



Time Spent in NHS Wales Accident and Emergency Departments, 2017-18

25 October 2018
SB 69/2018

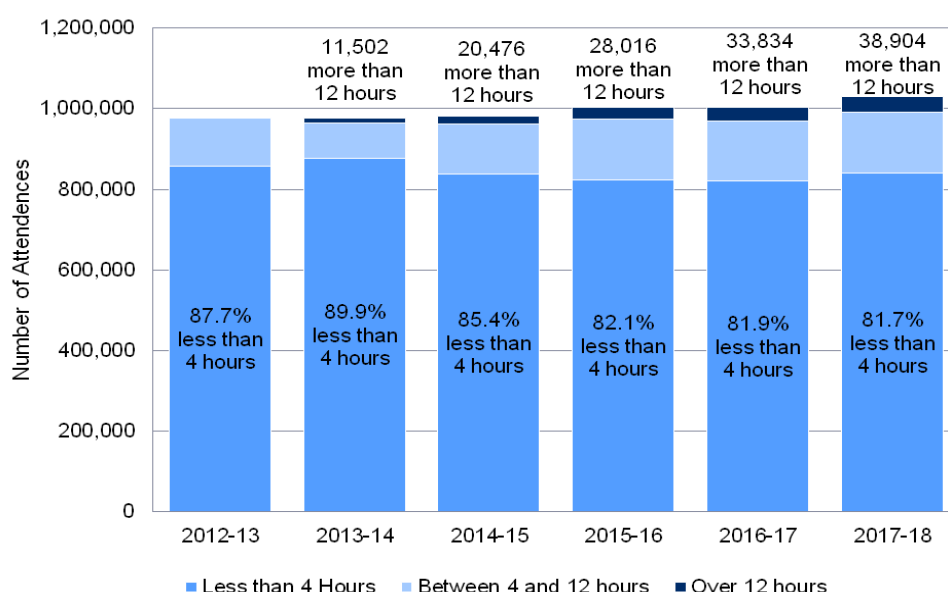
The [NHS Outcomes Framework 2017-18](#), was used to measure delivery throughout 2017-18. The targets relating to time spent in Accident and Emergency (A&E) departments are:

- 95 per cent of new patients should spend less than 4 hours in A&E departments from arrival until admission, transfer or discharge; and
- eradication of 12 hour or more waits within A&E departments.

Key points

- There were 1,030,680 attendances to A&E departments, an average of 2,824 a day, 74 more a day than 2016-17. There were larger increases in older age groups.
- 81.7 per cent of patients spent less than 4 hours in A&E departments from arrival until admission, transfer or discharge. This is 0.3 percentage points less than in 2016-17 but around 20,000 more patients.
- 38,904 patients spent longer than 12 hours in A&E departments, 5,062 more than the previous year.
- Patients over the age of 85 spent longer than average in A&E from arrival until admission, transfer or discharge.

Chart 1: Number of attendances over time and the percentage of patients spending less than 4 hours in A&E from arrival until admission transfer or discharge, 2012-13 to 2017-18



About this bulletin

This Statistical Bulletin presents summary information on the reported percentage of patients spending less than 4 hours and number spending more than 12 hours in all NHS A&E departments (major A&E departments and other A&E/Minor Injury Units) from arrival until admission, transfer or discharge.

This information is published monthly along with other key indicators as part of the [NHS Activity and Performance Summary](#). Interactive visuals on A&E activity and performance are updated monthly in this [dashboard](#). The data behind this bulletin is available on [StatsWales](#).

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Introduction

The Accident and Emergency (A&E) statistics show data on the time spent in all NHS Wales emergency care facilities from arrival until admission, transfer or discharge.

There are two distinct categories of emergency care facility:

- Major A&E Departments - defined as a consultant led service with appropriate resuscitation facilities and designated accommodation for the reception of accident and emergency patients. These departments must provide the resuscitation, assessment and treatment of acute illness and injury in patients of all ages, and services must be available continuously 24 hours a day.
- Other A&E/Minor Injury Units – defined as all other A&E/casualty/minor injury units which have designated accommodation for the reception of accident and emergency patients and can be routinely accessed without appointment.

The figures represent the total time spent in a hospital emergency care facility from arrival until admission, transfer or discharge. They only count new attendances and do not include planned follow-up attendance agreed or requested by a clinician. A new attendance is defined as the first visit made by a patient to an A&E department for a particular injury or ailment. If a patient returns to the A&E department with a condition previously treated where they have not been asked to return by the clinician, this is also counted as a new attendance. The figures relate to all patients, including paediatric patients.

The time spent in A&E starts when the emergency care facility is informed of the patient's arrival at the hospital and stops when the patient is admitted, transferred or discharged. The transferral would be to another hospital or interface facility.

A&E attendances data has been published since 2006, but the QUEST1 (QS1) return can be used to see historical data back to 1959. The QS1 return collected aggregate data on patient throughput and bed utilisation at NHS hospitals, clinics and units in Wales.

The analysis focuses on Activity and Performance in the 2017-18 financial year but looks back over a longer time series to show long-term trends. A context section is provided to add depth to some of the analysis.

Summary

Activity

- There were 1,030,680 attendances in 2017-18, the highest on record. This was 2.7 per cent more than 2016-17 (27,016 more), the largest annual percentage increase since 2006-07.
- This is the equivalent to 2,824 attendances a day in 2017-18, 74 (2.7 per cent) more per day than the previous year and 147 more per day than 2012-13 (5.5 per cent).
- In general, attendances tend to be lower in the winter months than in the summer, with the most attendances in July 2017 (92,913) and the least in February 2018 (76,045).
- Older age groups had a larger percentage increase in attendances between 2016-17 and 2017-18.
- The local health board with the highest total attendances in 2017-18 was Betsi Cadwaladr University and Powys Teaching had the least, although Powys has no Major Accident and Emergency Departments. In contrast, the local health board with the highest daily rate of attendances compared to their population is Cwm Taf University.

Performance

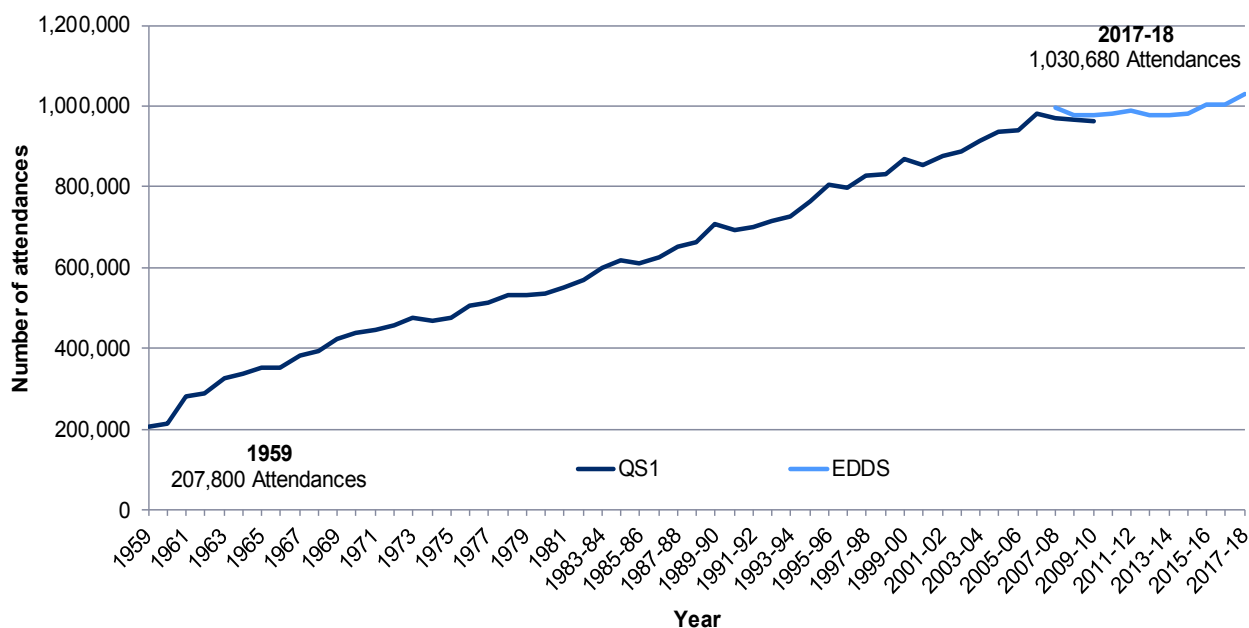
- In 2017-18, the percentage of patients spending less than 4 hours in A&E was 81.7 per cent, the lowest on record. This was 0.3 percentage points lower than 2016-17 and 6.1 percentage points lower than 2012-13. The number of patients spending less than the target time in A&E was 841,617, 19,355 more than in 2016-17.
- There were 38,904 waits over 12 hours in 2017-18, the highest on record. This is 5,062 more than 2016-17 and 27,402 more than when the target was introduced in 2013-14.
- The highest overall performance was in Powys Teaching health board, with 99.7% of patients seen within 4 hours in 2017-18, although this health board doesn't have a major department. The highest performance of a health board with a major department was at Hywel Dda (85.8 per cent).

Context

- Median and mean waiting times increased this year compared to last year.
- Ambulance arrivals are more likely to result in admission.
- Older people tend to wait longer in A&E and have a greater spread of waiting times compared to younger people. This is probably due to older people being more likely to be admitted.

Section 1: Activity

Chart 2: Number of A&E attendances by year, 1959 onwards¹



¹ From 1959 data was collected by calendar year, from 1983-84 it was collected by financial year

Source: QS1 and Emergency Department Data Set, NWIS

Chart 2 shows the total number of new attendances at accident and emergency departments in Wales from 1959 onwards.

Latest data

In 2017-18 there were 1,030,680 attendances, the highest on record.

Annual change

The number of attendances increased from 1,003,664 in 2016-17 to 1,030,680 in 2017-18, an increase of 2.7 per cent (27,016 more attendances). This is the largest annual percentage increase since 2006-07 when there was a 4.1 per cent increase from 2005-06. In contrast, the increase between 2015-16 and 2016-17 was only 0.1 per cent (1,118 more attendances).

When split by age group (0-4, 5-17, 18-24, 25-74, 75-84 and 85+), the 75-84 age group saw the largest percentage increase in attendances (5.7 per cent) compared with 2016-17.

