>5206</b>	<b>96.8</b>	<b>5203</b>	<b>96.7</b>	<b>5159</b>	<b>95.9</b>	<b>4987</b>	<b>92.7</b>	<b>4113</b>	<b>76.5</b>	<b>2885</b>	<b>53.6</b>	<b>5088</b>	<b>94.6</b>	<b>4568</b>	<b>84.9</b>	<b>4730</b>	<b>88.0</b>	<b>4730</b>	<b>88.0</b>	<b>4728</b>	<b>87.9</b>	<b>4728</b>	<b>87.9</b>	
<b>Cwm Taf LHB</b>																														
Merthyr Tydfil LA	619	590	95.3	590	95.3	590	95.3	587	94.8	584	94.3	579	93.5	507	81.9	343	55.4	581	93.9	542	87.6	560	90.5	560	90.5	558	90.1	559	90.3	
Rhondda Cynon Taff LA	2666	2620	98.3	2620	98.3	2620	98.3	2617	98.2	2619	98.2	2611	97.9	2204	82.7	1513	56.8	2535	95.1	2363	88.6	2456	92.1	2456	92.1	2450	91.9	2451	91.9	
<b>Health Board Total</b>	<b>3285</b>	<b>3210</b>	<b>97.7</b>	<b>3210</b>	<b>97.7</b>	<b>3210</b>	<b>97.7</b>	<b>3204</b>	<b>97.5</b>	<b>3203</b>	<b>97.5</b>	<b>3190</b>	<b>97.1</b>	<b>2711</b>	<b>82.5</b>	<b>1856</b>	<b>56.5</b>	<b>3116</b>	<b>94.9</b>	<b>2905</b>	<b>88.4</b>	<b>3016</b>	<b>91.8</b>	<b>3016</b>	<b>91.8</b>	<b>3008</b>	<b>91.6</b>	<b>3010</b>	<b>91.6</b>	
<b>Hywel Dda LHB</b>																														
Cardiganshire LA	1814	1756	96.8	1756	96.8	1756	96.8	1747	96.3	1741	96.0	1724	95.0	1319	72.7	1006	55.5	1701	93.8	1587	87.5	1659	91.5	1659	91.5	1658	91.4	1658	91.4	
Ceredigion LA	620	586	94.5	586	94.5	586	94.5	586	94.5	583	94.0	571	92.1	507	81.8	318	51.3	571	92.1	545	87.9	567	91.5	567	91.5	567	91.5	566	91.3	
Pembrokeshire LA	1220	1175	96.3	1175	96.3	1175	96.3	1174	96.2	1165	95.5	1165	95.5	924	75.7	737	60.4	1144	93.8	1037	85.0	1068	87.5	1068	87.5	1067	87.5	1067	87.5	
<b>Health Board Total</b>	<b>3654</b>	<b>3517</b>	<b>96.3</b>	<b>3517</b>	<b>96.3</b>	<b>3517</b>	<b>96.3</b>	<b>3507</b>	<b>96.0</b>	<b>3498</b>	<b>95.7</b>	<b>3460</b>	<b>94.7</b>	<b>2750</b>	<b>75.3</b>	<b>2061</b>	<b>56.4</b>	<b>3416</b>	<b>93.5</b>	<b>3169</b>	<b>86.7</b>	<b>3294</b>	<b>90.1</b>	<b>3294</b>	<b>90.1</b>	<b>3292</b>	<b>90.1</b>	<b>3291</b>	<b>90.1</b>	
<b>Powys Teaching LHB</b>	<b>1253</b>	<b>1196</b>	<b>95.5</b>	<b>1196</b>	<b>95.5</b>	<b>1196</b>	<b>95.5</b>	<b>1189</b>	<b>94.9</b>	<b>1188</b>	<b>94.8</b>	<b>1170</b>	<b>93.4</b>	<b>967</b>	<b>77.2</b>	<b>614</b>	<b>49.0</b>	<b>1137</b>	<b>90.7</b>	<b>1044</b>	<b>83.3</b>	<b>1107</b>	<b>88.3</b>	<b>1107</b>	<b>88.3</b>	<b>1107</b>	<b>88.3</b>	<b>1106</b>	<b>88.3</b>	
Unknown	166	155	93.4	155	93.4	155	93.4	154	92.8	153	92.2	153	92.2	122	73.5	98	59.0	151	91.0	135	81.3	139	83.7	139	83.7	139	83.7	139	83.7	
<b>Wales Total</b>	<b>32869</b>	<b>31847</b>	<b>96.9</b>	<b>31848</b>	<b>96.9</b>	<b>31843</b>	<b>96.9</b>	<b>31794</b>	<b>96.7</b>	<b>31689</b>	<b>96.4</b>	<b>31268</b>	<b>95.1</b>	<b>25835</b>	<b>78.6</b>	<b>18143</b>	<b>55.2</b>	<b>31036</b>	<b>94.4</b>	<b>28570</b>	<b>86.9</b>	<b>29601</b>	<b>90.1</b>	<b>29601</b>	<b>90.1</b>	<b>29585</b>	<b>90.0</b>	<b>29579</b>	<b>90.0</b>	

