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Cervical Screening Wales



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Cervical Screening Wales Annual Statistical Report 2020-21



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Public Health Wales exists to protect and improve health and wellbeing and reduce health inequalities for people in Wales.

We are part of the NHS and report to the Minister for Health and Social Services in the Welsh Government.

Our vision is for a healthier, happier and fairer Wales. We work locally, nationally and, with partners, across communities in the following areas:

Health protection – providing information and advice and taking action to protect people from communicable disease and environmental hazards

Microbiology – providing a network of microbiology services which support the diagnosis and management of infectious diseases

Screening – providing screening programmes which assist the early detection, prevention and treatment of disease

NHS quality improvement and patient safety – providing the NHS with information, advice and support to improve patient outcomes

Primary, community and integrated care – strengthening its public health impact through policy, commissioning, planning and service delivery

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Policy, research and international development – influencing policy, supporting research and contributing to international health development

Health improvement – working across agencies and providing population services to improve health and reduce health inequalities

Further information

Web: www.publichealthwales.org
Email: general.enquiries@wales.nhs.uk
Twitter: @PublicHealthW
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This report is a detailed summary of information on work undertaken by Cervical Screening Wales for the year from 1 April 2020 to 31 March 2021.

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For more information and to feedback about this report contact:

Helen Clayton, Lead Informatics and Data Services Manager,
Informatics Division, Floor 6, Public Health Wales, Number 2 Capital
Quarter, Tyndall Street, Cardiff, CF10 4BZ

Tel: 029 2010 4405

Email: Screening.Information@wales.nhs.uk

Quality Assurance Statement

Screening data records are constantly changing. The databases used by Public Health Wales Screening Division are updated on a daily basis when records are added, changed or removed (archived). This might relate to when a person has been identified as needing screening; has had screening results that need to be recorded, or has a change of status and no longer needs screening respectively. Data is received from a large number of different sources with varying levels of accuracy and completeness. The Screening Division checks data for accuracy by comparing datasets, for example GP practice data, and corrects the coding data where possible. It should be noted that there are sometimes delays in data collection, for example a person might not immediately register with their GP. These delays will therefore affect the completeness of the data depending on individual circumstances. In addition, the reader should be aware that data is constantly updated and there might be slight readjustments in the numbers cited in this document year on year because of data refreshing. When dealing with data from small geographical areas we occasionally suppress numbers lower than five when the data is potentially sensitive.

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1 Introduction

Cervical Screening Wales is responsible for the NHS cervical screening programme in Wales. The aim of the cervical screening programme is to reduce the incidence of, and morbidity and mortality from, invasive cervical cancer.

Information contained in this report is collected from the following sources:

1. NHAIS (National Health Application and Infrastructure Services) call and recall system used by the Cervical Screening Administration Departments.
2. National LIMS system (WLIMS) supporting Laboratory Medicine in Wales.
3. Canisc – Cancer Information System Cymru which is a national database and records clinical and administrative data from colposcopy services across all health boards.

An explanation of terms used in the document is in section 5 (Definitions).

COVID-19 pandemic

In March 2020, the difficult recommendation was made to pause some of the national screening programmes in Wales, including Cervical Screening, for a five-month period, in response to the COVID-19 pandemic. During this reporting period, the screening programme was continuing to recover normal service following this pause.

Further information on the impact of the COVID- 19 pandemic can be found on page 17 of the Screening Division of Public Health Wales Covid-19 Impact Report on the National Screening Programmes in Wales: April 2020 to March 2021: [COVID impact report](#)

1.1 Key messages for the public

- Cervical screening aims to prevent cancer from developing in the cervix by identifying those at higher risk and detecting cell changes early so they can be more easily treated;
- Cervical screening looks for the presence of the most common types of high risk Human Papillomavirus (hrHPV) which are responsible for 99.7% of cervical cancers;
- Most hrHPV infections are transient, but if they persist they can cause abnormal cell changes that can eventually develop into cervical cancer if untreated;

- Individuals from the age of 25 are invited for screening every three years. Individuals aged 50 to 64 are invited every five years (please note that the stated screening interval for those aged 25 – 49 is correct for the time period covered by this report. From 01/01/2022 the screening interval for this age group is five years for those testing negative for HPV);
- A cervical screening (smear) test is a free NHS test that is carried out at your GP surgery or at some sexual-health clinics;
- The test is quick and simple and should not be painful, but may be uncomfortable for some individuals;
- Evidence shows that attending for regular screening will prevent seven out of 10 cancers. Taking part in cervical screening is an individual choice. Those invited are requested to read the information leaflet provided carefully, to help them make their decision.

1.2 Programme delivery

The Screening Division of Public Health Wales is responsible for managing, delivering and quality assuring the cervical screening programme in Wales. Most cervical screening (smear) tests are carried out by a registered health professional in primary care or in a community or sexual health clinic. A small number of tests are taken in secondary care, in colposcopy clinics or gynaecology clinics.

The cervical screening programme is an all-Wales programme, with a central governance team and three regional centres responsible for the operational management and quality assurance of the screening programme in their area: North Wales, Mid and West Wales and South East Wales.

1.3 Screening pathway

Eligible individuals in Wales are invited for cervical screening from age 24 years and 8 months, with those up to 49 years receiving an invitation for routine screening every three years, and those aged 50 – 64 every five years.

In September 2018, all samples began to be tested for the most common subtypes of high risk HPV (hrHPV) as the primary screening test. By 1 October 2018, Wales had fully moved to hrHPV primary screening. Wales was the first country in the UK to fully implement hrHPV as the primary screening test.

All samples are tested at Public Health Wales's Magden Park laboratory in Llantrisant. If a sample has no hrHPV detected, a 'negative' result is issued by the laboratory. The cells in the sample are not examined.

If hrHPV is detected, a slide is made and the cells are examined through a microscope by laboratory screeners and biomedical scientists. If there are any cell changes, the slide is sent for medical reporting by one of a formal clinical network of Consultant Pathologists or Consultant Biomedical Scientists across Wales.

Eligible people are identified through GP registrations and sent a letter inviting them to make an appointment for cervical screening. The cervical screening database NHAIS can only identify and invite those registered as 'female' by their GP, however anyone with a cervix within the screening age range is entitled to attend for cervical screening. A leaflet explaining screening is included with the invitation letter. A reminder letter is sent if they do not appear to have attended for screening within a certain time. Demographic details are taken from GP registrations on the NHAIS system and it is important that people ensure that their name and address are up to date with their GP.

More information about the programme and copies of previous statistical reports are available at www.cervicalscreeningwales.wales.nhs.uk

2 **Headline statistics 2020-21**

This report covers activity from 1 April 2020 to 31 March 2021 inclusive.

- As of 31 March 2021, screening coverage was 69.5% across Wales, and exceeded 67% in all health board regions. This figure combines the proportion of 25-49 year olds screened in the previous 3.5 years, and the proportion of 50-64 year olds screened in the previous 5.5 years. This is known as 'age-appropriate' coverage.
- In 2020-21, 204,406 individuals aged 25-64 were invited for screening.
- 123,017 individuals were screened in 2020-21 (including those with inadequate results). This includes individuals who were screened during the year 2020-21 and does not reflect all the individuals that were invited in that year.
- Laboratories examined 117,504 samples from Welsh residents in 2020-21.
- In 0.4% of tests the final result was 'inadequate'. 'Inadequate' means that the sample quality was insufficient for producing either a HPV or cytology result, as appropriate.

- The Positive Predictive Value (PPV) correlates high-grade cytology with high-grade histology. For 2020-21, the PPV for Wales remains within range (83.1 – 89.3%) at 85.1%.
- 6,622 new patients were seen at colposcopy clinics in Wales in 2020-21, 64.6% having been directly referred by Cervical Screening Wales and 35.4% for clinical reasons, e.g. symptoms or an abnormal appearing cervix.
- One in 21 individuals screened in the year were directly referred for colposcopy by Cervical Screening Wales. Of these, 1 in 138 individuals (fewer than 1%) had cancer.

3 Data

3.1 Coverage

Table 1a: Cervical screening age appropriate coverage by age group

Age Group	Eligible	Tested within 3.5 years	% Coverage within 3.5 years
25-29 years	99,983	63,719	63.7%
30-34 years	105,889	74,294	70.2%
35-39 years	100,709	70,731	70.2%
40-44 years	91,993	64,430	70.0%
45-49 years	94,168	64,683	68.7%
25-49 years	492,742	337,857	68.6%

Age Group	Eligible	Tested within 5.5 years	% Coverage within 5.5 years
50-54 years	104,455	80,725	77.3%
55-59 years	102,678	71,705	69.8%
60-64 years	87,532	57,345	65.5%
50-64 years	294,665	209,775	71.2%

Note: The eligible age range for cervical screening is 25-64 years. Individuals over 50 are routinely invited for screening every five years, coverage within 3.5 years is not applicable in this age group. A combined age appropriate coverage for 25-64 year olds has been calculated as 69.5%. Please see definition section for more details.