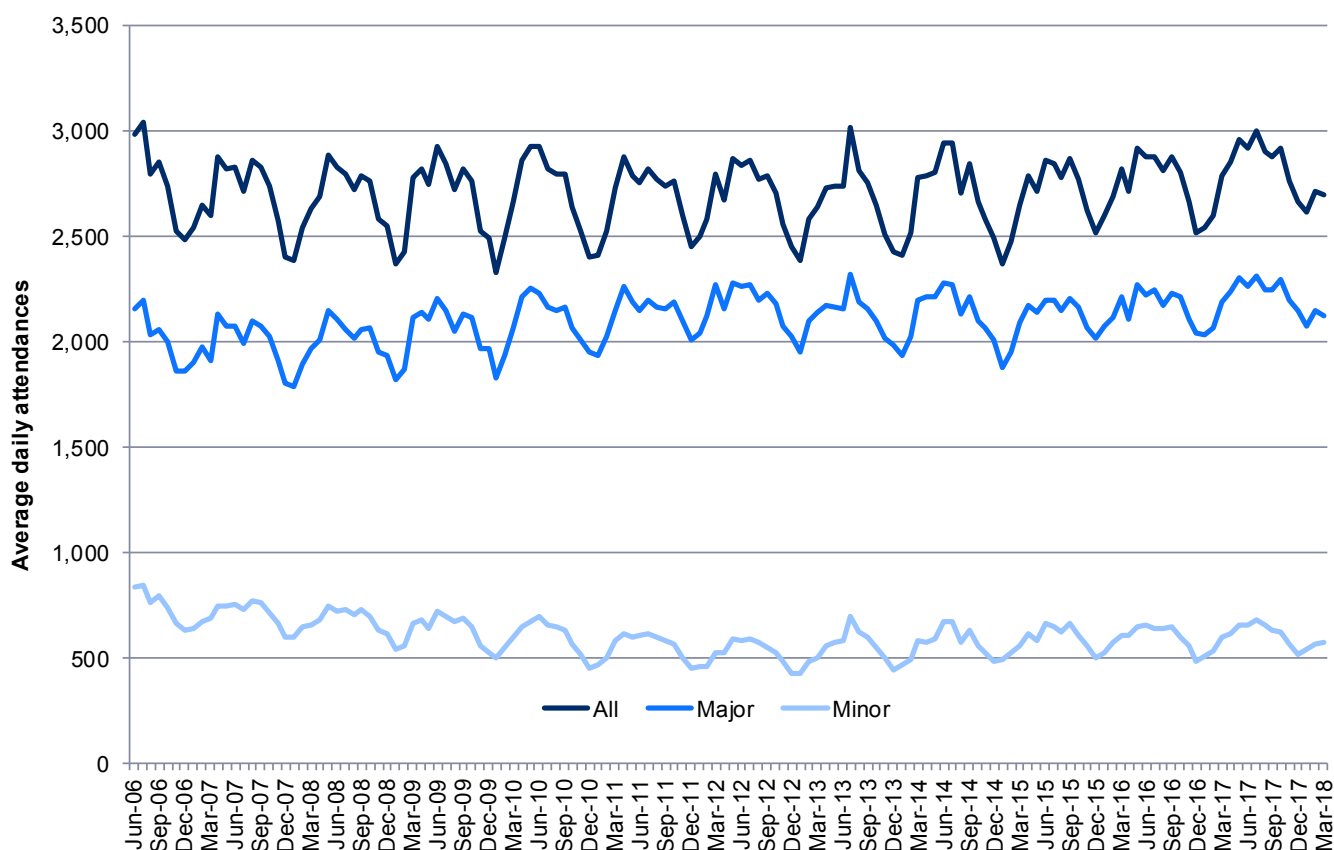
10 year change

The number of new annual attendances has gone up from 995,545 in 2007-08, an increase of 3.5 per cent (35,135 more attendances).

Change since first year of data

The number of A&E attendances has increased almost five times since this data was first collected in 1959.

Chart 3: Number of daily attendances in accident and emergency departments, split by major and minor departments, June 2006 onwards¹



Source: SITREPS, Emergency Department Data Set, NWIS

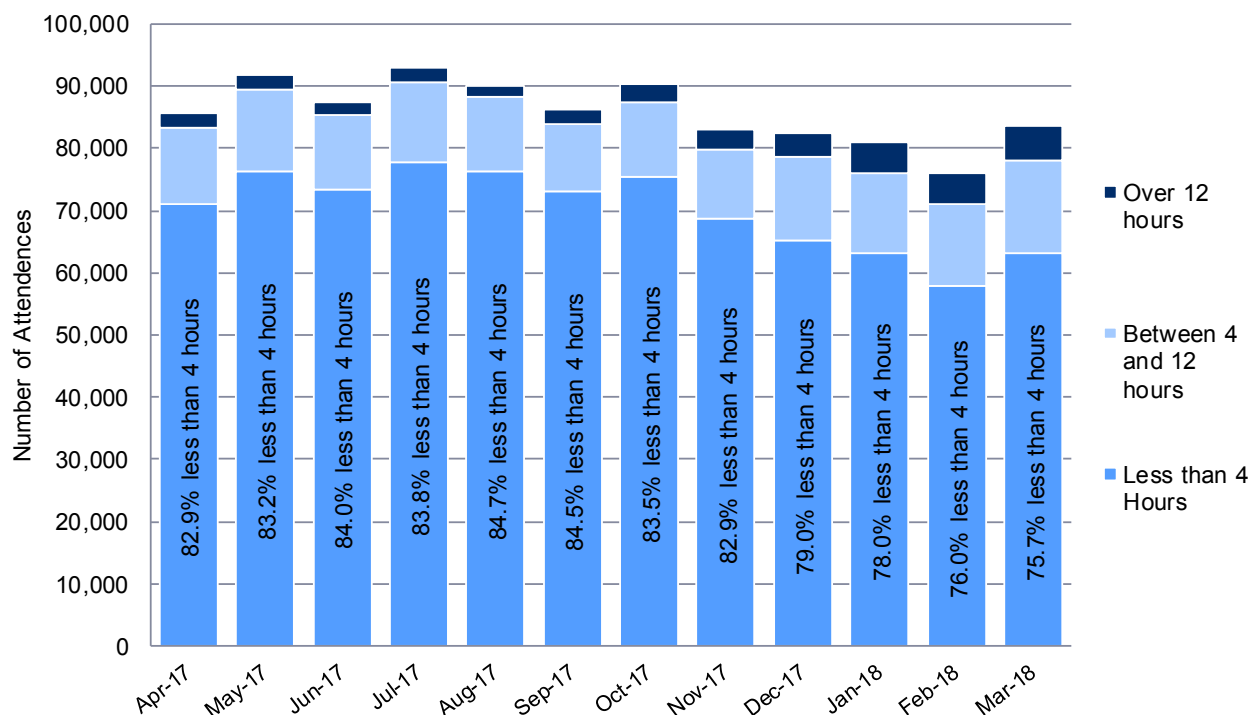
¹From June 2006 to March 2010 Accident and Emergency data was collected from weekly submissions to SITREPS, between April 2010 to March 2012, Major departments submitted monthly data to the EDDS and Minor data still came from SITREPS. From April 2012 onwards all data comes from EDDS.

Chart 3 shows the number of daily attendances by month for major and minor accident and emergency departments in Wales from June 2006 onwards.

Summary

From June 2006, the number of daily attendances has been stable across minor departments, with a slight upward trend across major departments. Most daily attendances were in major A&E departments. The chart shows the strong seasonality of the numbers, there are more attendances in the summer months and fewer in the winter months.

Chart 4: Total attendances grouped by time-bands and split by month, 2017-18



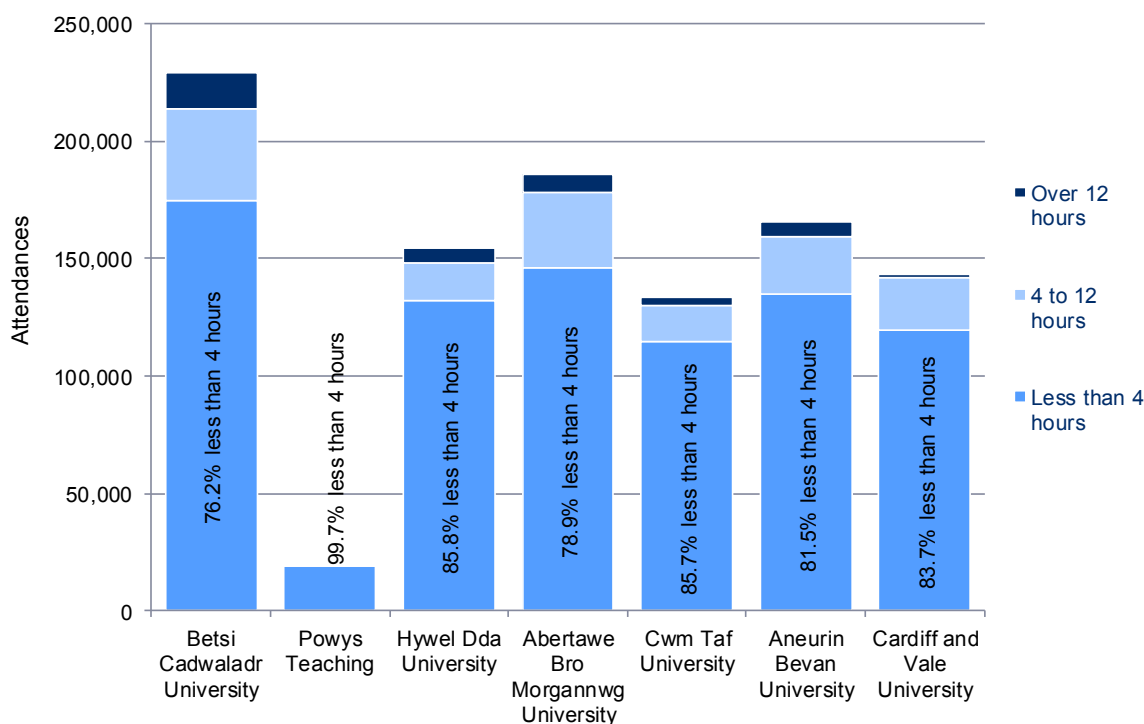
Source: Emergency Department Data Set, NWIS

Chart 4 is a stacked bar chart with the total attendances for each month through 2017-18. The bands show the proportion of those patients spending less than 4 hours, between 4 and 12 hours, or over 12 hours.

Summary

The number of attendances each month ranges between 76,045 and 92,913. The highest number of attendances was in July 2017 (92,913) whilst the lowest number of attendances was in February 2018 (76,045). In general, attendances tend to be lower in the winter months than in the summer. Performance against the targets is generally worse in the winter months with the percentage spending less than 4 hours decreasing and the number spending more than 12 hours increasing.

Chart 5: Total attendances and waiting time bands by local health board, 2017-18



Source: Emergency Department Data Set, NWIS

Chart 5 shows total attendances by health board. The bands show the proportion of those patients waiting less than 4 hours, between 4 and 12 hours or over 12 hours.

Summary

Betsi Cadwaladr had the most attendances in 2017-18, with a total of 229,466, Powys Teaching health board had the lowest with 19,097 attendances. Betsi Cadwaladr had the lowest proportion of patients waiting less than four hours (76.2 per cent) and Powys had the greatest proportion of waits less than 4 hours (99.7 per cent). However, note that Powys Teaching health board is the only health board in Wales without a major accident and emergency department. The next highest performance was in Hywel Dda and Cwm Taf (85.8 per cent and 85.7 per cent respectively).

