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Public Health Wales

Wales Abdominal Aortic Aneurysm Screening Programme Annual Statistical Report 2023-24

Version 1

Mae'r ddogfen yma ar gael yn y Gymraeg/This document is available in Welsh

Publication details

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

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Contact details

Informatics Division, Floor 6, Public Health Wales, Number 2 Capital Quarter, Tyndall Street, Cardiff, CF10 4BZ

Email: screening.information@wales.nhs.uk

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 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 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.

Copyright information

This document is also available in Welsh.

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Key messages

- The aorta is the main blood vessel that supplies blood to the body. An AAA is a swelling of the aorta in the abdomen, which left undetected, may split or rupture.
- Undertaking the abdominal aortic aneurysm (AAA) screening test reduces the risk of dying from an AAA. Finding an AAA early gives the man the best chance of treatment and survival.
- AAA screening involves a simple ultrasound scan to measure the abdominal aorta.
- AAA screening is a free NHS test carried out in community clinics.
- Taking part in AAA screening is the man's choice.

Introduction

Background

Research evidence has shown that a high-quality screening programme for AAA can reduce deaths from ruptured aortic aneurysm by around 50% in men aged 65 – 74 years[1] . In February 2007, the UK National Screening Committee approved the introduction of AAA screening for men aged 65 using abdominal ultrasound scans provided:

- Invited men were given clear information about the risks of elective surgery, and
- Vascular networks were in place to treat individuals referred from screening.

The Wales Abdominal Aortic Aneurysm Programme (WAAASP) was launched in May 2013 and by 2025 aims to halve abdominal aortic aneurysm (AAA) related mortality in the eligible population through a systematic screening programme for 65-year-old men resident in Wales.

Since 1st May 2015, men who have never been for a NHS AAA screening and who have not been offered AAA screening because they turned 65 before it was available in Wales can contact the local screening offices to request an AAA screening scan.

Current eligibility

Men who live in Wales will be invited to participate in AAA screening when they are 65 years old. Men over the age of 65 can 'self-refer' to the programme provided they haven't been screened before. There is no upper age limit for this.

Sources of additional information

Abdominal Aortic Aneurysm Screening - Public Health Wales (nhs.wales)

[1] Ashton HA, Buxton MJ, Day NE, Kim LG, Marteau TM, Scott RAP et al. (2002) Multicentre Aneurysm Screening Study Group. The Multicentre Aneurysm Screening Study (MASS) into the effect of abdominal aortic aneurysm screening on mortality in men: a randomised controlled trial. *Lancet*;360 (9345):1531-9

Screening locations

There are approximately 60 screening clinics across Wales. These venues include community hospitals, GP practices, community centres, prisons, sports facilities, education centres and 2 screening hubs, which are operated by Public Health Wales.

Summary of activity in the reported year

Due to the impact of the pandemic on screening capacity, waiting times beyond the 65th birthday in the eligible population were longer than expected. The programme committed to ensuring that there would be no eligible men waiting beyond their 66th birthday by 31st March 2024. To achieve this, additional AAA screeners were recruited and trained and screeners worked longer hours to enable more ultrasound scans to be undertaken than would be expected in any normal year.

Waiting times improved as planned by the end of March 2024. It is anticipated that fewer ultrasound scans will be required in subsequent years.

Programme delivery

The Screening Division of Public Health Wales is responsible for managing, delivering and quality assuring the programme. The programme employs a Head of Programme, Programme Manager, Quality Assurance Vascular Surgical Lead, Clinical Imaging Advisor, Quality, Education and Training Lead, three clinical skills trainers and an All-Wales Administration Coordinator with support from a secretarial and administration team. Although an all-Wales programme, there is regional coordination by three Regional Coordinators and a team of 19 screeners who deliver the screening in the community.

