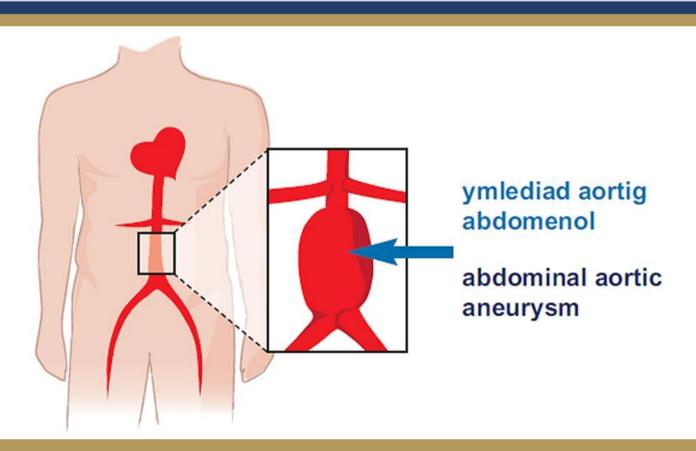




# Wales Abdominal Aortic Aneurysm Screening Programme

**Annual Statistical Report** 2018-19

January 2020



## **About us**

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

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

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

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

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

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

NHS quality improvement and patient safety – providing the NHS with information, advice and support to improve patient outcomes **Primary, community and integrated care** – strengthening its public health impact through policy, commissioning, planning and service delivery

**Safeguarding** - providing expertise and strategic advice to help safeguard children and vulnerable adults

**Health intelligence** – providing public health data analysis, evidence finding and knowledge management

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

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

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This report is a detailed summary of information on work undertaken by the Wales Abdominal Aortic Aneurysm Screening Programme for the year from April 2018 to the end of March 2019.

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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.

## **Quality Assurance 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 supress numbers lower than five when the data is potentially sensitive.

Date: January 2020	Version: 1	Page: 3 of 18
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This document is also available in Welsh.

## **Contents**

1 I	NTRODUCTION 6
1.1	'Key messages' for the public6
1.2 1.3	Programme delivery
	· ,
2 F	EADLINE STATISTICS8
3 [	ATA9
3.1	Uptake
3.2 3.3	Non-visualised
3.4	Abdominal aortic aneurysms detected
3.5	Abdominal aortic aneurysms surveillance uptake
3.6	Referral to multi-disciplinary team
4 [	EFINITIONS17
5 F	RODUCTION TEAM AND PRE-RELEASE LIST18
•	
Tabl	es and Graphs
Table	1a: AAA screening uptake by health board of residence9
Grapl	1a: AAA screening uptake by health board of residence (%)10
Table	1b: AAA screening uptake by deprivation quintile and health
	board of residence (%)11
Grapl	
C. u.p.	board of residence (%)12
Table	• •
Table	
iabie	,
	detected by health board of residence15

#### Introduction 1

This is the sixth annual statistical report published by the Wales Abdominal Aortic Aneurysm Screening Programme (WAAASP).

WAAASP launched in May 2013 and aims to halve abdominal aortic aneurysm (AAA) related mortality by 2025 in the eligible population through a systematic screening programme for 65 year old men resident in Wales. Since 1 May 2015, men over 65 can contact the local screening offices to request an AAA screening scan.

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<sup>1</sup>. In February 2007, the UK National Screening Committee approved the introduction of AAA screening for men aged 65 using abdominal ultrasound scanning 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

#### 1.1 'Key messages' for the public

- 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
- 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
- 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

<sup>1</sup> 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

Date: January 2020 Version: 1	Page: 6 of 18
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#### 1.2 **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, 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 1.3

- 65 year old men resident in Wales and registered with a GP 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
- Ultrasound scanning is performed in 66 community clinics throughout Wales, including community hospitals, health clinics, primary resource centres and GP practices. Screening is undertaken in Berwyn HMP, Parc prison, Usk and Prescoed HMP
- 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:
  - o small AAA (3 4.4cm) an annual scan
  - o medium AAA (4.5 5.4cm) a scan every three months
  - o a phone appointment with the AAA surveillance nurse to discuss the result and its health implications
  - o encouragement to make an appointment with their GP for lifestyle and health advice, blood pressure monitoring and best medical therapy
- 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 or 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 www.aaascreening.wales.nhs.uk

#### 2 Headline statistics

This report covers the time period from April 2018 to March 2019.

Uptake is defined as those invited in the year 2018-19 receiving a scan by 30 June 2019.

