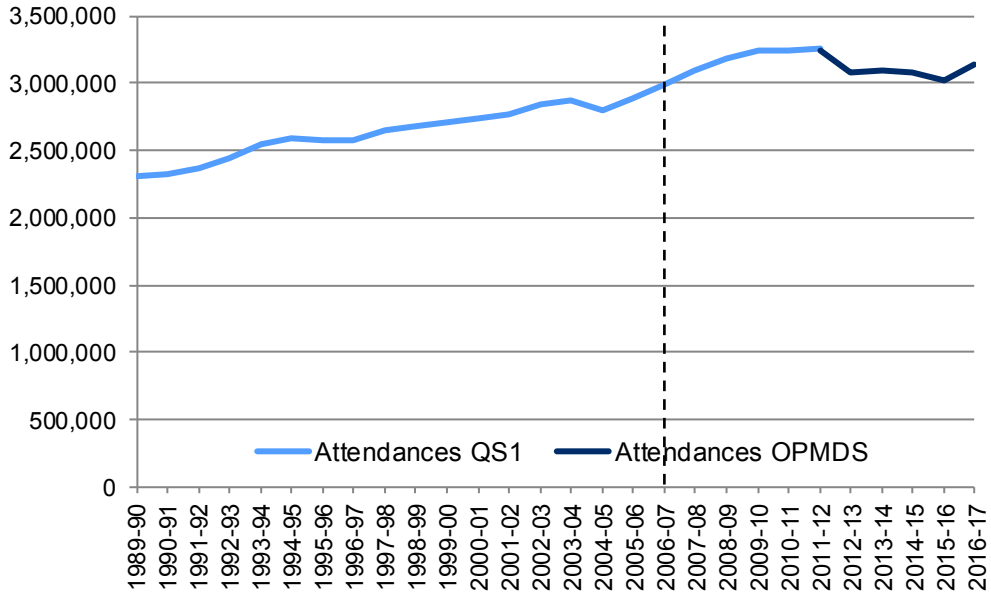
# Outpatient Activity Minimum Dataset: Summary results for 2016-17

28 November 2017
SFR 180/2017

This Statistical Release provides an update to the previous Statistical Article ('Outpatient Activity Minimum Dataset: update on data quality and summary results for 2015-16'), published on 4 October 2016. We have previously produced an article providing an overview of the Outpatient Activity Minimum Dataset (OP MDS) (the source of official statistics for NHS outpatient activity from 2012-13 onwards), presented background information and commentary to assist in the interpretation of the data, and explored the differences between the OP MDS and the previous official data source used for outpatient activity, the QueSt 1 (QS1) return. It acted as an introduction to the data source.

## Chart 1: Outpatient attendances, 1989-90 onwards




Source: QS1 and OP MDS, NHS Wales Informatics Service

(a) Nurse led activity was included from 2006-07 onwards. See Key quality information

## About this release

This annual release presents summary information, provided by the NHS Wales Informatics Service (NWIS), on Outpatient Activity in Wales.

Data is presented at Wales and local health board (LHB) level for total Outpatient attendances, Rate of attendances by population, ratio of follow-up appointments to new appointments and total patients who Did Not Attend (DNA).

## In this release



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## Section 2: Key findings from the Outpatient Minimum Dataset, 2016-17

This section presents summary information from the OP MDS for 2016-17. The information and figures provided are based on activity undertaken at hospital sites in Wales. As such, it includes activity delivered by English organisations in Welsh hospitals and excludes activity carried out in England.