Screening pathway

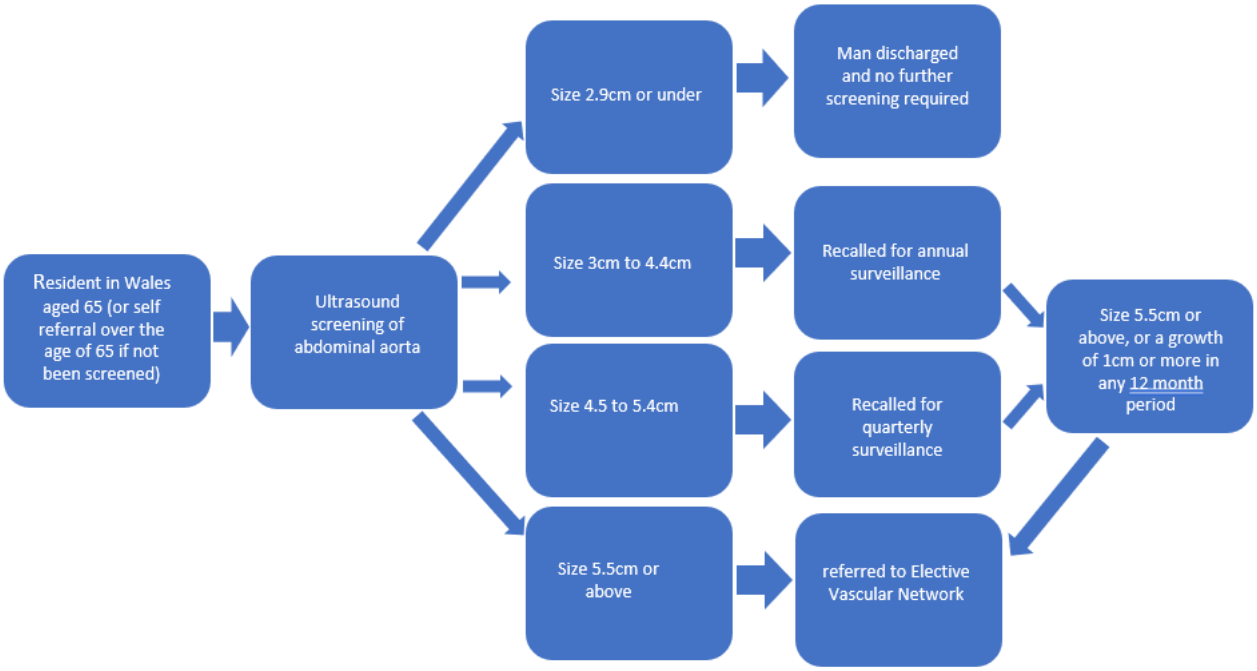
- 65 year old men resident in Wales are invited for a one-off ultrasound scan to check whether they have an AAA.
- The test involves a simple scan of the abdominal aorta, measuring the widest part of the aorta.
- Screening is performed in approximately 60 screening clinics throughout Wales, including community hospitals, health clinics, primary resource centres and GP practices. Screening is also undertaken in HMP Berwyn, HMP Parc, HMP Usk and HMP Prescoed.
- Men with an abdominal aortic diameter of less than 3cm are discharged from the programme.
- Men with a small or medium AAA are included in the surveillance programme and are offered:

  - A phone appointment with the AAA surveillance nurse to discuss the result and its health implications.
  - Encouragement to make an appointment with their GP for lifestyle and health advice, blood pressure monitoring and best medical therapy.
  - Annual screening if the AAA is small (3.0 – 4.4cm).
  - Screening every three months if the AAA is medium in size (4.5 – 5.4cm).

- Men with a large AAA of 5.5cm or more (or a growth of 1cm or more in 12 months) are referred to the regional elective Vascular Network Multi-professional team (Multi-disciplinary Team (MDT)).
- Men with a non-visualised aorta are usually offered a second appointment with WAAASP. If the second appointment is unsuccessful, the man is referred to a medical imaging department to measure his abdominal aorta.

More information is available at
Abdominal Aortic Aneurysm Screening - Public Health Wales

Figure 1: Pathway for AAA screening



Headline statistics

This report covers the time period from April 2023 to March 2024. With uptake defined as those invited in the year April 2023 to March 2024 receiving an ultrasound scan by 30 June 2024.

