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Diabetic Eye Screening Wales Annual Statistical Report 2023-24

Version 1

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Publication details

This report is a detailed summary of information on the work undertaken by the Diabetic Eye Screening Wales Programme for the year April 2023 to the end of March 2024.

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Rydym yn croesawu gohebiaeth a galwadau ffôn yn Gymraeg. Byddwn yn ateb gohebiaeth yn Gymraeg heb oedi / We welcome correspondence and phone calls in Welsh. We will respond to correspondence in Welsh without delay.

QA statement

Screening data records are constantly updated. The databases used by Public Health Wales Screening Division are updated daily 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 many 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 if they move address. 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. We occasionally suppress numbers lower than five when the data is potentially sensitive.

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This document is also available in Welsh.



Contents

Contents.....	4
Tables.....	5
Figures	5
Key messages	6
Introduction.....	7
Background.....	7
Programme delivery.....	10
Screening pathway	10
Headline statistics	12
Data.....	13
Coverage	13
Uptake	21
Timely offer of screening	23
Report of screening result	26
Retinopathy Identified.....	29
Definitions.....	35
Production team	38
Programme contact details	39

Tables

Table 1: Coverage 2023-24	15
Table 2: Coverage three-year trend	15
Table 3: Diabetic eye screening coverage by health board 2023-24.....	15
Table 4: Coverage by deprivation quintile 2023-24.....	16
Table 5: Diabetic eye screening annual coverage by health board 2023-24.....	17
Table 6: Annual Coverage by deprivation quintile 2023-24	18
Table 7: Diabetic eye screening Low Risk Recall Pathway coverage by health board 2023-24.....	19
Table 8: LRRP Coverage by deprivation quintile 2023-24	20
Table 9: Uptake 2023-24.....	22
Table 10: Uptake three-year trend	22
Table 11: Diabetic eye screening uptake by health board 2023-24.....	22
Table 12: Participants recalled within 12 months 2023-24.....	24
Table 13: Participants recalled within 12 months three-year trend.....	24
Table 14: Participants recalled within 12 months by health board 2023-24.....	24
Table 15: Results printed within 21 days 2023-24	26
Table 16: Results printed within 21 days three-year trend.....	27
Table 17: Results letters printed by health board 2023-24	27
Table 18: Presence of retinopathy breakdown by health board 2023-24	31
Table 19: Retinopathy outcomes by health board 2023-24.....	32
Table 20: Urgent referrals for active proliferative retinopathy (R3A) to Ophthalmology within 14 days by health board 2023-24	33
Table 21: All urgent referrals to Ophthalmology by health board 2023-24	34

Figures

Figure 1: Pathway for Diabetic Eye Screening Wales.....	11
Figure 2: Diabetic eye screening coverage by health board 2023-24	16
Figure 3: Coverage by deprivation quintile.....	17
Figure 4: Participants recalled within 12 months by health board 2023-24	25
Figure 5: Results letters printed by health board 2023-24	28



Key messages

- Regular eye screening reduces the risk of sight loss caused by diabetic retinopathy.
- Diabetic retinopathy is a common complication of diabetes that affects the 'seeing' part of the eye: the retina.
- Retinopathy is caused when small blood vessels in the retina grow or leak. Over time, this can affect vision temporarily or permanently.
- Until it gets to a late stage, most people with retinopathy do not experience any symptoms or loss of vision; they do not know they are affected.
- Regular eye screening is the best way to identify if any retinopathy is present.
- Early-stage retinopathy can be reversed through keeping blood sugar levels within the target range; more advanced retinopathy can be treated by eye injections or by laser.
- Diabetic Eye Screening Wales offers a free NHS screening test carried out in community venues across Wales.
- The screening test is not 100% accurate and treatment for diabetic retinopathy carries risks.
- Taking part in diabetic eye screening is the participant's choice.
- Eye screening is different to an eye examination carried out by your optician or optometrist. We recommend you attend both.



Introduction

Background

Welcome to the sixth annual statistical report published by Diabetic Eye Screening Wales (DESW), Public Health Wales. The service aims to detect diabetic retinopathy before sight loss occurs. Research evidence shows that with early identification and treatment, loss of vision can be prevented in 70 – 90% of people with sight threatening diabetic retinopathy^{1 2}.

DESW (previously Diabetic Retinopathy Screening Service for Wales) was initially commissioned as a national service by Welsh Government in July 2002. DESW became operational in June 2003 and by 2004 was delivering a service to participants in all Health Board areas. The service was hosted by Cardiff and Vale University Health Board until April 2016 when it transferred to join the other population-based Screening Programmes delivered by Screening Division, Public Health Wales.

Eligibility

People aged 12 and over with a diagnosis of diabetes, who are registered with a GP in Wales, are eligible and are invited for retinal screening with DESW.

Sources of additional information

¹ Diabetic Retinopathy Study Research Group (1981) Photocoagulation treatment of proliferative diabetic retinopathy. Clinical application of Diabetic Retinopathy Study (DRS) findings, DRS Report Number 8. *Ophthalmology* 88: 583–600.

² Early Treatment Diabetic Retinopathy Study (ETDRS) Research Group (1985) Photocoagulation for diabetic macular oedema. Early Treatment Diabetic Retinopathy Study report number 1. *Archive Ophthalmology* 103: 1796–806.

Diabetic Eye Screening Wales website: <https://phw.nhs.wales/services-and-teams/screening/diabetic-eye-screening-wales/>

Screening locations

DESW clinics are delivered from a mix of fixed and non-fixed sites, across health, social care, and community venues. Fixed sites include our staff bases located in St David's Parc in Carmarthen, Llys Britannia in Bangor, and Wrexham Maelor Hospital. Additionally, we also have fixed clinic access in our first Public Health Wales Screening Centre (Rhos House in Mountain Ash), as well as in Clytha Clinic in Newport, Barry Hospital, and Mountain View Health Centre in Swansea. DESW also operate out of approximately 75 non-fixed venues, in a variety of health, social care, and community venues. These are located across all Local Authority Areas in Wales, with the aim of offering clinic appointments to all postcodes within a 45-minute drive time.

Summary of activity in reported year

Throughout 2023-24 DESW continued to focus its attention on reducing the backlog experienced by participants delayed in receiving their appointments. This progressed well with the delayed time reduced by 15 months in all areas across Wales. The number of new referrals increased throughout the year in comparison to 2022/23, although there was a slight reduction towards the end of 2023/24; the monthly average for the year was 1,386.

DESW began running daily clinics out of our 2nd Public Health Wales Screening Centre located in Cardiff (Kimberley House) at the beginning of June 2023. To date, we have had very positive feedback from the participants and staff regarding the new screening space. The venue comprises of seven clinic rooms, which are regularly utilised by DESW, Newborn Hearing, and Abdominal Aortic Aneurysm Screening Programmes. The location is ideally placed in a busy retail area in Cardiff, which brings with it the benefit of enhanced accessibility with public transport stops (bus and train) in very close proximity.