Graph 1a1: Cervical screening age appropriate coverage by age group

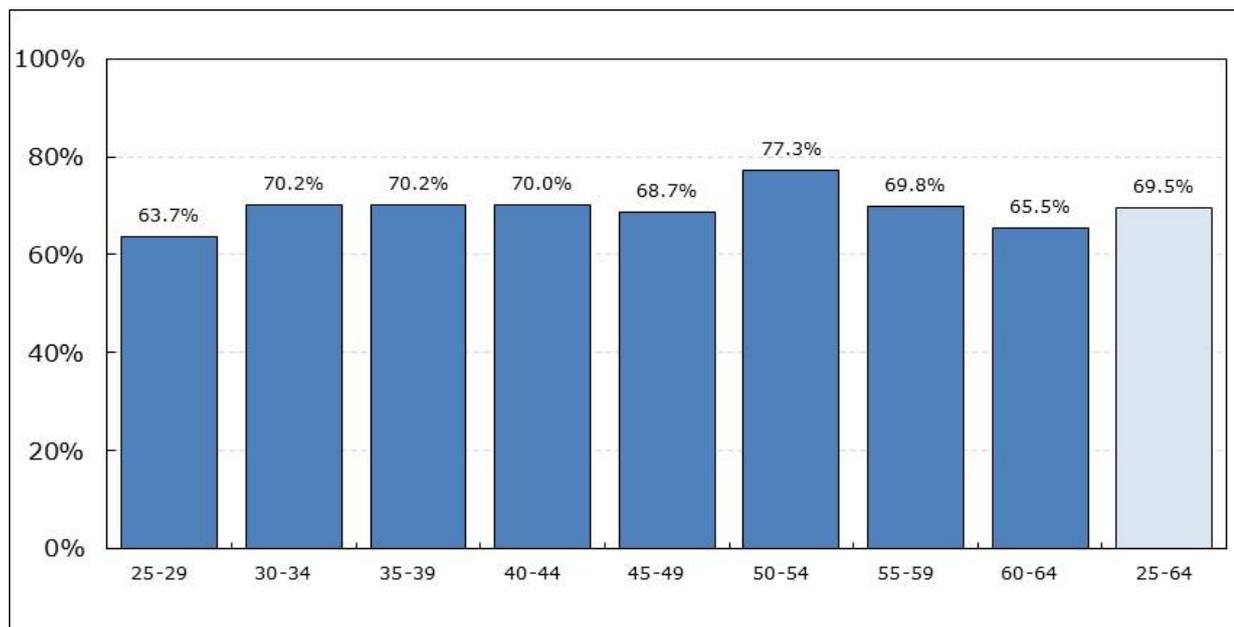


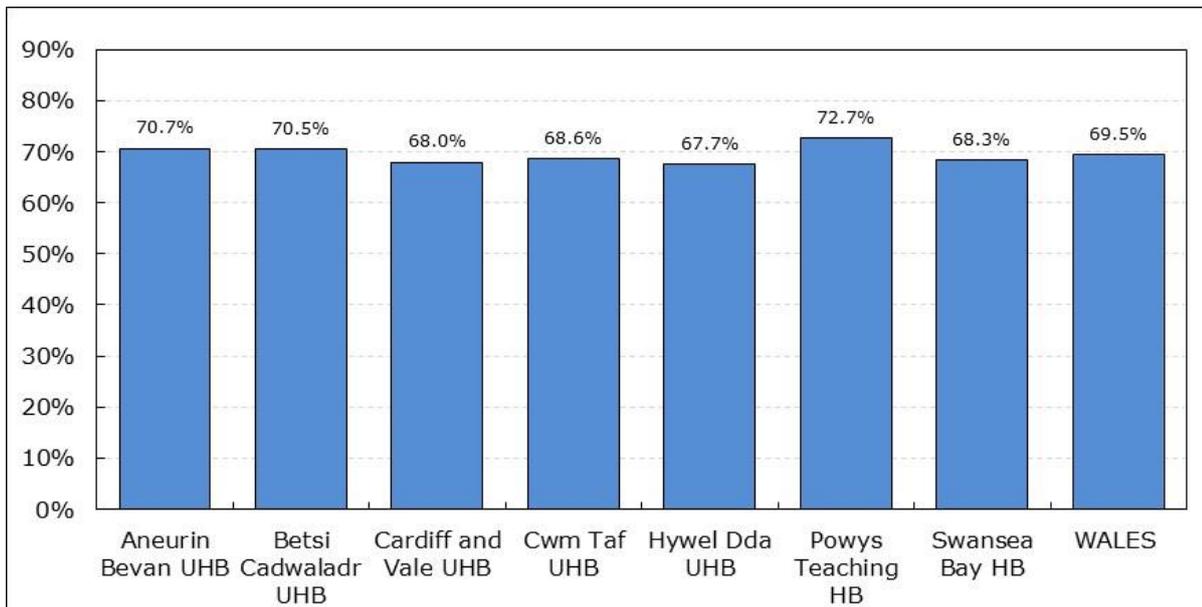
Table 1b: Cervical screening coverage (25-64 year olds) by health board of residence

Health Board	25 - 49		
	Eligible	Tested within 3.5 Years	%Coverage within 3.5 Years
Aneurin Bevan UHB	90,627	63,229	69.8%
Betsi Cadwaladr UHB	96,748	67,668	69.9%
Cardiff and Vale UHB	84,765	56,158	66.3%
Cwm Taf Morgannwg UHB	67,909	45,949	67.7%
Hywel Dda UHB	51,128	33,802	66.1%
Powys Teaching HB	16,498	11,930	72.3%
Swansea Bay HB	58,331	39,197	67.2%
Unknown HB	26,736	19,924	74.5%
TOTAL	492,742	337,857	68.6%

Health Board	50 - 64		
	Eligible	Tested within 5.5 Years	%Coverage within 5.5 Years
Aneurin Bevan UHB	54,870	39,597	72.2%
Betsi Cadwaladr UHB	66,141	47,200	71.4%
Cardiff and Vale UHB	41,110	29,383	71.5%
Cwm Taf Morgannwg UHB	40,094	28,152	70.2%
Hywel Dda UHB	37,571	26,219	69.8%
Powys Teaching HB	13,736	10,052	73.2%
Swansea Bay HB	34,629	24,277	70.1%
Unknown HB	6,514	4,895	75.1%
TOTAL	294,665	209,775	71.2%

This shows the coverage stated of those individuals eligible for cervical screening on 1 April 2021, by the number and proportion with an adequate test within the last 3.5 or 5.5 years.

Graph 1b: Combined cervical screening coverage of target age group (individuals aged 25-64) by health board



3.2 Individuals invited by age group and health board

Table 2: Individuals invited by age group and health board

Health Board	Under 25 years*	25-49 years	50-64 years	65+ years	All Ages
Aneurin Bevan UHB	2,458	25,513	12,850	370	41,191
Betsi Cadwaladr UHB	2,554	27,246	14,725	394	44,919
Cardiff and Vale UHB	2,710	23,484	9,115	255	35,564
Cwm Taf UHB	1,879	19,185	9,187	251	30,502
Hywel Dda UHB	1,455	14,162	8,450	246	24,313
Powys Teaching HB	386	4,379	2,859	79	7,703
Swansea Bay HB	1,734	16,187	8,019	199	26,139
Unknown HB	820	7,479	1,566	31	9,896
All Wales	13,996	137,635	66,771	1,825	220,227

*Eligible individuals are invited for their first screening test between 24 years and eight months, and 24 years and nine months, of age. This ensures that they will have had the opportunity to attend for screening by their 25th birthday. In addition, some individuals under the age of 25 will be invited due to incidental findings of cell changes, which have required follow-up screening tests.

