

A Quick Guide to Data Visualisation

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SCATA meeting
15th May 2018





Why good data presentation is important

- Helps the reader better understand the information and the “story”
- Professional-looking and easy-to-understand visuals lead to greater reader confidence and trust in a report
 - More likely to inform or influence the target audience
- Bad data presentation
 - Confuses the reader
 - Turns them off (no different to bad spelling or grammar)





The Do's and Don'ts of Data Tables



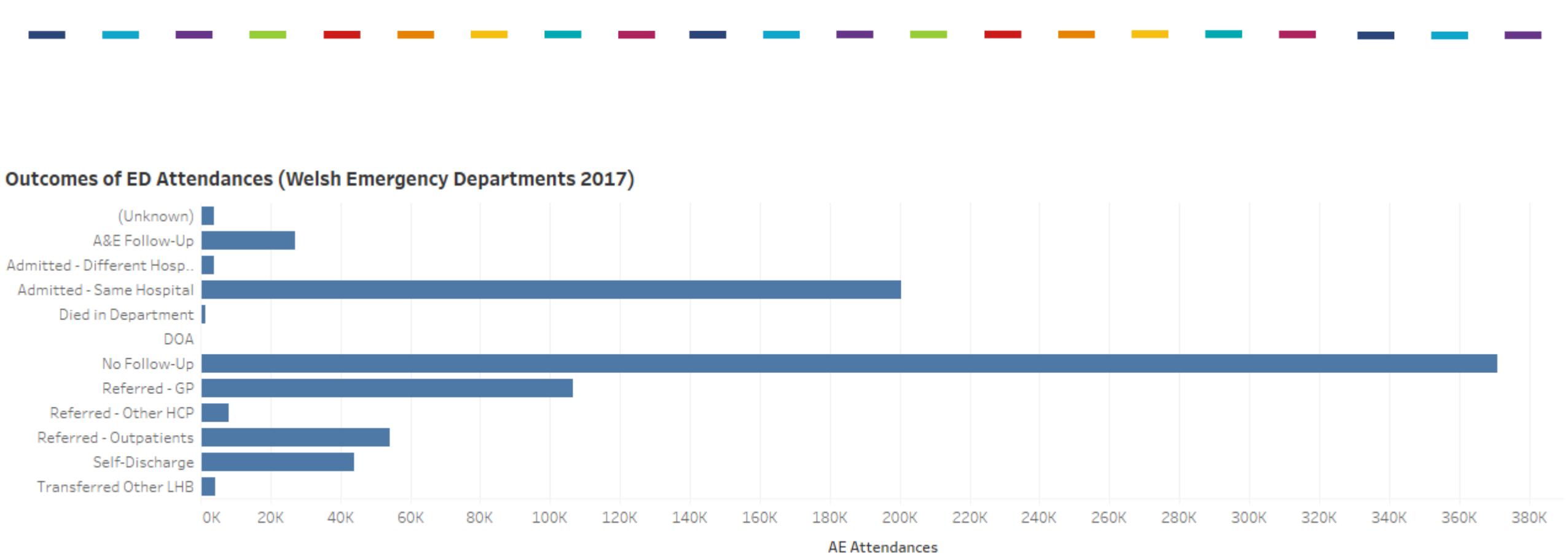
	ED Attendances	Arrivals at ED by Ambulance	% Arrivals at ED by Ambulance
(Unknown)	3877.0	1300	33.5311%
A&E Follow-Up	27030.0	1808	6.6889%
Admitted - Different Hospital	3810.0	1633	42.8609%
Admitted - Same Hospital	200398.0	106043	52.9162%
Died in Department	1562.0	1489	95.3265%
DOA	19.0	16	84.2105%
No Follow-Up	371106.0	62699	16.8952%
Referred - GP	106692.0	19640	18.4081%
Referred - Other HCP	8013.0	960	11.9805%
Referred - Outpatients	54192.0	4498	8.3001%
Self-Discharge	44061.0	7634	17.3260%
Transferred Other LHB	4200.0	1164	27.7143%

Outcome of ED attendances (Welsh Emergency Departments, 2017)