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

**Table 5.** Vaccine uptake in children reaching their 15th birthday between 01/04/10 and 31/03/11 and resident on 01/05/2011 (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)	(n)	(%)	(n)	(%)	
<b>Abertawe Bro Morgannwg University LHB</b>																				
Bridgend LA	1515	1357	89.6	1240	81.8	625	41.3	724	636	87.8	580	80.1	788	719	91.2	659	83.6			
Neath Port Talbot LA	1662	1510	90.9	1362	81.9	642	38.6	799	726	90.9	650	81.4	863	784	90.8	712	82.5			
Swansea LA	2624	2398	91.4	2133	81.3	1241	47.3	1270	1185	93.3	1056	83.1	1354	1213	89.6	1077	79.5			
<b>Health Board Total</b>	<b>5801</b>	<b>5265</b>	<b>90.8</b>	<b>4735</b>	<b>81.6</b>	<b>2508</b>	<b>43.2</b>	<b>2793</b>	<b>2547</b>	<b>91.2</b>	<b>2286</b>	<b>81.8</b>	<b>3005</b>	<b>2716</b>	<b>90.4</b>	<b>2448</b>	<b>81.5</b>			
<b>Aneurin Bevan LHB</b>																				
Blaenau Gwent LA	818	764	93.4	703	85.9	269	32.9	415	391	94.2	354	85.3	403	373	92.6	349	86.6			
Caerphilly LA	2058	1851	89.9	1658	80.6	601	29.2	1000	893	89.3	802	80.2	1058	958	90.5	856	80.9			
Monmouthshire LA	1106	884	79.9	770	69.6	473	42.8	497	394	79.3	341	68.6	609	490	80.5	429	70.4			
Newport LA	1941	1708	88.0	1512	77.9	557	28.7	926	819	88.4	722	78.0	1015	889	87.6	790	77.8			
Torfaen LA	1193	1103	92.5	1022	85.7	353	29.6	549	501	91.3	458	83.4	644	602	93.5	564	87.6			
<b>Health Board Total</b>	<b>7116</b>	<b>6310</b>	<b>88.7</b>	<b>5665</b>	<b>79.6</b>	<b>2253</b>	<b>31.7</b>	<b>3387</b>	<b>2998</b>	<b>88.5</b>	<b>2677</b>	<b>79.0</b>	<b>3729</b>	<b>3312</b>	<b>88.8</b>	<b>2988</b>	<b>80.1</b>			
<b>Betsi Cadwaladr University LHB</b>																				
Anglesey LA	768	718	93.5	650	84.6	263	34.2	366	344	94.0	318	86.9	402	374	93.0	332	82.6			
Conwy LA	1174	1109	94.5	1016	86.5	692	58.9	585	553	94.5	513	87.7	588	556	94.6	503	85.5			
Denbighshire LA	1117	1043	93.4	930	83.3	638	57.1	567	533	94.0	488	86.1	549	510	92.9	442	80.5			
Flintshire LA	1775	1694	95.4	1519	85.6	637	35.9	874	849	97.1	760	87.0	901	845	93.8	759	84.2			
Gwynedd LA	1322	1248	94.4	1157	87.5	494	37.4	652	618	94.8	579	88.8	670	630	94.0	578	86.3			
Wrexham LA	1463	1387	94.8	1295	88.5	652	44.6	694	664	95.7	626	90.2	769	723	94.0	669	87.0			
