

Pneumococcal polysaccharide vaccination (PPV) uptake in Wales in 2020/21

Annual Report February 2022

Key Points

- Uptake of pneumococcal vaccine in people aged two to 64 years in a clinical risk group was 34.7% during 2020/21. Uptake ranged by health board, from 43.2% in Betsi Cadwaladr UHB to 26.0% in Cwm Taf Morgannwg UHB.
- Uptake of pneumococcal vaccine in people aged 65 years and over was 61.4%. Uptake ranged by health board, from 64.9% in Betsi Cadwaladr UHB to 58.5% in Hywel Dda UHB.
- Uptake increases steadily from age 65 (26.5%) to 74 (65.7%) years. Uptake was 74.0% in those aged 75 years and above.
- Uptake among patients aged two to 64 years in a clinical risk group was highest in patients with a cochlear implant (73.9%) and patients with chronic respiratory disease (45.7%). Uptake was lowest in patients with a cerebrospinal fluid leak (25.3%).
- There are notable variations in uptake between and within health boards, especially in those under 65 years of age in clinical risk groups

Background

The pneumococcal polysaccharide vaccination (PPV) is currently offered to those aged 65 years and older and people aged two to 64 years in select clinical risk groups. PPV protects against 23 serotypes of *Streptococcus pneumoniae* that can cause pneumonia or serious invasive infections.

Data are presented by Local Authority/Health Board of GP and are based on all general practices in Wales. All ages in this report are as at 31st March 2021.

Figure 1: Pneumococcal vaccine coverage, by age group, data as at 31st March 2021

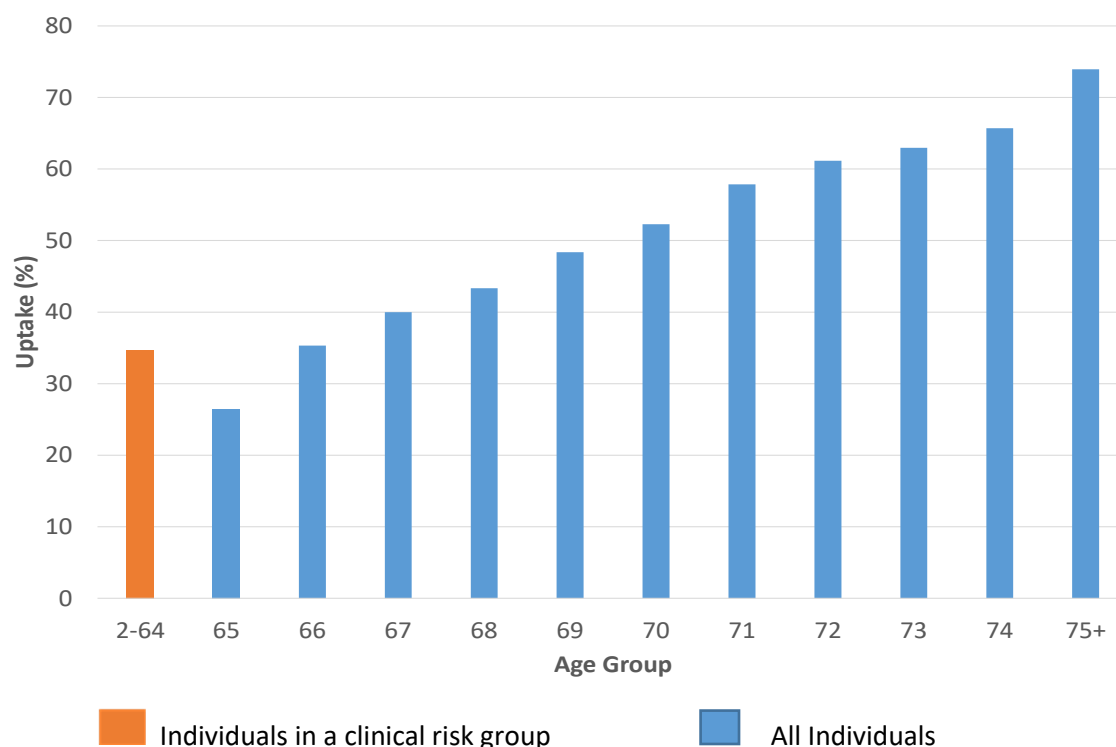


Figure 2. Box and whisker plot showing distribution of practice pneumococcal immunisation uptake (%) in patients aged 2-64 in a clinical risk group, by health board; Wales

