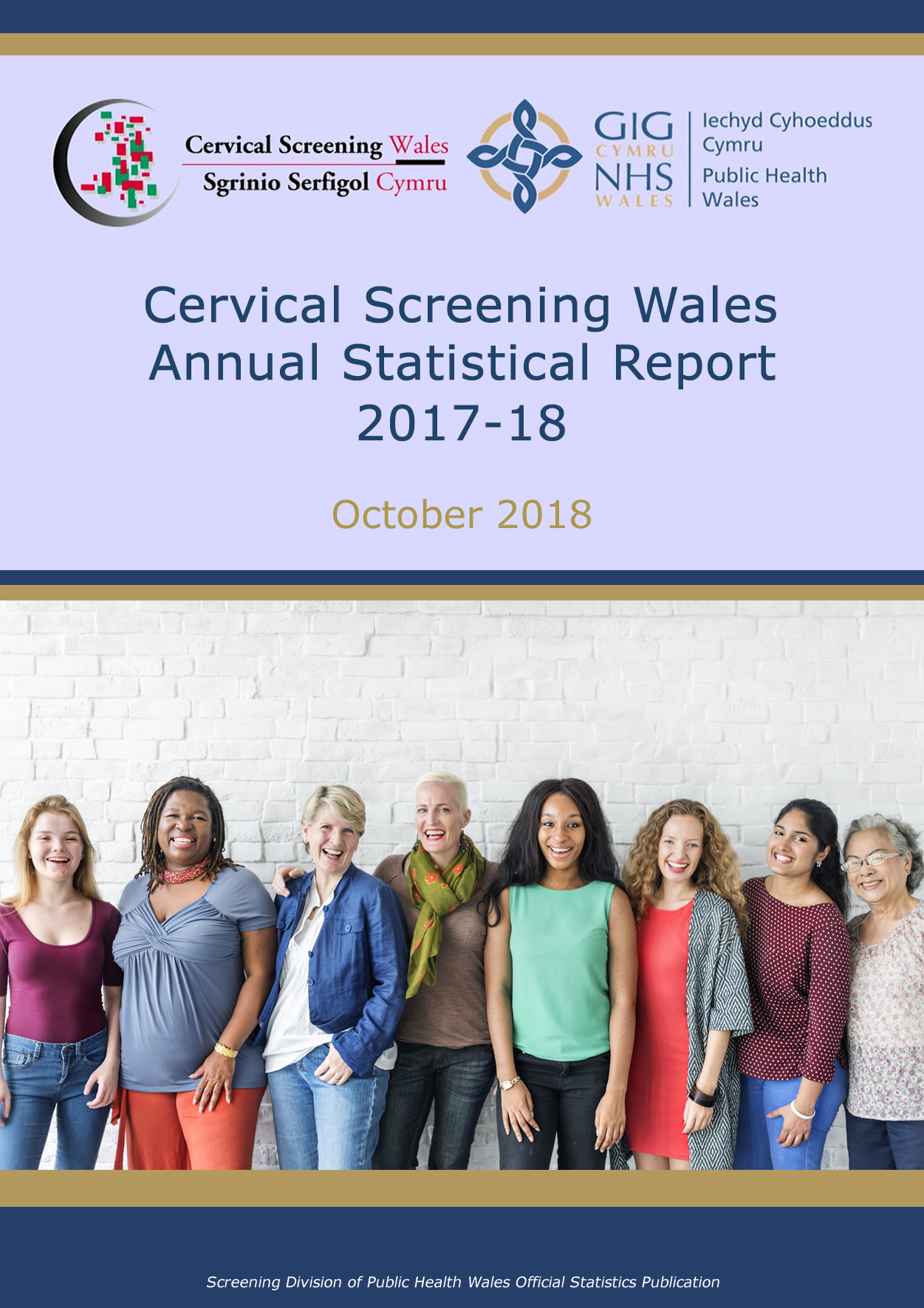
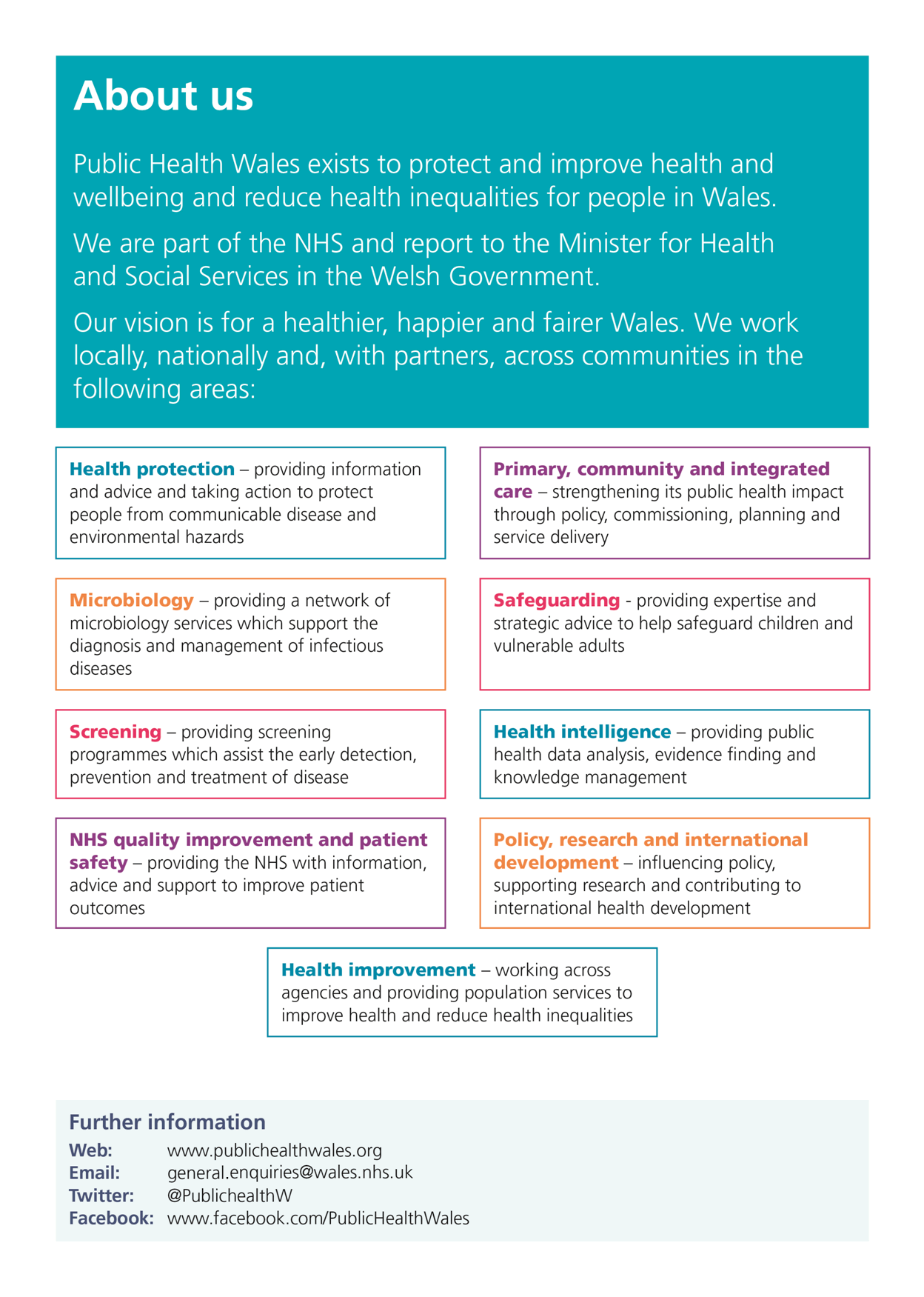
****



This report is a detailed summary of information on work undertaken by Cervical Screening Wales for the year from April 2017 to the end of March 2018.