<b>Health Board Total</b>	<b>7619</b>	<b>7199</b>	<b>94.5</b>	<b>6567</b>	<b>86.2</b>	<b>3376</b>	<b>44.3</b>	<b>3738</b>	<b>3561</b>	<b>95.3</b>	<b>3284</b>	<b>87.9</b>	<b>3879</b>	<b>3638</b>	<b>93.8</b>	<b>3283</b>	<b>84.6</b>			
<b>Cardiff and Vale University LHB</b>																				
Cardiff LA	3977	3627	91.2	3307	83.2	2708	68.1	1850	1717	92.8	1586	85.7	2127	1910	89.8	1721	80.9			
Vale of Glamorgan LA	1610	1490	92.5	1379	85.7	1279	79.4	781	733	93.9	684	87.6	829	757	91.3	695	83.8			
<b>Health Board Total</b>	<b>5587</b>	<b>5117</b>	<b>91.6</b>	<b>4686</b>	<b>83.9</b>	<b>3987</b>	<b>71.4</b>	<b>2631</b>	<b>2450</b>	<b>93.1</b>	<b>2270</b>	<b>86.3</b>	<b>2956</b>	<b>2667</b>	<b>90.2</b>	<b>2416</b>	<b>81.7</b>			
<b>Cwm Taf LHB</b>																				
Merthyr Tydfil LA	720	660	91.7	593	82.4	181	25.1	359	326	90.8	294	81.9	361	334	92.5	299	82.8			
Rhondda Cynon Taff LA	2651	2495	94.1	2283	86.1	635	24.0	1285	1209	94.1	1095	85.2	1366	1286	94.1	1188	87.0			
<b>Health Board Total</b>	<b>3371</b>	<b>3155</b>	<b>93.6</b>	<b>2876</b>	<b>85.3</b>	<b>816</b>	<b>24.2</b>	<b>1644</b>	<b>1535</b>	<b>93.4</b>	<b>1389</b>	<b>84.5</b>	<b>1727</b>	<b>1620</b>	<b>93.8</b>	<b>1487</b>	<b>86.1</b>			
<b>Hywel Dda LHB</b>																				
Cardiff and Vale LA	2062	1871	90.7	1648	79.9	868	42.1	1029	936	91.0	828	80.5	1033	935	90.5	820	79.4			
Ceredigion LA	722	669	92.7	588	81.4	321	44.5	324	299	92.3	262	80.9	398	370	93.0	326	81.9			
Pembrokeshire LA	1399	1251	89.4	1119	80.0	244	17.4	685	601	87.7	535	78.1	714	650	91.0	584	81.8			
<b>Health Board Total</b>	<b>4183</b>	<b>3791</b>	<b>90.6</b>	<b>3355</b>	<b>80.2</b>	<b>1433</b>	<b>34.3</b>	<b>2038</b>	<b>1836</b>	<b>90.1</b>	<b>1625</b>	<b>79.7</b>	<b>2145</b>	<b>1955</b>	<b>91.1</b>	<b>1730</b>	<b>80.7</b>			
<b>Powys Teaching LHB</b>	<b>1459</b>	<b>1255</b>	<b>86.0</b>	<b>1052</b>	<b>72.1</b>	<b>589</b>	<b>40.4</b>	<b>704</b>	<b>607</b>	<b>86.2</b>	<b>519</b>	<b>73.7</b>	<b>754</b>	<b>647</b>	<b>85.8</b>	<b>532</b>	<b>70.6</b>			
Unknown	363	238	65.6	198	54.5	98	27.0	171	107	62.6	89	52.0	191	131	68.6	109	57.1			
<b>Wales Total</b>	<b>35499</b>	<b>32330</b>	<b>91.1</b>	<b>29134</b>	<b>82.1</b>	<b>15060</b>	<b>42.4</b>	<b>17106</b>	<b>15641</b>	<b>91.4</b>	<b>14139</b>	<b>82.7</b>	<b>18386</b>	<b>16686</b>	<b>90.8</b>	<b>14993</b>	<b>81.5</b>			