- National uptake was 77.6%, ranging from 75.3% in Cardiff & Vale University Health Board to 84.1% in Powys Teaching Health Board.
- Uptake figures were higher in those men living in the least deprived areas (85.1%) compared to the most deprived areas (66.8%).
- 23,429 eligible men were invited by the programme. Of these, 18,180 men attended for their first WAAASP screen and had a definitive screening result.
- Of the men who attended for their screening, 167 (0.9%) had an AAA detected by the screening programme.
- 59 men who were screened needed a referral to the elective vascular network MDT. 88.1% were referred within two working days of the ultrasound scan being taken.
- 52 men had open or endovascular surgery (n.b. this is a different cohort to the men who were screened and referred in the year). Two (3.8%) of which had their surgery completed within four or eight weeks of the referral being received, depending on the size of the AAA detected.
- 1,189 (88.6%) of surveillance scans were undertaken within standard (medium AAA on quarterly surveillance within 11 to 15 weeks of their previous successful scan, small AAA on annual surveillance within 50 to 56 weeks of their previous successful scan).
- 160 self-referred men were screened, with 5 AAA (3.1%) detected.

Data

Uptake

Definition and standard

For uptake calculations, eligible men were those resident in Wales who were invited between April 2023 and March 2024 and who received a screening appointment by 30 June 2024. Men who were registered manually (such as self-referrals) are excluded, as are men who were ceased from the programme in the time period due to being out of cohort.

The standard for uptake is that 80% of invited men attend AAA screening and are tested.

Result for 2023-24

Uptake was 77.6%.

Three-year trend

Uptake was 77.6% in 2023-24, 77.6% in 2022-23, and 82.8% in 2021-22.

Comment

At an all-Wales level, uptake for 2023-24 was 77.6%, the same as in 2022-23 (77.6%).
Across health boards, uptakes ranged from 75.3% in Cardiff & Vale University Health Board to 84.1% in Powys Teaching Health Board and typically increased with increasing deprivation quintile.

Figures and tables

Table 1: Abdominal aortic aneurysm screening uptake by health board of residence

Health Board	Invited	Tested	% Uptake
Aneurin Bevan University	4,004	3,062	76.5
Betsi Cadwaladr University	5,520	4,267	77.3
Cardiff & Vale University	3,751	2,823	75.3
Cwm Taf Morgannwg University	2,898	2,280	78.7
Hywel Dda University	3,187	2,521	79.1
Powys Teaching	1,242	1,044	84.1
Swansea Bay University	2,806	2,166	77.2
Unknown	21	17	81.0
All Wales	**23,429**	**18,180**	**77.6**

Uptake is of those eligible and invited between April 2023 – March 2024 who were tested by 30 June 2024. 'Unknown' refers to men who cannot be allocated to a health board, these are included in the all-Wales total.

Table 2: Abdominal aortic aneurysm screening uptake by month of invite for April 2023 – March 2024.

Year	Month	Invited	Tested	% Uptake
2023	April	2,137	1,659	77.6
2023	May	2,309	1,789	77.5
2023	June	2,102	1,694	80.6
2023	July	2,023	1,601	79.1
2023	August	2,171	1,736	80.0
2023	September	1,949	1,532	78.6
2023	October	1,968	1,544	78.5
2023	November	1,982	1,518	76.6
2023	December	1,145	916	80.0
2024	January	1,947	1,398	71.8
2024	February	2,026	1,534	75.7
2024	March	1,670	1,259	75.4
Total		**23,429**	**18,180**	**77.6**