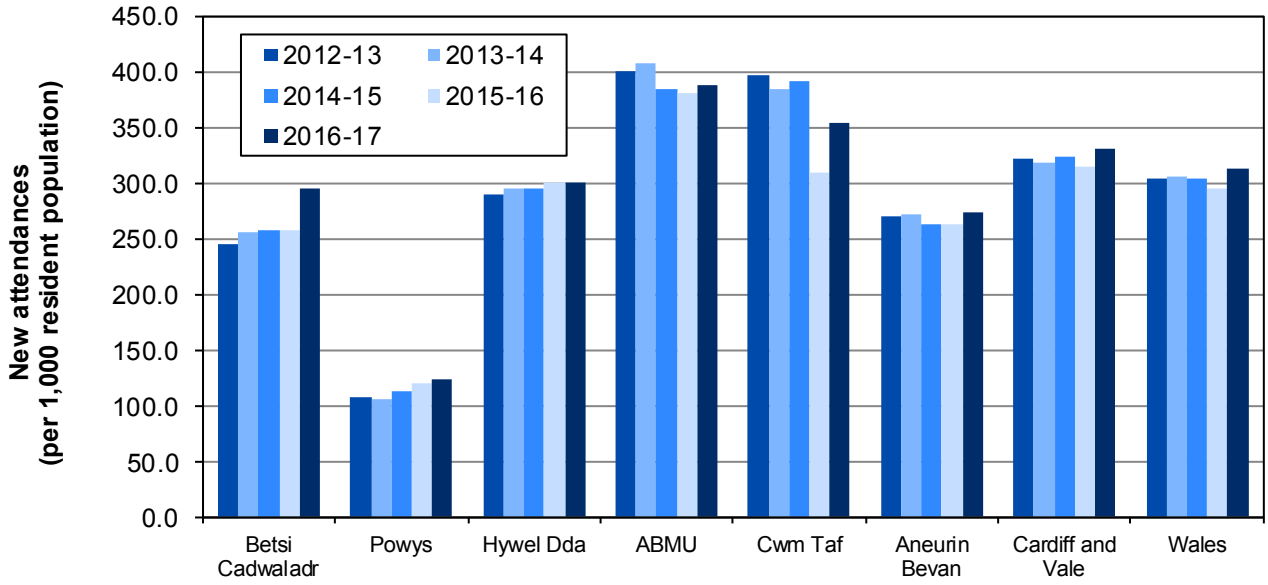
Charts are presented as rates per 1,000 resident population to ensure that the analysis of the data reflects actual differences between the LHBs' outpatients activity and not the difference in the population between LHBs. Rates per population have been calculated using the mid-year population estimates from 2011 to 2016, published by the Office for National Statistics (ONS).

### Summary for 2016-17

- There were 976,769 new outpatient attendances in Wales, an increase of 63,952 (7.0 per cent) from 912,817 in 2015-16. This increase is driven by a change in recording within Cwm Taf, which is explained in more detail in Section 3.
- There were 3,141,535 total outpatient attendances in Wales, an increase of 115,211(3.8 per cent) from 3,026,324 in 2015-16. This increase is driven by a change in recording within Cwm Taf, which is explained in more detail in Section 3.
- The treatment function codes accounting for the largest number of new attendances in Wales were: trauma & orthopaedic, general surgery, ophthalmology, ear, nose & throat and gynaecology.
- The treatment function codes accounting for the largest number of total attendances in Wales were: trauma & orthopaedic, ophthalmology, general surgery, dermatology and ENT.
- The ratio of follow-up to new outpatient attendances in Wales was 2.1.
- The percentage of appointments where the outpatient did not attend (DNA) in Wales was 8.6 per cent, an improvement of 0.4 percentage points from 9.0 percent in 2015-16.

## Attendances

### Chart 2: Rate of new outpatient attendances per 1,000 resident population, by LHB, 2011-12 onwards




Source: OP MDS, NHS Wales Informatics Service

(a) Velindre NHS Trust is not shown in the chart as it does not cover a specific geography, and does not have a corresponding population as the LHBs do. It is included in the Wales figures.

In 2016-17, there were 976,769 new attendances (314 per 1,000 resident population). This is 63,952 more than the previous year, an increase of approximately 19 per 1,000 resident population (3.3 per cent)

There is some variation between LHBs in the rates of new attendances per 1,000 resident population. Abertawe Bro Morgannwg had the highest rate (389), whilst Powys had the lowest rate (124) in 2016-17. This will be due to a number of Powys' residents attending outpatient clinics in other health boards.