Table 1: Rate of daily attendances per 10,000 people, by local health board and month, 2017-18

	Betsi Cadwaladr University	Powys Teaching	Hywel Dda University	Abertawe Bro Morgannwg University	Cwm Taf University	Aneurin Bevan University	Cardiff and Vale University	Wales
Apr-17	9.2	4.1	10.7	9.8	12.3	7.9	7.9	9.1
May-17	9.7	4.5	11.2	10.2	12.5	8.1	8.2	9.5
Jun-17	9.5	4.4	11.0	9.9	12.5	8.1	8.1	9.3
Jul-17	9.8	4.5	11.9	10.0	12.7	8.2	8.2	9.6
Aug-17	10.0	4.4	11.9	9.7	12.0	7.7	7.5	9.3
Sep-17	9.1	4.1	11.2	9.8	12.4	8.0	8.1	9.2
Oct-17	9.2	4.0	11.3	9.9	12.6	8.0	8.5	9.3
Nov-17	8.5	3.6	10.6	9.5	12.3	7.5	8.1	8.8
Dec-17	8.2	3.2	10.7	9.1	11.7	7.2	7.6	8.5
Jan-18	8.1	3.4	10.1	8.8	11.9	7.2	7.5	8.4
Feb-18	8.4	3.7	10.4	9.1	12.3	7.4	8.1	8.7
Mar-18	8.6	3.5	10.8	9.2	11.6	7.2	7.7	8.6
2017-18	9.0	3.9	11.0	9.6	12.2	7.7	8.0	9.0

Source: Emergency Department Data Set, NWIS and Mid Year Population Estimates, ONS

Table 1 shows the rate of attendances in each health board, as well as all-Wales rate for each month in 2017-18.

The rates are calculated using the population resident in each health board. Not all attendances are from patients who live the health board, e.g. patients who live in Powys could go to a major hospital in any of the other health boards.

Summary

Cwm Taf University and Hywel Dda University had the highest attendance rates per 10,000 people. This is in contrast to Chart 5 where Betsi Cadwaladr had the highest number of attendances. Powys Teaching had the lowest rate; however, this health board only has minor injury units. Patients who live in Powys attend A&E departments at other health boards, particularly neighbouring health boards. The health boards with the highest proportion of Powys residents (following Powys Teaching health board) are Aneurin Bevan and Hywel Dda (14.5 per cent and 12.3 per cent of each health board's total attendees respectively).

Section 2: Performance

Chart 6: Percentage of patients seen within 4 hours at A&E departments, by month and financial year, 2012-13 onwards

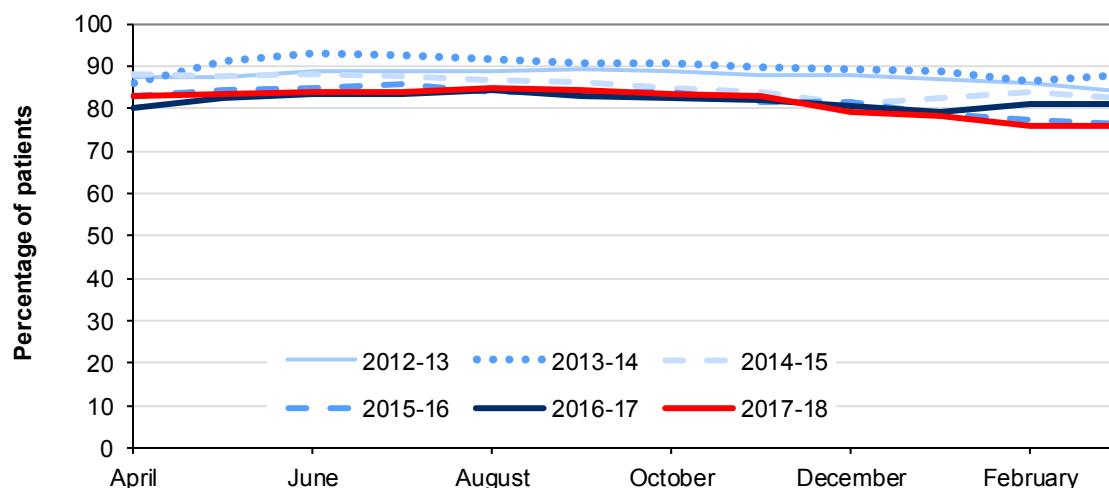


Chart 6 shows the monthly percentage of patients spending less than 4 hours in A&E by financial year, from 2012-13 onwards. This chart can be viewed together with the [Chart 1](#), which shows the total percentage of patients seen within 4 hours in each year.

Latest data

In 2017-18, 81.7 per cent of patients spent less than 4 hours in A&E ([Chart 1](#)). The percentage of patients spending less than 4 hours ranged from a high of 84.7 per cent in August to a low of 75.7 per cent in March. Performance decreased from December onwards, March 2018 was the lowest on record.

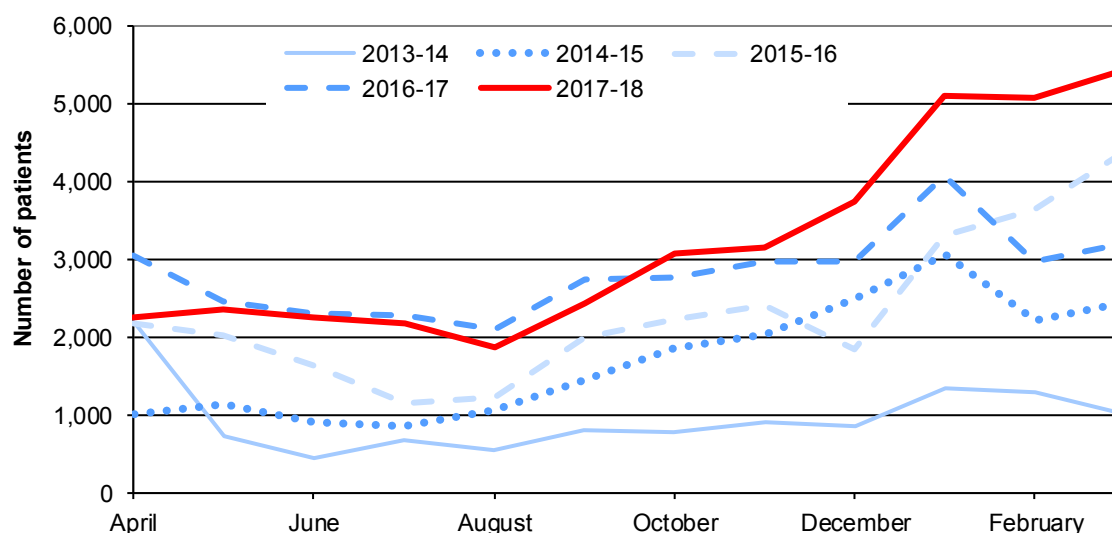
Annual change

Performance against the 4 hour target during 2017-18 was at a similar level to performance in 2016-17. Last year, 81.9 per cent of patients spent less than 4 hours in A&E ([Chart 1](#)), 0.3 percentage points more than in 2017-18. From December 2017 onwards, performance was lower in each month.

Summary

The percentage of patients spending less than 4 hours in A&E has generally declined each year since 2013-14. The highest percentage of patients spending less than 4 hours in A&E was in 2013-14 (89.9 per cent – [Chart 1](#)), the lowest percentage was in 2017-18. Although the number of patients spending less than 4 hours in A&E in 2017-18 was 841,617, the most since 2013-14.

Chart 7: Number of patients spending more than 12 hours at A&E departments, by month and financial year, 2013-14 onwards¹



¹The 12 hour target was introduced in 2013 (and replaced the 8 hour target).

Chart 7 shows the monthly number of patients spending more than 12 hours in A&E by financial year, from 2013-14 onwards. This chart can be viewed together with the [Chart 1](#), which shows the total number of patients seen over 12 hours in each year.

Latest data

In 2017-18, 38,904 patients spent more than 12 hours in A&E ([Chart 1](#)). The number of patients spending more than 12 hours ranged from a low of 1,859 in August to a high of 5,443 in March. Performance deteriorated from September onwards, with the highest point across the whole time series recorded in March 2018.

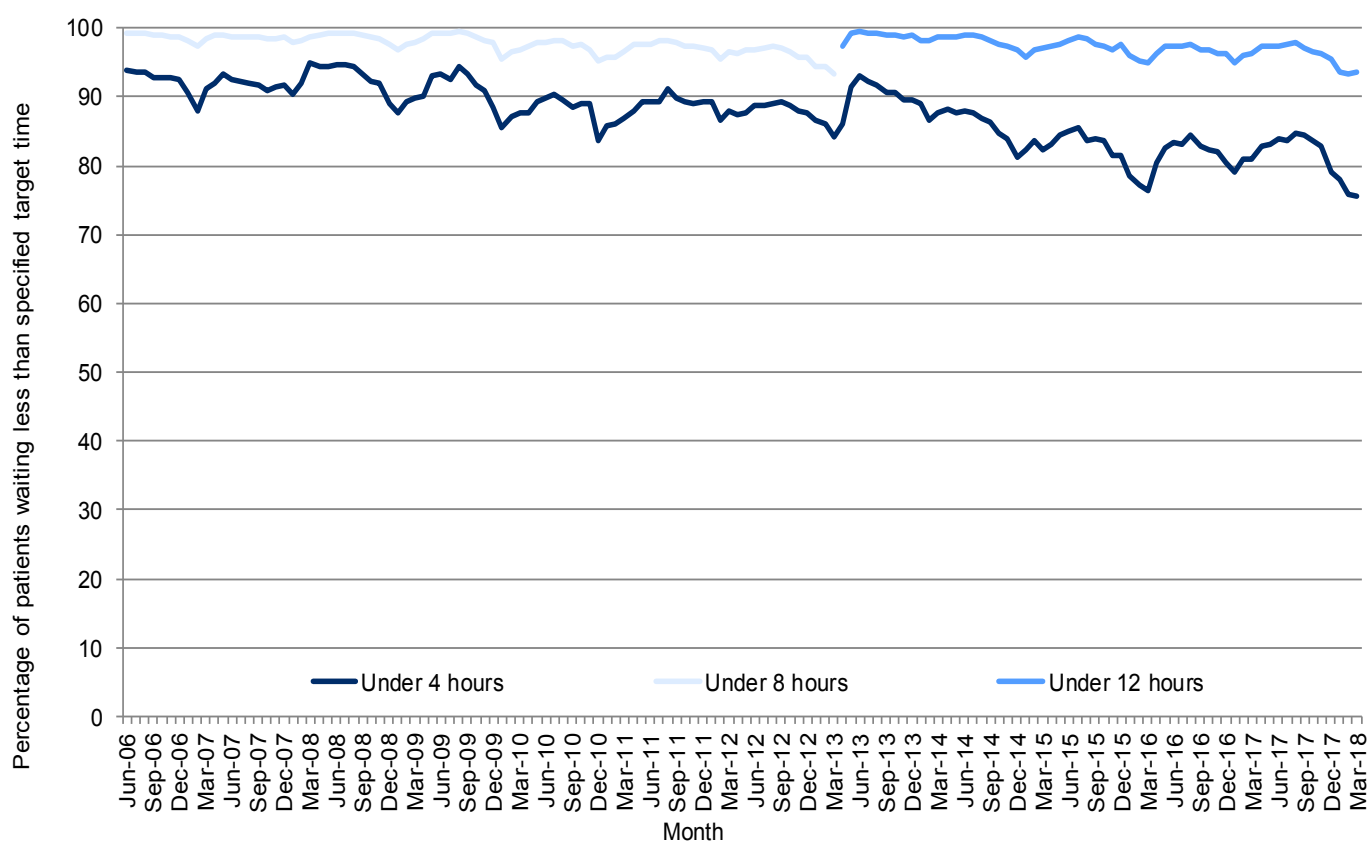
Annual change

Compared to 2016-17, the total number of patients spending more than 12 hours in A&E increased by 5,062 in 2017-18 ([Chart 1](#)). In 2017-18, performance was better in each month between April 2017 and September 2017 compared with the same period in 2016-17. From October 2017 onwards, performance was worse than in 2016-17. Overall, 3.8 per cent of patients spent longer than 12 hours in A&E in 2017-18, 0.4 percentage points more than in 2016-17 when it was 3.4 per cent.