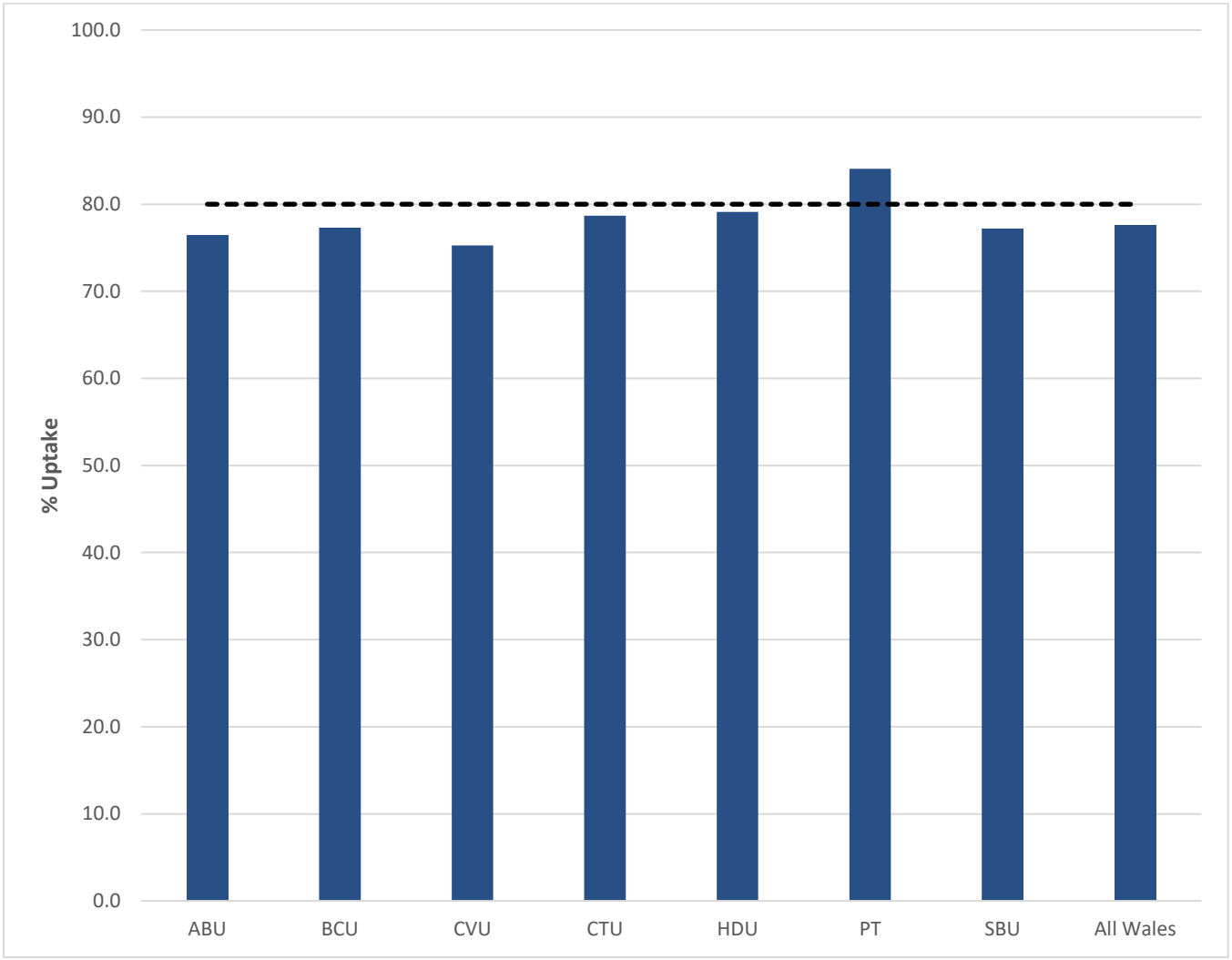


Figure 2: Abdominal aortic aneurysm screening uptake by health board of residence

ABU – Aneurin Bevan University Health Board, BCU – Betsi Cadwaladr University Health Board, CVU – Cardiff and Vale University Health Board, CTU – Cwm Taf Morgannwg University Health Board, HDU – Hywel Dda University Health Board, PT – Powys Teaching Health Board, SBU – Swansea Bay University Health Board.

Table 3: Abdominal aortic aneurysm screening uptake by deprivation quintile and health board of residence (%)

Health Board	Uptake %					Total Uptake %
	Q1 - most deprived	Q2	Q3	Q4	Q5 - least deprived	
Aneurin Bevan University	67.0	74.1	77.7	79.8	86.9	76.5
Betsi Cadwalader University	67.8	72.3	76.3	78.8	83.8	77.3
Cardiff & Vale University	59.5	74.4	72.4	75.7	84.6	75.3
Cwm Taf Morgannwg University	72.8	75.4	80.8	84.9	86.6	78.7
Hywel Dda University	69.1	76.8	79.1	82.9	85.9	79.1
Powys Teaching	75.0	83.5	82.0	85.9	85.1	84.1
Swansea Bay University	67.2	77.2	75.4	80.5	85.5	77.2
Unknown	N/A	N/A	N/A	N/A	N/A	81.0
All Wales	**66.8**	**75.1**	**77.6**	**80.7**	**85.1**	**77.6**

'Unknown' refers to men who cannot be allocated to a health board, these are included in the all-Wales total.