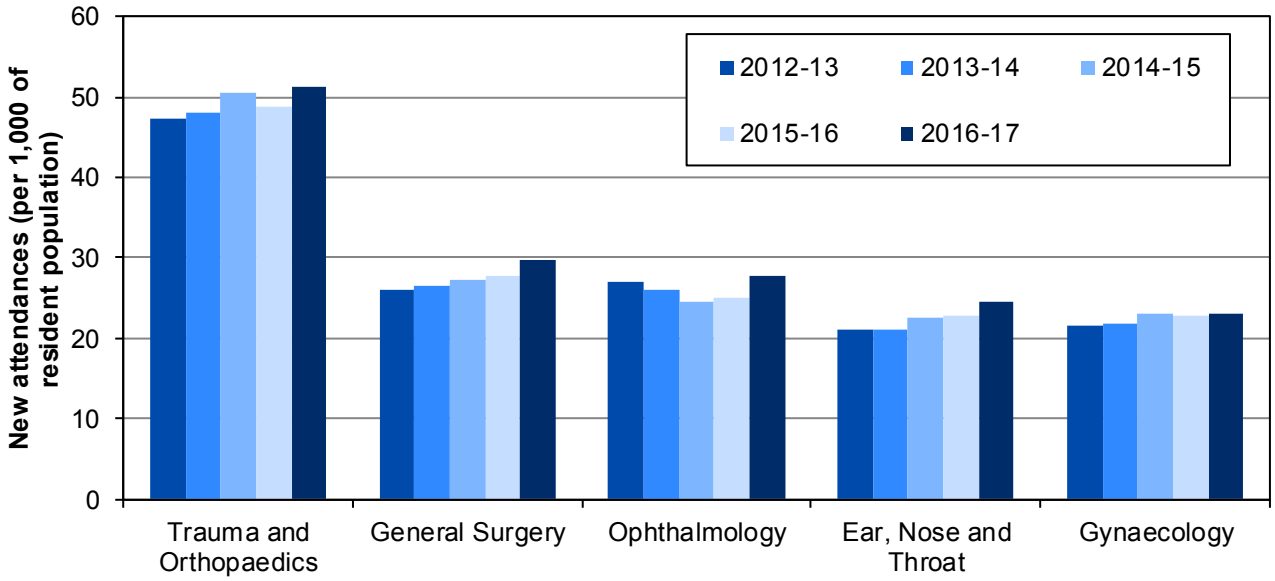
All of the seven health boards saw an increase between 2015-16 and 2016-17 in the rates of new attendances per 1,000 population. Cwm Taf had the largest increase (46), followed by Betsi Cadwaladr (38), whilst Hywel Dda had the smallest increase (1). The increase in Cwm Taf is mainly due to some hospital sites submitting data for the first time, which is explained in more detail in Section 3. There has been a considerable increase in the rate of new attendances at Betsi Cadwaladr, across a broad range of treatment functions.

Since 2012-13, when the OP MDS became the official source for outpatient data, the rate of new attendances per 1,000 population has increased by 10 (3.3 per cent)

## Analysis by Treatment Function Code

For further information on treatment function codes please see the Annex.

**Chart 3: Rate of new outpatient attendances per 1,000 resident population, by treatment function code, 2011-12 onwards**




Source: OP MDS, NHS Wales Informatics Service

(a) Only the 5 largest treatment function codes in 2016-17 in terms of new attendances are displayed

Chart 3 displays the rate of new attendances per 1,000 resident population for the five treatment function codes accounting for the largest number of new attendances across Wales, based on the 2016-17 data.

In 2016-17 across Wales, the treatment function codes accounting for the largest number of new attendances were: trauma & orthopaedic, general surgery, ophthalmology, ear, nose and throat (ENT) and gynaecology. These five treatment function codes accounted for 49.9 per cent (156) of the 314 new attendances per 1,000 of resident population.

Trauma & orthopaedic had the highest rate of new attendances at around 51 new attendances per 1,000 population. It had approximately 80 per cent more attendances than the rate of the next treatment code (Ophthalmology, 28 per 1,000 population). Between 2015-16 and 2016-17, trauma & orthopaedic has increased by approximately 3 new attendances per 1,000 population. Since 2012-13, trauma & orthopaedic has had the largest number of new attendances at around 150,000 per year (on average 51 per 1,000 resident population per year).

Outside of the top five, each of the remaining treatment function codes had fewer than 20 new attendances per 1,000 population.

As mandated in DSCN 2014/08, local health boards in Wales were instructed to adopt new treatment function codes from 1st April 2016, in order to provide a greater level of granularity and. However due to technical difficulties, this action was deferred as some health boards were not able to adopt the codes before the agreed deadline. However, some hospitals have been using the new codes in 2016-17. Therefore care must be taken when comparing figures by treatment function in 2016-17 to previous years.

There has been a large increase in the Obstetrics treatment function, which has increased by 443.1 per cent, which had 4,181 new attendances in 2015-16 and now has 22,706 new attendances in 2016-17, this is due to recoding of similar specialities into this treatment function, but when all three treatments functions are combined there was still an increase (previously Obstetrics was split by post and ante natal clinics) - but some were still supplied this year in error - see Section 3. In total the three Obstetrics specialities have seen an increase in 2016-17 with a combined total of 28,032, up from 25,940 in 2015-16 (an increase of 8.1 per cent).