3.3 Individuals tested by age group and health board

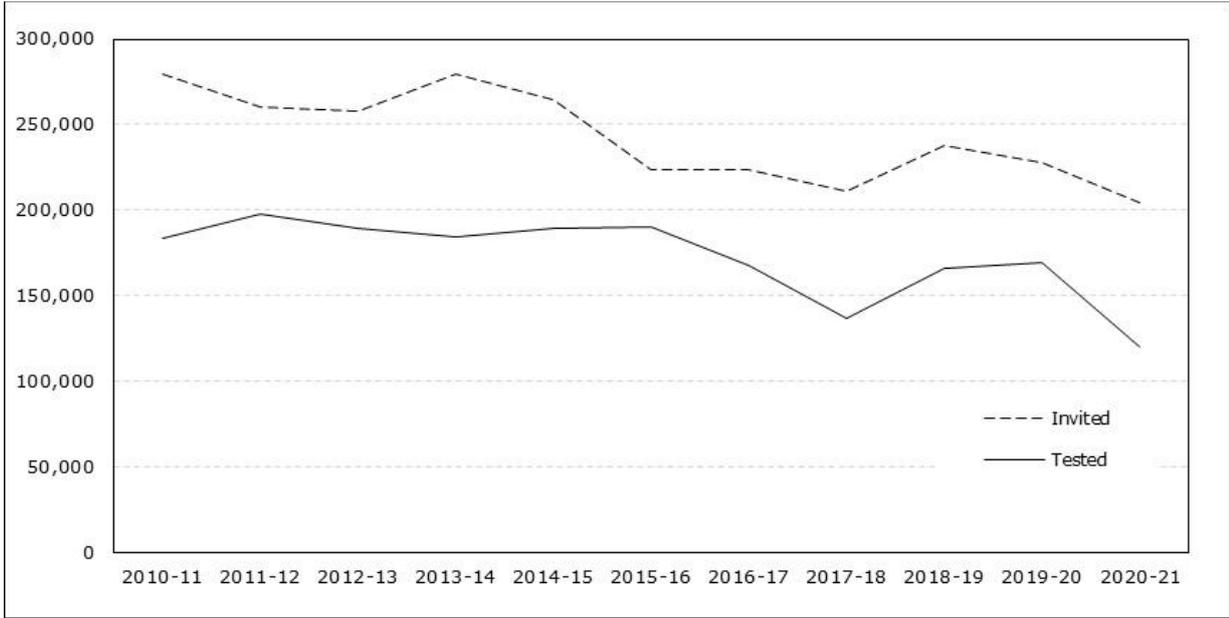
Table 3: Individuals screened by age group and health board

Health Board	Under 25 years	25-49 years	50-64 years	65+ years	All Ages
Aneurin Bevan UHB	256	15,780	6,662	205	22,903
Betsi Cadwaladr UHB	203	16,914	7,688	252	25,057
Cardiff and Vale UHB	312	14,560	4,857	183	19,912
Cwm Taf UHB	204	11,533	4,656	149	16,542
Hywel Dda UHB	119	8,684	4,373	164	13,340
Powys Teaching HB	48	3,104	1,594	47	4,793
Swansea Bay HB	216	9,828	4,145	133	14,322
Unknown HB	90	5,229	811	18	6,148
All Wales	1,448	85,632	34,786	1,151	123,017

In 2020-21 this data was calculated directly from information taken from the call and recall system. More detailed definitions are given in section 5 of this report.

Uptake is generally defined as the proportion of invited individuals who attend for screening within a defined period following an invitation. The uptake of cervical screening invitations cannot be precisely measured as some tests undertaken in the screening year (1 April to 31 March) may result from invitations that are either issued in the previous screening year, or taken up in the following year. There is currently no standard for 'uptake' within cervical screening in England and Wales and therefore coverage has been presented.

Graph 3: Number of individuals (aged 25-64 years) invited and screened each year



The reduction in the number of individuals invited during 2017-18 is due to the age and frequency changes implemented in September 2013 where the age for first screening invitation was raised from 20 to 25 years and the frequency of invitation for individuals aged 50-64 years was changed from three years to five years. The rise seen in 2018-19 includes individuals aged 25 being invited for the first time, and those individuals aged 50 or over in 2013 now being invited back after five years. The decrease in both the number of individuals invited and tested during 2020-21 was due to the impact of the Covid-19 pandemic.

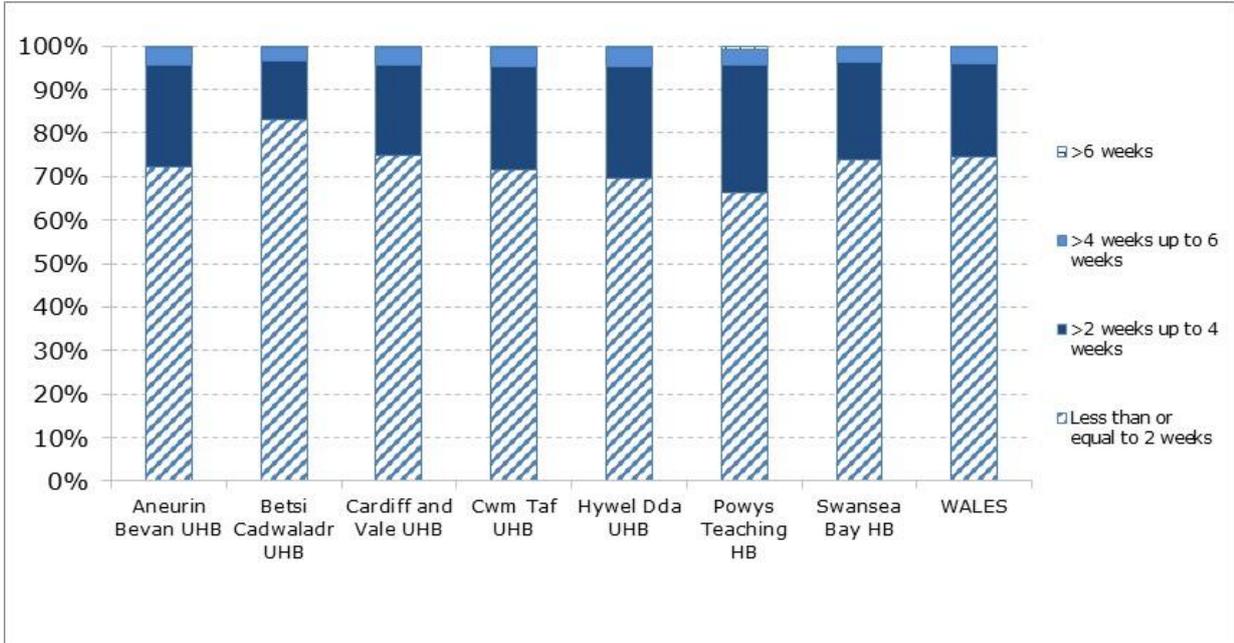
3.4 Screening sample result turnaround times by health board

The Public Health Wales standard is for 95% of individuals to be sent their results within four weeks (28 calendar days) of the screening sample being taken.

Table 4: Time from date sample was taken to issue of result letter, by health board

Health Board	Less than or equal to 2 weeks	>2 weeks up to 4 weeks	>4 weeks up to 6 weeks	>6 weeks	Total
Aneurin Bevan UHB	15,148	4,898	838	105	20,989
Betsi Cadwaladr UHB	19,409	3,179	691	69	23,348
Cardiff and Vale UHB	13,452	3,723	697	98	17,970
Cwm Taf UHB	10,899	3,621	648	86	15,254
Hywel Dda UHB	8,609	3,158	515	70	12,352
Powys Teaching HB	2,908	1,286	162	30	4,386
Swansea Bay HB	9,820	2,957	453	54	13,284
Unknown HB	4,472	1,242	227	37	5,978
All Wales	84,717	24,064	4,231	549	113,561
Cumulative %	74.6%	95.8%	99.5%	100.0%	100.0%

Graph 4: Time from date sample was taken to issue of result letter, by health board



Across Wales, 74.6% of results were issued within two weeks of the test being taken (range 66.3% to 83.1%); this is an increase compared with 47.5% in 2019-20).

95.8% of results were issued within four weeks (95% standard) compared with 96.3% in 2019-20).

3.5 Samples reported by cervical screening laboratory

Table 5a: Number of cervical screening samples reported by source of test

	GP	Integrated Sexual Health Clinics	NHS Hospital	Not Specified	Total
All Wales	110,363	1,519	5,187	435	117,504

Table 5b1: Number of cervical screening samples reported by health board of residence and source of test

Health Board	GP	Integrated Sexual Health Clinics	NHS Hospital	Not Specified	Total
Aneurin Bevan UHB	20,401	623	808	17	21,849
Betsi Cadwaladr UHB	22,631	226	757	1	23,615
Cardiff and Vale UHB	18,159	149	638	110	19,056
Cwm Taf UHB	14,384	187	1,072	98	15,741
Hywel Dda UHB	11,543	170	992	2	12,707
Powys Teaching HB	4,164	8	111	9	4,292
Swansea Bay UHB	12,851	41	561	173	13,626
Unknown HB	6,230	115	248	25	6,618
All Wales	110,363	1,519	5,187	435	117,504

Table 5b2: Percentage of cervical screening samples taken in each health board of residence by source of test

Health Board	GP	Integrated Sexual Health Clinics	NHS Hospital	Not Specified
Aneurin Bevan UHB	93.4	2.9	3.7	0.1
Betsi Cadwaladr UHB	95.8	1.0	3.2	0.0
Cardiff and Vale UHB	95.3	0.8	3.3	0.6
Cwm Taf UHB	91.4	1.2	6.8	0.6
Hywel Dda UHB	90.8	1.3	7.8	0.0
Powys Teaching HB	97.0	0.2	2.6	0.2
Swansea Bay UHB	94.3	0.3	4.1	1.3
Unknown HB	94.1	1.7	3.7	0.4
All Wales %	93.9	1.3	4.4	0.4

Of the 117,504 samples reported, no cytology test was required in 99,717 because high risk HPV was not detected. Cytology testing was carried out on 17,787 samples.