- The uptake for participants invited between April 2018 and March 2019 was 80.8%, ranging from 77.8% in Cwm Taf University Health Board to 83.4% in Hywel Dda University Health Board
- Uptake figures are higher in those men living in the least deprived areas (86.1%) compared to the most deprived areas (73.3%)
- Having decreased in 2017-18, uptake of AAA screening increased in 2018-19 to just above the 80% target at 80.8%

In April 2018 - March 2019:

- 16,487 eligible men were invited by the programme from April 2018 to March 2019. Of these, 13,328 men attended for their first WAAASP scan and had a definitive scan result
- Of the men who attended for their screening from April 2018 to March 2019, 141 men had an AAA (1.0%) detected by the screening programme
- 57 men scanned needed a referral to the elective vascular network MDT.
   89.5% of men were referred within two working days of the scan being taken
- 49 men had open or endovascular surgery. This is a different cohort to the men who were scanned and referred in the year. 12 (24.5%) of these had their surgery completed within four or eight weeks of the referral being received, depending on the size of the AAA detected
- 975 (92.9%) surveillance scans were taken within standard from a
  possible 1049 opportunities (medium AAA on quarterly surveillance within
  11 to 15 weeks, small AAA on annual surveillance within 50 to 56 weeks
  of their previous successful scan)
- 984 self-referred men were screened with 16 AAA (1.6%) detected

Date: January 2020 Version: 1 Page: 8 of 18
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#### 3 Data

## 3.1 Uptake

Standard: A minimum of 80% of invited men attending AAA screening are tested.

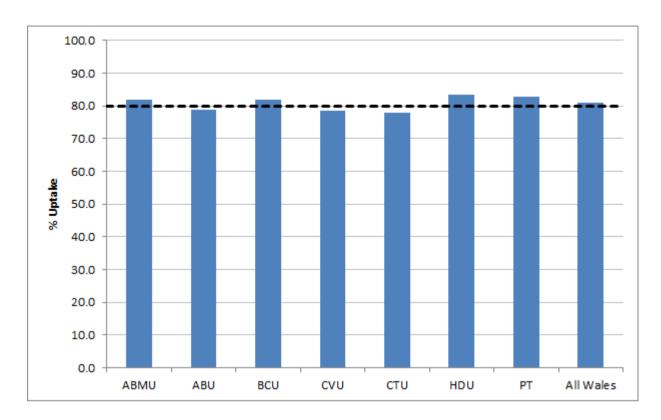
Table 1a: AAA screening uptake by health board of residence

Health Board	Invited	Tested	% Uptake
Abertawe Bro Morgannwg UHB	2,714	2,226	82.0
Aneurin Bevan UHB	3,143	2,475	78.7
Betsi Cadwaladr UHB	3,961	3,247	82.0
Cardiff and Vale UHB	1,984	1,556	78.4
Cwm Taf UHB	1,355	1,054	77.8
Hywel Dda UHB	2,349	1,958	83.4
Powys Teaching HB	736	609	82.7
Unknown	245	203	82.9
All Wales	16,487	13,328	80.8

Note: uptake stated (of those eligible and invited in the year, number tested by 30 June 2019). Unknown refers to men who cannot be allocated to a health board however they are included in the all-Wales total.

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Date: January 2020	VARSION: I	Page: 9 of 18

**Graph 1a:** AAA screening uptake by health board of residence (%)

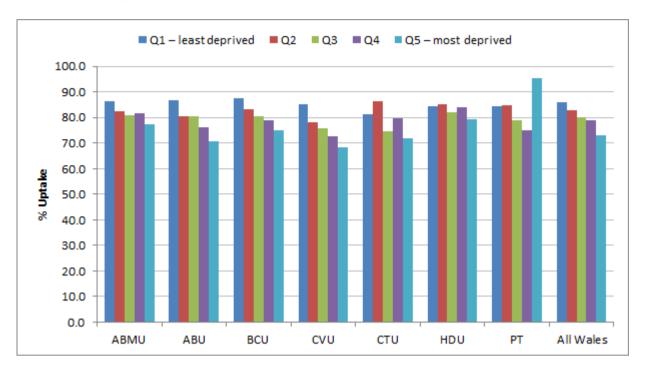


**Table 1b:** AAA screening uptake by deprivation quintile and health board of residence (%)

Health Board	Q1 - least deprived	Q2	QЗ	Q4	Q5 - most deprived	Total
Abertawe Bro Morgannwg UHB	86.2	82.7	80.8	81.8	77.3	82.0
Aneurin Bevan UHB	86.8	80.6	80.7	76.2	70.6	78.7
Betsi Cadwaladr UHB	87.5	83.1	80.4	78.8	75.0	82.0
Cardiff and Vale UHB	85.1	78.0	75.8	72.6	68.5	78.4
Cwm Taf UHB	81.3	86.6	74.8	79.8	72.1	77.8
Hywel Dda UHB	84.5	85.2	82.2	83.9	79.5	83.4
Powys Teaching HB	84.4	84.8	78.8	75.0	95.5	82.7
Unknown	-	-	-	-	-	82.9
All Wales	86.1	83.0	80.3	79.1	73.3	80.8