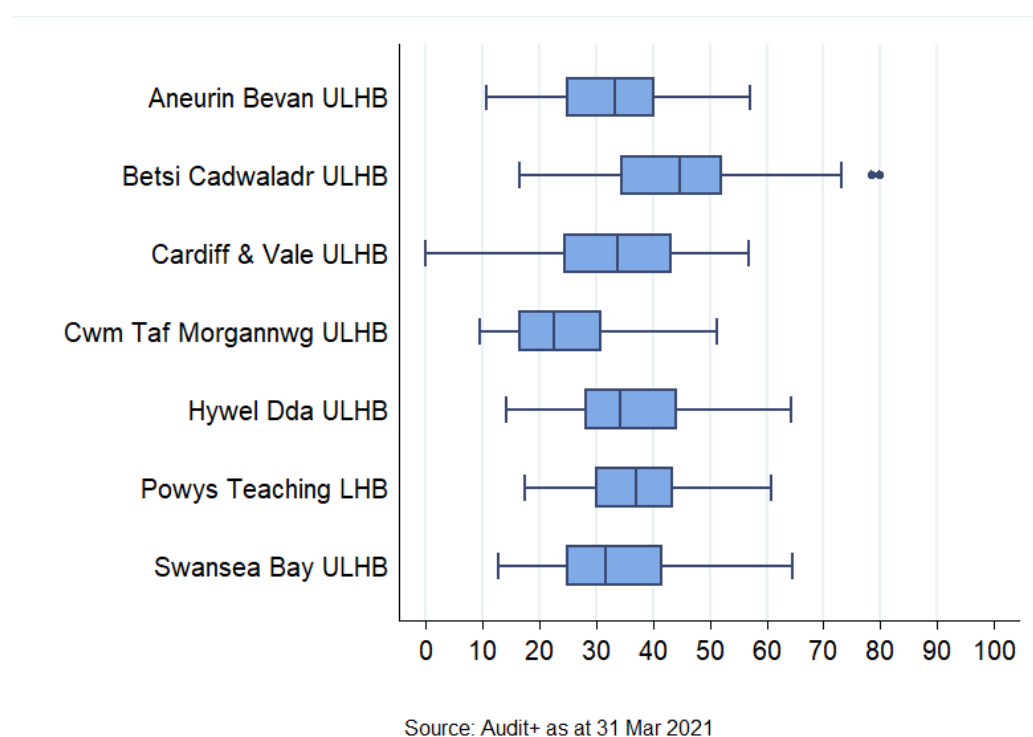


Figure 3. Box and whisker plot showing distribution of practice pneumococcal immunisation uptake (%) in patients aged 65 and over, by health board; Wales