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**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.

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# 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.

This continues the series of annual statistical reports for the programme, and is the fourth report in the new format. Changes have been made to the report which reflects the policy changes around the age at which a woman is first invited for cervical screening and the frequency she is invited for screening. There have also been changes to the wording used to describe the results of a cervical screening test.

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

1. NHAIS call and recall system used by the Cervical Screening Administration Departments.
2. Pathology laboratories.
3. Canisc – Cancer Information System Cymru which records clinical and administrative data from colposcopy services in Health Boards.

## Key messages for the public

* Cervical screening aims to prevent cancer from developing in the cervix at the neck of the womb.
* Women from the age of 25 are invited for screening every three years. Women aged 50 to 64 are invited every five years.
* Cervical screening (a 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 women.
* Screening will not prevent all cancers and not all cancers can be cured.
* Taking part in cervical screening is your choice. Read the information leaflet provided carefully to help you make your decision.

## Programme delivery

Screening Division of Public Health Wales is responsible for managing, delivering and quality assuring the cervical screening programme in Wales. Cervical screening tests are mainly carried out in primary care by a practice nurse or GP 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 three regional centres responsible for coordinating the screening programme in their area: North Wales, Mid and West Wales and South East Wales.

## Screening pathway

Policy for the cervical screening programme in Wales was changed in September 2013, so that women aged 25-49 years are now invited every three years and women aged 50-64 years are invited every five years. Prior to this the lower age limit was 20 and all women were invited every three years. The changes were in line with UK policy, following recommendation from the National Screening Committee and based on evidence which supported the change in age range.

From September 2014, Cervical Screening Wales introduced testing for Human Papilloma Virus (HPV) into the Cervical Screening Programme with the introduction of HPV Test of Cure (ToC) for women having their first smear test following treatment. In November 2015, ToC was extended for women who were invited for early follow-up smears. From May 2016 HPV testing was extended to triage low grade abnormalities on smears.

From April 2017, as part of the planning for full rollout of primary HPV screening, an early adopters phase began throughout Wales, accounting for just under 20% of cervical screening samples being tested for HPV as the primary screening test.

Eligible women are sent a letter inviting them to make an appointment for cervical screening. A leaflet explaining screening is included with this 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 women 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](http://www.cervicalscreeningwales.wales.nhs.uk)

# Headline Statistics 2017-18

This report covers activity from April 2017 to March 2018 inclusive.

* At 31 March 2018, 76.1% of women in the target age group (25-64 years) had been screened with an adequate result at least once in the last 5 years. Coverage exceeded 74% in all Health Boards.
* In 2017/18 around 210,800 women aged 25-64 were invited for screening.
* 140,100 women were screened in 2017/18, (including those with inadequate results); the majority in response to a formal invitation from the screening programme. This number is the women who were screened during the year 2017/18 and does not reflect the cohort that were invited in that year.
* Laboratories examined around 142,000 samples on Welsh residents in 2017/18.
* 3.6% of tests were reported as inadequate with variation between laboratories, ranging from 2.9% to 4.4%
* 1.4% of tests were reported as showing a high grade cytological abnormality, ranging from 1.2% to 1.8%.
* The Positive Predictive Value (PPV) correlates high‑grade cytology with high-grade histology. For 2017/18, the PPV for Wales remains high at 83.8%.
* 8,200 new patients were seen at colposcopy clinics in Wales in 2017/18, 64.2% having been directly referred by Cervical Screening Wales and 35.8% for clinical reasons.
* 57.6% of histology results reported as CIN2 or worse were similarly identified on assessment (this demonstrates the sensitivity of colposcopist opinion).
* 75.6% of lesions thought by the colposcopist to be high grade or worse were reported CIN2 or worse on histology, for all known results (PPV of colposcopist opinion).

1 in 20 women were referred to colposcopy with cell changes. Of these 1 in 108 women had cancer.

# Data

## Coverage

Coverage is a measure of those eligible for cervical screening who have had a validated cervical screening test result within a specified time of the reporting date, that being 31st March 2018 for this publication. The time periods examined are 3.5 years, 5 years and 5.5 years. The different times are used as women aged 25-49 are invited every 3 years and women aged 50-64 every 5 years, giving an extra 6 months to allow for making an appointment. The 3.5 and 5.5 year figures also allow comparison with data from other countries. Our programme standard is for women aged 25-64 years to have been adequately screened in the last 5 years.

Age appropriate coverage takes into account the age of the women in their calculation.

Women under 25 are included in the table for completeness, as we invite them shortly before their 25th birthday. Some women over 64 may require screening due to the follow up of previous abnormalities, but the majority of women aged 65 and over would not be eligible.

Table 1a: Cervical Screening Coverage by Age Group Figure 1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Age Group** | **Eligible** | **Tested within 3.5 years** | **Tested within 5 years** | **Tested within 5.5 years** | **% Coverage within 3.5 years** | **% Coverage within 5 years** | **% Coverage within 5.5 years** |
| Under 25 years | 443,607 | 3,292 | 5,266 | 5,273 | 0.7% | 1.2% | 1.2% |
| 25-49 years | 492,942 | 348,851 | 381,742 | 389,007 | 70.8% | 77.4% | 78.9% |
| 50-64 years | 278,542 | 151,385 | 205,423 | 210,133 | 54.3% | 73.7% | 75.4% |
| 65+ years | 273,921 | 17,093 | 35,115 | 40,253 | 6.2% | 12.8% | 14.7% |
| **All Wales** | **1,489,012** | **520,621** | **627,546** | **644,666** | **35.0%** | **42.1%** | **43.3%** |

Note: The eligible age range for routine recall is 25-64 years. Women over 50 are routinely invited for screening every 5 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 72.5%. Please see definition section for more details.

Graph 1a1: Cervical Screening 5 year Coverage by Age Group Figure 2



Graph 1a2: Cervical Screening 5 year Coverage of Target Age Group (25-64 years) by Year Figure 3



Coverage of women aged 25-64 has been over 76% from 2007/08 to 2017/18. In 2017/18 76.1% of women aged 25-64 years had been tested with an adequate result in the last 5 years. There is some variation in coverage between Health Boards (HB), ranging from 74.2% in Hywel Dda University Health Board to 78.2% in Powys Teaching Health Board. Overall coverage has decreased across Wales.

There are some women who may require screening outside of our 25-64 year age range, due to the follow-up of previous abnormalities.