Table 5c1: Inadequate cytology samples reported by laboratory

		GP	Integrated Sexual Health Clinics	NHS Hospital	Not Specified	Total
All Wales	Total Samples	15,947	352	1,370	118	17,787
	No. inadequate	304	10	49	4	367
	% inadequate	1.9	2.8	3.6	3.4	2.1

Of the 99,717 samples where no cytology test was required, 145 samples had been reported as 'hrHPV result unavailable/unreliable (HPVU)'. If these results are added to the 'inadequate cytology' results, this would give an overall combined 'inadequate' rate of 0.4% of all samples received by the laboratory.

Table 5c2: Number of hrHPV Positive with high grade cytology samples reported

		GP	Integrated Sexual Health Clinics	NHS Hospital	Not Specified	Total
All Wales	No. Adequate	15,643	342	1,321	114	17,420
	No. high grade	1,015	22	191	15	1,243
	% high grade	6.5	6.4	14.5	13.2	7.1

High grade includes results reported as high grade dyskaryosis (moderate or severe), high grade dyskaryosis (query invasive squamous carcinoma), query glandular neoplasia of endocervical type and query glandular neoplasia of non-cervical origin. The proportion is calculated from all cervical screening test results.

Table 5d: Number of adequate samples reported by result of test and age group

Result	25-49 years	50-64 years	All Ages
Negative	10,004	2,356	12,630
Borderline Change in squamous cells	1,413	246	1,700
Borderline Change in endocervical cells	43	1	44
Low Grade Dyskaryosis	1,520	249	1,803
High Grade Dyskaryosis (Moderate)	333	35	373
High Grade Dyskaryosis (Severe)	713	87	810
High Grade Dyskaryosis (?invasive squamous carcinoma)	18	10	28
?Glandular neoplasia of endocervical type	26	5	32
?Glandular neoplasia of non-cervical origin	0	0	0
No cytology	68,117	30,076	99,717
All Wales	82,187	33,065	117,137

All ages includes participants outside of the eligible age range.

Table 5e: Number and outcome of adequate samples reported

Result	High Risk HPV detected	High Risk HPV not detected	HPV unavailable / unreliable	TOTAL
Negative	12,629	0	0	12,630
Borderline Change in squamous cells	1,700	0	0	1,700
Borderline Change in endocervical cells	44	0	0	44
Low Grade Dyskaryosis	1,803	0	0	1,803
High Grade Dyskaryosis (Moderate)	373	0	0	373
High Grade Dyskaryosis (Severe)	810	0	0	810
High Grade Dyskaryosis (?invasive squamous carcinoma)	28	0	0	28
?Glandular neoplasia of endocervical type	32	0	0	32
?Glandular neoplasia of non-cervical origin	0	0	0	0
No cytology	0	99,572	145	99,717
All Wales	17,419	99,572	145	117,137

One negative cytology sample that was not tested for HPV has not been included in the table above.

Table 5f: Outcome for individuals referred for colposcopy during April 2019-March 2020 following an inadequate, negative or low grade cytology result

Outcome	ALL WALES	Percentage
Cervical Cancer	6	0.2
CGIN	7	0.2
High Grade CIN	798	21.9
CIN1	850	23.3
No Abnormality Detected	774	21.3
Inadequate Biopsy	39	1.1
No Biopsy Taken	1,168	32.1
Non Cervical Cancer	0	0.0
TOTAL	3,642	100.0

Table 5g: Outcome for individuals referred during April 2019-March 2020 following a high grade cytology result

Outcome	ALL WALES	Percentage
Cervical Cancer	54	3.4
CGIN	65	4.1
High Grade CIN	1,230	77.6
CIN1	125	7.9
No Abnormality Detected	82	5.2
Inadequate Biopsy	1	0.1
No Biopsy Taken	29	1.8
Non Cervical Cancer	0	0.0
TOTAL	1,586	100.0

Table 5h: Outcome for individuals directly referred for colposcopy during April 2019-March 2020

	Positive Predictive Value (PPV)%	Abnormal Predictive Value (APV)%	Referral Value (RV)
All Wales	85.1	22.6	2.7

For definitions of PPV, APV and RV please see section 5.

Table 5i: Turnaround times for cervical screening laboratory, from date of receipt of sample, to date result first authorised

	Less than or equal to 2 weeks	>2 weeks up to 4 weeks	>4 weeks up to 6 weeks	>6 weeks	Total
All Wales	100,545	13,706	3,005	248	117,504
Cumulative %	85.6%	97.2%	99.8%	100.0%	100.0%

3.6 Colposcopy activity

Table 6a: Number of colposcopy referrals by source of referral and colposcopy clinic

Colposcopy Clinic	CSW Direct Referral	Other Referral	TOTAL	% CSW Direct Referral	% Other Referral
Brecon	52	4	56	92.9%	7.1%
Bronglais	105	91	196	53.6%	46.4%
Cardiff and Vale	973	763	1,736	56.0%	44.0%
Glan Clwyd	448	27	475	94.3%	5.7%
Neath Port Talbot	599	187	786	76.2%	23.8%
Nevill Hall	247	102	349	70.8%	29.2%
Newtown	119	33	152	78.3%	21.7%
Prince Charles	245	581	826	29.7%	70.3%
Royal Glamorgan	203	348	551	36.8%	63.2%
Royal Gwent	905	295	1,200	75.4%	24.6%
Singleton	420	314	734	57.2%	42.8%
West Wales General	311	269	580	53.6%	46.4%
Withybush	128	159	287	44.6%	55.4%
Wrexham	337	87	424	79.5%	20.5%
Ysbyty Gwynedd	364	156	520	70.0%	30.0%
Ysbyty Ystrad Fawr	360	81	441	81.6%	18.4%
All Wales	5,816	3,497	9,313	62.5%	37.5%

The other referrals that are not directly referred from CSW are a mixture of individuals referred from primary or secondary care with symptoms or an abnormal appearance of cervix, individuals moving into Wales with recent cell changes on cytology or those where there were difficulties in obtaining a sample in primary care.

Table 6b: Number of new patients seen in colposcopy clinics by referral test result

Colposcopy Clinic	Low Grade	High Grade	Negative Cytology HPV Positive	No Abnormal Smear	Total
Brecon	18	10	6	2	36
Bronglais	46	21	14	59	140
Cardiff and Vale	431	123	122	535	1,211
Glan Clwyd	182	73	66	13	334
Neath Port Talbot	286	107	93	110	596
Nevill Hall	77	33	26	71	207
Newtown	70	18	16	26	130
Prince Charles	147	59	58	381	645
Royal Glamorgan	118	46	47	225	436
Royal Gwent	326	129	93	237	785
Singleton	201	68	59	245	573
West Wales General	180	66	40	146	432
Withybush	78	26	26	108	238
Wrexham	107	46	33	73	259
Ysbyty Gwynedd	201	80	44	62	387
Ysbyty Ystrad Fawr	91	37	33	52	213
All Wales	2,559	942	776	2,345	6,622
%	38.6%	14.2%	11.7%	35.4%	100.0%

Low grade referrals include borderline change in squamous cells and low grade dyskaryosis.