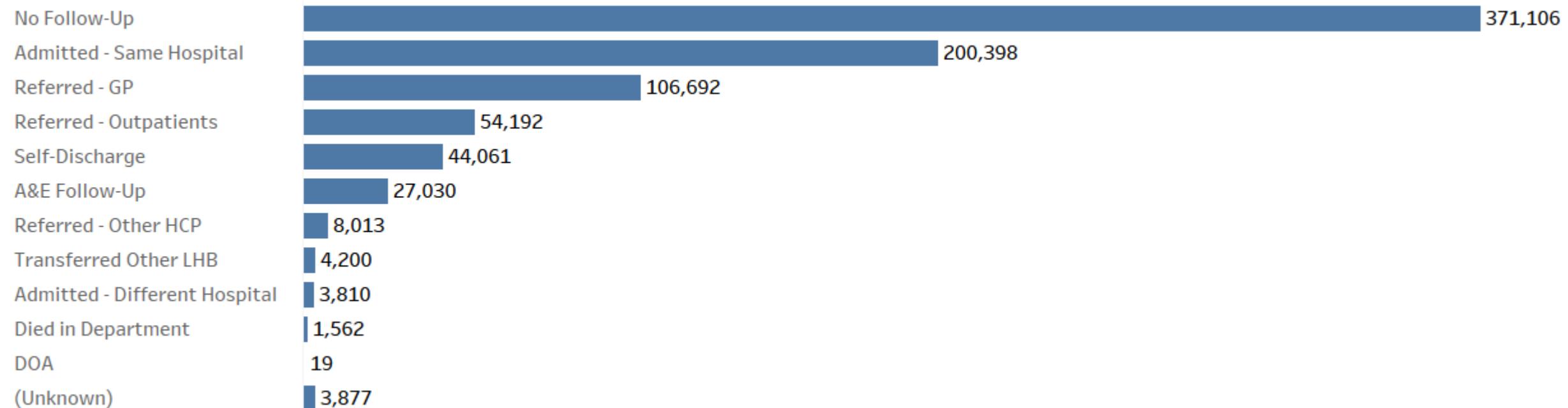
	ED Attendances	Arrivals at ED by Ambulance	% Arrivals at ED by Ambulance
No Follow-Up	371,106	62,699	16.9%
Admitted - Same Hospital	200,398	106,043	52.9%
Referred - GP	106,692	19,640	18.4%
Referred - Outpatients	54,192	4,498	8.3%
Self-Discharge	44,061	7,634	17.3%
A&E Follow-Up	27,030	1,808	6.7%
Referred - Other HCP	8,013	960	12.0%
Transferred Other LHB	4,200	1,164	27.7%
Admitted - Different Hospital	3,810	1,633	42.9%
Died in Department	1,562	1,489	95.3%
DOA	19	16	84.2%
(Unknown)	3,877	1,300	33.5%
Grand Total	824,960	208,884	25.3%