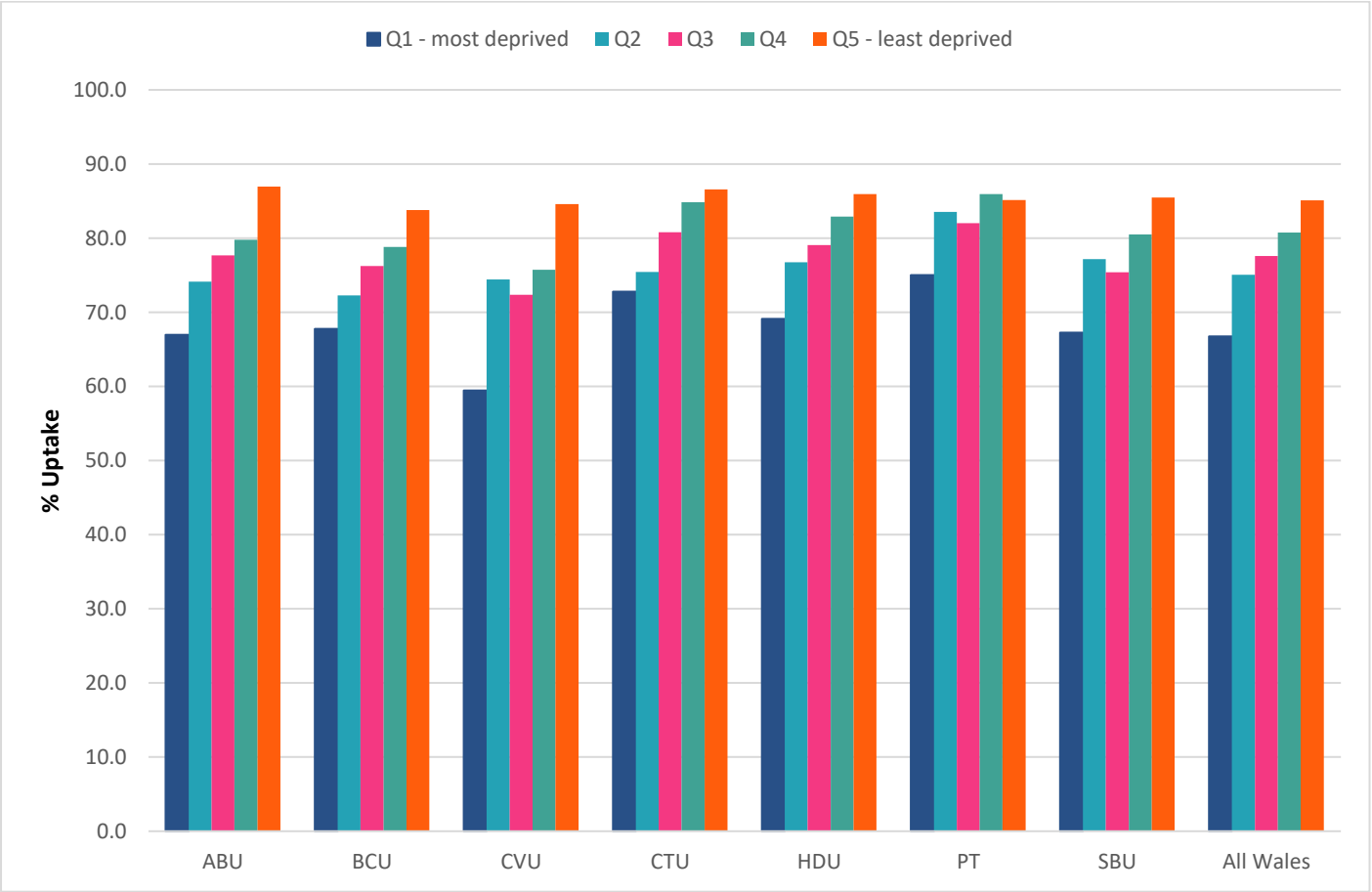


Figure 3: AAA screening uptake by deprivation quintile and health board of residence (%)

ABU – Aneurin Bevan University Health Board, BCU – Betsi Cadwaladr University Health Board, CVU – Cardiff and Vale University Health Board, CTU – Cwm Taf Morgannwg University Health Board, HDU – Hywel Dda University Health Board, PT – Powys Teaching Health Board, SBU – Swansea Bay University Health Board. N.b. quintile 5 in Powys is composed of small numbers.