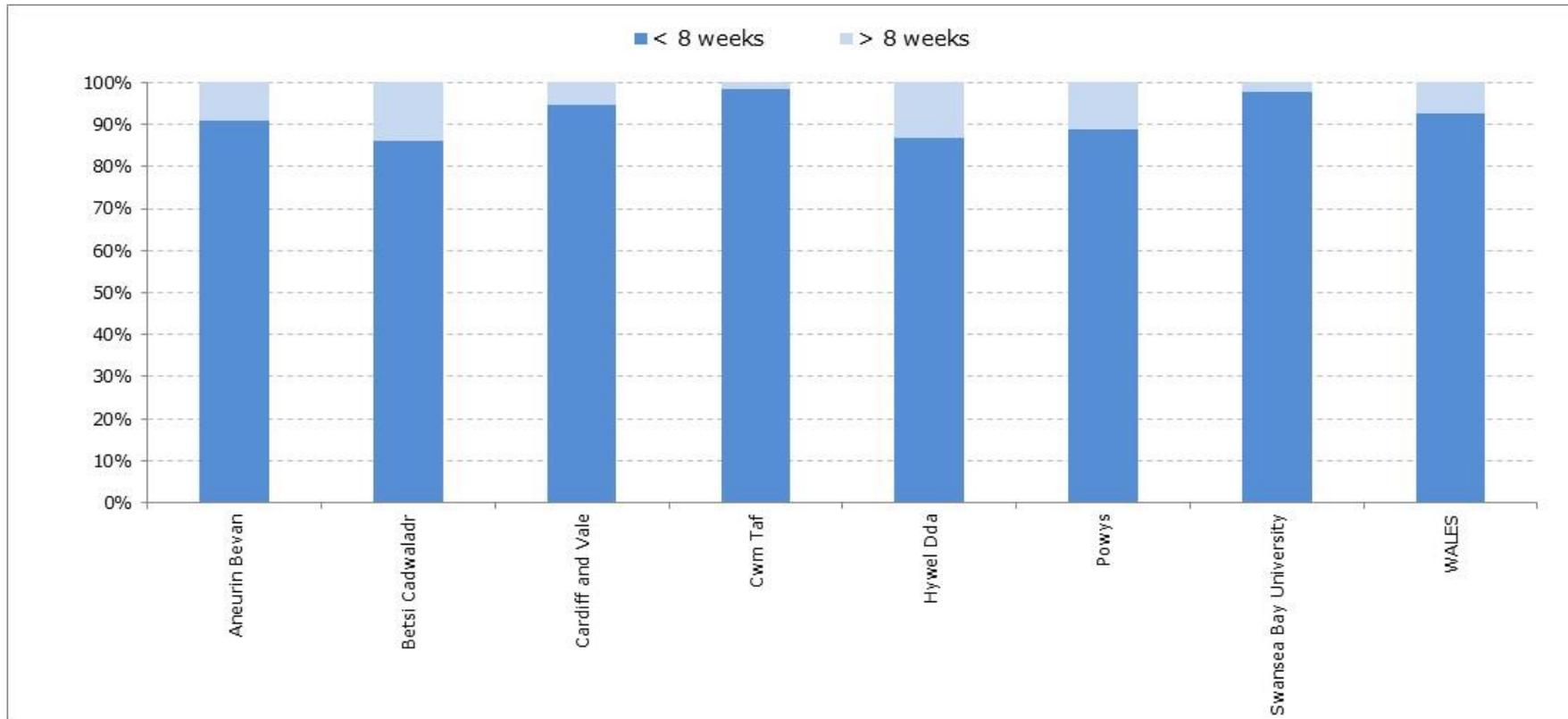
High grade referrals include borderline changes in endocervical cells, high grade dyskaryosis (moderate and severe), high grade dyskaryosis (query invasive squamous carcinoma), query glandular neoplasia of endocervical type and query glandular neoplasia of non-cervical origin.

Table 6b shows referrals for colposcopy following a negative (normal) cytology result. These individuals are referred either because of persistent hrHPV in their sample, or because of previous high grade disease ('test of cure') and current hrHPV. Due to the persistence of hrHPV or their previous history, they are at higher risk of high grade disease.

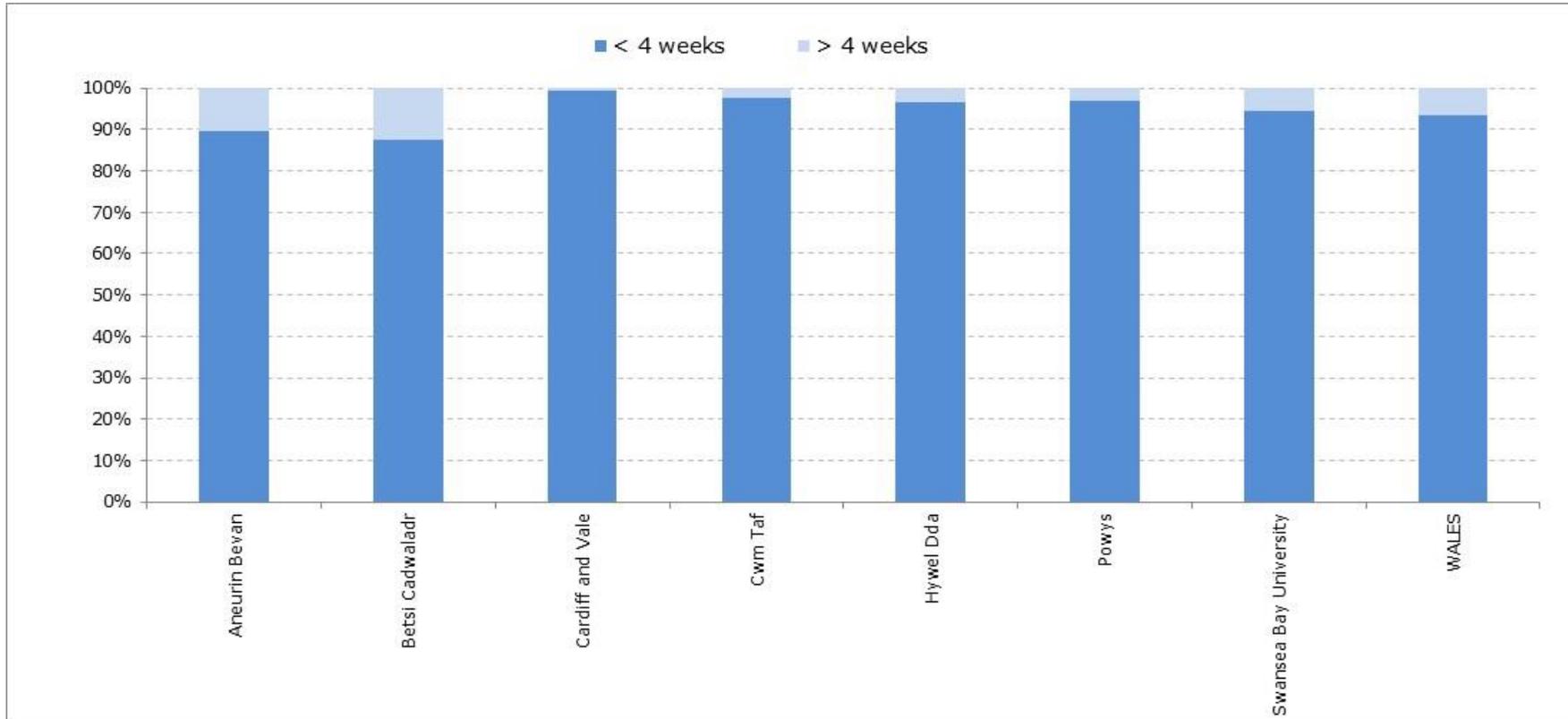
Table 6c: Waiting times by health board and type of referral

Health Board	All referrals				High grade dyskaryosis or worse			
	<8 weeks	8 weeks or over	TOTAL	% within 8 weeks	<4 weeks	4 weeks or over	TOTAL	% within 4 weeks
Aneurin Bevan UHB	1,477	147	1,624	90.9	234	27	261	89.7
Betsi Cadwaladr UHB	1,054	169	1,223	86.2	206	29	235	87.7
Cardiff and Vale UHB	1,479	86	1,565	94.5	149	1	150	99.3
Cwm Taf UHB	1,299	21	1,320	98.4	125	3	128	97.7
Hywel Dda UHB	886	136	1,022	86.7	135	5	140	96.4
Powys Teaching HB	175	22	197	88.8	31	1	32	96.9
Swansea Bay UHB	1,373	30	1,403	97.9	208	12	220	94.5
All Wales	7,743	611	8,354	92.7	1,088	78	1,166	93.3
%	92.7	7.3	100.0	-	93.3	6.7	100.0	-

Graph 6c1: Percentage of all new referrals offered an appointment within eight weeks by health board (excluding patient instigated delays)



Graph 6c2: Percentage of high grade referrals offered an appointment within four weeks by health board (excluding patient instigated delays)



The tables and graphs above show the time taken from the receipt of referral by health board to the first appointment offered by health board, excluding delays initiated by patients. 93.3% of patients referred with a

result of high grade dyskaryosis or worse were offered an appointment within four weeks (90% standard). 92.7% of all referrals were offered an appointment within eight weeks (90% standard).

Table 6d: Total attended colposcopy appointments by type of visit and health board

Health Board	Colposcopic assessment	Select and treat	Planned treatment	Follow up	Not specified	Total
Aneurin Bevan UHB	1,332	163	213	373	5	2,086
Betsi Cadwaladr UHB	1,276	63	375	238	44	1,996
Cardiff and Vale UHB	1,616	51	154	163	1	1,985
Cwm Taf UHB	1,194	73	311	486	23	2,087
Hywel Dda UHB	861	24	265	764	14	1,928
Powys Teaching HB	169	9	34	70	1	283
Swansea Bay UHB	1,292	18	352	587	9	2,258
All Wales	7,740	401	1,704	2,681	97	12,623
%	61.3%	3.2%	13.5%	21.2%	0.8%	100.0%

There were 12,623 recorded attended visits during 2020-21. The majority of these were for 'colposcopic assessment'. 401 visits were recorded as 'select and treat' (where treatment is performed at a first visit to colposcopy), although there was variation in this practice across Wales.