Table 1b: Cervical Screening Coverage (25-64 year olds) by Health Board of Residence Figure 4

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Health Board | Eligible | Tested within 3.5 years | Tested within 5 years | Tested within 5.5 years | % Coverage within 3.5 years | % Coverage within 5 years | % Coverage within 5.5 years |
| Abertawe Bro Morgannwg UHB | 127,234 | 81,473 | 95,599 | 97,740 | 64.0% | 75.1% | 76.8% |
| Aneurin Bevan UHB | 144,364 | 95,712 | 111,817 | 113,948 | 66.3% | 77.5% | 78.9% |
| Betsi Cadwaladr UHB | 162,928 | 105,310 | 124,482 | 126,971 | 64.6% | 76.4% | 77.9% |
| Cardiff and Vale UHB | 124,840 | 80,396 | 93,457 | 95,267 | 64.4% | 74.9% | 76.3% |
| Cwm Taf UHB | 73,034 | 47,369 | 55,809 | 57,017 | 64.9% | 76.4% | 78.1% |
| Hywel Dda UHB | 87,905 | 54,609 | 65,201 | 66,708 | 62.1% | 74.2% | 75.9% |
| Powys Teaching HB | 30,308 | 20,000 | 23,713 | 24,156 | 66.0% | 78.2% | 79.7% |
| **All Wales** | **771,484** | **500,236** | **587,165** | **599,140** | **64.8%** | **76.1%** | **77.7%** |

This shows the coverage stated of those women eligible for cervical screening on 1st April 2018, by the number and proportion with an adequate test within last 3.5 or 5 years. Note that a small proportion of women could not be allocated to a Health Board, but are shown in the total for Wales.

Graph 1b: Cervical Screening Coverage of Target Age Group (25-64 years) by Health Board Figure 5



## Women Invited by Age Group and Health Board

Table 2: Women Invited by Age Group and Health Board Figure 6

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Health Board | Under 25 years | 25-49 years | 50-64 years | 65+ years | All Ages |
| Abertawe Bro Morgannwg UHB | 1,617 | 28,347 | 6,244 | 153 | 36,361 |
| Aneurin Bevan UHB | 1,717 | 32,460 | 7,305 | 225 | 41,707 |
| Betsi Cadwaladr UHB | 2,074 | 34,897 | 8,599 | 189 | 45,759 |
| Cardiff and Vale UHB | 2,183 | 29,747 | 5,424 | 152 | 37,506 |
| Cwm Taf UHB | 915 | 16,780 | 3,560 | 97 | 21,352 |
| Hywel Dda UHB | 1,138 | 18,232 | 5,004 | 121 | 24,495 |
| Powys Teaching HB | 343 | 5,700 | 1,733 | 31 | 7,807 |
| **All Wales** | **10,390** | **172,284** | **38,541** | **986** | **222,201** |

## 

## Women Tested by Age Group and Health Board

Table 3: Women Tested by Age Group and Health Board Figure 7

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Health Board | Under 25 years | 25-49 years | 50-64 years | 65+ years | All Ages |
| Abertawe Bro Morgannwg UHB | 369 | 17,956 | 3,786 | 65 | 22,176 |
| Aneurin Bevan UHB | 478 | 21,238 | 4,388 | 83 | 26,187 |
| Betsi Cadwaladr UHB | 528 | 23,704 | 5,329 | 89 | 29,650 |
| Cardiff and Vale UHB | 537 | 19,617 | 3,481 | 65 | 23,700 |
| Cwm Taf UHB | 269 | 10,744 | 2,176 | 42 | 13,231 |
| Hywel Dda UHB | 240 | 11,306 | 3,046 | 75 | 14,667 |
| Powys Teaching HB | 101 | 4,161 | 1,172 | 20 | 5,454 |
| **All Wales** | **2,658** | **113,179** | **23,799** | **444** | **140,080** |

A small proportion of women could not be allocated to a Health Board, but are shown in the total for Wales.

In 2017/18 this data has been calculated directly from information taken from the call and recall system, more detailed definitions are given in section 4 of this report.

Note that the uptake of invitations cannot be precisely measured as some tests undertaken in the screening year (1st April to 31st March) may result from invitations that are either issued in the previous screening year, or taken up in the following year.

Graph 3: Number of women (aged 25-64 years) invited and tested each year Figure 8



The reduction in the number of women invited during 2017-18 is due to the age and frequency changes implemented in September 2013, where the lower age for eligibility was increased to 25 and the frequency of invitation for women aged 50-64 was decreased from 3 years to 5 years.

## Sample Result Turnaround Times by Health Board

Our standard is for 95% of women to be sent their results within 4 weeks (28 calendar days) of the sample being taken.

Table 4: Time from date sample was taken to issue of result letter, by Health Board Figure 9

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Health Board | Less than or equal to 2 weeks | >2 weeks up to 4 weeks | >4 weeks up to 6 weeks | >6 weeks | Total |
| Abertawe Bro Morgannwg UHB | 9,206 | 12,452 | 708 | 47 | 22,413 |
| Aneurin Bevan UHB | 19,786 | 5,752 | 771 | 139 | 26,448 |
| Betsi Cadwaladr UHB | 15,590 | 11,779 | 1,288 | 33 | 28,690 |
| Cardiff and Vale UHB | 14,020 | 7,888 | 1,735 | 163 | 23,806 |
| Cwm Taf UHB | 7,302 | 4,990 | 1,097 | 102 | 13,491 |
| Hywel Dda UHB | 5,175 | 9,172 | 467 | 26 | 14,840 |
| Powys Teaching HB | 2,418 | 2,868 | 121 | 24 | 5,431 |
| **All Wales** | **76,260** | **56,764** | **6,425** | **553** | **140,002** |
| **Cumulative %** | **54.5%** | **95.0%** | **99.6%** | **100.0%** | **100.0%** |

A small proportion of women could not be allocated to a Health Board, but are shown in the total for Wales.

Graph 4: Time from date sample was taken to issue of result letter, by Health Board Figure 10



Across Wales 54.5% of results were issued within 2 weeks of the test being taken (range 41.1% to 74.8%) this is an increase compared with 36.0% in 2016/17).

95.0% of results were issued within 4 weeks (95% target) compared with 96.7% in 2016/17.

## Samples Reported by Pathology Laboratory

Table 5a: Number of cytology samples reported by pathology laboratory and source of test Figure 11

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Laboratory | GP | Integrated Sexual Health Clinics | NHS Hospital | Other | Total |
| Magden Park Laboratory | 40824 | 599 | 3451 | 47 | 44921 |
| North Wales Service | 27156 | 923 | 908 | 1 | 28988 |
| Royal Gwent Hospital | 21997 | 2052 | 1295 | 143 | 25487 |
| S & W Wales Service | 38421 | 1216 | 2743 | 219 | 42599 |
| All Wales | **128398** | **4790** | **8397** | **410** | **141995** |

A small proportion of samples from unknown sources are shown in the total for Wales.