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

**Table 6.** Vaccine uptake in children reaching their 16th birthday between 01/04/10 and 31/03/11 and resident on 01/05/2011 (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)	(%)	(n)	(%)		
<b>Abertawe Bro Morgannwg University LHB</b>																				
Bridgend LA	1563	1414	90.5	1291	82.6	1144	73.2	764	686	89.8	639	83.6	798	728	91.2	652	81.7			
Neath Port Talbot LA	1651	1557	94.3	1408	85.3	1240	75.1	781	736	94.2	672	86.0	870	821	94.4	736	84.6			
Swansea LA	2598	2417	93.0	2124	81.8	2021	77.8	1302	1215	93.3	1071	82.3	1296	1202	92.7	1053	81.3			
<b>Health Board Total</b>	<b>5812</b>	<b>5388</b>	<b>92.7</b>	<b>4823</b>	<b>83.0</b>	<b>4405</b>	<b>75.8</b>	<b>2847</b>	<b>2637</b>	<b>92.6</b>	<b>2382</b>	<b>83.7</b>	<b>2964</b>	<b>2751</b>	<b>92.8</b>	<b>2441</b>	<b>82.4</b>			
<b>Aneurin Bevan LHB</b>																				
Blaenau Gwent LA	856	801	93.6	748	87.4	47	5.5	420	390	92.9	364	86.7	436	411	94.3	384	88.1			
Caerphilly LA	2142	1948	90.9	1747	81.6	258	12.0	1067	951	89.1	848	79.5	1075	997	92.7	899	83.6			
Monmouthshire LA	1217	1017	83.6	891	73.2	494	40.6	569	476	83.7	417	73.3	648	541	83.5	474	73.1			
Newport LA	1955	1736	88.8	1565	80.1	318	16.3	968	847	87.5	775	80.1	985	888	90.2	789	80.1			
Torfaen LA	1267	1208	95.3	1123	88.6	172	13.6	643	611	95.0	570	88.6	623	596	95.7	553	88.8			
<b>Health Board Total</b>	<b>7437</b>	<b>6710</b>	<b>90.2</b>	<b>6074</b>	<b>81.7</b>	<b>1289</b>	<b>17.3</b>	<b>3667</b>	<b>3275</b>	<b>89.3</b>	<b>2974</b>	<b>81.1</b>	<b>3767</b>	<b>3433</b>	<b>91.1</b>	<b>3099</b>	<b>82.3</b>			
<b>Betsi Cadwaladr University LHB</b>																				
Anglesey LA	830	788	94.9	728	87.7	585	70.5	391	372	95.1	345	88.2	439	416	94.8	383	87.2			
Conwy LA	1267	1205	95.1	1111	87.7	1012	79.9	612	585	95.6	547	89.4	654	619	94.6	563	86.1			
Denbighshire LA	1133	1070	94.4	982	86.7	942	83.1	576	535	92.9	496	86.1	557	535	96.1	486	87.3			
Flintshire LA	1825	1761	96.5	1639	89.8	1376	75.4	909	874	96.1	814	89.5	916	887	96.8	825	90.1			
Gwynedd LA	1373	1306	95.1	1222	89.0	1002	73.0	705	667	94.6	624	88.5	668	639	95.7	598	89.5			
Wrexham LA	1442	1397	96.9	1318	91.4	1142	79.2	672	658	97.9	627	93.3	770	739	96.0	691	89.7			