Table 6e: New patients seen by type of referral and worst outcome of histology

Referral Type	Cancer	CGIN	High grade CIN	CIN1	No abnormality detected	Inadequate biopsy	Unknown	No biopsy taken	TOTAL
CSW Direct Referral	30	39	1,277	834	678	60	19	1,198	4,135
Other Referral	25	2	75	180	481	37	14	1,673	2,487
All Wales	55	41	1,352	1,014	1,159	97	33	2,871	6,622

Table 6f: New patients seen by health board and worst outcome of histology

Health Board	Cancer	CGIN	High grade CIN	CIN1	No abnormality detected	Inadequate biopsy	Unknown	No biopsy taken	Total
Aneurin Bevan UHB	6	13	256	120	230	9	6	565	1,205
Betsi Cadwaladr UHB	7	7	333	258	150	16	13	196	980
Cardiff and Vale UHB	3	4	161	105	210	8	3	717	1,211
Cwm Taf UHB	16	5	149	134	308	11	5	453	1,081
Hywel Dda UHB	9	7	171	162	134	38	2	287	810
Powys Teaching HB	2	1	32	34	29	2	2	64	166
Swansea Bay UHB	12	4	250	201	98	13	2	589	1,169
All Wales	55	41	1,352	1,014	1,159	97	33	2,871	6,622
%	0.8%	0.6%	20.4%	15.3%	17.5%	1.5%	0.5%	43.4%	100.0%

4 Audit of cervical cancer in Wales 2019-20

The Cervical Screening Wales Audit of Cervical Cancer (CSWACC) database is a bespoke web-enabled database, used solely by CSW. All cervical cancer diagnoses for individuals resident in Wales at the time of diagnosis are entered onto the CSWACC database.

Information regarding cervical cancer diagnoses is received from:

- Pathology reports
- Hospital/GP letters
- Death reports
- Welsh Cancer Intelligence and Surveillance Unit (WCISU)

The demographics for each individual are uploaded automatically. Each case is then reviewed by the Clinical Lead for CSW who checks that the case is a cervical cancer, and that the following data are complete, where possible:

- Histological cancer type
- Cancer staging
- Overall treatment
- Screen detected status
 - If non-screen detected (as per NHSCSP definition), then further categorization is given (e.g. never screened, lapsed screening)

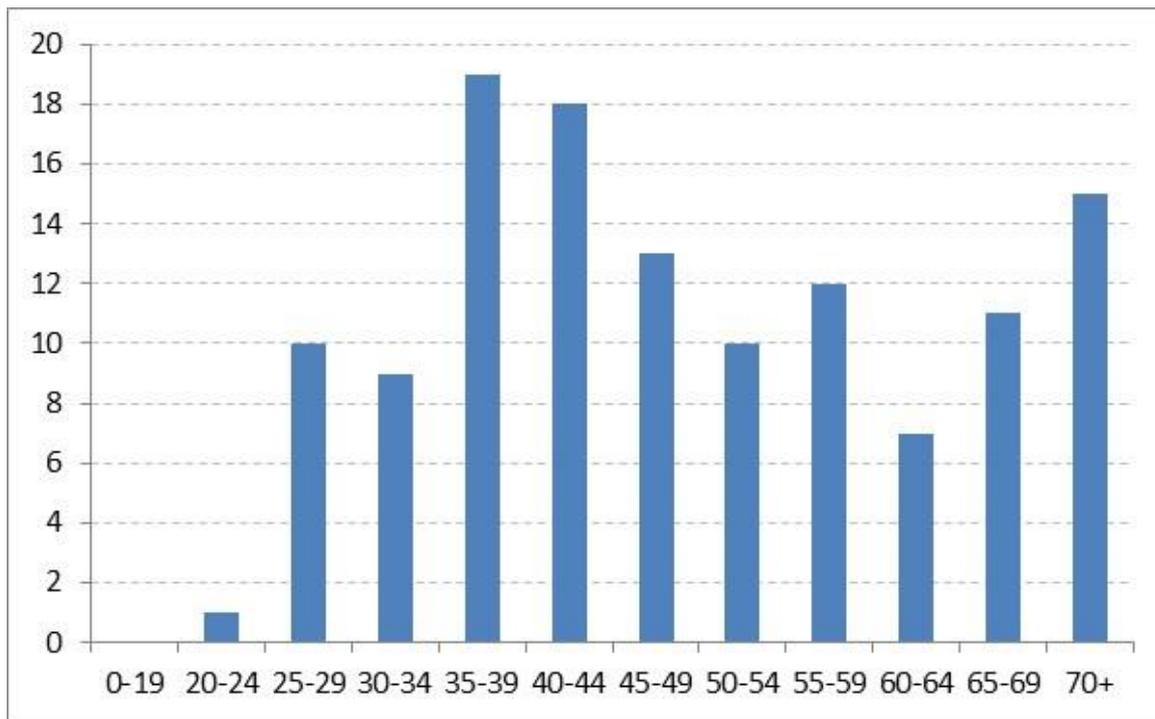
The CSW Clinical Lead ensures that reviews are requested and completed for eligible screening samples, screening pathway (invitations and results sent) and any colposcopy episodes over the 10-year period prior to diagnosis. The review is primarily for education and improvement of the screening programme, but individuals are informed of the review and are able to have a disclosure of any review results, on request.

As of December 2022, there were 125 cervical cancers on the CSWACC database for the period 1 April 2019 – 31 March 2020. The final number of cancers for this period may increase as cancer registry data can be delayed, and also as some resident individuals may be diagnosed 'out of area'.

4.1 Age at diagnosis of all cervical cancers reported in Wales (both screen and non-screen detected)

The age range at diagnosis was 23 years to 84 years. The median was in the 45-49 age group, with a peak in the 35-39 age groups (Graph 7a).

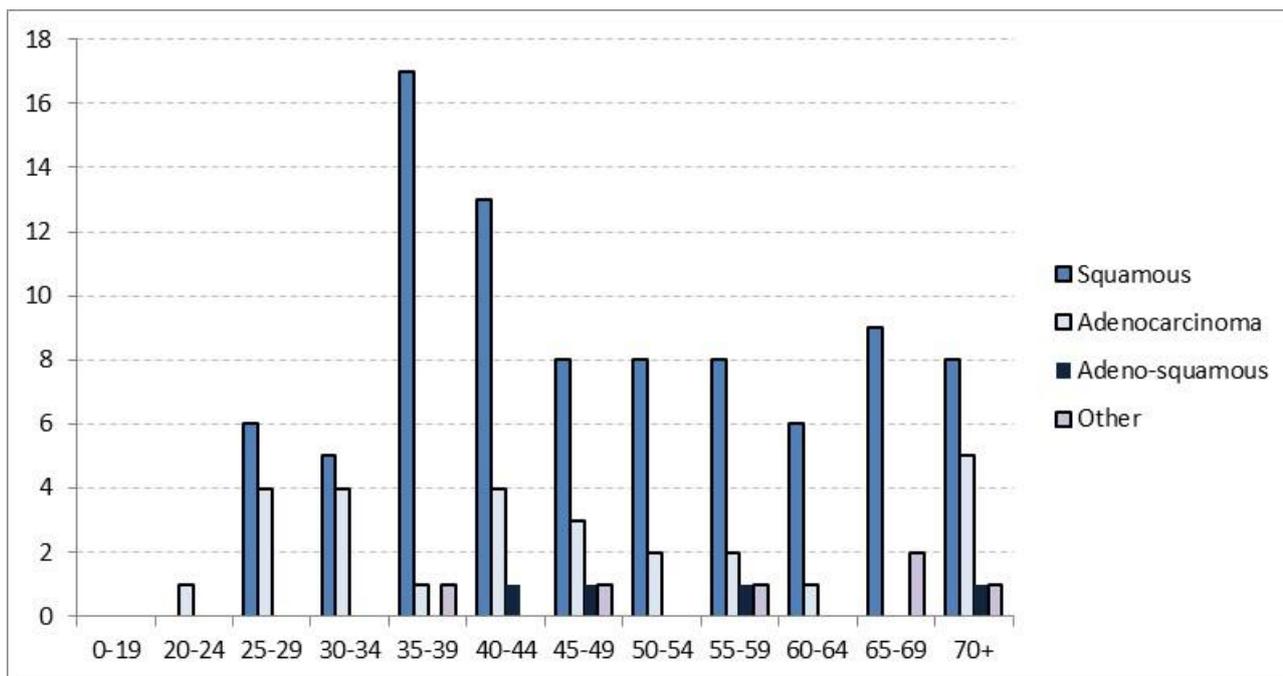
Graph 7a: Number of Cervical Cancers by Age Band



4.2 Cancer type

Of the 125 cancers diagnosed, 88 (70.4%) were squamous cell carcinomas, 27 (21.6%) were adenocarcinomas, four (3.2%) were adeno-squamous carcinomas and four (3.2%) were 'other'. The 'other' group included neuroendocrine, small cell and cases where no biopsy had been taken to confirm histological diagnosis. There were two cases that were not categorized into cancer type.