Summary

The number of patients spending more than 12 hours has increased each year since 2013-14. The lowest number of patients spending more than 12 hours in A&E was in 2013-14 (11,502 patients – [Chart 1](#)), the highest number was in 2017-18.

Chart 8: Performance against specified targets¹, by month, June 2006 to March 2018



¹The 12 hour target was introduced in 2013 (and replaced the 8 hour target).

Chart 8 shows the performance of accident and emergency departments in Wales against the targets that have been in place over the period.

Latest data

In 2017-18, performance against the 4 hour target and the under 12 hour target increased in the summer before decreasing for the rest of the year. Performance was highest in August 2017 for both targets (84.7 per cent spending less than 4 hours and 97.9 per cent spending less than 12 hours). Performance was lowest in March 2018 (75.7 per cent) for the 4 hour target and February 2018 (93.3 per cent) for the under 12 hour target. March 2018 saw the weakest performance on record for the 4 hour target and also for the number waiting over 12 hours.

A number of factors may have affected performance over the year, including the [highest number of influenza cases](#) since the 2009 pandemic, freezing temperatures and blizzards in March 2018 and [staff sickness absence](#).

Annual change

Performance during 2017-18 was at a similar level to performance in 2016-17 for both targets. There were large decreases in performance at the end of the year for both targets.

Change since first year of data

Performance against the 4 hour target has declined from 93.8 per cent waiting less than 4 hours in June 2006 to 75.7 per cent in March 2018. Since April 2013, the percentage spending under 12 hours in A&E has declined from 97.3 per cent in April 2013 (with 2,179 patients spending over 12 hours) to 93.5 per cent in March 2018 (with 5,443 patients spending over 12 hours).

Summary

Performance against all targets has been declining over time. Performance is seasonal, with performance closer to meeting the target around the summer months. Performance against the 4 hour target was lowest in March 2018 (75.7 per cent seen in less than 4 hours), and highest in March 2008 (94.8 per cent seen in less than 4 hours).

Table 2: Total attendances, percentage spending less than 4 hours and patients who had spent more than 12 hours in accident and emergency departments, by month, 2017-18

	Total number of attendances			Percentage of patients spending less than 4 hours			Number of patients spending longer than 12 hours		
	Major	Minor	All	Major	Minor	All	Major	Minor	All
April 17	67,207	18,437	85,644	78.6	98.8	82.9	2,253	2	2,255
May 17	71,419	20,326	91,745	78.8	98.7	83.2	2,339	11	2,350
June 17	67,875	19,613	87,488	79.7	99.0	84.0	2,252	9	2,261
July 17	71,697	21,216	92,913	79.3	98.8	83.8	2,164	4	2,168
August 17	69,664	20,405	90,069	80.5	99.0	84.7	1,851	8	1,859
September 17	67,489	18,839	86,328	80.6	98.5	84.5	2,424	11	2,435
October 17	71,244	19,198	90,442	79.6	98.0	83.5	3,053	19	3,072
November 17	65,797	17,097	82,894	78.7	98.8	82.9	3,135	8	3,143
December 17	66,492	15,981	82,473	74.4	98.4	79.0	3,721	6	3,727
January 18	64,246	16,832	81,078	72.7	98.4	78.0	5,089	19	5,108
February 18	60,230	15,815	76,045	70.1	98.3	76.0	5,053	30	5,083
March 18	65,767	17,794	83,561	69.7	97.5	75.7	5,406	37	5,443
2017-18	809,127	221,553	1,030,680	77.0	98.5	81.7	38,740	164	38,904

Source: Emergency Department Data Set, NWIS

Table 2 shows the total attendances to major and minor accident and emergency departments in Wales, as well as the performance against the 4 hour and 12 hour targets.

Summary

The lowest number of attendances was in February 2018 (76,045) and the highest was in July 2017 (92,913). This is a similar pattern to other years with the highest attendances around May to October and the lowest around the winter months.

Performance against the 4 hour target ranged from a low of 75.7 per cent in March 2018 to a high of 84.7 per cent in August 2017. Performance against the 12 hour target ranged from a low of 1,859 patients spending longer than 12 hours in August 2017 to a high of 5,443 patients spending longer than 12 hours in March 2018. For both targets, March 2018 saw the weakest performance on record (see [Chart 6](#), [Chart 7](#) and [Chart 8](#)).

Performance is better in minor injury units compared to the major departments; however, they have fewer attendances and less severe cases.

Section 3: Context

Table 3: Percentage of patients being treated within specified times, by health board, 2017-18

Note that this breakdown of data is not available for all hospitals so figures quoted here for 4 and 12 hour performance will not necessarily match other published figures.

This is shown for context only.

Local Health Board	Percentage of patients who were in A&E departments for less than											
	1 hour	2 hours	3 hours	4 hours	5 hours	6 hours	7 hours	8 hours	9 hours	10 hours	11 hours	12 hours
Betsi Cadwaladr University	22.1	41.7	57.2	73.7	77.1	80.9	84.2	86.7	88.6	90.1	91.4	92.5
Powys Teaching	72.7	95.8	99.1	99.7	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0
Hywel Dda University	20.6	49.6	69.9	85.7	88.5	91.0	92.7	93.9	94.7	95.3	95.8	96.2
Abertawe Bro Morgannwg University	23.2	44.7	60.4	78.9	82.8	86.6	89.4	91.5	93.1	94.3	95.2	96.0
Cwm Taf University	27.7	50.7	67.8	85.7	89.4	92.2	94.1	95.3	96.2	96.8	97.2	97.6
Aneurin Bevan University	13.9	34.9	57.6	81.5	84.8	88.4	90.9	92.8	94.1	95.0	95.8	96.5
Cardiff and Vale University	26.9	48.1	66.6	83.7	87.8	90.8	92.9	94.5	95.7	96.8	97.8	99.3
Wales	23.1	45.5	63.3	81.2	84.7	88.0	90.4	92.2	93.5	94.5	95.3	96.1









Source: Emergency Department Data Set, NWIS

Table 3 shows the performance against different lengths of time spent in A&E and percentage of patients being treated within each time by health board, up to 12 hours.

Summary

Powys is the best performing health board, having 95% of patients being seen less than 2 hours and all patients being seen in less than 7 hours, although Powys doesn't have any major departments. For most other health boards, 95% of patients are seen by between 8 and 11 hours (95% of patients seen less than 8 hours at Cwm Taf, less than 9 hours at Cardiff and Vale, less than 10 hours at Hywel Dda and Aneurin Bevan and less than 11 hours at Abertawe Bro Morgannwg).

Table 4: Annual median time spent in A&E by local health board and financial year, 2012-13 onwards

	Betsi Cadwaladr University	Powys Teaching	Hywel Dda University	Abertawe Bro Morgannwg University	Cwm Taf University	Aneurin Bevan University	Cardiff and Vale University	Wales
								
2012-13	01:50	00:30	01:56	02:15	01:57	02:21	01:39	01:57
2013-14	01:51	00:33	01:49	02:08	01:40	02:21	01:38	01:53
2014-15	02:13	00:34	02:09	02:04	01:42	02:23	01:59	02:04
2015-16	02:19	00:35	02:12	02:06	01:49	02:28	02:09	02:09
2016-17	02:22	00:36	02:05	02:02	01:58	02:33	02:05	02:09
2017-18	02:30	00:38	02:00	02:17	01:57	02:39	02:05	02:13

Source: Emergency Department Data Set, NWIS

Table 4 shows the annual median time spent in A&E for each local health board and each financial year from 2012-13 onwards.

Annual change

Compared with 2016-17, the median time spent in A&E for Wales has increased by four minutes. There was a reduction in median time in two health boards compared to last year (Hywel Dda University and Cwm Taf University). All other health boards increased their median time in 2017-18, with the exception of Cardiff and Vale University which remained the same.

Change since first year of data

Patient level data was first collected in 2012. Compared with 2012-13, the median time for Wales has increased by 16 minutes in 2017-18. The median time spent has increased in all health boards in 2017-18 compared to 2012-13, with the exception of Cwm Taf University which remained the same.

Summary

The median time spent in A&E for Wales has been consistently around 2 hours year on year. Aneurin Bevan University health board has the longest median wait of all health boards for each year at around 2.5 hours, whilst Powys Teaching has the shortest at around 30 minutes.

Table 5: Annual mean time spent in A&E by local health board and financial year, 2012-13 onwards









	Betsi Cadwaladr University	Powys Teaching	Hywel Dda University	Abertawe Bro Morgannwg University	Cwm Taf University	Aneurin Bevan University	Cardiff and Vale University	Wales
								
2012-13	02:26	00:40	02:32	02:59	02:41	02:49	02:21	02:36
2013-14	02:30	00:42	02:21	02:53	02:10	02:42	02:01	02:27
2014-15	03:16	00:44	02:43	03:01	02:15	02:55	02:31	02:48
2015-16	03:26	00:46	02:57	03:24	02:34	03:11	02:45	03:03
2016-17	03:47	00:46	03:00	03:13	02:48	03:32	02:36	03:10
2017-18	04:17	00:48	03:03	03:25	02:44	03:28	02:42	03:18

Table 5 shows the annual mean time spent in A&E for each local health board and each financial year from 2012-13 onwards.

Annual change

Compared with 2016-17, the mean time spent in A&E for Wales has increased by eight minutes. There was a reduction in mean time in two health boards compared to last year (Cwm Taf and Aneurin Bevan). The other health boards increased their mean time in 2017-18.

Change since first year of data

Compared with 2012-13, the mean time for Wales has increased by 42 minutes in 2017-18. The mean time spent has increased in all health boards in 2017-18 compared to 2012-13.