Non-visualised

Definition and standard

Completed appointments where the abdominal aorta was not seen are referred to as 'non-visualised'.

The standard is that ≤3% of consented appointments result in a non-visualised aorta.

Result for 2023-24

The percentage of non-visualised aortas was 1.0%.

Three-year trend

The non-visualised percentage was 1.0% in 2023-24, 0.9% in 2022-23 and 1.1% in 2021-22.

Comment

At an all-Wales level, the percentage of non-visualised aortas has increased from 0.9% in 2022-23 to 1.0% in 2023-24. Across health boards, the percentage of non-visualised aortas ranged from 0.6% in Hywel Dda University Health Board to 1.6% in Aneurin Bevan University Health Board.

Figures and tables

Table 4: Percentage of non-visualised aortas by health board of residence

Health Board	Scans	Non-visualised	Non- visualised (%)
Aneurin Bevan University	3,397	53	1.6
Betsi Cadwalader University	4,969	50	1.0
Cardiff & Vale University	2,963	28	0.9
Cwm Taf Morgannwg University	2,703	28	1.0
Hywel Dda University	2,946	18	0.6
Powys Teaching	1,063	7	0.7
Swansea Bay University	2,437	17	0.7
Unknown	16	0	0.0
All Wales	**20,494**	**201**	1.0

Men who self-refer

Definition and standard

Since 1st May 2015, men over 65 years old who have not received NHS screening for AAA can self-refer by contacting the screening programme to request an appointment. The results below only include men who have not previously been invited by the programme.

Result for 2023-24

160 self-referred men were scanned with 5 (3.1%) AAAs detected.

Three-year trend

160 self-referred men were scanned (5 (3.1%) AAAs detected) in 2023-24, 242 (12 (5.0%) AAAs detected) in 2022-23, and 197 (4 (2.0%) AAAs detected) in 2021-22.

Comment

It is anticipated that the number of men self-referring for AAA screening will decline as the programme matures.

Abdominal aortic aneurysms detected

Definition and standard

Men with AAA (≥3cm) detected are only counted on the first definitive scan, not surveillance scans. Instances where the aorta is not visualised are not counted as a definitive scan result.

The standard is that of those screened, 1% will have an AAA (≥3cm).

Result for 2023-24

167 AAAs were detected (0.9% detection rate).

Three-year trend

167 AAAs were detected in 2023-24 (0.9% detection rate), 189 AAAs were detected in 2022-23 (0.9% detection rate), and 134 AAAs were detected in 2021-22 (0.9% detection rate).

Figures and tables

Table 5: Number of those screened that have an AAA (≥3cm) detected by health board of residence

Health Board	Attended	AAA Total	Detection Rate (%)
Aneurin Bevan University	3,099	20	0.6
Betsi Cadwalader University	4,508	49	1.1
Cardiff & Vale University	2,768	26	0.9
Cwm Taf Morgannwg University	2,490	18	0.7
Hywel Dda University	2,681	25	0.9
Powys Teaching	997	11	1.1
Swansea Bay University	2,228	18	0.8
Unknown	16	0	0.0
All Wales	**18,787**	**167**	0.9

Unknown refers to men who cannot be allocated to a health board, however they are included in the all-Wales total.

AAA surveillance uptake

Definition and standard

The percentage of men that attended their surveillance screening appointment. Surveillance uptake includes both men with a medium (≥4.5cm and <5.5cm) AAA detected, who are invited for quarterly surveillance, and men with a small (≥3cm and <4.5cm) AAA detected, who are invited for annual surveillance.

The standard for medium AAAs is that at least 90% of participants attend a quarterly surveillance appointment within 11 to 15 weeks of a previous successful scan. The standard for small AAAs is that at least 90% of participants attend an annual surveillance appointment between 50 to 56 weeks of a previous successful scan.

Result for 2023-24

Surveillance uptake was 88.6%.

Three-year trend

Surveillance uptake 88.6% in 2023-24, 88.1% in 2022-23 and 90.0% in 2021-22.