Clinical Haematology has seen an increase of new attendances of 24.5 per cent from 2015-16, increasing from 11,481 new attendances in 2015-16 to 14,295 new attendances in 2016-17. However this may be due to changes in treatment function codes.

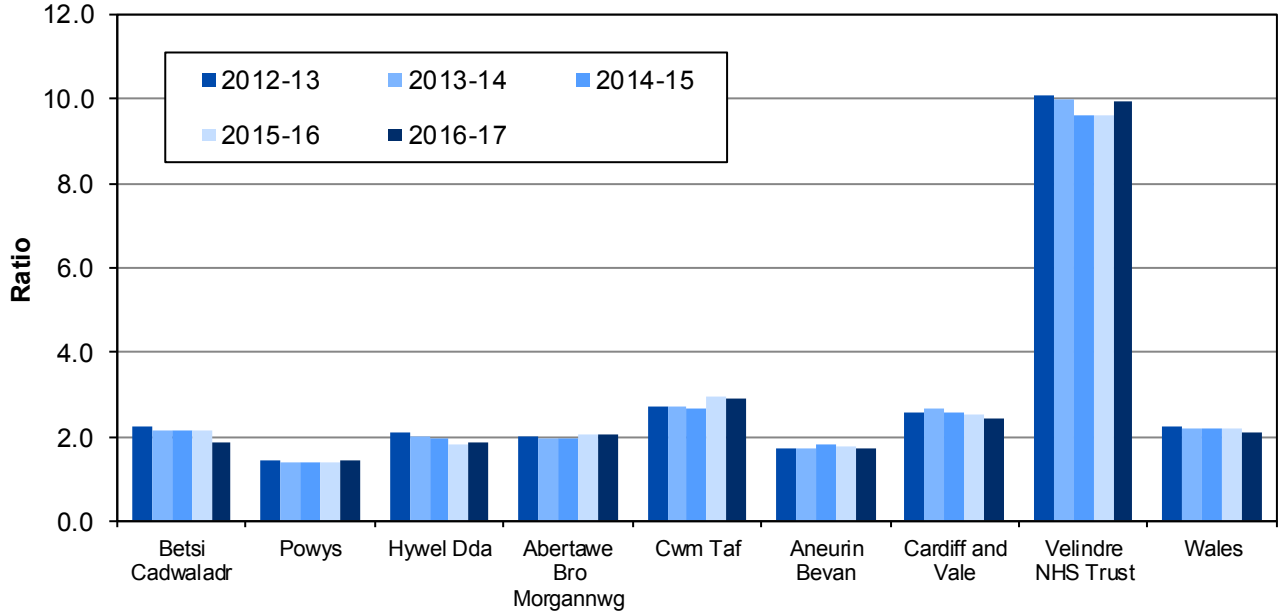
There has also been an increase in new attendances for mental health services which when combined have seen an increase of 7,475 (27.5 per cent) from 27,229 new attendances in 2015-16 to 34,704 attendances in 2016-17. Cwm Taf mostly account for this increase due to the inclusion of some existing hospital sites for the first time. See Section 3 for more information.

Cardiothoracic surgery has seen a decrease of 11.0 per cent of new attendances from 2015-16, going from 2,273 new attendances in 2015-16 to 2,024 new attendances in 2016-17 (249 less attendances).

Cardiology has seen a decrease of 2.8 per cent of new attendances from 2015-16, going from 38,205 new attendances in 2015-16 to 37,134 new attendances in 2016-17 (1,071 less attendances).

