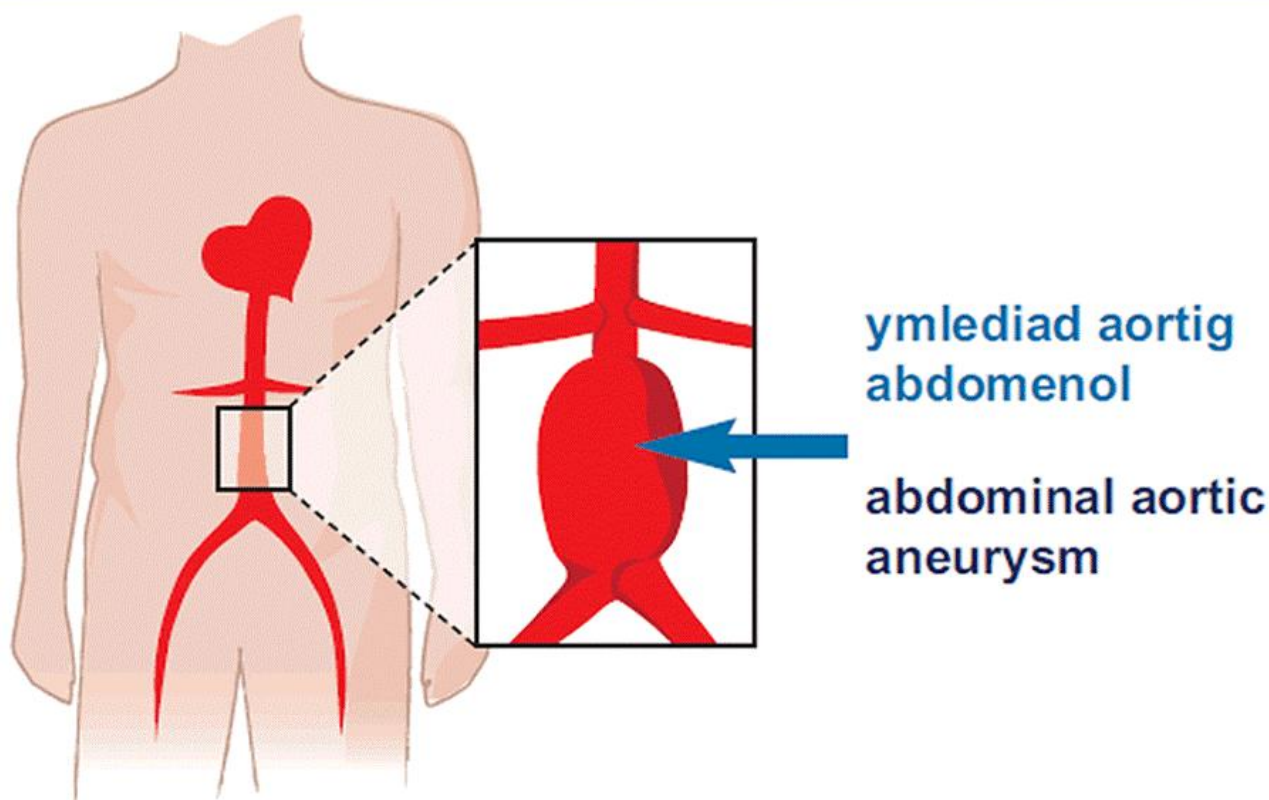


# Wales Abdominal Aortic Aneurysm Screening Programme

## Annual Statistical Report 2017-18

January 2019



# 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

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

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

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

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

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

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

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

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

## Further information

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**Twitter:** @PublicHealthW  
**Facebook:** [www.facebook.com/PublicHealthWales](http://www.facebook.com/PublicHealthWales)

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

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### **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.