Graph 7b: Number of cervical cancers by type and age at diagnosis

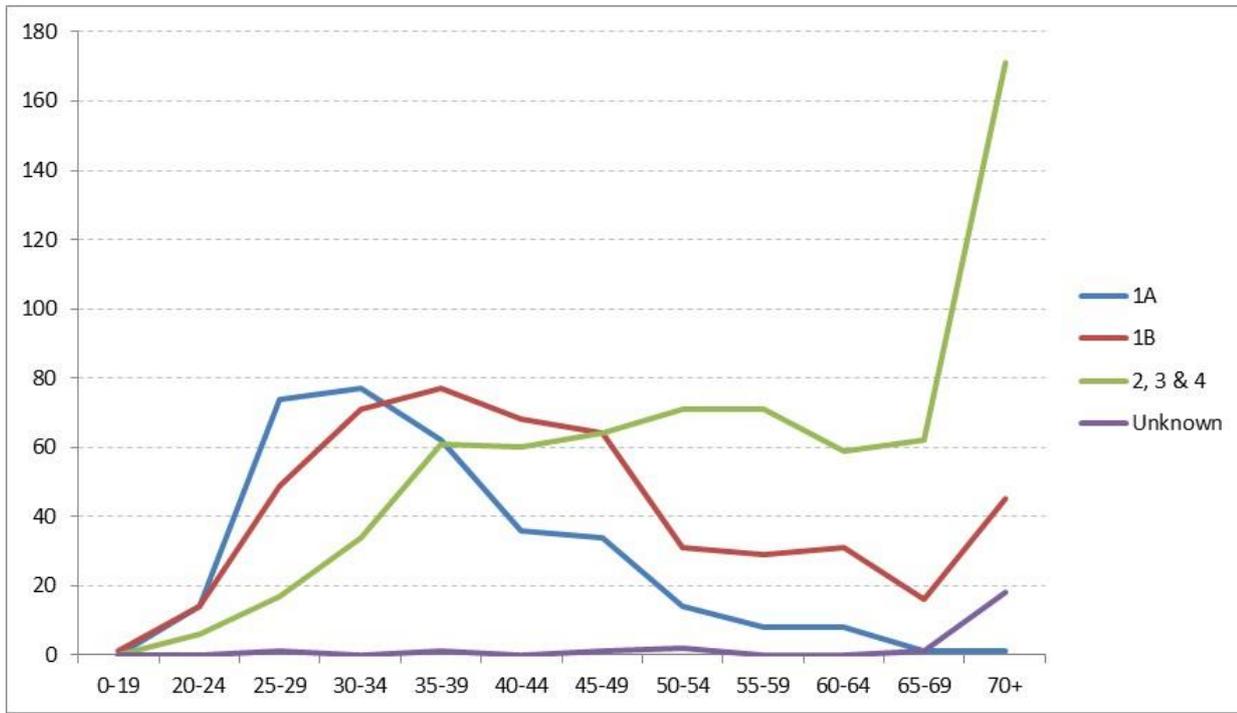


4.3 Cancer stage

Of the 125 cases, 28 (22.4%) were stage 1A, 29 (23.2%) were stage 1B, 27 (21.6%) were stage 2, 22 (17.6%) were stage 3 and 17 (13.6%) were stage 4. In two cases staging was not undertaken, which may have been due to the diagnosis only being recorded on a death certificate.

Due to the small numbers, the cancers diagnosed from 2011-2020 are shown by age and stage (graph 7c). This shows the peak for stage 1A is in the 30-34 age group, for 1B in the 35-39 age group and for more advanced stage cancers the peak occurs in the older age group.

Graph 7c: Number of cervical cancers diagnosed between 2011 and 2020 by stage and age at diagnosis



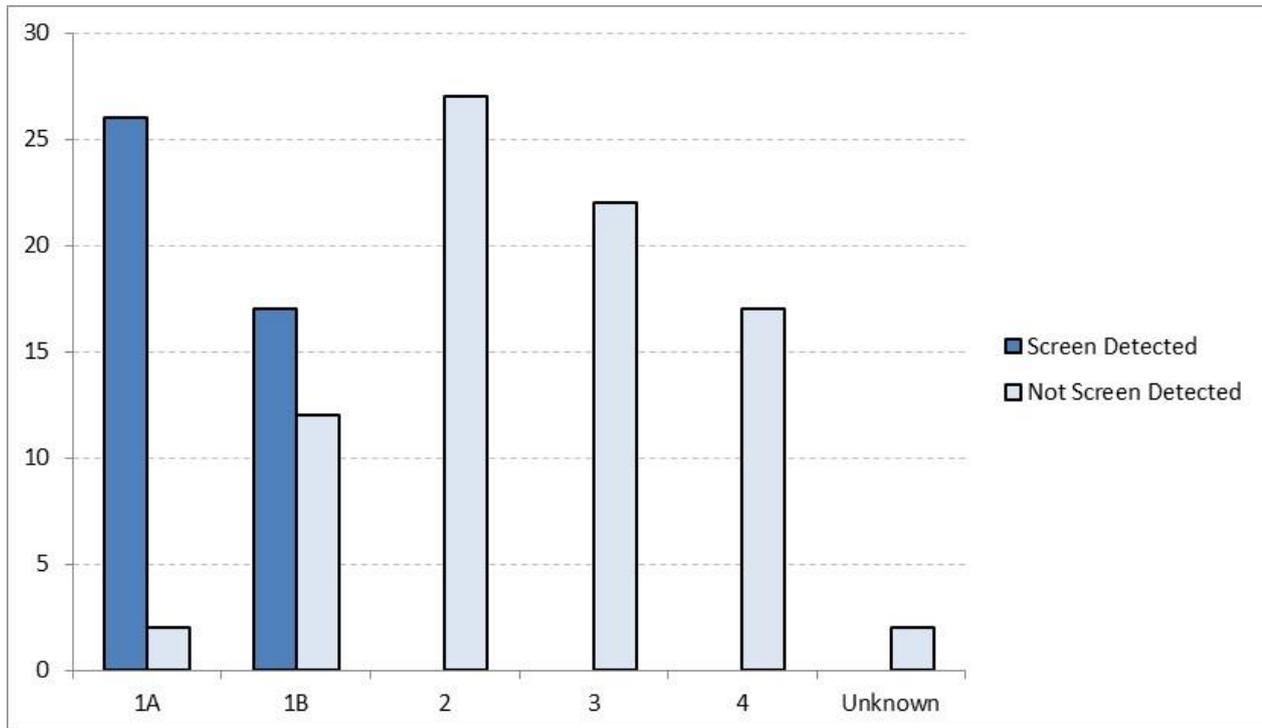
4.4 Screen-detected status

The definition of screen-detected cancer is a cancer detected following referral due to an abnormal screening test. This may include cases where individuals have not attended for screening for many years, as long as they did not present for screening due to symptoms. Although the aim of the screening programme is to reduce the incidence of invasive cervical cancer, sometimes cancer is detected by the screening test.

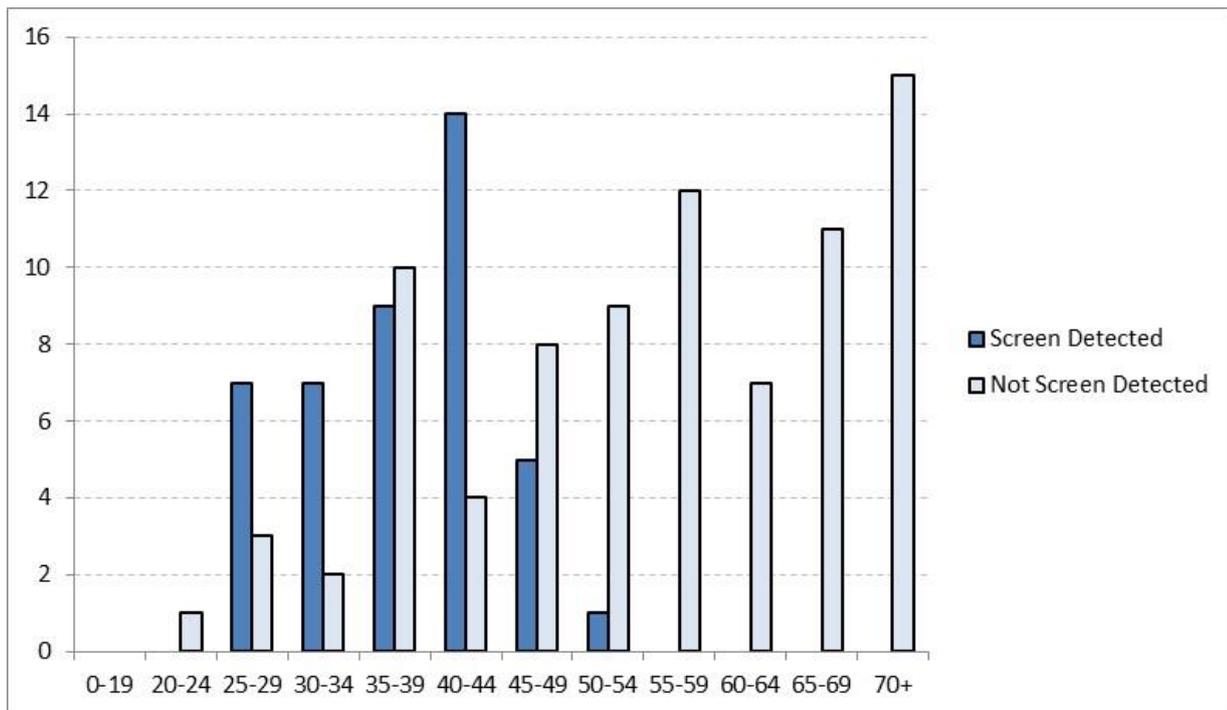
Non-screen detected cancers are those where the individual presents because of symptoms, leading to their cancer diagnosis, rather than as a result of a screening test. Non-screen detected cancers may occur in individuals with full screening histories, with long periods of non-attendance, or with no screening history.