## Follow-up outpatient attendances

### Chart 4: Ratio of follow-up to new attendances by LHB/NHS Trust, 2011-12 onwards



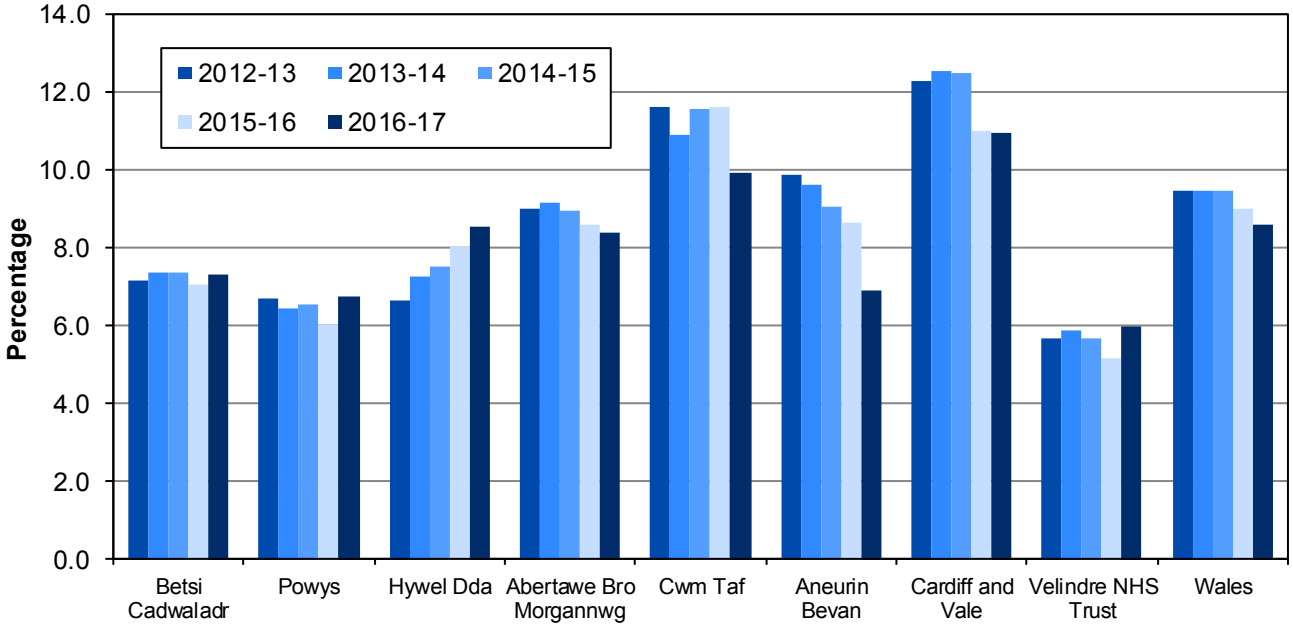

Source: OP MDS, NHS Wales Informatics Service

In 2016-17 across Wales, the ratio of follow-up to new outpatient attendances was 2.1, a slight decrease from 2.2, the ratio since 2012-13.

Velindre had a far higher ratio of follow-up to new attendances than the LHBs, with a ratio of 10.0 in 2016-17 and an average ratio of around 9.8 over the last 4 years. The health boards generally had ratios between 1 and 3 over the past 4 years. In 2016-17, Cwm Taf had the highest (2.9) and Powys had the lowest (1.4). In each year since 2012-13 Cwm Taf had the highest ratio of the health boards and Cardiff & Vale the second highest.

## Outpatients who did not attend (DNA)

### Chart 5: Percentage of total appointments where the outpatient did not attend, by LHB, 2011-12 onwards




Source: OP MDS, NHS Wales Informatics Service

Please note that a new method for calculating DNA rates has been used. See the Annex for more information. Across Wales in 2016-17, the percentage of appointments where the outpatient DNA was 8.6 per cent, a decrease of 0.4 percentage points from 9.0 in 2015-16.

In 2016-17, Cardiff and Vale had the highest (11.0 per cent) and Powys had the lowest (6.7 per cent) percentage of appointments where the outpatient DNA. Aneurin Bevan and Cwm Taf have had the largest decrease in the DNA from 2015-16, 1.7 percentage points each. The largest increase in the percentage of appointments where the outpatient DNA in 2016-17 was seen at Velindre with a 0.9 percentage point increase.

Across Wales the percentage of appointments where the outpatient DNA remained fairly stable from 2012-13 to 2014-15, at approximately 9.5 per cent. However in 2015-16, this decreased to 9.0. This was mainly due to the reduction in Cardiff and Vale, which accounted for 45 per cent of the decrease in DNAs between 2014-15 and 2015-16 (for further information regarding the reduction in Cardiff and Vale's DNA in Section 3). The further reduction in 2016-17 is a result of reductions in Cwm Taf and Aneurin Bevan.

The reduction seen in Cwm Taf in 2016-17 is mainly down to the introduction of a new automated check in service, while the reduction in Aneurin Bevan was mainly down to the implementation of a new test reminder service. See Section 3 for more details.