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

**Graph 1b:** AAA screening uptake by deprivation quintile and health board of residence (%)



This shows that, in general across all the health boards, uptake decreases as deprivation score increases. It should be noted that Quintile 5 in Powys is composed of small numbers.

### 3.2 Non-visualised

Standard:  $\leq 3\%$  of consented appointments resulting in a non-visualised aorta.

**Table 2:** Non-visualised rate by health board of residence

Health Board	Scans	Non- visualised	Non- visualised Rate (%)
Abertawe Bro Morgannwg UHB	2,694	25	0.9
Aneurin Bevan UHB	3,113	54	1.7
Betsi Cadwaladr UHB	4,005	35	0.9
Cardiff and Vale UHB	1,987	28	1.4
Cwm Taf UHB	1,258	30	2.4
Hywel Dda UHB	2,327	11	0.5
Powys Teaching HB	732	<5	0.5
Unknown	249	1	0.4
All Wales	16,365	188	1.1

Note: non-visualised data refers to the number of completed appointments where the abdominal aorta was not seen.

### 3.3 Men who self-refer

Since 1 May 2015, men over 65 who have not received an NHS ultrasound screening scan for AAA can self-refer by contacting the screening programme to request an appointment. It is anticipated that the number of men self-referring for AAA screening will decline as the programme matures.

During 2018-19, there were 984 self-referred men scanned with 16 (1.6%) AAA detected. This only includes men who have not previously been invited by the programme.

## 3.4 Abdominal aortic aneurysms detected

Standard: Of those screened, it is expected that 1% will have an AAA ( $\geq$ 3cm).

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

Health Board	Attended	AAA Total	Detection Rate (%)
Abertawe Bro Morgannwg UHB	2,343	18	0.8
Aneurin Bevan UHB	2,667	29	1.1
Betsi Cadwaladr UHB	3,397	32	0.9
Cardiff and Vale UHB	1,681	14	0.8
Cwm Taf UHB	1,120	13	1.2
Hywel Dda UHB	2,057	22	1.1
Powys Teaching HB	657	11	1.7
Unknown	215	2	0.9
All Wales	14,137	141	1.0

Note: Men with AAA (≥3cm) detected only counted on first definitive scan not surveillance scans. Non-visualised is not a definitive scan result. Unknown refers to men who cannot be allocated to a health board however; they are included in the all-Wales total.

Date: January 2020	Version: 1	Page: 15 of 18
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#### 3.5 AAA surveillance uptake

The surveillance uptake for this time period 2018-19, includes both men with a medium AAA detected, who are invited for quarterly surveillance, and men with a small AAA detected, who are invited for annual surveillance.

During 2018-19, 975 surveillance appointments were attended (92.9%) within standard from a possible 1,049 opportunities (men with medium AAA on quarterly surveillance should be re-scanned within 11 to 15 weeks, and men with small AAA on annual surveillance should be re-scanned within 50 to 56 weeks of their previous successful scan).

## 3.6 Referral to multi-disciplinary team

During 2018-19, 57 men were scanned and needed a referral to the elective vascular network MDT. This does not include referrals to on call vascular services (i.e. those with a very large AAA detected). Of the total referred, 89.5% were referred within two working days of the scan being taken.

49 men had open or endovascular surgery. This is a different cohort to the men who were scanned and referred in the year. 12 (24.5%) 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 and/ or have the repair in a spoke hospital rather than the agreed centralisation site.

There is a slight decrease in compliance of this standard from the previous Annual Statistical Report. In 2017-18, 14 men (35%) 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

Date: January 2020	Version: 1	Page: 16 of 18
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#### 4 Definitions

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

#### **Eligible**

For uptake calculations, eligible men were those resident in Wales and were 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 2019.

#### **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 when you look at 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.

Date: January 2020	Version: 1	Page: 17 of 18
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#### 5 Production team and pre-release list

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

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These Official Statistics were sent to the people on this pre-release list five working days prior to publication in accordance with the Pre-publication Official Statistics Order Access (Wales) 2009.

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