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## Contents

<b>1</b>	<b>INTRODUCTION .....</b>	<b>5</b>
1.1	'Key messages' for the public .....	5
1.2	Programme delivery .....	6
1.3	Screening pathway.....	6
<b>2</b>	<b>HEADLINE STATISTICS .....</b>	<b>7</b>
<b>3</b>	<b>DATA.....</b>	<b>8</b>
3.1	Uptake .....	8
3.2	Non-visualised .....	12
3.3	Men who self-refer .....	13
3.4	Abdominal Aortic Aneurysms detected .....	14
3.5	AAA Surveillance Uptake .....	15
3.6	Referral to Multi-Disciplinary Team.....	15
<b>4</b>	<b>DEFINITIONS.....</b>	<b>16</b>
<b>5</b>	<b>PRODUCTION TEAM AND PRE-RELEASE LIST .....</b>	<b>17</b>

## Tables and Graphs

Table 1a:	AAA Screening Uptake by Health Board of Residence .....	8
Graph 1a:	AAA Screening Uptake by Health Board of Residence (%)...	9
Table 1b:	AAA Screening Uptake by Deprivation Quintile and Health Board of Residence (%).....	10
Graph 1b:	AAA Screening Uptake by Deprivation Quintile and Health Board of Residence (%) .....	11
Table 2:	Non-visualised Rate by Health Board of Residence .....	12
Table 3:	Number of those Screened that have an AAA ( $\geq 3$ cm) Detected by Health Board of Residence .....	14

# 1 Introduction

This is the fifth 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 your 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.

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<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

## 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 18 screeners.

## 1.3 Screening pathway

- 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.
- 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:
  - small AAA (3 - 4.4cm) an annual scan
  - medium AAA (4.5 - 5.4cm) a scan every four months
  - 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
- Men with 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 offered a second appointment and referred to a medical imaging department if the second appointment is unsuccessful in measuring the aorta.

More information is available at [www.aaascreening.wales.nhs.uk](http://www.aaascreening.wales.nhs.uk)

## 2 Headline Statistics

This report covers the time period from April 2017 to March 2018.

Uptake is defined as those invited in the year 2017-18 receiving a scan by 30 June 2018.

- The uptake for participants invited between April 2017 and March 2018 was 79.2%, ranging from 74.7% in Aneurin Bevan University Health Board to 81.4% in Powys Teaching Health Board.
- Uptake figures are higher in those men living in the least deprived areas (84.3%) compared to the most deprived areas (72.4%).
- Having increased in 2016/17, uptake of AAA screening reduced in 2017-18 to just below the 80% target at 79.2%.

In April 2017 – March 2018:

- 16,668 eligible men were invited by the programme
- 13,193 men attended for their first WAAASP scan and had a definitive scan result. Of these, 161 AAA (1.2%) were detected by the screening programme
- 40 men scanned needed a referral to the elective vascular network MDT. 90% of men were referred within two working days of the scan being taken
- 40 men had open, or endovascular, repair (EVAR) surgery. This is a different cohort to the men who were scanned and referred in the year. Fourteen (35%) of these had their surgery completed within four or eight weeks of the referral being received, depending on size of AAA detected
- 845 (91%) surveillance scans were taken within standard from a possible 928 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)
- 1226 self-referred men were screened with 53 AAA (2.8%) detected