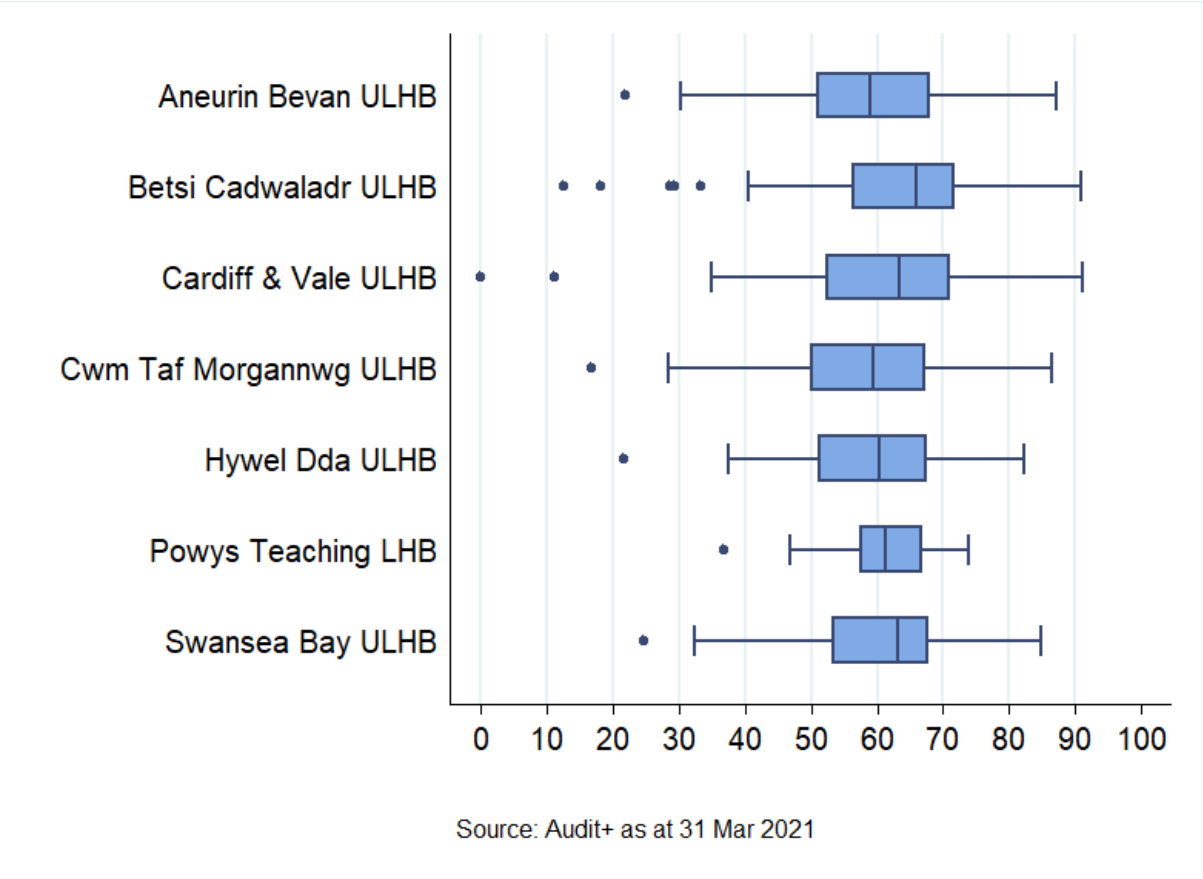


Table 1: Pneumococcal vaccine coverage, by health board and local authority, data as at 31st March 2021

Local Authority	Patients aged 65+			Patients in clinical at-risk group aged 2-64 years		
	n	d	%	n	d	%
Aneurin Bevan ULHB	71,918	120,560	59.7%	13,544	40,668	33.3%
Blaenau Gwent	7,965	14,100	56.5%	1,761	5,538	31.8%
Caerphilly	20,501	36,201	56.6%	3,928	12,251	32.1%
Monmouthshire	16,533	25,038	66.0%	2,483	6,028	41.2%
Newport	16,006	26,799	59.7%	3,228	10,170	31.7%
Torfaen	10,913	18,422	59.2%	2,144	6,681	32.1%
Betsi Cadwaladr ULHB	106,269	163,747	64.9%	18,868	43,665	43.2%
Anglesey	11,173	17,206	64.9%	1,780	4,057	43.9%
Conwy	18,233	31,044	58.7%	2,666	6,891	38.7%
Denbighshire	15,891	24,564	64.7%	2,884	6,932	41.6%
Flintshire	22,530	31,878	70.7%	4,680	9,437	49.6%
Gwynedd	17,429	28,486	61.2%	2,670	7,061	37.8%
Wrexham	21,013	30,569	68.7%	4,188	9,287	45.1%
Cardiff & Vale ULHB	51,210	81,208	63.1%	10,170	29,632	34.3%
Cardiff	33,598	53,749	62.5%	7,759	22,035	35.2%
Vale of Glamorgan	17,612	27,459	64.1%	2,411	7,597	31.7%
Cwm Taf Morgannwg ULHB	54,705	90,966	60.1%	8,131	31,241	26.0%
Bridgend	19,915	32,588	61.1%	3,050	10,867	28.1%
Merthyr Tydfil	6,534	11,443	57.1%	958	4,330	22.1%
Rhondda Cynon Taf	28,256	46,935	60.2%	4,123	16,044	25.7%
Hywel Dda ULHB	55,216	94,310	58.5%	8,283	24,088	34.4%
Carmarthenshire	24,481	42,233	58.0%	3,588	11,537	31.1%
Ceredigion	12,230	23,103	52.9%	1,679	5,166	32.5%
Pembrokeshire	18,505	28,974	63.9%	3,016	7,385	40.8%
Powys Teaching LHB	22,753	37,740	60.3%	3,013	8,286	36.4%
Powys	22,753	37,740	60.3%	3,013	8,286	36.4%
Swansea Bay ULHB	47,591	79,012	60.2%	8,152	24,586	33.2%
Neath Port Talbot	17,713	29,329	60.4%	3,053	9,414	32.4%
Swansea	29,878	49,683	60.1%	5,099	15,172	33.6%
Wales	409,662	667,543	61.4%	70,161	202,166	34.7%