Following a policy change directed by Welsh Government, DESW introduced the Low-Risk Recall Pathway in June 2023. This change in policy was brought about in accordance with an evidence-based decision from the UK National Screening Committee (UKNSC) that people with diabetes identified as being at low risk from diabetic retinopathy can be safely screened every two years. The definition of low risk was taken from the UKNSC evidence-base and stipulates that those participants who have received two consecutive 'no retinopathy' results from appointments attending with the Programme since 1st April 2019 are safe to be screened every two years. This was a change from the previous arrangements under which everyone with type 1 or type 2 diabetes aged 12 years or older was invited for screening annually. All UK countries' screening programmes had completed the implementation of this same change by the end of 2023.

The DESW implementation project team oversaw the work required to make this change, engaging with several external stakeholders, including Llais, Diabetes UK, Royal National Institute of Blind People (RNIB) and Optometry Wales in the process. Participants and healthcare professionals were also surveyed in relation to these changes and were instrumental in supporting the way in which this change was communicated to the wider participant group, both those directly and indirectly impacted. Rigorous testing of the IT system was completed, and on the 23 June 2023, 36,850 participants who met the low-risk criteria were successfully moved onto the new two-year pathway.

In September 2023, DESW began a partnership with Tenovus Cancer Care, a leading cancer charity based in Wales. This partnership has enabled DESW to utilise the Tenovus mobile clinic units across all geographical regions, to provide greater community access for our participants to attend eye screening appointments. The flexibility in using this type of clinic delivery has meant that clinics can be delivered in the locations where there is the greatest need.

In addition to the optimisation work being completed this year, DESW continued to undertake work in relation to its Transformation Programme, with a final options appraisal being submitted and approved by Public Health Wales' Business Executive Team in September 2023. With confirmation of additional recurrent revenue funding being given to the Programme from April 2024 work began on recruiting to the roles required to enhance the quality and safety of the screening service provided by DESW. Key recruitment in 23/24 included a Programme Stakeholder Lead, a role dedicated to supporting engagement with both participants, their families, and staff groups. We also created a second Screening Pathway Co-ordinator post, as an additional resource to manage and coordinate the Screening Pathway Administration Team, and a dedicated Project Manager for the ongoing Transformation Programme itself. All three positions were successfully appointed to, with staff in post by the end of March 2024.

Looking forward to the next screening year

Following the approval of the Transformation Programme within Public Health Wales, work will begin recruiting to the additional roles identified within the plan. This includes increased clinical and operational support, screening staff to be based in the mid Wales area, increased number of administrators, and the establishment of a workforce learning and development team. In addition to this, in Programme skill mix review has been able to identify funding to support the first Specialist Optometrist to join the Grading Department starting in the new financial year in April 2024.

Work will also continue to look at how the Programme can be more accessible to our participants, with potentially rescheduling of clinics to provide eye screening appointments both on Saturdays and in the evenings. Finally, the procurement of new fundus cameras will progress following the approval of a business case by Welsh Government in late 2023/24. A project team is set up to evaluate appropriate

equipment with a view to replacing all fundus cameras in the Programme by end of quarter one 2024/25.

Programme delivery

The Screening Division of Public Health Wales is responsible for managing, delivering and quality assuring the DESW Programme. The Programme employs a full-time Head of Programme, sessional Clinical Director, and Associate Specialist. Since 2020, clinical and professional oversight of screening has been undertaken by four full-time nurses. By the start of April 2023, a new substantive Head of Programme had been recruited following the temporary management structure which was in place for 2022/23. The Transformation Manager post was also amended to become a permanent Transformation and Change Lead role within the Programme.

The screening team, who deliver the screening clinics, are staffed by 57 Healthcare Support Workers (screeners), 40 of whom are trained to capture retinal images in addition to completing the visual acuity assessment and administering eye drops in our clinic settings. These staff operate from four bases across Wales and are supported by local managers who combine management and clinic delivery responsibilities. All retinal images taken across Wales are reviewed and graded by our grading team of 12 who are based in Treforest, South Wales. The graders are managed by staff who perform both grading and management duties.

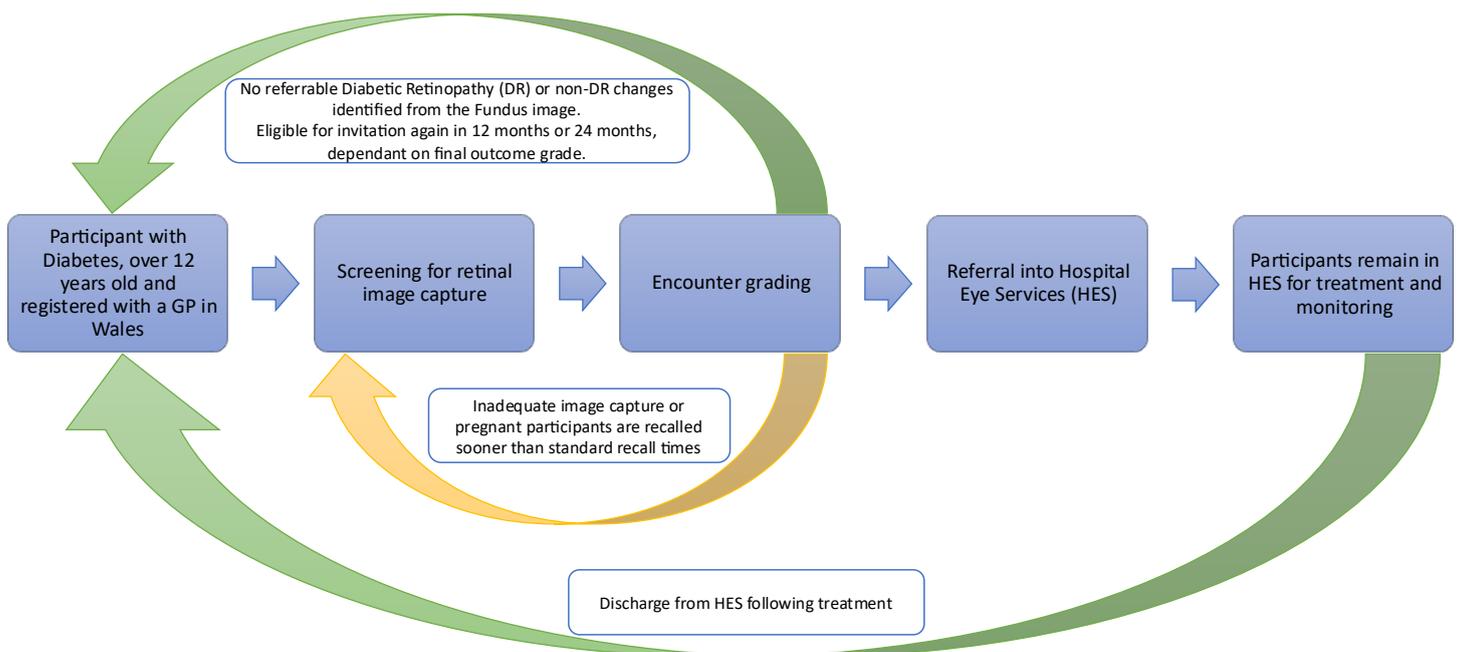
All administrative duties for the Programme are carried out by a dedicated team also based in Treforest, South Wales. This team comprises of 12 staff who are managed by two Screening Pathway Co-Ordinators and a Screening Pathway Manager.