### 3 Data

#### 3.1 Uptake

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

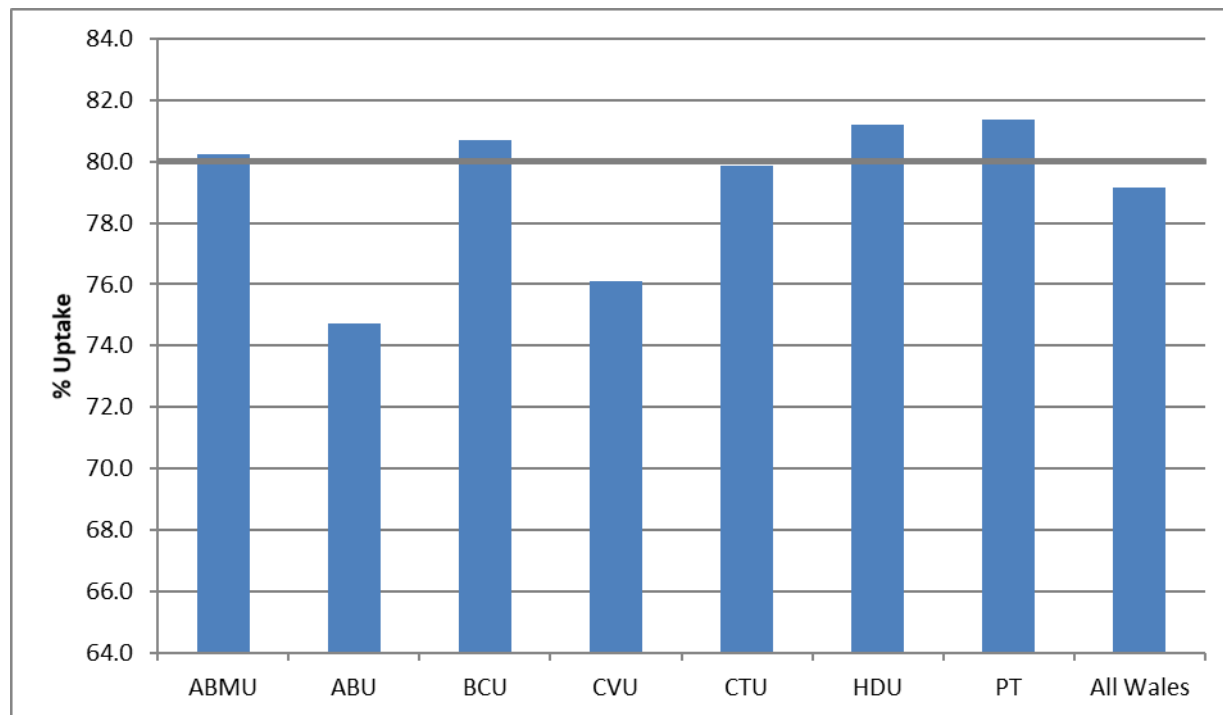
**Table 1a:** AAA Screening Uptake by Health Board of Residence

Health Board	Eligible	Tested	% Uptake
Abertawe Bro Morgannwg UHB	2749	2206	80.2
Aneurin Bevan UHB	2834	2118	74.7
Betsi Cadwaladr UHB	4384	3537	80.7
Cardiff and Vale UHB	1901	1447	76.1
Cwm Taf UHB	1400	1118	79.9
Hywel Dda UHB	2273	1846	81.2
Powys Teaching HB	934	760	81.4
Unknown	193	161	83.4
<b>All Wales</b>	<b>16668</b>	<b>13193</b>	<b>79.2</b>

Note: uptake stated (of those eligible and invited in the year, number tested by 30 June 2018). Unknown refers to men who cannot be allocated to a health board.