## Section 3: Update to quality information

This section supplements and updates the previous article's Quality information section. There are no updates to the quality dimensions Relevance, Accessibility and clarity and Coherence; Thus please refer to the previously published Statistical Article, published on 16 February 2016 for information regarding these dimensions.

### Accuracy and reliability

#### Invalid site and treatment function codes

Although the outpatient data is subject to Validation at Source Service (VASS), as mentioned in the previous article's 'Data coverage and processing cycle' section, there is data recorded against closed hospital sites present in 2014-15 and 2015-16. For instance, in 2014-15 and 2015-16, this data accounted for 0.2 per cent of the total attendances submitted in both years, this has been further reduced over 2016-17 which now accounts for 0.1 per cent. Betsi Cadwaladr submitted the most data against closed sites submitting 491 total attendances against three closed hospital sites (104 of these were new attendances), submitting 5,297 (648 new attendances) in 2015-16; 5,068 (634 new attendances) in 2014-15. Betsi Cadwaladr also submitted a further 990 attendances in 2014-15, 1,183 in 2015-16 and 1,577 in 2016-17 against an invalid code listed as '7A1'. LHBs are informed automatically when they submit against site codes that are not active and NWIS monitor the validity of data on a monthly basis alerting LHBs if the validity falls below 98 per cent. The validity of the site code of treatment has always been above this threshold. At Welsh Government we treat these site codes as invalid and data recorded against them is only included within their respective LHB total. This is a small proportion of the number of outpatient records submitted.

In cases where the site code of treatment was blank the records were excluded from the extract provided to Welsh Government and are not published.

Invalid treatment function codes were also identified within the data, which relates to 1,392 total attendances in 2014-15 and 2,295 in 2015-16. Of which, 64 in 2014-15 and 997 in 2015-16 were due to some health boards implemented new treatment function codes before the mandated date (1 April 2016). This data is not published against a treatment function but is included in the 'All Treatment Function' total.

8 attendances were submitted with no treatment code in 2016-17, these have been made invalid (#) and only counted as part of the 'All Treatment Function' total. 86, 004 were recorded under the nursing treatment function code (950) from two health boards, BCU and Cwm Taf. After discussion with Cwm Taf, it was decided that these attendances as well as those for code 900 were out of scope for the outpatients dataset, and hence they were deleted from the submission. After discussion with BCU about their activity under code 950 it was discovered the nursing treatment function code was being supplied through a computer error in their system, which was recoding other treatment codes as 950 (8,855 attendances), these have been recoded to invalid codes (#) – as BCU are unable to back track this to find the code that the activity was originally recorded as - and included into the 'All Treatment Function' total, but not as a treatment function.

### Did not attend (DNA) figures

Cardiff and Vale's did not attend figures have decreased to a large extent in 2015-16. The percentage decrease for new DNA was 24.1 per cent (5,282) and for total DNA 13.2 per cent (10,533). Cardiff and Vale explained the main factor behind this decrease as the introduction of a Fully Automated Booking (FAB) system, which contributed to the vast majority of this improvement. FAB works by:

- automatically generating appointments with around 5 weeks notice
- sending up to two reminder letters giving patients more opportunity to confirm, rebook or cancel
- delivering a telephone call reminder service 10 days out from the patient's appointment (also provided to follow-up appointments, if the specialty is in the FAB model)
- automatically cancelling appointments if patients have not made contact within 7 days of their appointment (every effort is made to refill slots).

This has been maintained into 2016-17 showing the success of the FAB system over two consecutive years, there was a 0.2 per cent reduction in new appointments which DNA, and all appointment DNAs remains unchanged for Cardiff and Vale University Health Board.

Other health boards in Wales have looked to automate bookings and reminding services. Aneurin Bevan and Cwm Taf have introduced a system which encourages patients to update contact details regularly in order to maintain good contact. Both health boards have seen significant improvements in their Did Not Attend figures for 2016-17.

## Timeliness and punctuality

There were only two late submissions in 2014-15 which equates to 1.1 per cent of total outpatient submissions received. Adding to this there was only one late submission in 2015-16, which equates to 0.6 per cent of submissions received. These files were submitted in the following month and met the annual deadline for resubmissions (20 June). This does not affect the data that Welsh Government publish as the extract we received was post these resubmissions.

In 2016-17 all organisations resubmitted data by the noon deadline (20 June 2017) on the specified day apart from BCU who uploaded data on 21 June 2017. BCU also had an issue with the data which was rectified and re-uploaded on 26 June 2017.