Screening pathway

- People aged 12 years and older with a diagnosis of diabetes, who are registered with a GP in Wales, are referred to DESW for regular eye screening.
- Eligible people are invited to attend for eye screening in more than 75 community venues across Wales, such as hospitals, health centres and GP practices.
- Participants have a short consultation with a DESW Health Care Assistant. After a check of visual acuity (eye chart), eye drops are administered to improve image quality.
- After around a 20-minute wait for the eye drops to work, the photographer will take photographs of the back of the eyes using a special camera.

- The images will be graded to identify whether there is any diabetic retinopathy present, and, if present, the severity of the retinopathy.
- Letters containing the screening results and explaining the next steps are sent to all participants:
 - Where there is no retinopathy, or only a limited amount of background retinopathy present, the participant will be re-invited for screening by DESW in around 12 months.
 - If participants have had two screening appointments with no retinopathy identified they will be re-invited for screening by DESW in around 24 months.
 - For all participants identified as having any other level of retinopathy, a referral is made to their local hospital Ophthalmology Department for specialist assessment and possible treatment.
 - Any participant who is pregnant is seen a minimum of twice during their pregnancy. These appointments take place at 12 weeks and 28 weeks gestation. If a third appointment is needed, this will be between 16- and 20-weeks' gestation.
 - Sometimes, the images taken are not clear enough to make a full assessment ('inadequate' images). These participants are re-invited for more images to be taken at a second appointment. If the images are classified as 'inadequate' at this second appointment, then a referral to Ophthalmology for an assessment with different equipment is required.

Figure 1: Pathway for Diabetic Eye Screening Wales



Headline statistics

This report covers activity from April 2023 to March 2024 inclusive.

- There were 194,214 eligible active participants with 139,728 on the annual recall pathway and 54,486 on the low risk recall pathway
- Overall coverage of the programme was 52.3% across both the 12 months and 24 months pathways (on 31 March 2024)
- Coverage for the annual recall pathway was 35.4% within 12 months (on 31 March 2024)
- Coverage for the low risk recall pathway was 95.7% within 24 months (on 31 March 2024)
- The uptake rate of offered screening appointments was 78.2% (on 31 March 2024).
- 16,633 additional referrals were received for people who were newly diagnosed with diabetes or newly registered with a GP in Wales.
- 102,271 individuals were invited to attend eye screening.
- 79,935 individuals attended eye screening clinics (including people who attended on more than one occasion).
- 22% of those invited did not attend a DESW eye screening appointment.
- DESW reported 85,428 screening results, including 6,881 (8.1%) reported as 'inadequate'.
- DESW identified the presence of some diabetic retinopathy in 24,477 individuals (28.7% of those screened).
- 5,356 people (6.3% of those who received a screening result) were identified with potential sight threatening diabetic retinopathy and referred by DESW to Ophthalmology for specialist assessment.
- Throughout 2023-24, screening coverage and recall waiting times were below standard, with variation in waiting times seen in different geographical areas.

Data

In 2023/24, there were 194,214 eligible active participants within diabetic eye screening in Wales. Following the implementation of the low risk recall pathway, 54,486 participants were on the low-risk recall pathway and invited for screening every two years with the remaining 139,728 participants invited every year on the annual recall pathway.

In 2023/24 a further 16,663 referrals were received by the Programme for people receiving a diabetes diagnosis or registering with a GP in Wales. The total eligible population has increased from 191,495 in 2022-23 to 194,214 in 2023-24.

Coverage

Definition and standard

The percentage of a defined cohort of eligible active participants who have a reported result in the relevant time period.

Standard: A minimum of 80% of eligible active participants should have a reported result in the last relevant time period.

Denominator = Eligible active participants as recorded at month end.

Numerator = Eligible active participants at month end, for whom a result letter was printed within the previous 12 months.

In the previous report period, a cohort of the eligible population was moved to a low-risk recall pathway. Individuals with two recent consecutive no retinopathy, no maculopathy (R0M0) screening outcomes were moved to a pathway, where they were recalled for screening every two years, rather than one year. The following data has been presented as the summed coverage for the entire population coverage for those participants on the annual recall, and those that have been moved to the two year low-risk pathway

Result for 2023-24

In 2023-24, total coverage of diabetic eye screening was 52.3% across Wales.

There were 101,617 results reported, over the relevant time period, for 194,214 eligible participants.

Three-year trend

The three-year trend demonstrates an increase in coverage from 23.5% in 2021-22 to 31.5% in 2022-23 to 52.3% in 2023-24. It should be noted that the calculation for the 2023/24 coverage adopts a new

method to account for the low-risk recall pathway. The following data has been broken down into the summed coverage of annual coverage and low risk recall coverage; and separate tables for annual coverage, and low risk recall coverage, to reflect this new method.

Geographic overview

Coverage of diabetic eye screening varies across health board areas in Wales with highest coverage at 60.6% in Powys Teaching LHB area and lowest in the Aneurin Bevan UHB area at 46.1%.

Comment

Coverage is defined as the percentage of eligible active participants, at a particular point in time, who have a reported result within the relevant time period. Ineligible participants include those who have no perception of light in both eyes (are completely blind); inactive participants include those who are under hospital eye service care, or who have chosen to 'opt-out' of eye screening during the period.

Coverage does not meet the 80% standard across Wales or for any individual health board. This is due to screening clinic capacity and the increasing number of people within our eligible active population across Wales, as well as a continued approach to recovery and the backlog due to the Covid-19 pandemic.

At an All-Wales level coverage is lowest in the most deprived quintile (quintile 1) at 45.6% followed by the second most deprived quintile (quintile 2) at 51.2%. However, coverage across quintiles 3 to 5 is broadly similar without a linear trend. At a Health Board level there is variation in coverage by deprivation quintile. In Aneurin Bevan UHB, Betsi Cadwaladr UHB, Cardiff and Vale UHB there is a linear trend with coverage increasing with decreasing area deprivation. However, in Hywel Dda UHB, Powys Teaching LHB and Swansea Bay UHB coverage is lowest in the most deprived communities, but a linear gradient is not evident across quintiles 2 to 5. Within Cwm Taf Morgannwg UHB the inequality gap in coverage between the most and least deprived areas is only 0.7%. This compares to an All-Wales inequality gap of 8.9%. In 2022, the Screening Division established its first screening hub on the High Street in Mountain Ash in Rhondda Cynon Taf. The aim of this centre was to increase accessibility and access for participants in the CTM area, particularly participants from the most deprived communities.