Table 5b1: Number of cytology samples reported by Health Board of residence and source of test Figure 12

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Health Board | GP | Integrated Sexual Health Clinics | NHS Hospital | Other | Total |
| Abertawe Bro Morgannwg UHB | 20802 | 223 | 1379 | 203 | 22607 |
| Aneurin Bevan UHB | 23447 | 1901 | 1232 | 61 | 26641 |
| Betsi Cadwaladr UHB | 26552 | 899 | 906 | 2 | 28359 |
| Cardiff and Vale UHB | 22668 | 428 | 1251 | 36 | 24383 |
| Cwm Taf UHB | 11622 | 136 | 1901 | 10 | 13669 |
| Hywel Dda UHB | 12842 | 912 | 1227 | 7 | 14988 |
| Powys Teaching HB | 5046 | 5 | 202 | 71 | 5324 |
| **All Wales** | **128398** | **4790** | **8397** | **410** | **141995** |

A small proportion of women could not be allocated to a Health Board, but are shown in the total for Wales.

Table 5b2: Percentage of cytology samples reported by Health Board of residence and source of test Figure 13

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Health Board | GP | Integrated Sexual Health Clinics | NHS Hospital | Other |
| Abertawe Bro Morgannwg UHB | 92.0 | 1.0 | 6.1 | 0.9 |
| Aneurin Bevan UHB | 88.0 | 7.1 | 4.6 | 0.2 |
| Betsi Cadwaladr UHB | 93.6 | 3.2 | 3.2 | 0.0 |
| Cardiff and Vale UHB | 93.0 | 1.8 | 5.1 | 0.1 |
| Cwm Taf UHB | 85.0 | 1.0 | 13.9 | 0.1 |
| Hywel Dda UHB | 85.7 | 6.1 | 8.2 | 0.0 |
| Powys Teaching HB | 94.8 | 0.1 | 3.8 | 1.3 |
| **All Wales %** | **90.4** | **3.4** | **5.9** | **0.3** |

A small proportion of women could not be allocated to a Health Board, but are shown in the total for Wales.

Table 5c1: Inadequate cytology samples reported by pathology laboratory 14Figure

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Laboratory |  | GP | Integrated Sexual Health Clinics | NHS Hospital | Other | Total |
| **Magden Park Laboratory** | Total Samples | 40824 | 599 | 3451 | 47 | 44921 |
| No. inadequate | 1554 | 29 | 204 | 3 | 1790 |
| % inadequate | 3.8 | 4.8 | 5.9 | 6.4 | 4.0 |
| **North Wales Service** | Total Samples | 27156 | 923 | 908 | 1 | 28988 |
| No. inadequate | 1115 | 63 | 106 | 0 | 1284 |
| % inadequate | 4.1 | 6.8 | 11.7 | 0.0 | 4.4 |
| **Royal Gwent Hospital** | Total Samples | 21997 | 2052 | 1295 | 143 | 25487 |
| No. inadequate | 549 | 112 | 73 | 3 | 737 |
| % inadequate | 2.5 | 5.5 | 5.6 | 2.1 | 2.9 |
| **S & W Wales Service** | Total Samples | 38421 | 1216 | 2743 | 219 | 42599 |
| No. inadequate | 1127 | 77 | 144 | 6 | 1354 |
| % inadequate | 2.9 | 6.3 | 5.2 | 2.7 | 3.2 |
| **All Wales** | Total Samples | 128398 | 4790 | 8397 | 410 | 141995 |
| No. inadequate | 4345 | 281 | 527 | 12 | 5165 |
| % inadequate | 3.4 | 5.9 | 6.3 | 2.9 | 3.6 |

Table 5c2: High grade cytology samples reported by pathology laboratory Figure 15

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Laboratory |  | GP | Integrated Sexual Health Clinics | NHS Hospital | Other | Total |
| **Magden Park Laboratory** | No. Adequate | 39270 | 570 | 3247 | 44 | 43131 |
| No. high grade | 552 | 13 | 102 | 1 | 668 |
| % high grade | 1.4 | 2.3 | 3.1 | 2.3 | 1.5 |
| **North Wales Service** | No. Adequate | 26041 | 860 | 802 | 1 | 27704 |
| No. high grade | 292 | 17 | 40 | 0 | 349 |
| % high grade | 1.1 | 2.0 | 5.0 | 0.0 | 1.3 |
| **Royal Gwent Hospital** | No. Adequate | 21448 | 1940 | 1222 | 140 | 24750 |
| No. high grade | 321 | 63 | 68 | 0 | 452 |
| % high grade | 1.5 | 3.2 | 5.6 | 0.0 | 1.8 |
| **S & W Wales Service** | No. Adequate | 37294 | 1139 | 2599 | 213 | 41245 |
| No. high grade | 378 | 26 | 70 | 12 | 486 |
| % high grade | 1.0 | 2.3 | 2.7 | 5.6 | 1.2 |
| **All Wales** | No. Adequate | 124053 | 4509 | 7870 | 398 | 136830 |
| No. high grade | 1543 | 119 | 280 | 13 | 1955 |
| % high grade | 1.2 | 2.6 | 3.6 | 3.3 | 1.4 |

High grade includes results reported as high grade dyskaryosis (moderate or severe), high grade dyskaryosis (?invasive squamous carcinoma) and ?Glandular neoplasia. The proportion is calculated from all adequate results.

Graph 5c1: Percentage of Inadequate Tests by Pathology Laboratory Figure 16



Graph 5c2: Percentage of High Grade Tests by Pathology Laboratory F 17



Table 5d: Number of adequate samples reported by Result of Test and Age Group Figure 18

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Result | Under 25 years | 25-49 years | 50-64 years | 65+ years | All Ages |
| Negative | 1852 | 84334 | 18315 | 323 | 104824 |
| Borderline Change in squamous cells | 119 | 3239 | 553 | 16 | 3927 |
| Borderline Change in endocervical cells | 2 | 144 | 19 | 0 | 165 |
| Low Grade Dyskaryosis | 174 | 3007 | 436 | 50 | 3667 |
| High Grade Dyskaryosis (Moderate) | 33 | 798 | 74 | 8 | 913 |
| High Grade Dyskaryosis (Severe) | 34 | 789 | 58 | 6 | 887 |
| High Grade Dyskaryosis (?invasive squamous carcinoma) | 2 | 54 | 17 | 0 | 73 |
| ?Glandular neoplasia of endocervical type | 3 | 51 | 4 | 0 | 58 |
| ?Glandular neoplasia of non-cervical origin | 0 | 10 | 14 | 1 | 25 |
| No cytology | 328 | 18113 | 3806 | 44 | 22291 |
| **All Wales** | **2547** | **110539** | **23296** | **448** | **136830** |