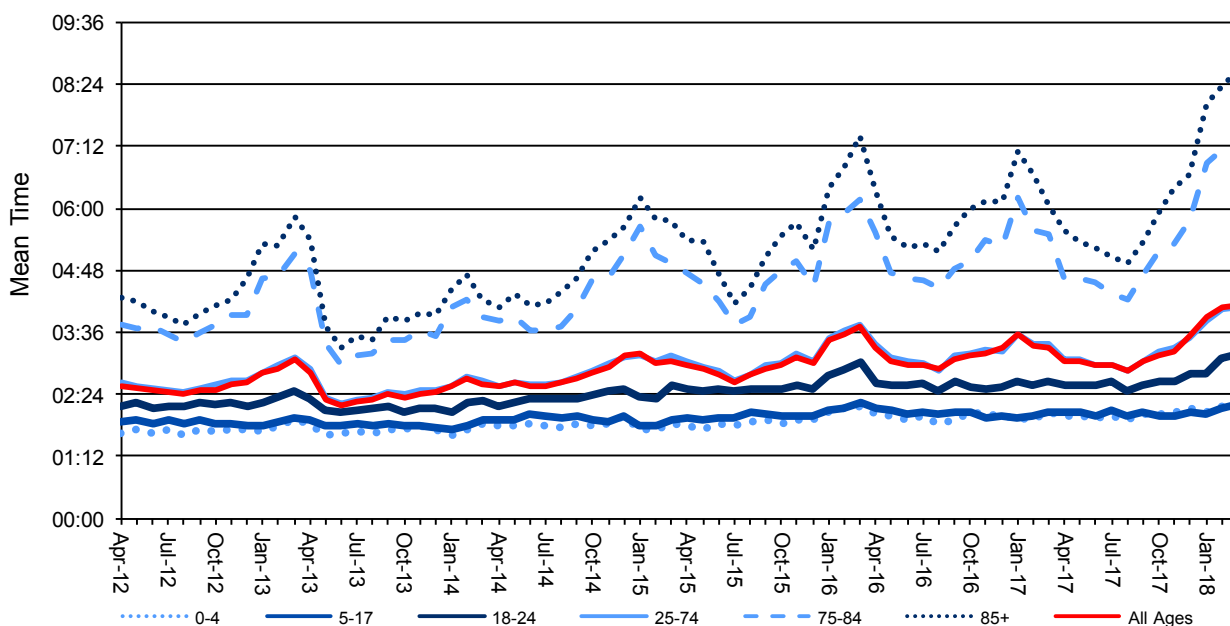
Table 4 (median) vs Table 5 (mean)

The mean time is generally higher than the median as it is skewed by very long waits. For example, in 2017-18, Aneurin Bevan University had the longest median but Betsi Cadwaladr has the longest mean. This is due to Betsi Cadwaladr having a higher proportion of longer waits than Aneurin Bevan.

Summary

The mean time spent in A&E has varied from around 2.5 hours to 3 hours over the last six years. Betsi Cadwaladr University health board, Abertawe Bro Morgannwg and Aneurin Bevan University health board have the longest mean wait, whilst Powys Teaching has the shortest.

Chart 9: Mean time spent in A&E by month and age-group, April 2012 onwards¹



¹ Invalid ages excluded

Source: Emergency Department Data Set, NWIS

Chart 9 shows the mean time spent in A&E for each month since April 2012, by age-bands.

Latest data

The mean time spent in A&E increases with age. The mean time spent in A&E was the longest on record in March 2018 for all groups aged 18-24 and older

Annual change

For all age groups, the mean time was longer in each month from December 2017 onwards compared to the same period in 2016-17. The increase was greater in the older age groups.

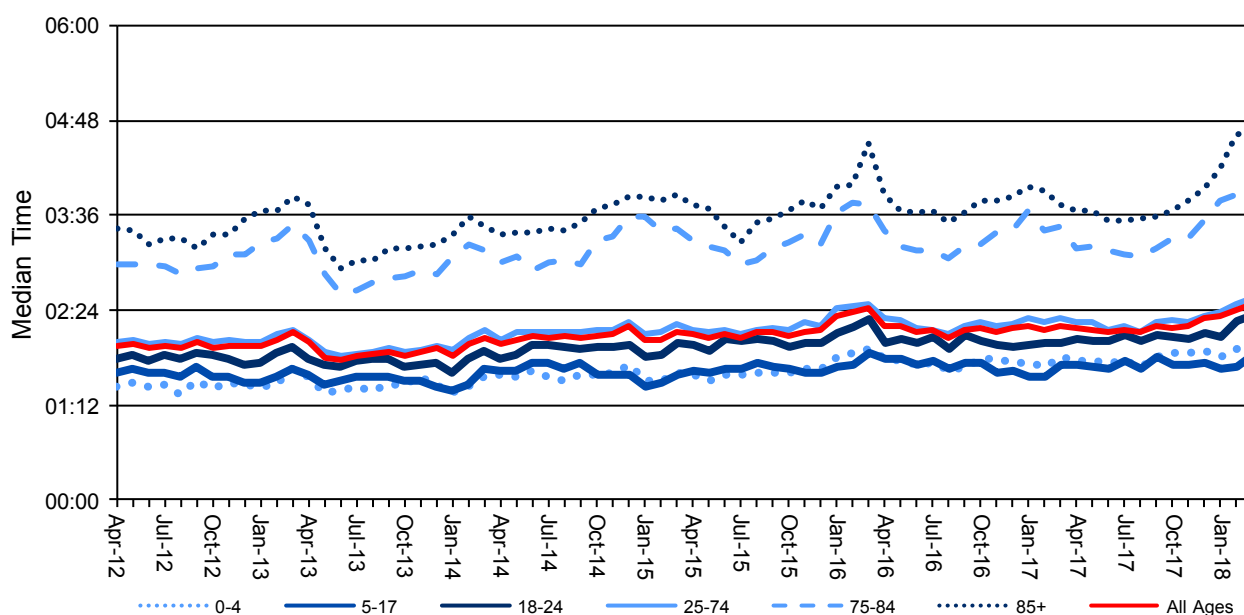
5 year change

Mean times have increased across all age groups; the increase was greater in the older age groups. In March 2013, the mean time spent in A&E by over 85s was 5 hours and 49 minutes, in March 2018 the mean time was 8 hours and 39 minutes, an increase of 2 hours and 49 minutes.

Summary

The mean time spent at A&E shows seasonality, especially for the two older age groups (75-84 and over 85). The two older age groups generally had longer waits than the younger age groups. This is likely due to the greater clinical needs and increased likelihood of admission.

Chart 10: Median time spent in A&E by month and age-group, April 2012 onwards¹



¹ Invalid ages excluded

Source: Emergency Department Data Set, NWIS

Chart 10 shows the median time spent at A&E for each age group on a monthly basis.

Latest data

The median time spent in A&E was the longest on record in March 2018 all groups aged 18-24 and older.

Annual change

Across all age groups, the median time was longer in each month from December 2017 onwards compared to the same period in 2016-17; the increase is greater in the older age groups.

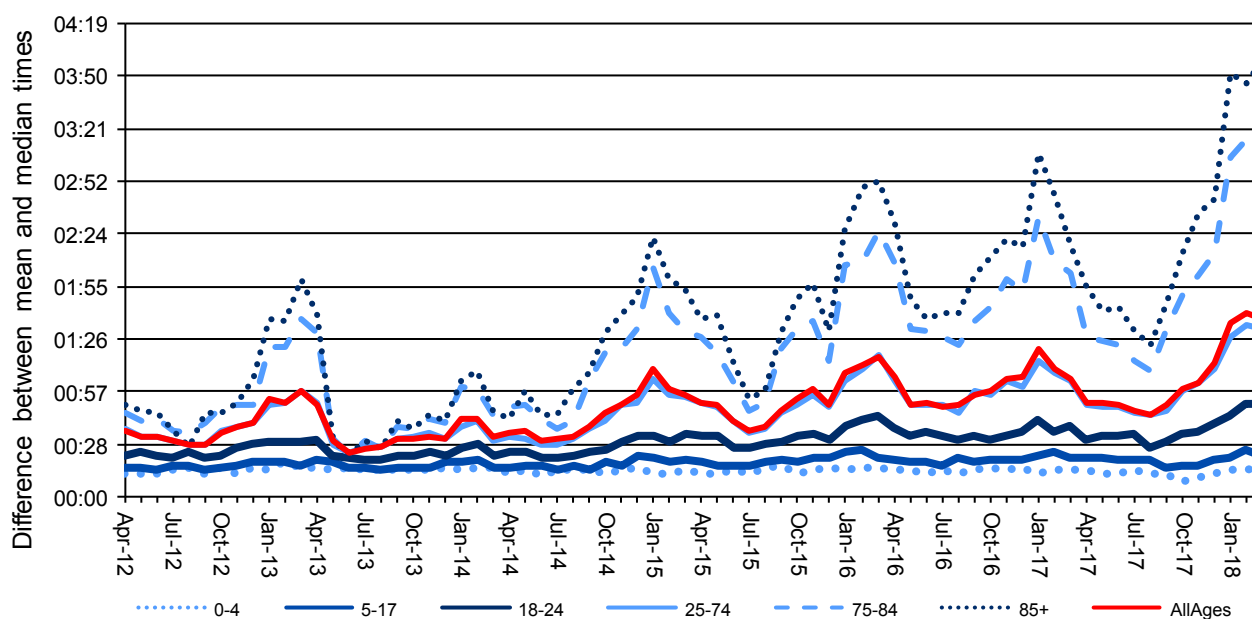
5 year change

Median times have increased across all age groups; the increase was greater in the older age groups. In March 2013, the median time spent in A&E by over 85s was 3 hours and 50 minutes, in March 2018 the median time was 4 hours and 40 minutes, an increase of 50 minutes.

Summary

The median values are generally lower than the mean values as they are less affected by the longest waits. Median waits also show seasonality, although not as strongly as the mean waits. The older age groups (75 – 84 and over 85) have higher median waits than the younger age groups.

Chart 11: Difference between mean and median wait times, by month and age-group, April 2012 onwards¹



¹ Invalid ages excluded

Source: Emergency Department Data Set, NWIS

Chart 11 shows the difference between the mean and median value for each month, by age-groups from April 2012 onwards.

Latest data

The difference between the mean and median decreased across the age groups during the summer and subsequently increased for the rest of the year, particularly for the two oldest age groups (75-84 and 85+).

Annual change

Compared with 2016-17, the difference between the mean and median got larger at the end of 2017-18 across all age groups, with the difference being larger in the older age groups. The difference between the mean and median time for over 85s grew by 1 hour and 40 minutes in March 2018, compared with March 2017.