Figures and tables

Table 1: Coverage 2023-24

Year	Eligible active participants	Reported results	Coverage (%)
2023-24	194,214	101,617	52.3

Table 2: Coverage three-year trend

Year	Eligible active participants	Reported results	Coverage (%)
2023-24	194,214	101,617	52.3%
2022-23	191,495	60,286	31.5%
2021-22	179,804	42,248	23.5%

Table 3: Diabetic eye screening coverage by health board 2023-24

LHB	Eligible active participants	Reported results	Coverage (%)
Aneurin Bevan UHB	39,968	18,408	46.1
Betsi Cadwaladr UHB	40,647	23,680	58.3
Cardiff and Vale UHB	25,996	12,474	48.0
Cwm Taf Morgannwg UHB	29,597	14,912	50.4
Hywel Dda UHB	25,286	14,958	59.2
Powys Teaching LHB	7,834	4,745	60.6
Swansea Bay UHB	23,516	11,769	50.0
All Wales	194,214	101,617	52.3



Table 4: Coverage by deprivation quintile 2023-24

LHB	Most deprived 1	2	3	4	Least deprived 5	Total
Aneurin Bevan UHB	42.4	45.1	48.6	48.5	49.4	46.1%
Betsi Cadwaladr UHB	50.6	54.0	59.3	60.4	63.2	58.3%
Cardiff and Vale UHB	42.1	46.6	49.6	50.0	52.7	48.0%
Cwm Taf Morgannwg UHB	48.8	51.8	50.0	51.3	49.5	50.4%
Hywel Dda UHB	47.1	57.7	59.4	64.3	59.1	59.2%
Powys Teaching LHB	54.0	59.8	63.6	60.3	57.9	60.6%
Swansea Bay UHB	46.2	51.4	53.4	50.8	51.3	50.0%
All Wales	45.6	51.2	55.2	56.5	54.5	52.3%

Figure 2: Diabetic eye screening coverage by health board 2023-24

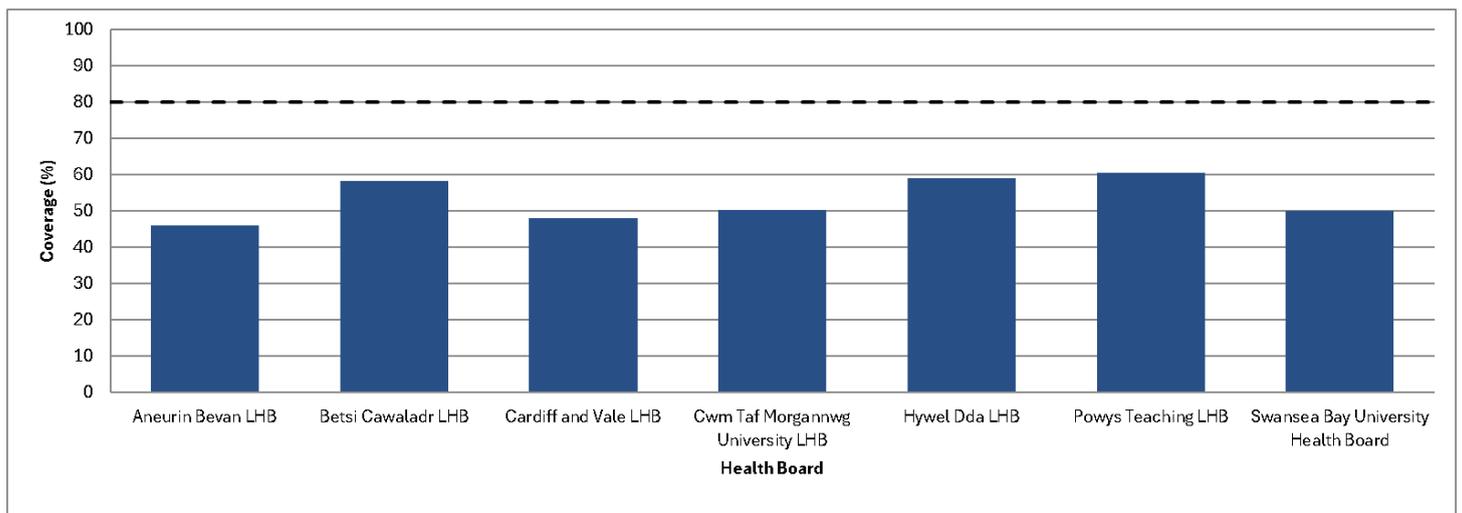
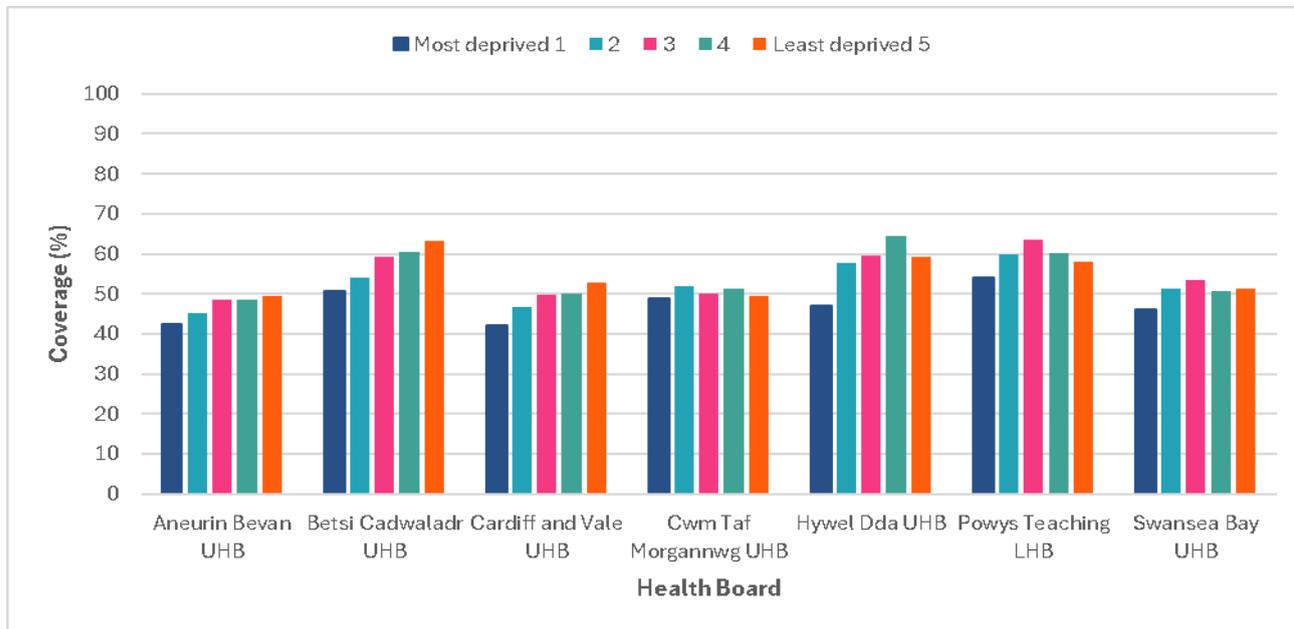


Figure 3: Coverage by deprivation quintile



Coverage Annual Recall

There were 49,469 reported results for the 139,728 eligible participants on annual recall with coverage below standard at 35.4%. There is a geographical variation in coverage across Health Board areas ranging from the lowest of 29.4% in Aneurin Bevan UHB to the highest of 44.2% in Powys Teaching HB.