## Comparability

This section updates users on the data quality issues that affected comparability between health boards. An update is provided for Betsi Cadwaladr, Cardiff and Vale, Cwm Taf and Aneurin Bevan University health boards.

There is less variation between health boards in terms of what is included in the submission than stated in the previous article. There is less variation in the independent nurse led activity than previously reported. Cwm Taf no longer has more independent nurse led activity than all the other organisations in Wales combined. However, the published data combines the nurse and consultant led data. For further information regarding comparability, please see the previous article's comparability subsection.

**Betsi Cadwaladr University (BCU) Health Board**

Along with BCU East, BCU West is now also submitting midwifery led activity. This means that BCU East and West are both submitting consultant and midwifery led activity, whereas BCU Central submit consultant and independent nurse led activity only. Although BCU West are now also submitting midwife-led activity, the total midwife-led for BCU is still less than most other LHBs. BCU Central are submitting negligible amounts of the activity.

**Cardiff and Vale University Health Board**

The issues listed in the previous article with Cardiff and Vale's OP MDS submission are still in the process of being addressed by the health board. We have also been made aware that Cardiff and Vale are including Non Clinic Attendance (NCA) activity in their data from 2015-16 onwards, where previously they did not. The LHB estimate that this NCA activity relates to around 700 attendances per month.

**Cwm Taf University Health Board**

Analysis shows that that the decrease between 2014-15 and 2015-16 in all measures at Cwm Taf is due to Cwm Taf ceasing to record data under the Nursing treatment function code and recording less under General Medicine, which is related to Cwm Taf's intention of reducing the numbers of non-independent nurse-led activity in their submission in-line with national reporting standards. The nursing treatment function accounted for a fall of 45,129 in Cwm Taf's total attendances with General medicine accounting for a further fall of 16,241. Together these account for a fall of 61,370. Whilst overall attendances are down in Cwm Taf, nearly all of that fall is due to these changes which are coding changes rather than actual changes in attendances. Please see the previous article for more information on this issue.

An increase in activity in 2016-17 is mainly down to Cwm Taf including some existing hospital sites for the first time. In particular, Cwm Taf provides Child and Adolescent Mental Health Services (CAMHS) on behalf of Cardiff and Vale and ABMU at a number of sites across South Wales, and not all of these sites were able to submit data prior to 2016-17 due to technical issues.

**Aneurin Bevan University Health Board**

Progress is being made with invalid nurse and consultant codes being submitted by Aneurin Bevan as their data shows that there were less blank and invalid codes in 2015-16 then there were in previous years. The number of appointments assigned to blank consultant (or nurse) codes had halved from over 5,000 to just over 2,500. The number of invalid nurse codes has fallen from around 500 in 2014-15 to just over 100 in 2015-16. Please see the previous article for more information. In 2016-17 Aneurin Bevan have completely removed all invalid and blank codes from their submissions.

## Publication and revisions

The outpatient data from the OP MDS will be published annually in October (provisional) on StatsWales with an accompany headline showing key points. The publication's exact date will be preannounced one month before on the Upcoming calendar on the Welsh Government website.

Data in this article and StatsWales for 2014-15 has been revised since the last article. This is in line with our plan to revise the last year of data each time we release new data. We will take advice from NWIS

regarding considerable revisions for previous years. If resubmissions from LHBs/NHS trusts are considerable the data will be revised. Revised data will be highlighted in the StatsWales table as such.

The data in this article and on StatsWales has not been significantly revised since the previous article. There was no change in the data for 2012-13 and 2013-14. There was a slight change in the number of appointments submitted for 2014-15, which equates to 1,199 additional appointments. The difference in appointments was made up of 1,209 additional appointments submitted from Betsi Cadwaladr and 10 fewer appointments submitted from Velindre. This is out of 3.97 million appointments submitted in the current extract used for this article.

### Recommendations

We advise against using the OP MDS to compare LHBs, as the organisations include different activity within their submissions. Please refer to Section 3: Update to quality information and the previous article's Section 4: Quality information to see how some of the LHBs have changed the way they submit data.

## Well-being of Future Generations Act (WFG)

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural well-being of Wales. The Act puts in place seven well-being goals for Wales. These are for a more equal, prosperous, resilient, healthier and globally responsible Wales, with cohesive communities and a vibrant culture and thriving Welsh language. Under section (10)(1) of the Act, the Welsh Ministers must (a) publish indicators ("national indicators") that must be applied for the purpose of measuring progress towards the achievement of the Well-being goals, and (b) lay a copy of the national indicators before the National Assembly. The 46 national indicators were laid in March 2016.