Of the 125 cancers, 43 (34.4%) were screen detected and 80 (64.0%) were not. There were two cancers that were not classified into screen-detected status. All screen detected cancers were early stage (1A and 1B), whereas non-screen detected cancers were mainly detected at a more advanced stage.

Graph 7d: Number of cervical cancers by stage and screen-detected status



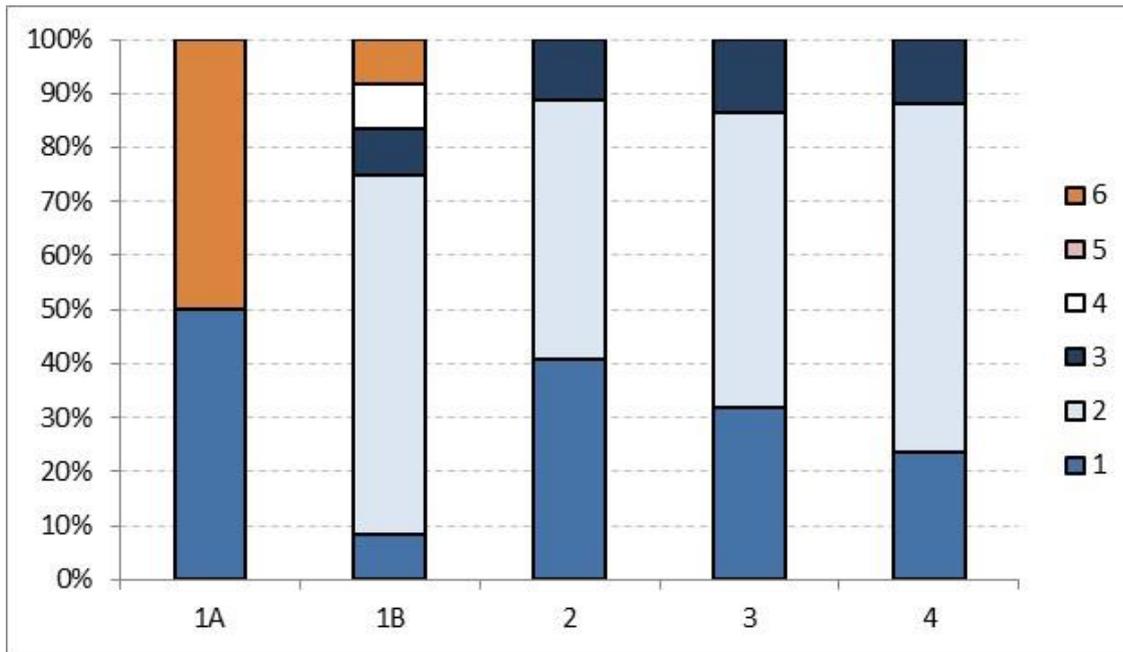
Across the age range, cancers in younger individuals were more likely to have been screen-detected, whereas those in older individuals were mainly non screen-detected. In individuals aged over 65 years, many had never been screened, or had not been screened for many years. This latter group includes those who had not been screened for many years before the age of 65 (when they exited the programme), but also those who were fully screened up to the age of 65 but were diagnosed over the age of 70.

Graph 7e: Number of cervical cancers by age and screen-detected status

Where a cancer is non screen-detected, the individual's screening history is categorised as per the list below (using NHSCSP definitions): -

- 1 - No record of a cervical screening
- 2 - Screened more than 5.5 years before diagnosis (this includes individuals over 65 who may have been fully screened up till that age)
- 3 - Screening reported only as negative within preceding six months - 5.5 years (may include an occasional inadequate screening if quickly repeated as negative)
- 4 - Non-negative screening(s), including inadequate screening(s), recommending repeat (within the preceding six months - 5.5 years)
- 5 - Previous treatment for cervical intraepithelial neoplasia (CIN) (within preceding six months - 5.5 years) following abnormal screening recommending referral
- 6 - Abnormal screening within the preceding six months - 5.5 years recommending referral to colposcopy with subsequent delay in diagnosis

Graph 7f: Non screen-detected cancers by stage and screening history



There is a pattern between the non-screening detected category for these cases and the cancer stage. The higher the stage, the more likely they are to be individuals who have either no record of a cervical screening (smear) test, or it has been over 5.5 years since their last screen.

5 Terminology

This section provides further detail on terminology and calculations used in this report.

Eligibility

Eligible women and people with a cervix were those resident in Wales.

Uptake

Note that the percentage of individuals attending for screening vs the percentage invited cannot be precisely measured as some tests undertaken in the screening year (1 April to 31 March) may result from 'marginal' invitations, either issued in the previous screening year, or taken up in the following year.

Coverage

Coverage figures are not directly comparable year on year.

- Prior to 1997-98, all individuals classified as 'recall ceased' by the programme (for medical, age or other reasons) were excluded from the denominator used to calculate coverage
- In 1998/99 the definition changed to exclude only those individuals with "recall ceased for clinical reasons" (no cervix)
- Since 2001-02, coverage figures include only those individuals who received an adequate test in the last 3.5 or five years in the numerator.

Age Appropriate Coverage

Age appropriate coverage figures include individuals aged 25-49 years who received an adequate test in the last 3.5 years and individuals aged 50-64 years who received an adequate test in the last 5.5 years in the numerator.

Health Board

This is health board of residence. Where health board cannot be ascertained, individuals will appear in the report under the title unknown HB.

Invited

From 2016-17 onwards, the number of individuals invited by Cervical Screening Wales, has been calculated by analysis of the data extracted from the call and recall system (NHAIS/Exeter system) – invitations that were issued by the Welsh programme for individuals during the time period.

Tested

From 2016-17 onwards, the number of individuals tested by Cervical Screening Wales, has been calculated by analysis of the data extracted from the call and recall system – tests that have been taken in Wales during the time period.

Direct referral

Where a screening sample result indicates that an individual needs a colposcopic examination, the referral is made by Cervical Screening Wales, rather than the sample taker.

Cytology

The examination of individual cells under a microscope, to look for cell changes.

Histology

The examination of body tissue (e.g. biopsies) under a microscope.

Colposcopy

Examination of the cervix using visual inspection with acetic acid and magnification.

Positive Predictive Value

The positive predictive value (PPV) is the proportion of those thought to have high grade cell changes on cytology, that then go on to have a proven high grade abnormality.

Cytology PPV correlates high grade cytology opinion with histology outcome. It calculates the proportion of cases in which an adequate biopsy, following a screening test reported as high-grade dyskaryosis (moderate) or worse, yields a histological diagnosis of CIN2 or worse. This excludes individuals referred to colposcopy following a test result of non-cervical query glandular neoplasia.

Non-cervical cancers are excluded from PPV calculations. From 2012-13 the definition for calculating PPV has changed, the denominator now includes – colposcopy no abnormality detected (NAD) with no biopsy taken.

Colposcopy PPV correlates high grade colposcopy opinion with histology outcome.

Abnormal Predictive Value

The Abnormal Predictive Value (APV) calculates the percentage of samples reported as borderline changes or low-grade dyskaryosis that led to referral and subsequent histological diagnosis of CIN2 or worse. For the period of this report, this also includes samples reported as showing 'borderline change in endocervical cells'.

Referral Value

The referral value (RV), is defined as the number of individuals referred to colposcopy per detection of one CIN2 or worse histology result. This excludes

individuals referred to colposcopy following a test result of inadequate or query glandular neoplasia (non-cervical).

Incidence

The number of new cases per year of invasive cervical cancer

Morbidity

The harm caused by cervical cancer and by treating cervical cancer, both physical and psychological

Mortality

Deaths caused from invasive cervical cancer.

6 Production Team

The production team for this report are all employed within Public Health Wales and are listed below.

Lisa Henry	Head of programme for Cervical Screening Wales
Dr Katie Walbeoff	Clinical Lead for Cervical Screening Wales
Kate Lilly	Senior Informatics and Data Specialist
Helen Clayton	Lead Informatics and Data Services Manager
Guy Stevens	Deputy Informatics & Data Services Manager
Dr Sharon Hillier	Director of Screening Division
Dr Graham Brown	Consultant in Public Health Medicine
Rhys George	Cofus CTF (Welsh translation)

This report was not published as official statistics.