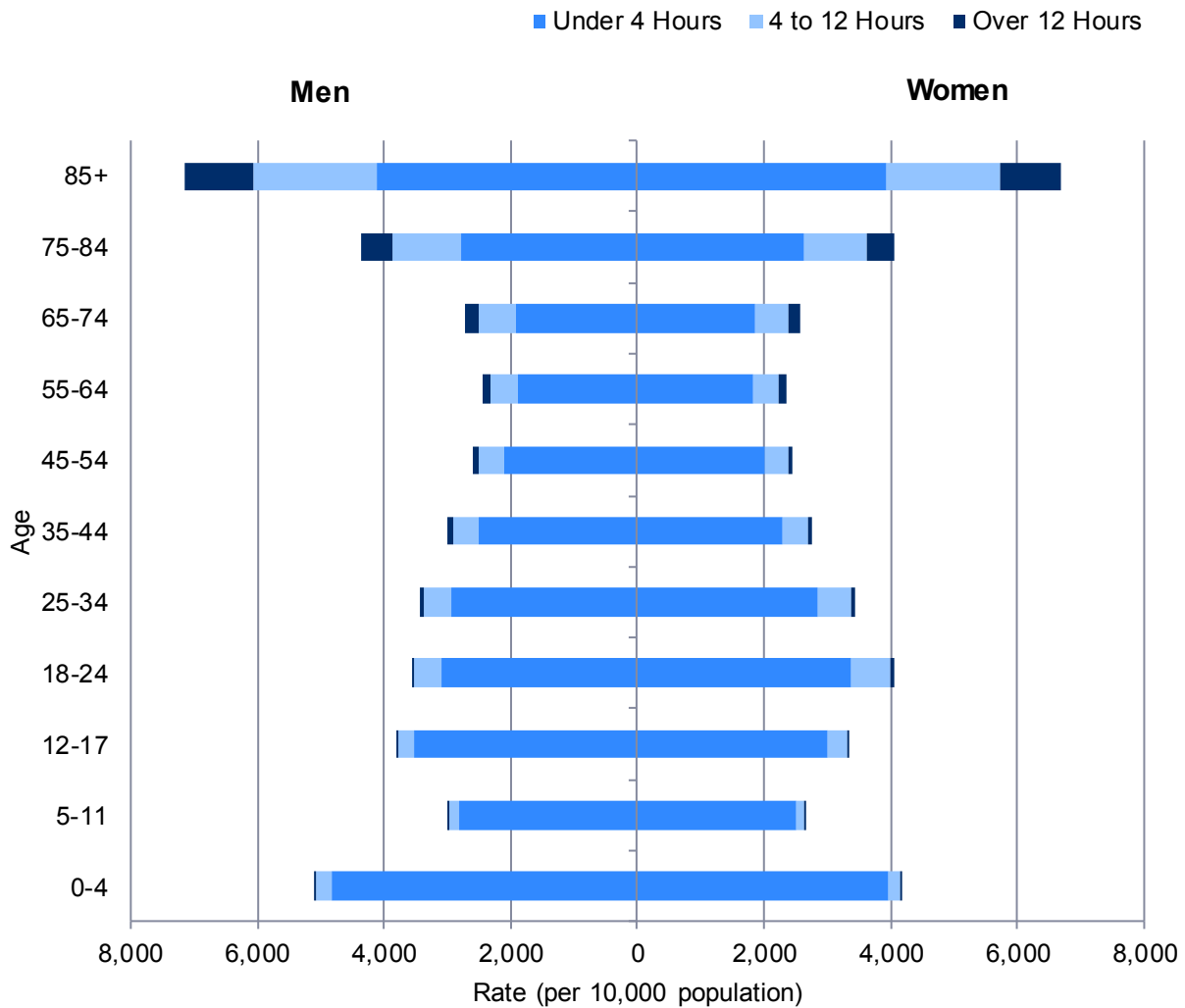
5 year change

Compared with 2012-13, the difference between the mean and median has increased across most age groups, with the difference being larger in the older age groups. The difference between the mean and median time for over 85s in March 2018 compared with March 2013 was around 2 hours.

Summary

In general, the difference between the mean and median is higher for the older age groups and lower for the younger age groups. This suggests that the spread in the time spent in A&E is larger for the older age groups than the younger age groups. The difference tends to peak around January to March before declining throughout the year. During these months the spread of the time spent in A&E is larger than at other times of the year. This could be due to a higher proportion of older patients, who may have increased clinical complexities in the winter and need to be admitted. These patients spend longer in A&E, and therefore result in a larger mean time.

Chart 12: Age pyramid by age groups and gender, rates of attendance per 10,000 population, 2017-18¹



¹ Invalid ages excluded

Source: Emergency Department Data Set, NWIS

Chart 12 shows the rates of attendances per 10,000 population for selected age groups and split by gender for 2017-18.

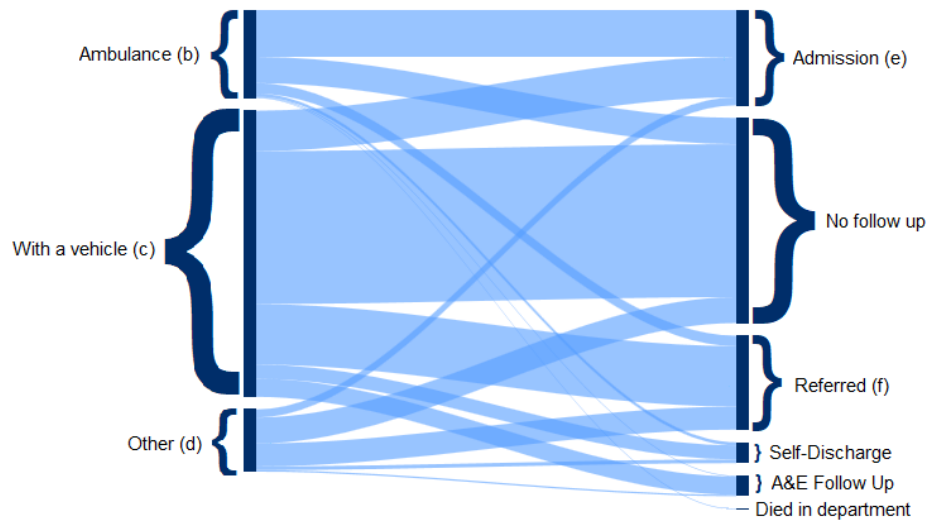
Summary

Rates of attendance are lowest between the ages of 45 and 64 and highest for the youngest (0 to 4 years old) and oldest (over 85 years old) age groups. Focusing on people under the age of 65, but older than 4, there is a peak for younger males between the ages of 12-17, whilst for younger females the peak occurs at 18 – 24. The same pattern was also shown in the previous year.

Chart 13: Sankey diagram, link between arrival method and outcome from A&E visit, 2017-18 (a)

Arrival Method

**Outcome from
A&E Visit**



Source: Emergency Department Data Set, NWIS

- (a) Visits with invalid or unknown times, arrival method and outcomes have been excluded.
- (b) Contains Ambulance and Air Ambulance.
- (c) Contains people who arrived with their own private motorised vehicle or using public transport, see Table 6 for more detail.
- (d) Contains people who arrived by private non-motorised vehicles, walking, by police car or by other means (other means and private non-motorised vehicles are grouped together), see Table 6 for more detail.
- (e) Contains people who were admitted to either the same hospital, being transferred to another hospital within the health board or being admitted to another health board entirely, see Table 6 for more detail.
- (f) Referrals can be to a General Practitioner (GP), other Health Care Practitioner (HCP) or outpatients, see Table 6 for more detail.

Table 6: Number of patients arriving by different means and outcome from each arrival method, 2017-18¹

Arrival Method	Outcome from A&E Visit												
	Admission (e)				A&E follow up	No follow up	Referred (f)				Self-Discharge	Died in department	Total
	Admitted - Same hospital	Admitted - Different Hospital	Transferred to other LHB	Total	A&E follow up	No follow up	Referred - GP	Referred - Other HCP	Referred - Outpatients	Total	Self-Discharge	Died in department	
	Admissions	Admissions	Admissions	Admissions	up	up	GP	Other HCP	Outpatients	Referred	Discharge	department	
Ambulance (b)	104,715	1,720	1,345	107,780	1,700	61,045	18,865	885	4,305	24,055	7,215	1,540	203,335
With a vehicle (c)	84,445	2,745	5,670	92,855	41,850	351,625	78,605	9,985	50,550	139,135	32,265	70	657,800
Private Motorised Vehicle	83,515	2,735	5,620	91,870	41,465	348,285	77,345	9,870	49,700	136,915	31,745	70	650,350
Public Transport	930	10	50	985	380	3,340	1,260	115	850	2,225	520	*	7,450
Other (d)	17,175	1,005	535	18,710	3,580	60,190	42,075	1,745	9,150	52,975	8,480	20	143,955
Police Car	800	165	55	1,020	140	2,670	820	105	275	1,200	1,145	0	6,175
Other	13,830	785	400	15,015	2,965	46,180	39,665	1,385	8,150	49,200	5,995	20	119,375
Walked	2,545	50	80	2,675	475	11,340	1,590	255	730	2,570	1,340	*	18,405
Total	206,335	5,465	7,545	219,345	47,130	472,860	139,545	12,615	64,005	216,165	47,955	1,630	1,005,090

¹Numbers greater than 0 but less than 5 are suppressed; all other numbers are rounded to the nearest 5.

Source: Emergency Department Data Set, NWIS

[Chart 13](#) and Table 6 show the relationship between how people arrive at A&E and the outcome from their visit

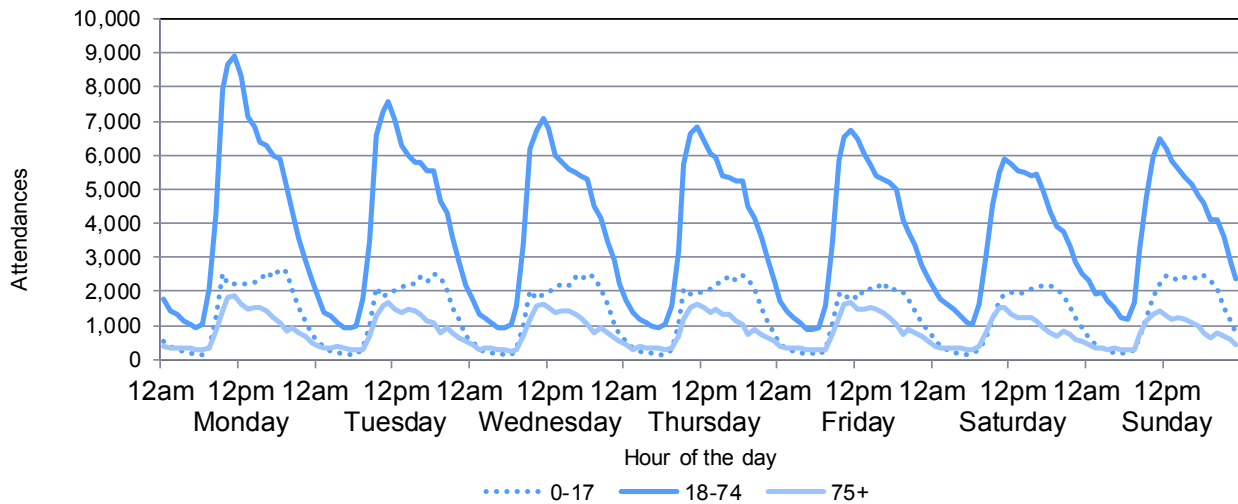
Summary

People who arrive by ambulance have a much higher likelihood of being admitted to hospital, 53.0 per cent of people who arrive by ambulance are admitted, this is compared to 14.1 per cent for people who arrived using a vehicle.