Table 5e: Number of adequate samples reported with an HPV test

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Result | High Risk HPV detected | High Risk HPV not detected | HPV unavailable / unreliable | No HPV Test | TOTAL |
| Negative | 2719 | 7168 | 167 | 94770 | 104824 |
| Borderline Change in squamous cells | 1781 | 2044 | 78 | 24 | 3927 |
| Borderline Change in endocervical cells | 41 | 117 | 5 | 2 | 165 |
| Low Grade Dyskaryosis | 2705 | 878 | 47 | 37 | 3667 |
| High Grade Dyskaryosis (Moderate) | 262 | 13 | 0 | 638 | 913 |
| High Grade Dyskaryosis (Severe) | 267 | 3 | 1 | 616 | 887 |
| High Grade Dyskaryosis (?invasive squamous carcinoma) | 20 | 0 | 0 | 53 | 73 |
| ?Glandular neoplasia of endocervical type | 10 | 0 | 1 | 47 | 58 |
| ?Glandular neoplasia of non-cervical origin | 0 | 1 | 0 | 24 | 25 |
| No cytology | 0 | 22181 | 110 | 0 | 22291 |
| **All Wales** | **7805** | **32405** | **409** | **96211** | **136830** |

During the reporting year, some samples had a high risk HPV test performed. These were: -

* Primary cytology ‘test of cure (ToC)’ samples showing low grade dyskaryosis or less
* Other primary cytology screened samples showing low grade or borderline changes (as HPV triage)
* All Primary HPV screened samples
* ‘Ad hoc’ samples requested by colposcopy clinics

Table 5f: Outcome for women referred during April 2016-March 2017 following an inadequate or low grade result Figure 19

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Outcome | Magden Park Laboratory | North Wales Service | Royal Gwent Hospital | S & W Wales Service | ALL WALES |
| Cervical Cancer | 2 | 3 | 1 | 5 | 11 |
| CGIN | 8 | 6 | 2 | 7 | 23 |
| High Grade CIN | 243 | 246 | 164 | 264 | 917 |
| CIN1 | 248 | 323 | 169 | 308 | 1048 |
| No Abnormality Detected | 430 | 315 | 248 | 353 | 1346 |
| Inadequate Biopsy | 11 | 11 | 17 | 31 | 70 |
| No Biopsy Taken | 464 | 161 | 175 | 397 | 1197 |
| Non Cervical Cancer | 1 | 0 | 0 | 1 | 2 |
| **TOTAL** | **1407** | **1065** | **776** | **1366** | **4614** |

Table 5g: Outcome for women referred during April 2016-March 2017 following a high grade cytology result Figure 20

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Outcome | Magden Park Laboratory | North Wales Service | Royal Gwent Hospital | S & W Wales Service | ALL WALES |
| Cervical Cancer | 22 | 22 | 15 | 16 | 75 |
| CGIN | 14 | 7 | 6 | 20 | 47 |
| High Grade CIN | 468 | 287 | 305 | 386 | 1446 |
| CIN1 | 46 | 18 | 33 | 29 | 126 |
| No Abnormality Detected | 77 | 9 | 30 | 27 | 143 |
| Inadequate Biopsy | 1 | 0 | 1 | 2 | 4 |
| No Biopsy Taken | 14 | 3 | 3 | 14 | 34 |
| Non Cervical Cancer | 3 | 0 | 2 | 2 | 7 |
| **TOTAL** | **645** | **346** | **395** | **496** | **1882** |

**Table 5h:** Outcome for women referred during April 2016-March 2017 following a high grade cytology result (%) Figure 21

|  |  |  |  |
| --- | --- | --- | --- |
| Laboratory | Positive Predictive Value (PPV) | Abnormal Predictive Value (APV) | Referral Value (RV) |
| Magden Park Laboratory | 78.6 | 18.5 | 3.1 |
| North Wales Service | 91.3 | 24.5 | 2.9 |
| Royal Gwent Hospital | 83.2 | 22.4 | 2.8 |
| S & W Wales Service | 85.8 | 21.0 | 3.1 |
| **All Wales** | **83.8** | **21.3** | **3.0** |

Table 5i: Turnaround Times for Pathology Laboratory, from date of receipt of sample, to date result first authorised Figure 22

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Laboratory | **Less than or equal to 2 weeks** | **>2 weeks up to 4 weeks** | **>4 weeks up to 6 weeks** | **>6 weeks** | **Total** |
| Magden Park Laboratory | 29744 | 13796 | 1166 | 215 | 44921 |
| North Wales Service | 20057 | 7882 | 1035 | 14 | 28988 |
| Royal Gwent Hospital | 21682 | 3377 | 350 | 78 | 25487 |
| S & W Wales Service | 22940 | 18779 | 797 | 83 | 42599 |
| **All Wales** | **94423** | **43834** | **3348** | **390** | **141995** |
| **Cumulative %** | **66.5** | **97.4** | **99.8** | **100.0** | **100.0** |

In 2017/18 the laboratory authorised 66.5% of results within two weeks from date of receipt. This is an increase from the 52.9% seen in 2016/17.

Graph 5i: Turnaround Times for Pathology Laboratory, from date of receipt of sample, to date result first authorised Figure



## Colposcopy Activity

Table 6a: Number of colposcopy referrals by source of referral and colposcopy clinic Figure 23

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Colposcopy Clinic | CSW Direct Referral | Other Referral | TOTAL | % CSW Direct Referral | % Other Referral |
| Brecon | 41 | 43 | 84 | 48.8% | 51.2% |
| Bro Morgannwg | 623 | 306 | 929 | 67.1% | 32.9% |
| Bronglais | 103 | 152 | 255 | 40.4% | 59.6% |
| Cardiff and Vale | 1281 | 865 | 2146 | 59.7% | 40.3% |
| Carmarthenshire | 347 | 276 | 623 | 55.7% | 44.3% |
| Glan Clwyd | 422 | 22 | 444 | 95.0% | 5.0% |
| Gwynedd | 384 | 115 | 499 | 77.0% | 23.0% |
| Llandrindod Wells | 75 | 3 | 78 | 96.2% | 3.8% |
| Montgomeryshire | 117 | 18 | 135 | 86.7% | 13.3% |
| Nevill Hall | 307 | 140 | 447 | 68.7% | 31.3% |
| Prince Charles | 286 | 478 | 764 | 37.4% | 62.6% |
| Royal Glamorgan | 468 | 455 | 923 | 50.7% | 49.3% |
| Royal Gwent | 959 | 322 | 1281 | 74.9% | 25.1% |
| Singleton | 461 | 397 | 858 | 53.7% | 46.3% |
| Withybush | 167 | 313 | 480 | 34.8% | 65.2% |
| Wrexham | 545 | 172 | 717 | 76.0% | 24.0% |
| Ysbyty Ystrad Fawr | 293 | 56 | 349 | 84.0% | 16.0% |
| **All Wales** | **6879** | **4133** | **11012** | **62.5%** | **37.5%** |