Table 5: Diabetic eye screening annual coverage by health board 2023-24

LHB	Eligible active participants	Reported results	Coverage (%)
Aneurin Bevan UHB	29,938	8,801	29.4
Betsi Cadwaladr UHB	28,352	11,971	42.2
Cardiff and Vale UHB	19,072	6,193	32.5
Cwm Taf Morgannwg UHB	21,359	6,894	32.3
Hywel Dda UHB	17,523	7,416	42.3
Powys Teaching LHB	5,470	2,420	44.2
Swansea Bay UHB	16,962	5,408	31.9
All Wales	139,728	49,469	35.4

At an All-Wales level there is a social gradient in coverage of eye screening with coverage lowest in the most deprived communities at 29.5% compared to 37.1% in the least deprived communities. The inequality gap is 7.6%. In all Health Board areas coverage is lowest in people who live in the most deprived communities. However, there is variation in coverage by deprivation quintile across Health Boards. There is a linear social gradient in both Betsi Cadwaladr UHB and Cardiff and Vale UHB. However, in CTMUHB and Swansea Bay UHB the social gradient is reduced with an inequality gap of 1.7% and 2.4% respectively. In these Health Board areas the fixed site locations for clinics are sited within areas of higher deprivation.

Table 6: Annual Coverage by deprivation quintile 2023-24

LHB	Most deprived 1	2	3	4	Least deprived 5	Total
Aneurin Bevan UHB	26.7%	28.5%	32.0%	31.8%	30.8%	29.4%
Betsi Cadwaladr UHB	35.5%	39.3%	43.8%	43.5%	46.4%	42.2%
Cardiff and Vale UHB	27.8%	31.0%	33.2%	34.3%	36.9%	32.5%
Cwm Taf Morgannwg UHB	30.5%	33.4%	31.9%	33.7%	32.2%	32.3%
Hywel Dda UHB	31.7%	41.7%	43.1%	46.3%	41.2%	42.3%
Powys Teaching LHB	38.4%	43.7%	46.8%	43.6%	43.7%	44.2%
Swansea Bay UHB	29.6%	32.2%	35.4%	32.8%	32.0%	31.9%
All Wales	29.5%	34.3%	38.6%	39.2%	37.1%	35.4%

Coverage Low Risk Recall

There were 52,148 reported results for the 54,486 eligible participants on low-risk recall (two year) with coverage above standard at 95.7%. There is a geographical variation in coverage across Health Board areas ranging from the lowest of 90.7% in Cardiff and Vale UHB to the highest of 98.4% in Powys Teaching HB. It would be expected that coverage will be above standard as to be eligible for the low-risk recall pathway participants had to have a recent ROMO screening result reported.



Table 7: Diabetic eye screening Low Risk Recall Pathway coverage by health board 2023-24

LHB	Eligible active participants	Reported results	Coverage (%)
Aneurin Bevan UHB	10,030	9,607	95.8
Betsi Cadwaladr UHB	12,295	11,709	95.2
Cardiff and Vale UHB	6,924	6,281	90.7
Cwm Taf Morgannwg UHB	8,238	8,018	97.3
Hywel Dda UHB	7,763	7,542	97.2
Powys Teaching LHB	2,364	2,325	98.4
Swansea Bay UHB	6,554	6,361	97.1
All Wales	54,486	52,148	95.7

At an All-Wales level for the low risk recall pathway there is no social gradient in coverage by deprivation quintile with coverage of 95.6% in the most deprived communities and 94.4% in the least deprived communities. There is no evidence in social gradient in coverage in any Health Board area. Deprivation quintiles that are comprised using the Welsh index of Multiple Deprivation are an area-based measure of deprivation and do not represent characteristics of the individuals living in the communities. Further understanding of the individual behaviours and characteristics of people living in the most deprived communities who are on the low risk recall pathway will help in understanding these findings.



Table 8: LRRP Coverage by deprivation quintile 2023-24

LHB	Most deprived 1	2	3	4	Least deprived 5	Total
Aneurin Bevan UHB	95.1	96.2	96.2	96.6	95	95.8
Betsi Cadwaladr UHB	96	95.2	92.8	95.9	96.8	95.2
Cardiff and Vale UHB	91.6	92.7	91.4	90.8	89.1	90.7
Cwm Taf Morgannwg UHB	97.8	97.8	97.3	96.6	95.6	97.3
Hywel Dda UHB	94.7	97.5	96.2	98.5	98.1	97.1
Powys Teaching LHB	99.3	99.1	99.3	97.4	97.9	98.4
Swansea Bay UHB	97.3	97.5	97.6	97.1	96	97.1
All Wales	95.60%	96.60%	95.30%	96.50%	94.40%	95.7%

Uptake

Definition and standard

Uptake is defined as the percentage of eligible participants who have attended a screening invitation.

The uptake of diabetic eye screening is set within the principles of informed choice and a standard of 80% of participants attending a digital screening event where images are captured.

Denominator = Eligible active participants who have been offered a screening appointment between month start and month end.

Numerator = Eligible active participants who have attended a screening appointment between month start and month end. This includes participants who attended but couldn't be photographed for technical reasons and participants who were unable to comply with the screening procedure.

Result for 2023-24

In 2023-24, uptake was 78.2% just below the standard of 80%.

Three-year trend

The three-year trend demonstrates an increased uptake from 57.9% in 2021-22 to 81.9% in 2022-23 however there has been a small decline to below standard of 78.2% in 2023-24.

Geographic overview

In 2023-24 the standard for 80% uptake has not been reached at an All-Wales level, however, there is some geographical variation with uptake ranging from 76% in Swansea Bay UHB to 81.7% in Powys Teaching LHB. Powys Teaching LHB is the only area in Wales where the 80% standard has been obtained.

Comment

DESW invited 102,271 participants for eye screening, with 79,935 individuals attending clinics (including people who attended on more than one occasion) demonstrating an uptake of 78.2% below the standard for uptake of 80%. Uptake has increased from 57.9% in 2021-22 to 78.2% in 2023-24.