People who arrive with the use of a vehicle are the most likely to leave A&E without the need of any type of follow up appointment, 53.5 per cent of people who arrive with a vehicle leave without follow up, this is compared to 30.0 per cent of people who arrive by ambulance.

Of those who self-discharge there's a higher proportion from people who arrived with a vehicle, making up 67.3 per cent of all self-discharges, this is compared to 17.7 per cent who arrived by other means and 15.0 per cent who required an ambulance to arrive.

Chart 14: Attendance rate per 10,000 population by time of day and age band, 2017-18¹



¹ Invalid ages excluded

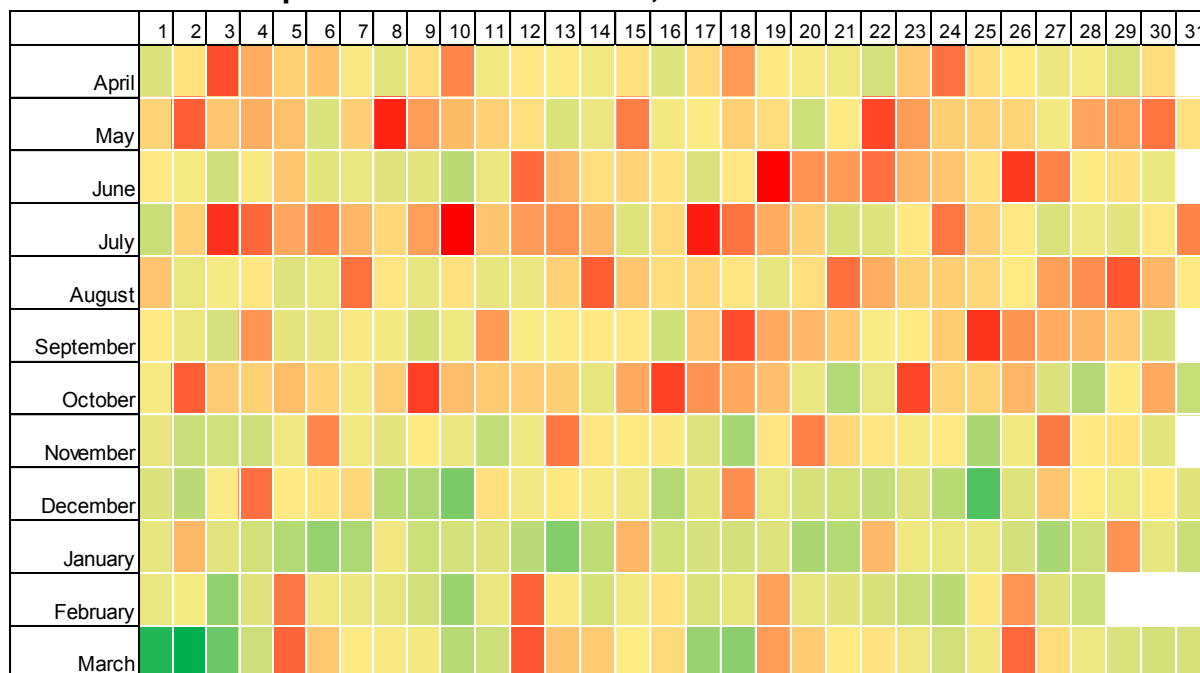
Source: Emergency Department Data Set, NWIS

Chart 14 shows the attendances by time of day and age bands for 2017-18.

Summary

There is a peak in attendances each day during daylight hours for all groups, the numbers then decline each night before the following morning. The most common time to arrive at A&E for adults (aged 18 to 74) is around midday. The most common day is Monday, while average attendances decrease across the week. In the younger age group (under 18), attendances have a less pronounced peak in day time but peak in the evening hours during the week (less so at the weekend). The attendances for the over 75s also peak at around midday.

Chart 15: Heat map of attendances to A&E, 2017-18



Source: Emergency Department Data Set, NWIS

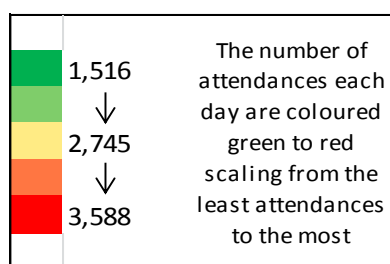


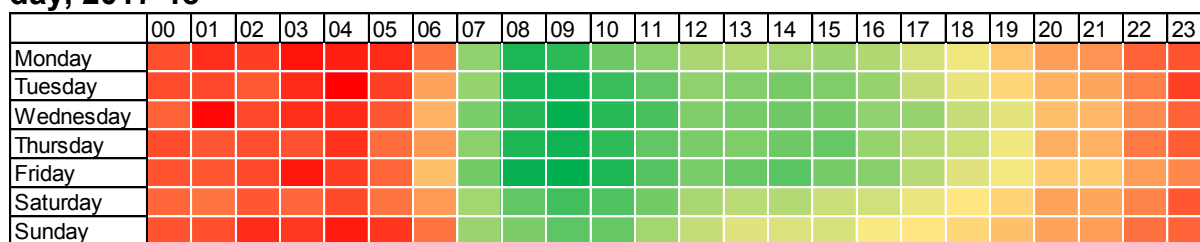
Chart 15 is a heat map of the daily attendances to accident and emergency departments in Wales throughout 2017-18. The redder the square means the higher the number of attendances for that day, the more green the fewer attendances on that day.

Summary

The day with the most attendances for those arriving in accident and emergency departments in Wales for 2017-18 was on the 10th of July (most health boards had a high number of attendances). The days with the least attendances were the 1st and 2nd of March (most health boards had a low number of attendances); this could be explained by the snowfall during this period.

There are fewer attendances from December onwards. The days with the most attendances nearly always fall on a Monday, but if not, it is due to a bank holiday and subsequently is busy on the Tuesday ([Chart 14](#)).

Chart 16: Heat map of median wait at A&E departments by day of week and time of day, 2017-18



Source: Emergency Department Data Set, NWIS

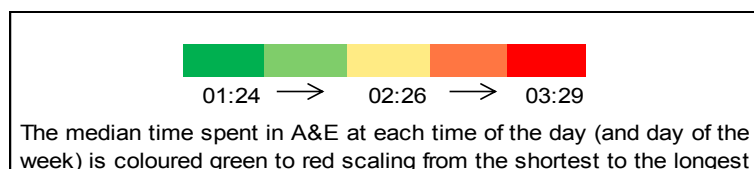
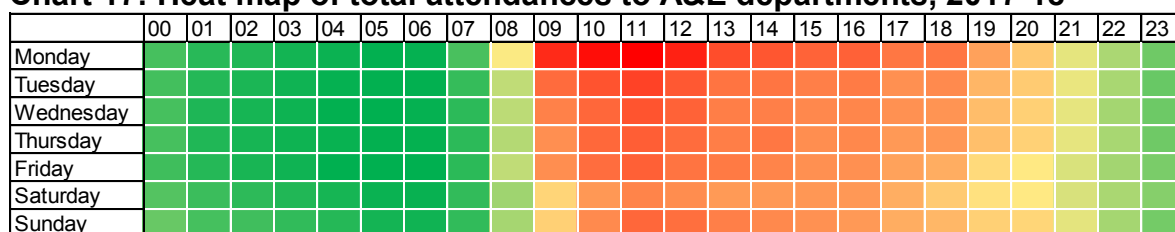


Chart 17: Heat map of total attendances to A&E departments, 2017-18



Source: Emergency Department Data Set, NWIS

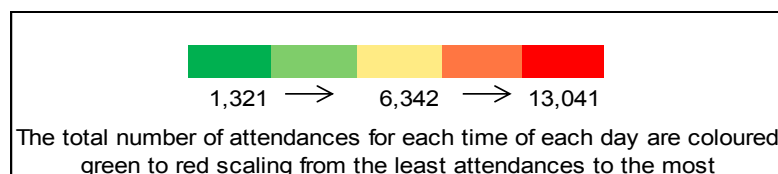


Chart 16 is a heat map of median time spent in A&E based on the day of the week and the time of the day of arrival; redder values mean longer waits than greener ones. Chart 17 is a heat map of the total attendances to A&E based on the day of the week and time of day of arrival, the redder the value means the more attendances, greener means fewer.

Summary

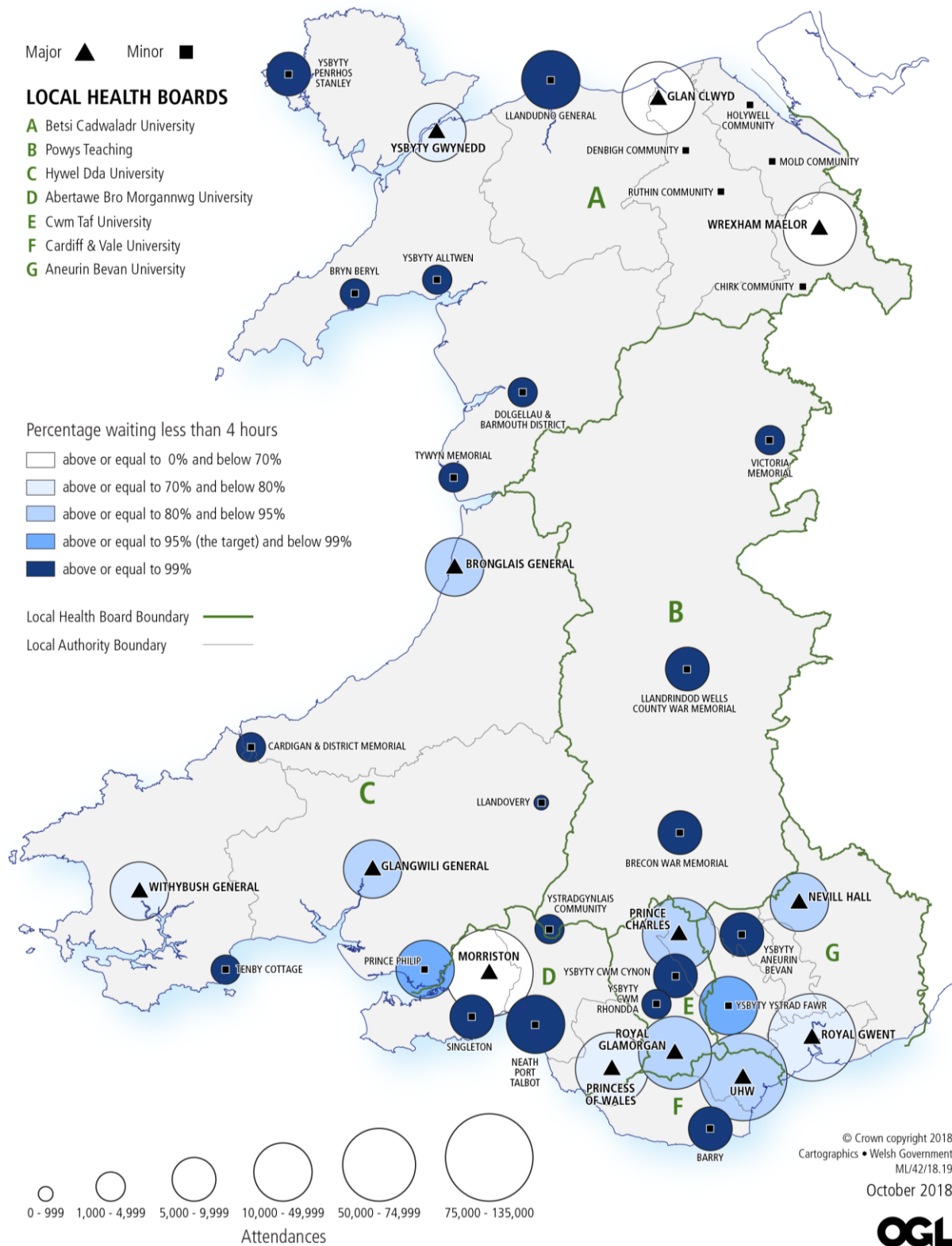
Median wait

The shortest waits are during daylight hours, the longest waits are during the night time.