Table 2a: Pneumococcal vaccine coverage for those at risk, by health board and local authority, as at 31st March 2021

Local Authority	Patients in asplenia at risk group			Patients in cerebrospinal fluid leak at-risk group			Patients in chronic heart disease at-risk group		
	n	d	%	n	d	%	n	d	%
Aneurin Bevan ULHB	840	2,406	34.9%	41	189	21.7%	3,693	13,261	27.8%
Blaenau Gwent	76	273	27.8%	4	24	16.7%	501	1,748	28.7%
Caerphilly	223	670	33.3%	15	65	23.1%	1,104	4,059	27.2%
Monmouthshire	177	459	38.6%	7	32	21.9%	679	2,156	31.5%
Newport	212	583	36.4%	5	32	15.6%	804	3,048	26.4%
Torfaen	152	421	36.1%	10	36	27.8%	605	2,250	26.9%
Betsi Cadwaladr ULHB	1,146	2,743	41.8%	96	293	32.8%	5,266	14,108	37.3%
Anglesey	109	233	46.8%	8	30	26.7%	447	1,208	37.0%
Conwy	173	472	36.7%	17	52	32.7%	760	2,300	33.0%
Denbighshire	162	409	39.6%	15	46	32.6%	829	2,293	36.2%
Flintshire	311	596	52.2%	23	64	35.9%	1,324	3,101	42.7%
Gwynedd	151	454	33.3%	9	39	23.1%	678	2,114	32.1%
Wrexham	240	579	41.5%	24	62	38.7%	1,228	3,092	39.7%
Cardiff & Vale ULHB	826	2,176	38.0%	34	167	20.4%	2,456	9,418	26.1%
Cardiff	573	1,615	35.5%	24	117	20.5%	1,812	6,794	26.7%
Vale of Glamorgan	253	561	45.1%	10	50	20.0%	644	2,624	24.5%
Cwm Taf Morgannwg ULHB	511	1,611	31.7%	37	177	20.9%	2,393	10,825	22.1%
Bridgend	184	595	30.9%	17	74	23.0%	948	4,054	23.4%
Merthyr Tydfil	58	182	31.9%	5	23	21.7%	292	1,502	19.4%
Rhondda Cynon Taf	269	834	32.3%	15	80	18.8%	1,153	5,269	21.9%
Hywel Dda ULHB	550	1,398	39.3%	32	141	22.7%	2,426	8,478	28.6%
Carmarthenshire	210	585	35.9%	18	76	23.7%	1,124	4,200	26.8%
Ceredigion	121	339	35.7%	3	16	18.8%	511	1,865	27.4%
Pembrokeshire	219	474	46.2%	11	49	22.4%	791	2,413	32.8%
Powys Teaching LHB	228	580	39.3%	11	59	18.6%	862	3,079	28.0%
Powys	228	580	39.3%	11	59	18.6%	862	3,079	28.0%
Swansea Bay ULHB	528	1,323	39.9%	51	170	30.0%	2,439	8,538	28.6%
Neath Port Talbot	186	462	40.3%	16	63	25.4%	926	3,347	27.7%
Swansea	342	861	39.7%	35	107	32.7%	1,513	5,191	29.1%
Wales	4,629	12,237	37.8%	302	1,196	25.3%	19,535	67,707	28.9%