The service non-attendance rate, for those people who did not take up their screening invite, was 21.8%, which is consistent with previous non-pandemic years.

Figures and tables

Table 9: Uptake 2023-24

Year	Attended	Invited	Uptake (%)
2023-24	79,935	102,271	78.2

Table 10: Uptake three-year trend

Year	Attended	Invited	Uptake (%)
2023-24	79,935	102,271	78.2
2022-23	68,970	84,156	81.9
2021-22	48,637	84,076	57.9

Table 11: Diabetic eye screening uptake by health board 2023-24

LHB	Attended	Invited	Uptake (%)
Aneurin Bevan UHB	14,955	19,254	77.7
Betsi Cadwaladr UHB	18,830	23,853	78.9
Cardiff and Vale UHB	9,329	12,013	77.7
Cwm Taf Morgannwg UHB	11,402	14,858	76.7
Hywel Dda UHB	12,046	15,104	79.8
Powys Teaching LHB	3,824	4,678	81.7
Swansea Bay UHB	9,000	11,837	76
All Wales	79,935	102,271	78.2



Timely offer of screening

Definition and standard

A minimum of 95% of eligible active participants should be offered a recall appointment within 12 months of their last screening outcome for participants on the annual recall pathway.

Result for 2023-24

In 2023-24, 7.7% of eligible active participants on the annual recall pathway were offered a recall appointment within 12 months of their last screening outcome.

Three-year trend

The three-year trend has increased from 6.6% in 2021-22 to 7.7% in 2023-24.

Geographic overview

There is variation in recall across Wales from 3.2% in Aneurin Bevan UHB to 18.77% in Cwm Taf Morgannwg UHB.

Comment

This standard is not reached either across Wales or for any individual health board. This is due to clinic capacity across Wales and a prolonged backlog due to the Covid-19 pandemic. Waiting times for screening appointments can vary between health board areas and relates to the availability of community venues provided by the health board. Currently, eye screening appointments remain delayed with offers typically between 18 and 24 months from the last screening result.



Figures and tables

Table 12: Participants recalled within 12 months 2023-24

Year	Recall offered within 12 months	Recall offered	Recall offered within 12 months %
2023-24	3,353	43,471	7.7%

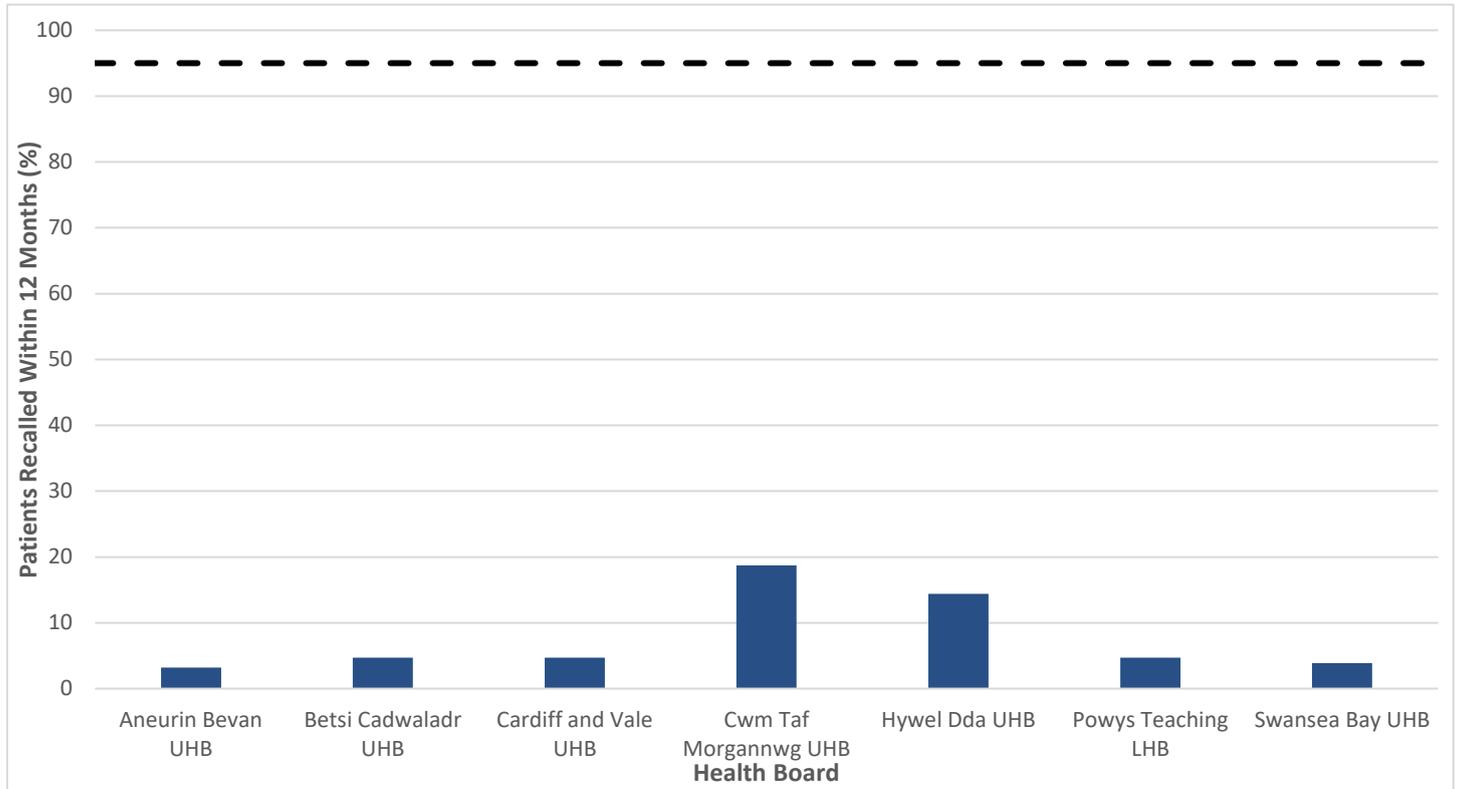
Table 13: Participants recalled within 12 months three-year trend

Year	Recall offered within 12 months	Recall offered	Recall offered within 12 months %
2023-24	3,353	43,471	7.7%
2022-23	2,824	59,281	4.7%
2021-22	4,223	64,391	6.6%

Table 14: Participants recalled within 12 months by health board 2023-24

LHB	Recall offered within 12 months	Recall offered	Recall offered within 12 months %
Aneurin Bevan UHB	298	9,451	3.2
Betsi Cadwaladr UHB	445	9,551	4.7
Cardiff and Vale UHB	164	3,482	4.7
Cwm Taf Morgannwg UHB	1,213	6,498	18.7
Hywel Dda UHB	897	6,243	14.4
Powys Teaching LHB	102	2,162	4.7
Swansea Bay UHB	224	5,796	3.9
All Wales	3,353	43,471	7.7

Figure 4: Participants recalled within 12 months by health board 2023-24



Report of screening result

Definition and standard

A minimum of 85% of participant result letters should be printed within 21 calendar days of the screening appointment.