**Graph 1a:** AAA Screening Uptake by Health Board of Residence (%)

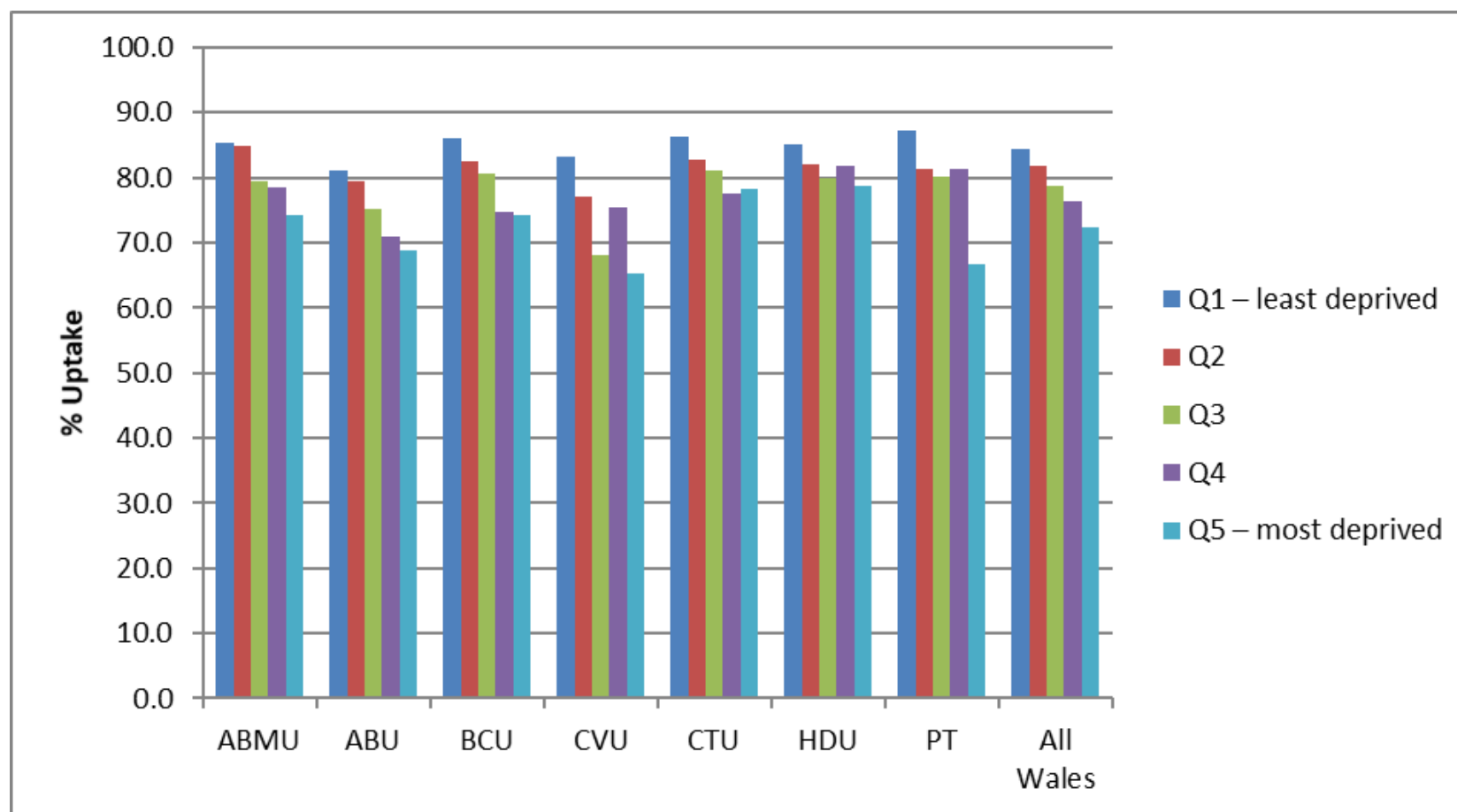


**Table 1b:** AAA Screening Uptake by Deprivation Quintile and Health Board of Residence (%)

Health Board	Q1 – least deprived	Q2	Q3	Q4	Q5 – most deprived	Unknown	Total
Abertawe Bro Morgannwg UHB	85.3	85.0	79.3	78.5	74.4	0.0	<b>80.2</b>
Aneurin Bevan UHB	81.0	79.5	75.1	70.9	68.7	0.0	<b>74.7</b>
Betsi Cadwaladr UHB	85.9	82.6	80.5	74.6	74.2	0.0	<b>80.7</b>
Cardiff and Vale UHB	83.2	77.1	68.0	75.4	65.3	0.0	<b>76.1</b>
Cwm Taf UHB	86.3	82.7	81.0	77.5	78.2	0.0	<b>79.9</b>
Hywel Dda UHB	85.2	82.0	80.0	81.9	78.6	0.0	<b>81.2</b>
Powys Teaching HB	87.2	81.4	80.2	81.3	66.7	0.0	<b>81.4</b>
Unknown	0.0	0.0	0.0	0.0	0.0	83.4	<b>83.4</b>
<b>All Wales</b>	<b>84.3</b>	<b>81.8</b>	<b>78.7</b>	<b>76.3</b>	<b>72.4</b>	<b>83.4</b>	<b>79.2</b>

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.