<b>Health Board Total</b>	<b>7870</b>	<b>7527</b>	<b>95.6</b>	<b>7000</b>	<b>88.9</b>	<b>6059</b>	<b>77.0</b>	<b>3865</b>	<b>3691</b>	<b>95.5</b>	<b>3453</b>	<b>89.3</b>	<b>4004</b>	<b>3835</b>	<b>95.8</b>	<b>3546</b>	<b>88.6</b>			
<b>Cardiff and Vale University LHB</b>																				
Cardiff LA	3972	3587	90.3	3221	81.1	2817	70.9	1881	1738	92.4	1601	85.1	2090	1849	88.5	1620	77.5			
Vale of Glamorgan LA	1616	1502	92.9	1387	85.8	1312	81.2	765	711	92.9	664	86.8	851	791	92.9	723	85.0			
<b>Health Board Total</b>	<b>5588</b>	<b>5089</b>	<b>91.1</b>	<b>4608</b>	<b>82.5</b>	<b>4129</b>	<b>73.9</b>	<b>2646</b>	<b>2449</b>	<b>92.6</b>	<b>2265</b>	<b>85.6</b>	<b>2941</b>	<b>2640</b>	<b>89.8</b>	<b>2343</b>	<b>79.7</b>			
<b>Cwm Taf LHB</b>																				
Merthyr Tydfil LA	728	675	92.7	620	85.2	579	79.5	349	325	93.1	307	88.0	379	350	92.3	313	82.6			
Rhondda Cynon Taff LA	2734	2597	95.0	2409	88.1	2119	77.5	1307	1229	94.0	1137	87.0	1427	1368	95.9	1272	89.1			
<b>Health Board Total</b>	<b>3462</b>	<b>3272</b>	<b>94.5</b>	<b>3029</b>	<b>87.5</b>	<b>2698</b>	<b>77.9</b>	<b>1656</b>	<b>1554</b>	<b>93.8</b>	<b>1444</b>	<b>87.2</b>	<b>1806</b>	<b>1718</b>	<b>95.1</b>	<b>1585</b>	<b>87.8</b>			
<b>Hywel Dda LHB</b>																				
Carmarthenshire LA	2023	1794	88.7	1587	78.4	1221	60.4	1001	898	89.7	806	80.5	1021	896	87.8	781	76.5			
Ceredigion LA	722	667	92.4	596	82.5	555	76.9	341	313	91.8	282	82.7	381	354	92.9	314	82.4			
Pembrokeshire LA	1433	1275	89.0	1147	80.0	354	24.7	738	648	87.8	583	79.0	695	627	90.2	564	81.2			
<b>Health Board Total</b>	<b>4178</b>	<b>3736</b>	<b>89.4</b>	<b>3330</b>	<b>79.7</b>	<b>2130</b>	<b>51.0</b>	<b>2080</b>	<b>1859</b>	<b>89.4</b>	<b>1671</b>	<b>80.3</b>	<b>2097</b>	<b>1877</b>	<b>89.5</b>	<b>1659</b>	<b>79.1</b>			
<b>Powys Teaching LHB</b>	<b>1502</b>	<b>1328</b>	<b>88.4</b>	<b>1178</b>	<b>78.4</b>	<b>1169</b>	<b>77.8</b>	<b>748</b>	<b>656</b>	<b>87.7</b>	<b>579</b>	<b>77.4</b>	<b>754</b>	<b>672</b>	<b>89.1</b>	<b>599</b>	<b>79.4</b>			
Unknown	370	249	67.3	196	53.0	152	41.1	181	117	64.6	93	51.4	187	132	70.6	103	55.1			
<b>Wales Total</b>	<b>36219</b>	<b>33299</b>	<b>91.9</b>	<b>30238</b>	<b>83.5</b>	<b>22031</b>	<b>60.8</b>	<b>17690</b>	<b>16238</b>	<b>91.8</b>	<b>14861</b>	<b>84.0</b>	<b>18520</b>	<b>17058</b>	<b>92.1</b>	<b>15375</b>	<b>83.0</b>			