Result for 2023-24

In 2023-24, 83.6% of participant result letters were printed within 21 calendar days of their screening appointment.

Three-year trend

In 2021-22, 99.9% of results were printed within 21 days. This increased in 2022-23 to 90.3% of results printed within 21 days however this has declined to 83.6% in 2023-24.

Comment

In 2023-24 nearly 84% of participant result letters were printed within 21 calendar days of their screening appointment which is just below the standard of 85%. There has been a reduction from 90.3% in 2022-23 which reflects the increased number of participants seen within the screening programme in 2023-24.

The percentage of participant result letters printed within 21 calendar days is below the standard of 85% at an All-Wales level however, the standard is achieved in Aneurin Bevan UHB, Betsi Cadwaladr UHB and Cardiff and Vale UHB.

Additional staff capacity and efficiency improvements delivered through the transformation programme for eye screening in Wales will increase timeliness in future years.

Figures and tables

Table 15: Results printed within 21 days 2023-24

Year	Results printed within 21 days	Results letters printed	Results printed within 21 days %
2023-24	71,444	85,428	83.6



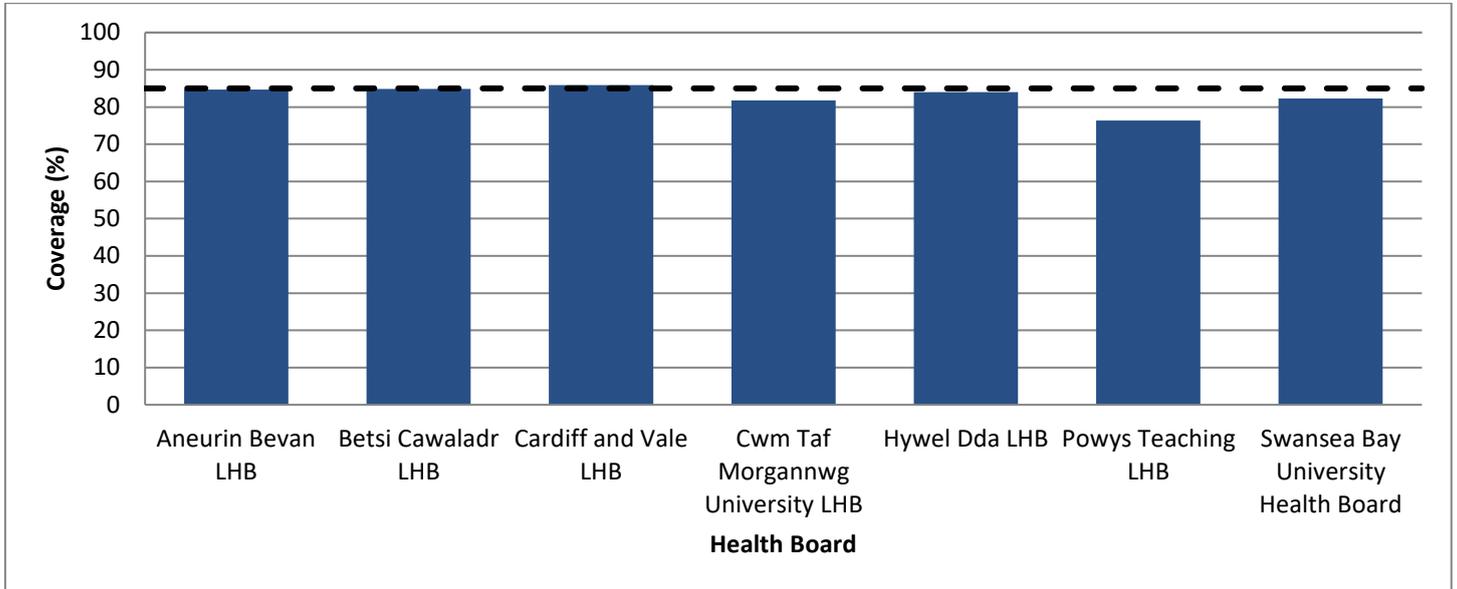
Table 16: Results printed within 21 days three-year trend

Year	Results printed within 21 days	Results letters printed	Results printed within 21 days %
2023-24	71,444	85,428	83.6
2022-23	57,441	63,611	90.3
2021-22	47,365	47,410	99.9

Table 17: Results letters printed by health board 2023-24

LHB	Results printed within 21 days	Results letters printed	Results printed within 21 days %
Aneurin Bevan UHB	13,506	15,942	84.7
Betsi Cadwaladr UHB	16,861	19,870	84.9
Cardiff and Vale UHB	8,443	9,827	85.9
Cwm Taf Morgannwg UHB	10,069	12,311	81.8
Hywel Dda UHB	10,775	12,832	84.0
Powys Teaching LHB	3,353	4,390	76.4
Swansea Bay UHB	7,882	9,576	82.3
All Wales	71,444	85,428	83.6

Figure 5: Results letters printed by health board 2023-24





Retinopathy Identified

Definition and standard

Any retinopathy includes the presence of all retinopathy grades: from mild, background retinopathy to proliferative retinopathy that requires urgent hospital referral. The presence and severity of retinopathy can fluctuate dependent on the person's blood glucose level over time. An individual who is in the 'any retinopathy' category one year can move to 'no retinopathy' at their next screening event.

The 'inadequate' category relates to those participants who have attended for their eye screening assessment, but it has not been possible to capture a clear photograph of their retina to enable grading to take place. An example of this would be that the participant has a cataract which obscures the retina from view, or there have been technical issues with the camera. Participants with inadequate images may be either referred to the Hospital Eye Service or recalled for screening, dependent upon individual circumstances.

Standard: N/A

For participants who have severe retinopathy identified on their screening (an R3A outcome) an urgent referral to the Hospital Eye Service from DESW is required. The standard is for 95% of urgent referrals to the Hospital Eye Service due to an R3A outcome to be made within two weeks of the screen date.

Result for 2023-24

In 2023-24, 63.3% of participants had no retinopathy identified, 28.7% had 'any retinopathy' identified with a further 8.1% having inadequate images.

Three-year trend

The three-year trend for participants with no retinopathy increased from 52.5% in 2021-22, to 71% in 2022-23, then declined to 63.3% in 2023-24. The three-year trend for participants with any retinopathy has decreased from 38.5% in 2021-22, to 22.7% in 2022-23, then increased slightly to 28.7% in 2023-24. The three-year trend for participants with inadequate images has remained steady, albeit it being 9% in 2021-22, dropping to 6.4% in 2022-23, but increasing to 8.1% in 2023-24.

Geographic overview

There is limited geographical variation across Wales from no retinopathy identified. It ranges from 61.9% of people in Betsi Cadwaladr UHB with no retinopathy to 65.7% with no retinopathy in Powys Teaching LHB.