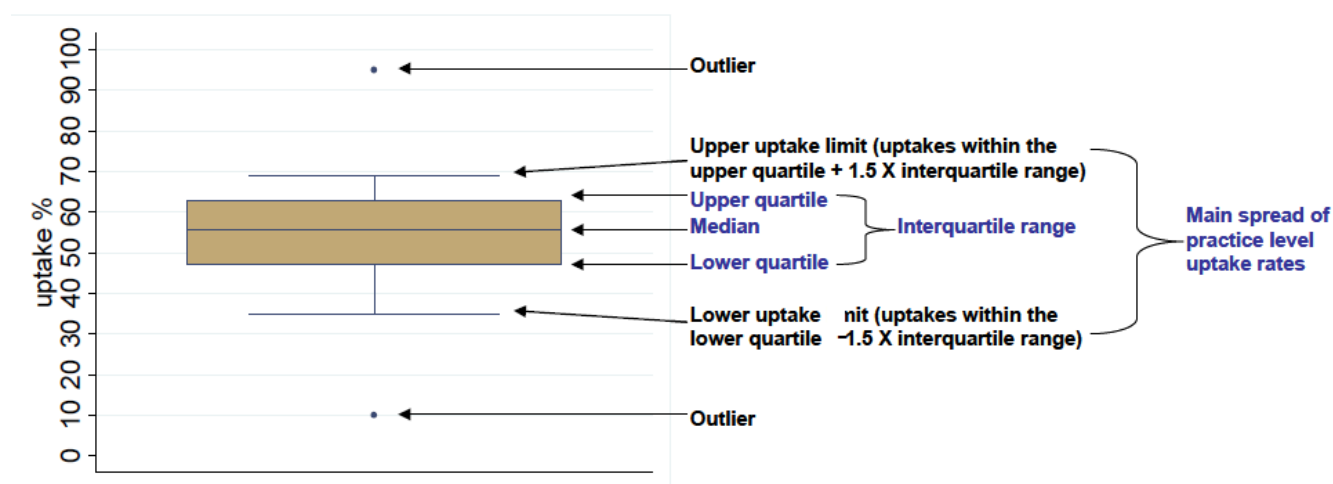
Table 2b: Pneumococcal vaccine coverage for those at risk, by health board and local authority, as at 31st March 2021

Local Authority	Patients in chronic kidney disease at-risk group			Patients in chronic liver disease at-risk group			Patients in chronic respiratory disease at-risk group		
	n	d	%	n	d	%	n	d	%
Aneurin Bevan ULHB	400	935	42.8%	524	2,081	25.2%	2,499	5,603	44.6%
Blaenau Gwent	54	133	40.6%	69	314	22.0%	401	909	44.1%
Caerphilly	104	279	37.3%	126	617	20.4%	716	1,649	43.4%
Monmouthshire	73	130	56.2%	101	287	35.2%	360	643	56.0%
Newport	102	244	41.8%	123	514	23.9%	570	1,351	42.2%
Torfaen	67	149	45.0%	105	349	30.1%	452	1,051	43.0%
Betsi Cadwaladr ULHB	578	1,088	53.1%	822	2,454	33.5%	3,509	6,808	51.5%
Anglesey	45	95	47.4%	73	201	36.3%	340	679	50.1%
Conwy	95	173	54.9%	129	409	31.5%	536	1,037	51.7%
Denbighshire	76	157	48.4%	146	400	36.5%	605	1,258	48.1%
Flintshire	132	221	59.7%	189	517	36.6%	770	1,327	58.0%
Gwynedd	83	177	46.9%	113	370	30.5%	557	1,181	47.2%
Wrexham	147	265	55.5%	172	557	30.9%	701	1,326	52.9%
Cardiff & Vale ULHB	306	797	38.4%	385	1,432	26.9%	1,732	3,775	45.9%
Cardiff	225	598	37.6%	302	1,108	27.3%	1,348	2,788	48.4%
Vale of Glamorgan	81	199	40.7%	83	324	25.6%	384	987	38.9%
Cwm Taf Morgannwg ULHB	295	822	35.9%	312	1,684	18.5%	1,646	4,769	34.5%
Bridgend	100	270	37.0%	112	511	21.9%	563	1,474	38.2%
Merthyr Tydfil	35	117	29.9%	33	250	13.2%	233	703	33.1%
Rhondda Cynon Taf	160	435	36.8%	167	923	18.1%	850	2,592	32.8%
Hywel Dda ULHB	242	597	40.5%	347	1,252	27.7%	1,656	3,475	47.7%
Carmarthenshire	105	282	37.2%	122	530	23.0%	692	1,553	44.6%
Ceredigion	58	128	45.3%	66	267	24.7%	340	777	43.8%
Pembrokeshire	79	187	42.2%	159	455	34.9%	624	1,145	54.5%
Powys Teaching LHB	77	197	39.1%	118	369	32.0%	566	1,148	49.3%
Powys	77	197	39.1%	118	369	32.0%	566	1,148	49.3%
Swansea Bay ULHB	214	575	37.2%	394	1,447	27.2%	1,690	3,515	48.1%
Neath Port Talbot	90	235	38.3%	126	484	26.0%	656	1,423	46.1%
Swansea	124	340	36.5%	268	963	27.8%	1,034	2,092	49.4%
Wales	2,112	5,011	42.1%	2,902	10,719	27.1%	13,298	29,093	45.7%