Information on indicators and associated technical information - How do you measure a nation's progress? - National Indicators

Further information on the Well-being of Future Generations (Wales) Act 2015.

The statistics included in this article could also provide supporting narrative to the national indicators and be used by public services boards in relation to their local well-being assessments and local well-being plans.

## Users and uses

We believe the key users of these statistics are:

- Ministers and their advisors;
- Assembly members and Members Research Service in the National Assembly for Wales;
- Officials within the Health and Social Services Group at Welsh Government;
- NHS Wales;
- Students, academics and universities;
- Other areas of the Welsh Government;
- Other government departments;
- Media; and
- Individual citizens.

If you are a user and do not feel the above list adequately covers you please let us know by contacting via stats.healthinfo@gov.wales

## Further details

This release is available at: http://gov.wales/statistics-and-research/outpatient-activity/?lang=en

## Next update of data

October 2018 (Provisional)

## We want your feedback

We welcome any feedback on any aspect of these statistics which can be provided by email to stats.healthinfo@gov.wales

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# Annex

## OP MDS fields and definitions

More information on the definitions of terms used in this article, and on data sources, can be found in the NHS Wales Data Dictionary.

## Measures

New Attendances include any attendance that is the start of the outpatient episode and is the first attendance in a series with the same Consultant or Independent Nurse following a referral (Attendance Category = '1'). Patient arrived on time or late and was seen (Attended or DNA = '5' or '6').

Total Attendances includes all outpatient attendances including new, follow-up and pre-operative assessment attendances (Attendance Category = '1' or '2' or '3'). Patient arrived on time or late and was seen (Attended or DNA = '5' or '6').

Ratio of follow-up to new attendances is the number of follow-up attendances (Attendance Category = '2') divided by new attendances (Attendance Category = '1') during the period under review. Calculated as:

$$\frac{\text{Follow up attendances}}{\text{New attendances}}$$

New outpatients who did not attend (DNA) includes any new attendance (Attendance Category = '1') where the outpatient did not attend and no advanced warning was given (Attended or DNA = '3').

Total outpatients who did not attend (DNA) includes any attendance (Attendance Category = '1' or '2' or '3') where the outpatient did not attend and no advanced warning was given (Attended or DNA = '3').

New appointments includes new appointments (Attendance Category = '1') regardless of whether the outpatient attended the appointment (Attended or DNA = all categories).

Total appointments includes all outpatient appointments including new, follow-up and pre-operative assessment appointments (Attendance Category = '1' or '2' or '3') regardless of whether the outpatient attended the appointment (Attended or DNA = all categories).

From 2016-17 onwards, we have changed the way we calculate the percentage of new and total appointments where the outpatient did not attend. The percentage of total appointments where the outpatient did not attend is now calculated as:

$$\frac{\text{New outpatients who DNA X 100}}{\text{(New attendances + New outpatients who DNA)}}$$

Percentage of total appointments where the outpatient did not attend is calculated as:

$$\frac{\text{Total outpatients who DNA X 100}}{\text{(Total attendances + Total outpatients who DNA)}}$$

Data prior to 2016-17 has been revised to take account of this new method.

Follow-up attendances includes all follow-up attendances (Attendance Category = ‘2’) where the patient arrived on time or late and was seen (Attended or DNA = ‘5’ or ‘6’).

For further information, please visit the NHS Data Dictionary Attendance Category webpage, the Attended or Did not Attend webpage and the Outpatient Attendances webpage.

### Specialties

Specialties are divisions of clinical work which may be defined by body systems (dermatology), age (paediatrics), clinical technology (nuclear medicine), clinical function (rheumatology), group of diseases (oncology) or combinations of these factors.

Treatment function is the specialty under which the patient will be or is treated. This may either be the same as the consultant's main specialty or a different specialty function which will be the consultant's interest specialty function. Note that both the main specialty function and the interest specialty function should be based on one of the Royal College specialties. Some health boards implemented new treatment codes before the mandated date (1 April 2016) in 2014-15 and 2015-16. Detailed definitions of each treatment function code can be found on the NHS Wales Data Dictionary Treatment Function Code web page including the valid from and to date.

We have published data from OP MDS based on the treatment function, that is the specialty under which the patient will be or is treated.