Total attendances

The most arrivals to A&E occur on Monday morning between 9am – 12 noon. More people attend A&E during daylight hours, fewer people attend at night.

Map 1: The number of attendances and performance of Major and Minor Accident and Emergency departments, 2017-18



Source: Emergency Department Data Set, NWIS

Map 1 is a map of Wales, with all A&E departments shown alongside their total attendances for 2017-18 and their performance. The size of the circles is related to the number of attendances, whilst the shade of blue indicates performance. Major departments are annotated with a triangle, whilst minor departments are squares.

Summary

Major A&E departments have far more attendances than minor departments. Minor departments have better performance, but have fewer attendances. There are greater numbers of A&E departments to the south-east, but this is a more densely populated region of Wales.

Key quality information

Relevance

Targets for 2017-18

The [NHS Outcomes Framework 2017-18](#) was used to measure delivery throughout 2017-18.

- 95 per cent of patients spending less than 4 hours in A&E departments from arrival until admission, transfer or discharge; and
- the eradication of 12 hours or over waits from arrival until admission, transfer or discharge.

Accuracy

Revisions and resubmissions

The data in this bulletin uses the same data set as the monthly data published by NHS Wales Informatics Service (NWIS). Data is unlikely to be revised for 2017-18 but if it is, it will be done on [StatsWales](#) at the time of the publication of the monthly release.

On a monthly basis, LHBs can resubmit data to NWIS if they have carried further validation during the month and they need to revise their data. In 2013, we looked at the size and impact of the resubmissions for the data. The impact of the changes tend to be minimal, accounting for less than one percentage point change against the 4 hour target for 'A&E departments'.

Data quality

This data has been provided by NHS Wales Informatics Service from the Emergency Department Data Set (EDDS). This is a rich source of patient level data on attendances at emergency care facilities in Wales that tends mainly to be used for the performance targets.

Patient level data is collected in EDDS for all 'major accident and emergency departments'. However, for 'other accident and emergency departments/minor injury units', patient level data has only been collected in EDDS since 1 April 2012 for the majority of these units. For those 'other accident and emergency departments/minor injury units' who are currently unable to provide an EDDS extract, an aggregate spreadsheet is submitted that contains basic data for the targets.

In this release, we have concentrated mainly on 4 and 12 hour performance data. However, we have included tables and charts using additional data items from EDDS, where it is felt that the quality is sufficient for publishing. Some 'other accident and emergency departments/minor injury units' do not submit detailed patient level data to EDDS, these account for around 2 per cent of attendances. From our November 2015 quarterly release we started publishing data for all A&E departments for the entire release, rather than using only data relating to 'major accident and emergency departments' for certain sections. This will be continued in these annual updates unless stated in the Major and Minor department breakdown charts and tables.

For those data items where there are unknowns or missing data, these have been excluded from the analysis. For the purposes of the age breakdowns in this release, any patients who are aged greater than or equal to 125 are categorised as unknown (in-line with the NHS Wales data dictionary). We value feedback from users on additional analyses, and contact details are at the end of this release.

Cardiff & Vale data

Figures submitted by Cardiff and Vale University Health Board include time spent by patients in assessment units. According to national standards, assessment unit activity should be reported in the Admitted Patient Care (APC) data set. Therefore, figures for Cardiff and Vale will not be directly comparable with other health boards.

The Barry Hospital closed for refurbishment on 14th March 2015 and re-opened on 18th of May. Therefore, figures (in this release and on StatsWales) for March and May 2015 reflect this and April's figures on StatsWales are represented with a 0.

Publishing hospital level mean and median

The **median** time is the middle time when all attendances at A&E departments are ordered from shortest time spent to the longest time spent, so half of all patients wait this time or less. It is commonly used in preference to the mean as it is less susceptible to extreme values than the mean.

The **mean** time is the total time spent for all attendances at A&E departments divided by the number of attendances. The mean is more likely to be affected by patients waiting longer from arrival until admission, transfer or discharge.

We publish mean and median time spent in A&E at a hospital level on our StatsWales data service. As the mean value can be affected by very long attendances, following an audit of records showing long attendances at A&E, we have decided to apply trim points to the data and have excluded records at a hospital, LHB and Wales level where the attendance is over 72 hours. Since April 2012, 233 records have been excluded in total – less than 0.01 per cent of attendances. 148 of those are from Betsi Cadwaladr University Health Board. The rest of the records are spread across the remaining health boards.

Timeliness and punctuality

All outputs adhere to the Code of Practice by pre-announcing the date of publication through the [Upcoming Calendar](#) web pages. Furthermore, should the need arise to postpone an output this would follow the Welsh Government's [Revisions, Errors and Postponements](#) arrangements.

We publish data as soon as practical after the relevant time period. Data for the end of month position for Accident and Emergency department attendances and performance is published within the month after the reference date in our NHS Activity and Performance Summary and on StatsWales. This allows for the significant validation by local health boards, NWIS and the Health Statistics and Analysis Unit. The data is then summarised and built on in this annual release.

During October to December 2012, we consulted on the [content and timing of official statistics on health](#). We wanted to know if the pilot of the earlier publication of the management information supporting the official statistics on 'Time Spent in NHS Wales A&E Departments' caused the users of our statistics any problems. The [responses from the consultation](#) were published in April 2013. See the [Quality report](#) for more details.

Accessibility and clarity

Additional tables are available on the Welsh Government's interactive data dissemination service [StatsWales](#). This includes data on performance against the targets by local health boards and major hospitals in Wales. See the [Quality report](#) for more details.

Comparability and coherence

Figures produced for Wales, Scotland and Northern Ireland are National Statistics.

All four UK countries publish information on the time spent in Accident and Emergency (A&E), though this can be labelled under Emergency Department (as in Scotland) or Emergency Care (as in Northern Ireland). The published statistics are not exactly comparable because: they were designed to monitor targets which have developed separately within each country; the provision and classification of unscheduled care services varies across the UK; the systems which collect the data are different. See the [quality report](#) for more details.

However, NHS Digital, as part of their [A&E release for 2017-18](#), has included comparisons of A&E performance and attendances for the four nations – including 4 hour and 12 hour performance. NHS Digital has only included information on Type 1 departments for the comparisons.

Change to exclusions from A&E waiting times statistics for January 2013 data onwards

For **data relating to periods prior to January 2013**, the following patients were excluded from the A&E waiting times statistics:

- known planned follow ups (i.e. Attendance Category = 2 in the Emergency Department Data Set);
- attendances where the patient was dead on arrival (i.e. Outcome of Attendance = 11 or Attendance Group = 30);
- attendances where the calculated wait results in a blank, negative or invalid value; and
- attendances where the calculated time was ≥ 24 hours.

For **data relating to January 2013 onwards**, attendances where the calculated time was ≥ 24 hours are **included**, thus leaving the following patients excluded from the A&E waiting times statistics:

- known planned follow ups (i.e. Attendance Category = 2 in the Emergency Department Data Set);
- attendances where the patient was dead on arrival (i.e. Outcome of Attendance = 11 or Attendance Group = 30); and
- attendances where the calculated wait results in a blank, negative or invalid value.

The impact of this change is expected to be minimal, with the number of attendances rising slightly and performance likely to fall slightly each month since January 2013, due to those attendances greater than or equal to 24 hours being included. As the data for January 2013 onwards is not directly comparable with data for previous months, a break has been inserted into all the relevant tables and charts to indicate the date of these changes.

Public Sector Strike - 10 May 2012 and Doctors' Strikes – 21 June 2012

Although A&E services were not forecast to be affected by the public sector strike on 10 May 2012 and doctors' strikes on 21 June 2012, this may have had a very slight impact on performance for those days.

Links to other data sets on unscheduled care

The A&E waiting times data is related to a range of other data sets collected and published around unscheduled care – these should also be considered to give more of an overall picture.

Statistics on the [Ambulance Services](#) are collected by the Welsh Ambulance Services Trust (WAST) and published monthly by Welsh Government. Number of emergency calls to WAST and percentage of red calls that arrived at the scene of an incident within 8 minutes show the demand on the service and also performance of the ambulance service in relation to the 8 minute target respectively. Wider statistics considering minute by minute performance are also published on StatsWales.

Statistics on the census of [Delayed Transfers of Care](#) in Welsh NHS hospitals are published quarterly (with a monthly headline and StatsWales updates) by Welsh Government and demonstrate the interface between health and social care. A delayed transfer of care is experienced by an inpatient in a hospital, who is ready to move on to the next stage of care but prevented from doing so for one or more reasons. Timely transfer and discharge arrangements are important in ensuring that the NHS effectively manages emergency pressures.

Statistics on [Emergency Admissions](#) to hospital are published annually on a financial year basis by NHS Wales Informatics Service from the Patient Episode Database for Wales (PEDW).

Statistics on [NHS Direct Wales](#) are collected by the Welsh Ambulance Services Trust (WAST) and published quarterly by Welsh Government. NHS Direct Wales operates a 24-hour help line staffed by nurses offering confidential advice about health, illness and the number of calls show demand on the service.

National Statistics status

The [United Kingdom Statistics Authority](#) has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the [Code of Practice for Statistics](#).

National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with all aspects of the Code of Practice for Statistics. They are awarded National Statistics status following an assessment by the UK Statistics Authority's regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is Welsh Government's responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.

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 the indicators, along with narratives for each of the well-being goals and associated technical information is available in the [Well-being of Wales report](#).

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

The statistics included in this release 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.

Further details

The document is available at:

<http://gov.wales/statistics-and-research/time-spent-nhs-accident-emergency-departments/?lang=en>

Next update

October 2019 (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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