Comment

During 2023-24 across Wales 63.3% of participants had no retinopathy identified from their screening. There were 28.7% who had 'any retinopathy' identified with a further 8.1% having inadequate images.

The proportion of participants with no retinopathy has fluctuated but increased slightly from 2021/22 when it was 52.5%. This increased to 71% in 2022-23 but has declined to 63.3% in 2023-24. This is likely to reflect the change in frequency of screening for low risk participants with the introduction of the low risk recall pathway in June 2023. Low risk participants who would have 'no retinopathy' on two previous screening rounds are now only screened on a two yearly basis. In 2023/24, there will have been fewer participants with previous no retinopathy screening outcomes participating in the screening programme. As a result, it would be expected that the proportion of people who are screened have retinopathy identified. Across Wales, of the 28.7% of participants screened who have any retinopathy, a much smaller proportion have sight threatening retinopathy identified. Sight threatening retinopathy or maculopathy requires referral to hospital eye services for specialist assessment and treatment. Of all participants, 6.3% were reported as having sight threatening retinopathy. This ranges from 8.0% in Swansea Bay UHB to 5.4% in Aneurin Bevan UHB.

In 2023-24 there were 723 urgent referrals made for severe retinopathy (R3A) with 542 made within 14 days. This is 75% of urgent referrals made within 14 days which is below the standard of 95%. There is geographic variation across Wales with 80.8% of referrals in Aneurin Bevan UHB made within 14 days compared to 52.8% in Powys Teaching LHB.

Urgent referrals are also made to Ophthalmology for other lesions. Of the 1048 urgent referrals made across Wales in 2023-24, there were 325 made for other lesions identified during the grading process.



Figures and tables

Table 18: Presence of retinopathy breakdown by health board 2023-24

Health Board	Results reported	No retinopathy	%	Any retinopathy	%	Inadequate image	%
Aneurin Bevan UHB	15,942	10,430	65.4	4,257	26.7	1,255	7.9
Betsi Cadwaladr UHB	19,870	12,307	61.9	5,898	29.7	1,665	8.4
Cardiff and Vale UHB	9,827	6,176	62.8	2,813	28.6	838	8.5
Cwm Taf Morgannwg UHB	12,311	7,837	63.7	3,519	28.6	955	7.8
Hywel Dda UHB	12,832	7,996	62.3	3,659	28.5	1,177	9.2
Powys Teaching LHB	4,390	2,885	65.7	1,202	27.4	303	6.9
Swansea Bay UHB	9,576	5,991	62.6	2,937	30.7	648	6.8
All Wales	85,428	54,070	63.3	24,477	28.7	6,881	8.1



Table 19: Retinopathy outcomes by health board 2023-24

Health Board	Sight threatening retinopathy/maculopathy	% of screened diabetic population with sight threatening retinopathy/maculopathy	Severe retinopathy/maculopathy*	% of screened diabetic population with severe retinopathy/maculopathy
Aneurin Bevan UHB	864	5.4	120	0.8
Betsi Cadwaladr UHB	1,323	6.7	193	1.0
Cardiff and Vale UHB	656	6.7	68	0.7
Cwm Taf Morgannwg UHB	695	5.6	91	0.7
Hywel Dda UHB	734	5.7	111	0.9
Powys Teaching LHB	275	6.3	36	0.8
Swansea Bay UHB	767	8.0	98	1.0
Wales	5,356	6.3	722	0.8

* Number of people with sight threatening retinopathy/maculopathy that is severe – note, these participants appear in both the sight threatening and severe categories.



Table 20: Urgent referrals for active proliferative retinopathy (R3A) to Ophthalmology within 14 days by health board 2023-24

Health Board	Number of urgent R3A referrals made	R3A referrals made within 14 days	%
Aneurin Bevan UHB	120	97	80.8
Betsi Cadwaladr UHB	193	134	69.4
Cardiff and Vale UHB	68	53	77.9
Cwm Taf Morgannwg UHB	92	72	78.3
Hywel Dda UHB	111	86	77.5
Powys Teaching LHB	36	19	52.8
Swansea Bay UHB	98	76	77.6
All Wales	723	542	75

Wales totals include a small number of participants where the Health Board is not recorded.

Table 21: All urgent referrals to Ophthalmology by health board 2023-24

Health Board	All urgent referrals to Ophthalmology for DR	All urgent referrals to Ophthalmology for other lesions *	Total urgent referrals
Aneurin Bevan UHB	120	62	182
Betsi Cadwaladr UHB	193	86	279
Cardiff and Vale UHB	68	35	103
Cwm Taf Morgannwg UHB	92	43	135
Hywel Dda UHB	111	42	153
Powys Teaching LHB	36	21	57
Swansea Bay UHB	98	31	129
All Wales	723	325	1048

Wales totals include a small number of participants where the Health Board is not recorded.

* If, whilst assessing an image for diabetic retinopathy, the grader observes a non-diabetic issue of concern, this may also prompt a routine or urgent referral.

Definitions

Eligible active

Eligible active population definition includes participants in the following states:

- Awaiting a screening appointment/procedure
- Undergoing screening / grading
- Under Ophthalmology care for non-diabetic conditions
- Marked as post office return

Eligible active population excludes suspended and inactive participants:

Suspended

- Under Ophthalmology care for diabetic retinopathy
- Screening postponed
- Temporary physical/learning or mental disability
- Screening refused
- Under 12

Inactive

- Opted out of screening
- Medically unfit
- No light perception in both eyes
- Terminal illness
- Deceased
- Discharged
- Moved out of area
- No longer diabetic

- Permanent physical/learning/mental disability
- Registered blind

Uptake

Uptake: % of eligible participants who have attended a screening invitation.

The uptake of diabetic eye screening is set within the principles of informed choice and a standard of 80% of participants attending a digital screening event where images are captured.

Denominator = Eligible active participants who have been offered a screening appointment between month start and month end.

Numerator = Eligible active participants who have attended a screening appointment between month start and month end. This includes participants who attended but couldn't be photographed for technical reasons and participants who were unable to comply with the screening procedure.

Coverage

Coverage: % of a defined cohort of eligible active participants who have a reported result in the defined time period

Denominator = Eligible active participants as recorded at month end.

Numerator = Eligible active participants at month end, for whom a result letter was printed within the defined time period.

Health Board

This is the participant's health board of residence.

Invited

Participants who have a first offered appointment (not cancelled by Programme), within the report month.

Tested

The number of participants with a final grading result.



Sight Threatening Retinopathy/Maculopathy

Comprised of grading outcomes indicating pre-proliferative or proliferative retinopathy: R2M0, R2M1, R3AM0, R3AM1, R3SM1. Also includes a grading outcome of minimal background retinopathy with maculopathy R1M1.

Severe Retinopathy/Maculopathy

Comprised of grading outcomes indicating severe (proliferative) retinopathy: R3AM0, R3AM1.

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