Table 2c: Pneumococcal vaccine coverage for those at risk, by health board and local authority, as at 31st March 2021

Local Authority	Patients in diabetes at-risk group			Patients in immunosuppression at-risk			Patients in cochlear implant at-risk group		
	n	d	%	n	d	%	n	d	%
Aneurin Bevan ULHB	6,516	16,620	39.2%	2,254	5,755	39.2%	24	37	64.9%
Blaenau Gwent	822	2,293	35.8%	289	742	38.9%	7	8	87.5%
Caerphilly	2,031	5,239	38.8%	550	1,546	35.6%	4	8	50.0%
Monmouthshire	1,131	2,116	53.4%	476	1,017	46.8%	4	8	50.0%
Newport	1,610	4,471	36.0%	507	1,378	36.8%	6	9	66.7%
Torfaen	922	2,501	36.9%	432	1,072	40.3%	3	4	75.0%
Betsi Cadwaladr ULHB	8,256	15,936	51.8%	3,185	6,593	48.3%	29	46	63.0%
Anglesey	785	1,508	52.1%	334	682	49.0%	3	4	75.0%
Conwy	1,104	2,441	45.2%	451	1,022	44.1%	5	7	71.4%
Denbighshire	1,195	2,447	48.8%	504	1,017	49.6%	6	9	66.7%
Flintshire	2,096	3,531	59.4%	779	1,418	54.9%	4	6	66.7%
Gwynedd	1,129	2,531	44.6%	505	1,182	42.7%	6	8	75.0%
Wrexham	1,947	3,478	56.0%	612	1,272	48.1%	5	12	41.7%
Cardiff & Vale ULHB	5,174	11,974	43.2%	1,492	3,904	38.2%	29	35	82.9%
Cardiff	4,071	9,124	44.6%	1,097	2,873	38.2%	24	29	82.8%
Vale of Glamorgan	1,103	2,850	38.7%	395	1,031	38.3%	5	6	83.3%
Cwm Taf Morgannwg ULHB	3,914	12,712	30.8%	1,010	3,391	29.8%	21	27	77.8%
Bridgend	1,429	4,306	33.2%	350	1,095	32.0%	15	17	88.2%
Merthyr Tydfil	462	1,798	25.7%	110	479	23.0%	0	1	0.0%
Rhondda Cynon Taf	2,023	6,608	30.6%	550	1,817	30.3%	6	9	66.7%
Hywel Dda ULHB	3,601	9,072	39.7%	1,316	3,183	41.3%	20	27	74.1%
Carmarthenshire	1,619	4,554	35.6%	504	1,428	35.3%	13	17	76.5%
Ceredigion	736	1,823	40.4%	239	681	35.1%	2	2	100.0%
Pembrokeshire	1,246	2,695	46.2%	573	1,074	53.4%	5	8	62.5%
Powys Teaching LHB	1,260	2,744	45.9%	541	1,246	43.4%	9	11	81.8%
Powys	1,260	2,744	45.9%	541	1,246	43.4%	9	11	81.8%
Swansea Bay ULHB	3,744	9,956	37.6%	871	2,584	33.7%	23	27	85.2%
Neath Port Talbot	1,424	3,875	36.7%	338	930	36.3%	10	12	83.3%
Swansea	2,320	6,081	38.2%	533	1,654	32.2%	13	15	86.7%
Wales	32,465	79,014	41.1%	10,669	26,656	40.0%	155	210	73.8%

Appendix 1. Notes on interpretation - Diagram of a box and whisker plot.



The figure above provides an illustration as to how the box and whisker plots are constructed.

The box and whisker plots above show the spread of uptake rates of practices within health board areas. The line inside the shaded box represents the median practice uptake rate (half of the health board practices have an uptake higher than the median value and half have an uptake lower than the median value). The shaded box represents the spread in uptake rates of the central 50% of practices, this is called the interquartile range (IQR). The whiskers extending above and below the shaded box represent the spread in practice uptake rates for the majority of practices within the health board. Any practices with uptake rates that are very different from the majority of practices within the health board are termed 'outliers' and appear as dots outside the whiskers.

Report prepared by Public Health Wales Vaccine Preventable Disease Programme and Communicable Disease Surveillance Centre. Data in this report were provided by general practices through the Audit+ platform, as at 31st March 2021, using automated Read code searches developed by Digital Health and Care Wales Primary Care Team.