## 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	2556	17	0.7
Aneurin Bevan UHB	2458	36	1.5
Betsi Cadwaladr UHB	4210	44	1.0
Cardiff and Vale UHB	1803	27	1.5
Cwm Taf UHB	1294	24	1.9
Hywel Dda UHB	2182	18	0.8
Powys Teaching HB	821	12	1.5
Unknown	192	1	0.5
<b>All Wales</b>	<b>15516</b>	<b>179</b>	<b>1.15</b>

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 2017-18, there were 1,226 self-referred men scanned with 34 (2.8%) 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 ( $\geq 3$ cm).

**Table 3:** Number of those screened that have an AAA ( $\geq 3$ cm) Detected by Health Board of Residence

Health Board	Attended	AAA Total	Detection Rate (%)
Abertawe Bro Morgannwg UHB	2234	20	0.9
Aneurin Bevan UHB	2078	25	1.2
Betsi Cadwaladr UHB	3535	49	1.4
Cardiff and Vale UHB	1432	21	1.5
Cwm Taf UHB	1147	11	1.0
Hywel Dda UHB	1868	21	1.1
Powys Teaching HB	737	11	1.5
Unknown	168	3	1.8
<b>All Wales</b>	<b>13199</b>	<b>161</b>	<b>1.2</b>

Note: Men with AAA ( $\geq 3$ cm) 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.

### 3.5 AAA Surveillance Uptake

The surveillance uptake for this time period 2017-18, 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 2017-18, 845 surveillance appointments were attended (91.1%) within standard from a possible 928 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 2017-18, 40 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, 90% were referred within two working days of the scan being taken.

Forty men had open repair, or EVAR, surgery. This is a different cohort to the men who were scanned and referred in the year. Fourteen (35%) 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 was discussed at the three elective vascular network (EVNs) quality assurance visits in October 2018. Actions were discussed with the EVNs to improve compliance with this standard.

There is a slight increase in compliance of this standard from the previous Annual Statistical Report. In 2016-17, 12 men (29.3%) 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
- Slow progress in development of regional elective vascular networks

## 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 2018.

### 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.



## 5 Production Team and Pre-Release List

### Production Team:

Llywela Wilson	Head of Wales Abdominal Aortic Aneurysm Screening Programme
Dr Sharon Hillier	Director of Screening Division
Heather Lewis	Consultant in Public Health
Catherine Floyd	Specialty Registrar
Helen Clayton	Lead Informatics and Data Services Manager
Mark James	Senior Informatics and Data Analyst
Guy Stevens	Deputy Informatics and Data Services Manager
Anna Ashman	Communications Manager
Sarah Thomas	Communications Executive
Jennifer McGrath	Clerical Officer
Rhys George	Cofus CTF (Welsh translation)

### Pre-Release List:

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.

### Public Health Wales

Jan Williams	Chair
Dr Tracey Cooper	Chief Executive
Dr Quentin Sandifer	Executive Director of Public Health Services and Medical Director
Leah Morantz	Head of Communications

### Welsh Government

Dr Frank Atherton	Chief Medical Officer
Dr Andrew Goodall	Director General - Health and Social Services
Rebekah Tune	Head of Strategic Communications and Marketing
Prof Chris Jones	Deputy Chief Medical Officer / Medical Director NHS Wales
Neil Surman	Deputy Director of Public Health
Dr Heather Payne	Senior Medical Officer for Maternal & Child Health
Helen Tutt	Senior Executive for Screening, Immunisation and Sexual Health
Stephen Thomas	Head of Health Protection Branch