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

**Table 6b:** Number of new patients seen by referral test result and colposcopy clinic **Figure** 24

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Colposcopy Clinic | Inadequate & Negative | Low Grade HPV Positive | Low Grade Not HPV Positive | High Grade (Non Urgent) | High Grade (Urgent) | Negative Cytology HPV Positive | No referral smear | Total |
| Brecon | 2 | 21 | 0 | 11 | 0 | 6 | 17 | 57 |
| Bro Morgannwg | 9 | 308 | 16 | 116 | 10 | 68 | 103 | 630 |
| Bronglais | 2 | 45 | 0 | 10 | 1 | 6 | 104 | 168 |
| Cardiff and Vale | 23 | 579 | 24 | 298 | 13 | 81 | 568 | 1586 |
| Carmarthenshire | 8 | 167 | 4 | 69 | 3 | 46 | 128 | 425 |
| Glan Clwyd | 12 | 186 | 8 | 79 | 17 | 38 | 16 | 356 |
| Gwynedd | 14 | 242 | 3 | 85 | 6 | 41 | 33 | 424 |
| Llandrindod Wells | 9 | 0 | 37 | 16 | 0 | 0 | 4 | 66 |
| Montgomeryshire | 1 | 45 | 0 | 18 | 1 | 10 | 8 | 83 |
| Nevill Hall | 4 | 130 | 1 | 50 | 1 | 17 | 96 | 299 |
| Prince Charles | 245 | 145 | 6 | 72 | 4 | 30 | 109 | 611 |
| Royal Glamorgan | 14 | 219 | 14 | 82 | 11 | 34 | 352 | 726 |
| Royal Gwent | 13 | 377 | 5 | 203 | 20 | 70 | 216 | 904 |
| Singleton | 10 | 290 | 7 | 88 | 3 | 62 | 216 | 676 |
| Withybush | 2 | 86 | 3 | 39 | 5 | 24 | 190 | 349 |
| Wrexham | 13 | 284 | 4 | 72 | 8 | 45 | 173 | 599 |
| Ysbyty Cwm Cynon | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Ysbyty Ystrad Fawr | 4 | 123 | 3 | 66 | 3 | 22 | 30 | 251 |
| **All Wales** | **385** | **3248** | **135** | **1374** | **106** | **600** | **2363** | **8211** |
| **%** | **4.7** | **39.6** | **1.6** | **16.7** | **1.3** | **7.3** | **28.8** | **100.0** |

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

High grade (Non Urgent) referrals include high grade dyskaryosis (moderate and severe) and borderline changes cannot exclude high grade.

High grade (Urgent) referrals include high grade dyskaryosis (?invasive squamous carcinoma), ?glandular neoplasia of endocervical type and ?glandular neoplasia of non cervical origin.

Table 6b shows referrals with negative cytology and hrHPV positive, these are due to ‘Test of Cure’. Women on early recall following a high grade cytology or treatment for any grade of CIN/CGIN having primary cytology screening have their screening sample tested for High Risk HPV if cytology is low grade or less (if cytology is high grade, hrHPV testing is not required as the woman will be referred, although it may be undertaken). All women having ‘Test of Cure’ are referred to colposcopy if hrHPV is detected, even if cytology is negative (normal).

Table 6c: Waiting times by colposcopy clinic and type of referral Figure 25

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | All Referrals | | | |  | High Grade Dyskaryosis or worse | | | |
| Colposcopy Clinic | <8 weeks | 8 weeks or over | TOTAL | % within 8 weeks |  | <4 weeks | 4 weeks or over | TOTAL | % within 4 weeks |
| Brecon | 64 | 2 | 66 | 97.0 |  | 11 | 0 | 11 | 100.0 |
| Bro Morgannwg | 890 | 13 | 903 | 98.6 |  | 175 | 3 | 178 | 98.3 |
| Bronglais | 196 | 17 | 213 | 92.0 |  | 17 | 1 | 18 | 94.4 |
| Cardiff and Vale | 2123 | 30 | 2153 | 98.6 |  | 385 | 4 | 389 | 99.0 |
| Carmarthenshire | 542 | 35 | 577 | 93.9 |  | 93 | 2 | 95 | 97.9 |
| Glan Clwyd | 450 | 2 | 452 | 99.6 |  | 105 | 6 | 111 | 94.6 |
| Gwynedd | 524 | 4 | 528 | 99.2 |  | 100 | 1 | 101 | 99.0 |
| Llandrindod Wells | 81 | 0 | 81 | 100.0 |  | 18 | 1 | 19 | 94.7 |
| Montgomeryshire | 121 | 1 | 122 | 99.2 |  | 27 | 0 | 27 | 100.0 |
| Nevill Hall | 383 | 14 | 397 | 96.5 |  | 60 | 3 | 63 | 95.2 |
| Prince Charles | 727 | 12 | 739 | 98.4 |  | 84 | 9 | 93 | 90.3 |
| Royal Glamorgan | 875 | 31 | 906 | 96.6 |  | 116 | 6 | 122 | 95.1 |
| Royal Gwent | 1226 | 10 | 1236 | 99.2 |  | 286 | 3 | 289 | 99.0 |
| Singleton | 892 | 11 | 903 | 98.8 |  | 108 | 1 | 109 | 99.1 |
| Withybush | 363 | 57 | 420 | 86.4 |  | 53 | 1 | 54 | 98.1 |
| Wrexham | 628 | 118 | 746 | 84.2 |  | 88 | 16 | 104 | 84.6 |
| Ysbyty Cwm Cynon | 2 | 0 | 2 | 100.0 |  | 0 | 0 | 0 |  |
| Ysbyty Ystrad Fawr | 329 | 5 | 334 | 98.5 |  | 78 | 2 | 80 | 97.5 |
| **All Wales** | **10416** | **362** | **10778** | **96.6** |  | **1804** | **59** | **1863** | **96.8** |
| **%** | **96.6** | **3.4** | **100.0** | **-** |  | **96.8** | **3.2** | **100.0** | **-** |

Graph 6c1: Percentage of all new referrals offered an appointment within 8 weeks by colposcopy clinic (excluding patient instigated delays) re 26



Graph 6c2: Percentage of high grade referrals offered an appointment within 4 weeks by colposcopy clinic (excluding patient instigated delays) Figure 27



The tables and graphs above show the time taken from the receipt of referral to the first appointment offered by the colposcopy clinic, excluding delays initiated by patients. 96.8% of referrals for a result of high grade dyskaryosis or worse were offered an appointment within four weeks (90% target). Over 96% of all referrals were offered an appointment within eight weeks (90% target).

Table 6d: Total attended visits by type of visit and colposcopy clinic Figure 28

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Colposcopy Clinic | Colposcopic Assessment | Select and treat | Planned treatment | Follow Up | Not Specified | Total |
| Brecon | 101 | 8 | 17 | 67 | 0 | 193 |
| Bro Morgannwg | 746 | 28 | 176 | 296 | 1 | 1247 |
| Bronglais | 239 | 8 | 39 | 71 | 1 | 358 |
| Cardiff and Vale | 2289 | 183 | 407 | 555 | 1 | 3435 |
| Carmarthenshire | 494 | 11 | 185 | 630 | 2 | 1322 |
| Glan Clwyd | 421 | 21 | 166 | 114 | 25 | 747 |
| Gwynedd | 544 | 20 | 183 | 118 | 3 | 868 |
| Llandrindod Wells | 56 | 14 | 26 | 39 | 1 | 136 |
| Montgomeryshire | 116 | 1 | 25 | 29 | 0 | 171 |
| Nevill Hall | 333 | 45 | 67 | 74 | 1 | 520 |
| Prince Charles | 697 | 32 | 216 | 379 | 10 | 1334 |
| Royal Glamorgan | 958 | 4 | 300 | 347 | 98 | 1707 |
| Royal Gwent | 1030 | 124 | 219 | 330 | 1 | 1704 |
| Singleton | 805 | 24 | 167 | 302 | 1 | 1299 |
| Withybush | 366 | 3 | 87 | 239 | 1 | 696 |
| Wrexham | 662 | 18 | 151 | 153 | 87 | 1071 |
| Ysbyty Cwm Cynon | 1 | 0 | 0 | 35 | 1 | 37 |
| Ysbyty Ystrad Fawr | 251 | 51 | 46 | 100 | 0 | 448 |
| **All Wales** | **10109** | **595** | **2477** | **3878** | **234** | **17293** |
| **%** | **58.5** | **3.4** | **14.3** | **22.4** | **1.4** | **100.0** |

There were a total 17,293 attended visits during 2017/18 with a range in the practice of “select and treat” (0.0% to 30.8%). 5.7% of visits were for cytology or swab only (compared with 7.9% in 2016/17). These are included in the follow up figures in table 6d.