Figures and tables

Table 6: AAA Surveillance Uptake by health board of residence

Health Board	Invited	Screened	Uptake (%)
Aneurin Bevan University	216	202	93.5
Betsi Cadwalader University	368	313	85.1
Cardiff & Vale University	147	129	87.8
Cwm Taf Morgannwg University	175	155	88.6
Hywel Dda University	208	186	89.4
Powys Teaching	48	40	83.3
Swansea Bay University	179	164	91.6
Unknown	1	0	0.0
All Wales	**1,342**	**1,189**	**88.6**

Referral to the multi-disciplinary team and timeliness of intervention

Definition and standard

Referral to the elective vascular network MDT is the interval between screening being undertaken and the referral being sent to the elective vascular network multidisciplinary team (MDT).

The standard is referral within two working days.

Timeliness of intervention is the interval between the referral being received by the MDT on screen-detected AAAs who are deemed suitable for intervention to the time of surgical intervention by open repair or an EVAR.

The standard is surgery should be completed within four weeks of the referral for very large aneurysms (7cm and above) and within eight weeks of referral for large aneurysms (5.5cm to 6.9cm).

Result for 2023-24

88.1% (52) of referrals to the elective vascular network MDT occurred within 2 working days.

3.8% (2) who were suitable for open repair or EVAR had their surgery with 4/8 weeks.

Three-year trend

88.1% (52) of referrals to the elective vascular network MDT occurred within 2 working days in 2023-24, 83.3% (50) in 2022-23, and 90.0% (54) in 2021-22.

3.8% (2) who were suitable for open repair or EVAR had their surgery within 4/8 weeks in 2023-24, 12.2% (6) in 2022-23, and 23.2% (13) in 2021-22.

Comment

During 2023-24, 59 men were screened and needed a referral to the elective vascular network MDT, with 88.1% being referred within two working days of the screen being undertaken. This does not include referrals to on call vascular services (i.e. those with a very large AAA detected).

52 men had open or endovascular surgery. This is a different cohort to the men who were screened and referred in the year. 2 (3.8%) of these had their surgery completed within four or eight weeks of the referral being received, depending on size of AAA detected. Compliance with this timeliness standard has been discussed at the joint WAAASP and EVN MDT Coordinators meetings. The MDT coordinators submit an exception report for all men who breach the timeliness of repair standard .

There is a decrease in compliance of this standard from the previous Annual Statistical Report. In 2022-23, 6 men (12.2%) had their surgery within the timeliness standard. The reasons for the delay in treatment during both years are multifactorial and include:

- Men with co-morbidities
- Reduction in theatre capacity
- Delays in pre-operative diagnostic tests
- Variation in progress in the development of the regional elective vascular networks

Definitions

Eligible

For uptake calculations, eligible men were those resident in Wales invited in the time period. Men who were registered manually (such as self-referrals) are excluded. Men invited who were ceased from the programme in the time period due to being out of cohort are removed.

Uptake

Men were counted as having responded to their invitation if they were invited during the April – March time period and attended by 30 June 2023.

Deprivation

Deprivation quintiles were assigned using the Welsh Index of Multiple Deprivation (WIMD) 2014, measured at lower super output area (LSOA) level. LSOAs are ranked into quintiles at an all-Wales level so they can be compared between health boards. This means that there will not be an equal proportion of people in each quintile within each health board e.g. in Monmouthshire, 40% of the population live in the least deprived quintile of Wales but no areas fall into the Welsh most deprived quintile.

Health board

This is health board of residence.

Result

A definitive scan result excludes those where the final outcome is that the abdominal aorta could not be visualised.

Production team

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

Jeremy Surcombe	Head of Wales Abdominal Aortic Aneurysm Screening Programme
Dr Sharon Hillier	Director of Screening Division
Guy Stevens	Interim Lead Informatics and Data Services Manager
Richard Wakely	Senior Informatics and Data Analyst
Gareth Denton	Programme Manager of Wales Abdominal Aortic Aneurysm Screening Programme
Dr Emma Richards	Public Health Researcher

Programme contact details

Wales Abdominal Aortic Aneurysm Screening Programme
Public Health Wales, Unit 6, Green Meadow, Llantrisant, Pontyclun, CF72 8XT

Tel: 0300 003 0510

Email: aaa@wales.nhs.uk

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