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

**Table 7.** HPV Vaccine uptake in girls reaching their 14th birthday between 01/09/2008 and 31/08/2010 and resident on 01/05/2010 (School Year 8 during 2009-10).

Area	Resident girls	HPV 1 dose		HPV 2 doses		HPV 3 doses	
		(n)	(%)	(n)	(%)	(n)	(%)
<b><u>Abertawe Bro Morgannwg University LHB</u></b>							
Bridgend LA	840	752	89.5	743	88.5	733	87.3
Neath Port Talbot LA	804	698	86.8	686	85.3	668	83.1
Swansea LA	1274	1096	86.0	1080	84.8	1047	82.2
<b>Health Board Total</b>	<b>2918</b>	<b>2546</b>	<b>87.3</b>	<b>2509</b>	<b>86.0</b>	<b>2448</b>	<b>83.9</b>
<b><u>Aneurin Bevan LHB</u></b>							
Blaenau Gwent LA	397	375	94.5	369	92.9	359	90.4
Caerphilly LA	1068	942	88.2	930	87.1	901	84.4
Monmouthshire LA	572	428	74.8	422	73.8	413	72.2
Newport LA	941	780	82.9	774	82.3	756	80.3
Torfaen LA	613	549	89.6	545	88.9	532	86.8
<b>Health Board Total</b>	<b>3591</b>	<b>3074</b>	<b>85.6</b>	<b>3040</b>	<b>84.7</b>	<b>2961</b>	<b>82.5</b>
<b><u>Betsi Cadwaladr University LHB</u></b>							
Anglesey LA	399	336	84.2	332	83.2	315	78.9
Conwy LA	580	499	86.0	496	85.5	467	80.5
Denbighshire LA	576	472	81.9	469	81.4	436	75.7
Flintshire LA	877	773	88.1	769	87.7	752	85.7
Gwynedd LA	682	559	82.0	556	81.5	540	79.2
Wrexham LA	659	568	86.2	558	84.7	552	83.8
<b>Health Board Total</b>	<b>3773</b>	<b>3207</b>	<b>85.0</b>	<b>3180</b>	<b>84.3</b>	<b>3062</b>	<b>81.2</b>
<b><u>Cardiff and Vale University LHB</u></b>							
Cardiff LA	1782	1536	86.2	1487	83.4	1421	79.7
Vale of Glamorgan LA	820	719	87.7	697	85.0	667	81.3
<b>Health Board Total</b>	<b>2602</b>	<b>2255</b>	<b>86.7</b>	<b>2184</b>	<b>83.9</b>	<b>2088</b>	<b>80.2</b>
<b><u>Cwm Taf LHB</u></b>							
Merthyr Tydfil LA	371	332	89.5	330	88.9	309	83.3
Rhondda Cynon Taff LA	1344	1230	91.5	1220	90.8	1199	89.2
<b>Health Board Total</b>	<b>1715</b>	<b>1562</b>	<b>91.1</b>	<b>1550</b>	<b>90.4</b>	<b>1508</b>	<b>87.9</b>
<b><u>Hywel Dda LHB</u></b>							
Carmarthenshire LA	1004	819	81.6	806	80.3	782	77.9
Ceredigion LA	341	264	77.4	264	77.4	261	76.5
Pembrokeshire LA	673	570	84.7	563	83.7	525	78.0
<b>Health Board Total</b>	<b>2018</b>	<b>1653</b>	<b>81.9</b>	<b>1633</b>	<b>80.9</b>	<b>1568</b>	<b>77.7</b>
<b><u>Powys Teaching LHB</u></b>	<b>738</b>	<b>593</b>	<b>80.4</b>	<b>593</b>	<b>80.4</b>	<b>578</b>	<b>78.3</b>
Unknown	152	86	56.6	85	55.9	81	53.3
<b>Wales Total</b>	<b>17555</b>	<b>15006</b>	<b>85.5</b>	<b>14802</b>	<b>84.3</b>	<b>14322</b>	<b>81.6</b>

## Links

HPV catch-up for young women born between 1 September 1990 and 31 August 1991:  
<http://wales.gov.uk/topics/health/publications/health/ministerial/hpvvaccination/?lang=en>

Welsh Health Circular (2005) 081 – MMR immunisation catch-up:  
[http://www.wales.nhs.uk/documents/WHC\\_2005\\_081.pdf](http://www.wales.nhs.uk/documents/WHC_2005_081.pdf)

Accelerated HPV catch-up for young women born between 1 September 1991 and 31 August 1995 (intranet): <http://howis.wales.nhs.uk/sites3/page.cfm?orgid=474&pid=21255>

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](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>