Table 6e shows procedures undertaken for new referrals. 40.7% did not require any biopsy or treatment. 51.3% received a diagnostic biopsy only and 7.5% had a treatment procedure performed. Diagnostic biopsies show variations between clinics ranging from 26.4% to 77.4%.

Table 6e: New patients seen by most significant procedure at first visit and type of referral Figure 29

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Referral Type | Ablation no biopsy | Ablation & biopsy | Excision | Diagnostic biopsy | Other | No treatment | Total |
| CSW Direct Referral | 2 | 3 | 500 | 3275 | 7 | 1484 | 5271 |
| Other Referral | 35 | 19 | 48 | 938 | 45 | 1855 | 2940 |
| **All Wales** | **37** | **22** | **548** | **4213** | **52** | **3339** | **8211** |
| **%** | **0.5** | **0.3** | **6.7** | **51.3** | **0.6** | **40.7** | **100.0** |

Table 6f: New patients seen by most significant procedure at first visit and colposcopy clinic Figure 30

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Colposcopy Clinic | Ablation no biopsy | Ablation & biopsy | Excision | Diagnostic biopsy | Other | No treatment | Total |
| Brecon | 0 | 1 | 8 | 23 | 1 | 24 | 57 |
| Bro Morgannwg | 1 | 0 | 26 | 269 | 2 | 332 | 630 |
| Bronglais | 2 | 4 | 4 | 45 | 0 | 113 | 168 |
| Cardiff and Vale | 1 | 1 | 164 | 806 | 3 | 611 | 1586 |
| Carmarthenshire | 4 | 0 | 11 | 276 | 0 | 134 | 425 |
| Glan Clwyd | 0 | 0 | 24 | 243 | 0 | 89 | 356 |
| Gwynedd | 0 | 0 | 20 | 328 | 1 | 75 | 424 |
| Llandrindod Wells | 0 | 0 | 11 | 42 | 0 | 13 | 66 |
| Montgomeryshire | 0 | 0 | 1 | 44 | 0 | 38 | 83 |
| Nevill Hall | 1 | 0 | 44 | 79 | 4 | 171 | 299 |
| Prince Charles | 14 | 0 | 17 | 308 | 2 | 270 | 611 |
| Royal Glamorgan | 6 | 5 | 4 | 303 | 0 | 408 | 726 |
| Royal Gwent | 3 | 2 | 118 | 418 | 9 | 354 | 904 |
| Singleton | 1 | 1 | 8 | 356 | 18 | 292 | 676 |
| Withybush | 0 | 6 | 12 | 168 | 9 | 154 | 349 |
| Wrexham | 3 | 1 | 29 | 364 | 2 | 200 | 599 |
| Ysbyty Cwm Cynon | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ysbyty Ystrad Fawr | 1 | 1 | 47 | 141 | 1 | 60 | 251 |
| **All Wales** | **37** | **22** | **548** | **4213** | **52** | **3339** | **8211** |
| **%** | **0.5** | **0.3** | **6.7** | **51.3** | **0.6** | **40.7** | **100.0** |

Table 6g: New patients seen by colposcopic opinion and worst outcome of histology Figure 31

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Colposcopic Opinion | Cancer | CGIN | High Grade CIN | CIN1 | No Abnormality Detected | Inadequate Biopsy | Unknown | No Biopsy Taken | TOTAL |
| ? Invasive | 31 | 3 | 22 | 1 | 4 | 1 | 1 | 2 | 65 |
| High grade | 22 | 24 | 990 | 150 | 163 | 7 | 8 | 25 | 1389 |
| Low grade | 9 | 10 | 579 | 731 | 913 | 58 | 12 | 267 | 2579 |
| Inflammatory | 1 | 1 | 102 | 175 | 527 | 40 | 9 | 533 | 1388 |
| Normal | 0 | 3 | 30 | 25 | 113 | 9 | 2 | 1236 | 1418 |
| Other | 3 | 5 | 6 | 9 | 39 | 1 | 7 | 39 | 109 |
| Not specified | 4 | 2 | 46 | 22 | 78 | 7 | 2 | 1046 | 1207 |
| No Assessment | 0 | 0 | 4 | 1 | 5 | 0 | 1 | 45 | 56 |
| **All Wales** | **70** | **48** | **1779** | **1114** | **1842** | **123** | **42** | **3193** | **8211** |
| **%** | **0.9** | **0.6** | **21.7** | **13.6** | **22.4** | **1.5** | **0.5** | **38.9** | **100.0** |

Correlation between colposcopic opinion and worst histology result recorded is shown in Table 6f. 57.6% of histology results reported as CIN2 or worse were similarly identified on assessment (sensitivity of colposcopic opinion). 75.6% of lesions thought by the colposcopist to be high grade or worse were reported CIN2 or worse on histology, for all known results (PPV of colposcopic opinion).

Table 6h: New patients seen by type of referral and worst outcome of histology Figure 32

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Referral Type | Cancer | CGIN | High Grade CIN | CIN1 | No Abnormality Detected | Inadequate Biopsy | Unknown | No Biopsy Taken | TOTAL |
| CSW Direct Referral | 49 | 44 | 1654 | 924 | 1176 | 84 | 19 | 1321 | 5271 |
| Other Referral | 21 | 4 | 125 | 190 | 666 | 39 | 23 | 1872 | 2940 |
| **All Wales** | **70** | **48** | **1779** | **1114** | **1842** | **123** | **42** | **3193** | **8211** |

Table 6i: New patients seen by colposcopy clinic and worst outcome of histology Figure 33

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Colposcopic Opinion | Cancer | CGIN | High Grade CIN | CIN1 | No Abnormality Detected | Inadequate Biopsy | Unknown | No Biopsy Taken | Total |
| Brecon | 0 | 0 | 11 | 11 | 14 | 0 | 0 | 21 | 57 |
| Bro Morgannwg | 11 | 4 | 135 | 53 | 81 | 14 | 2 | 330 | 630 |
| Bronglais | 3 | 0 | 18 | 5 | 23 | 5 | 0 | 114 | 168 |
| Cardiff and Vale | 13 | 8 | 354 | 151 | 479 | 4 | 7 | 570 | 1586 |
| Carmarthenshire | 1 | 2 | 103 | 71 | 114 | 6 | 0 | 128 | 425 |
| Glan Clwyd | 6 | 5 | 122 | 87 | 51 | 5 | 1 | 79 | 356 |
| Gwynedd | 5 | 5 | 139 | 123 | 83 | 4 | 1 | 64 | 424 |
| Llandrindod Wells | 0 | 2 | 32 | 16 | 6 | 0 | 0 | 10 | 66 |
| Montgomeryshire | 0 | 0 | 14 | 9 | 21 | 3 | 0 | 36 | 83 |
| Nevill Hall | 1 | 1 | 65 | 20 | 41 | 2 | 0 | 169 | 299 |
| Prince Charles | 4 | 1 | 77 | 122 | 126 | 7 | 2 | 272 | 611 |
| Royal Glamorgan | 5 | 2 | 97 | 98 | 128 | 7 | 11 | 378 | 726 |
| Royal Gwent | 8 | 7 | 217 | 94 | 216 | 25 | 7 | 330 | 904 |
| Singleton | 7 | 2 | 122 | 70 | 170 | 13 | 1 | 291 | 676 |
| Withybush | 1 | 4 | 68 | 42 | 68 | 12 | 0 | 154 | 349 |
| Wrexham | 2 | 3 | 139 | 118 | 134 | 6 | 10 | 187 | 599 |
| Ysbyty Cwm Cynon | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ysbyty Ystrad Fawr | 3 | 2 | 66 | 24 | 87 | 10 | 0 | 59 | 251 |
| **All Wales** | **70** | **48** | **1779** | **1114** | **1842** | **123** | **42** | **3193** | **8211** |
| **%** | **0.9** | **0.6** | **21.7** | **13.6** | **22.4** | **1.5** | **0.5** | **38.9** | **100.0** |

# Audit of Cervical Cancer in Wales 2016-17

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 women resident in Wales at the time of diagnosis are entered onto the CSWACC database.

The demographics for each woman are uploaded automatically. Each case is then reviewed by the Clinical Lead for CSW who ensures that the following data are complete:

* Histological cancer type
* Cancer staging
* Overall treatment
* Screen –detected status
  + If non-screening detected, then further categorization (e.g. never screened, lapsed screening)

The Clinical Lead ensures that reviews are requested and completed on eligible screening samples or prior colposcopy episodes. The review is primarily for education and improvement of the screening programme, but women are able to have a disclosure of their review results, on request.

As of August 2018, there were 171 cervical cancers on the CSWACC database for the period 1st April 2016 – 31st March 2017. The final number of cancers for this period may increase as cancer registry data can be delayed, and also as some resident women may be diagnosed ‘out of area’.

## Age at diagnosis

The age range was 22 years to 90 years. The median was in the 45-49 age group, with a peak in the 35-39 and 70+ age groups (Graph 7a).

**Graph 7a:** Number of Cervical Cancers by Age Groupe 34



## Cancer type

Of the 171 cancers diagnosed, 127 (74.3%) were squamous cell carcinomas, 33 (19.3%) were adenocarcinomas, 3 (1.7%) were adenosquamous carcinomas and 8 (4.7%) were ‘other’. The ‘other’ group included neuroendocrine, small cell and cases where no biopsy had been taken to confirm histological diagnosis.

Squamous cell carcinomas appeared to show the same age distribution pattern as ‘all’ cancers, with the peak in the 35-39 group.

**Graph 7b:** Number ofCervical Cancers by Type and Age at Diagnosis 35



## Cancer stage

Of the 171 cases, 37 (21.6%) were stage 1A, 59 (34.5%) were stage 1B, 37 (21.6%) were stage 2, 12 (7.0%) were stage 3 and 23 (13.5%) were stage 4. In three 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 2009-2017 are shown by age and stage (graph 7c). This shows the peak for stage 1A is in the 25-29 age group, for 1B in the 35-39 age group and for later stage cancers the peak occurs in the older age group.

**Graph 7c:** Number of CervicalCancers by Stage and Age at Diagnosis 36



## 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 women 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.

Of the 171 cancers, 71 (41.5%) were screen detected and 100 (58.5%) were not. It is clear that the majority of screen detected cancers were early stage (1A and 1B), whereas non-screen detected cancers where mainly later stage.

**Graph 7d:** Number of Cervical Cancers by Stage and Screen-detected Status 37



Across the age range, cancers in younger women were more likely to have been screen-detected, whereas those in older women were mainly non screen-detected. In women aged over 65 years, many had never been screened, or had not been screened for many years.

**Graph 7e:** Number of Cervical Cancers byAge and Screen-detected Status 38



Where a cancer is non screen-detected, the woman’s screening history is categorized as per the list below: -

|  |
| --- |
| 1 - No record of a cervical smear |
| 2 - Screened more than 5.5 years before diagnosis (this includes women over 65 who may have been fully screened up till that age) |
| 3 - Smear(s) reported only as negative within preceeding 6 months - 5.5 years (may include an occasional inadequate if quickly repeated as negative) |
| 4 - Non-negative smear(s), including inadequates, recommending repeat (within the preceding 6 months - 5.5 years) |
| 5 - Previous treatment for CIN (within preceding 6 months - 5.5 years) following abnormal smears recommending referral |
| 6 - Abnormal smears within the preceding 6 months - 5.5 years recommending referral to colposcopy with subsequent delay in diagnosis  **Graph 7f:** Non Screen-detected Cancers by Stage and Screening History 39    There is a pattern between the non-screening detected category for these cases and the cancer stage. The higher the stage, the more women who have either no record of a cervical smear, or it has been over 5.5 years since their last screen. |

# Definitions

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

**Eligible**

For uptake calculations, eligible women were those resident in Wales.

**Uptake**

Note that the uptake of invitations cannot be precisely measured as some tests undertaken in the screening year (1st April to 31st March) may result from ‘marginal’ invitations, either issued in the previous screening year, or taken up in the following year.

**Coverage**

Coverage figures in particular are not directly comparable year on year.

* Prior to 1997/98, all women 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 women with “recall ceased for clinical reasons” (no cervix
* Since 2001/02, coverage figures include only those women who received an adequate test in the last 3.5 or 5 years in the numerator.

**Age Appropriate Coverage**

Age appropriate coverage figures include women aged 25-49 years who received an adequate test in the last 3.5 years and women 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.

**Invited**

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

**Tested**

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

**Positive Predictive Value**

The positive predictive value (PPV) is the proportion of those thought to have a high grade abnormality on screening, 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 women referred to colposcopy following a test result of ?glandular neoplasia (non-cervical).

From 2007/08 onwards KC61 part C data shows outcomes for cervical and non‑cervical cancers separately. Non‑cervical cancers are excluded from PPV calculations. From 2012/13 the definition for calculating PPV has changed, the denominator now includes – colposcopy 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.

**Referral Value**

The referral value (RV), is defined as the number of women referred to colposcopy per detection of one CIN2 or worse histology result. This excludes women referred to colposcopy following a test result of inadequate or ?glandular neoplasia (non-cervical).

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