The Do's and Don'ts of Charts

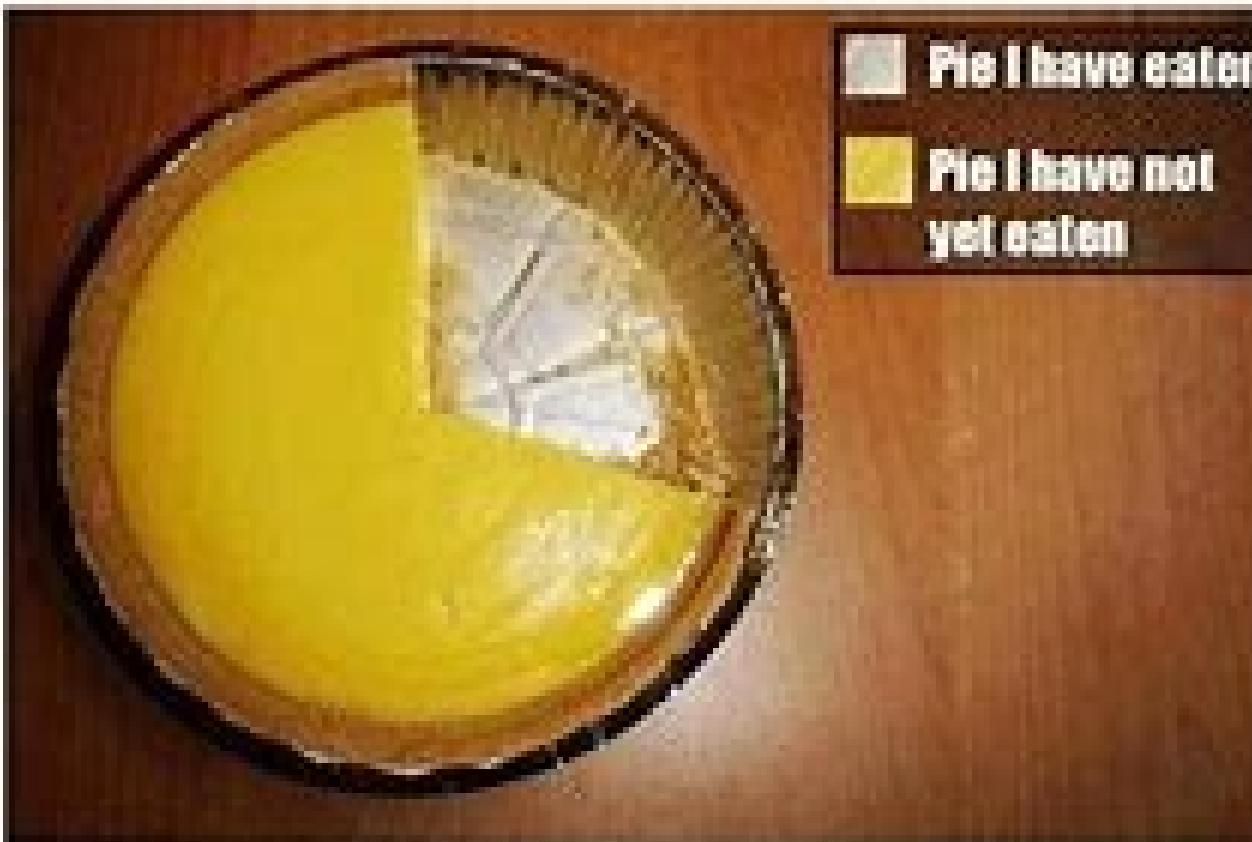


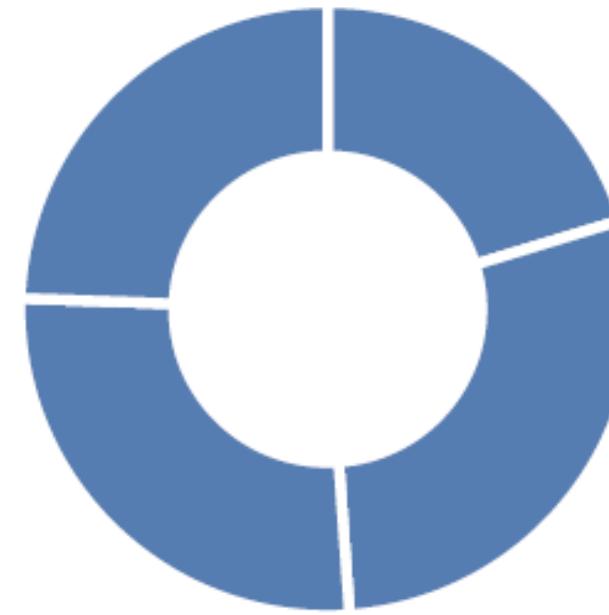
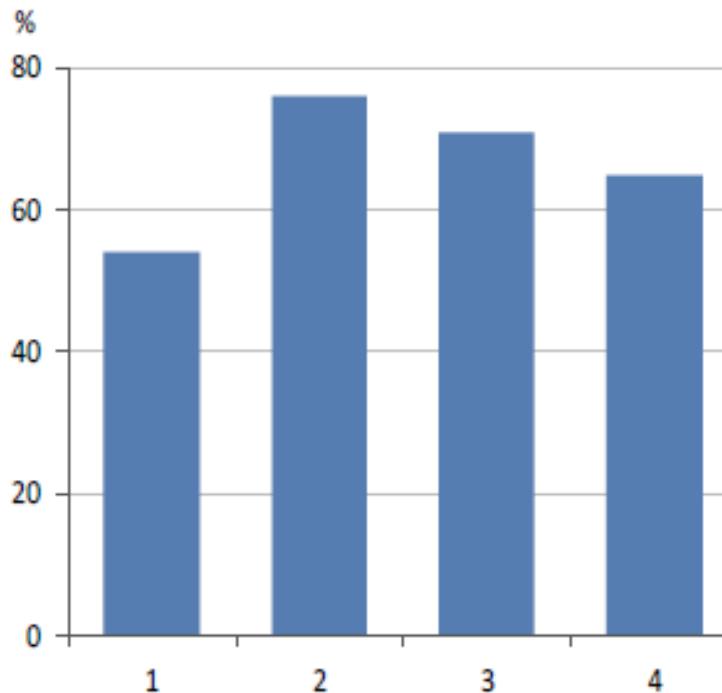


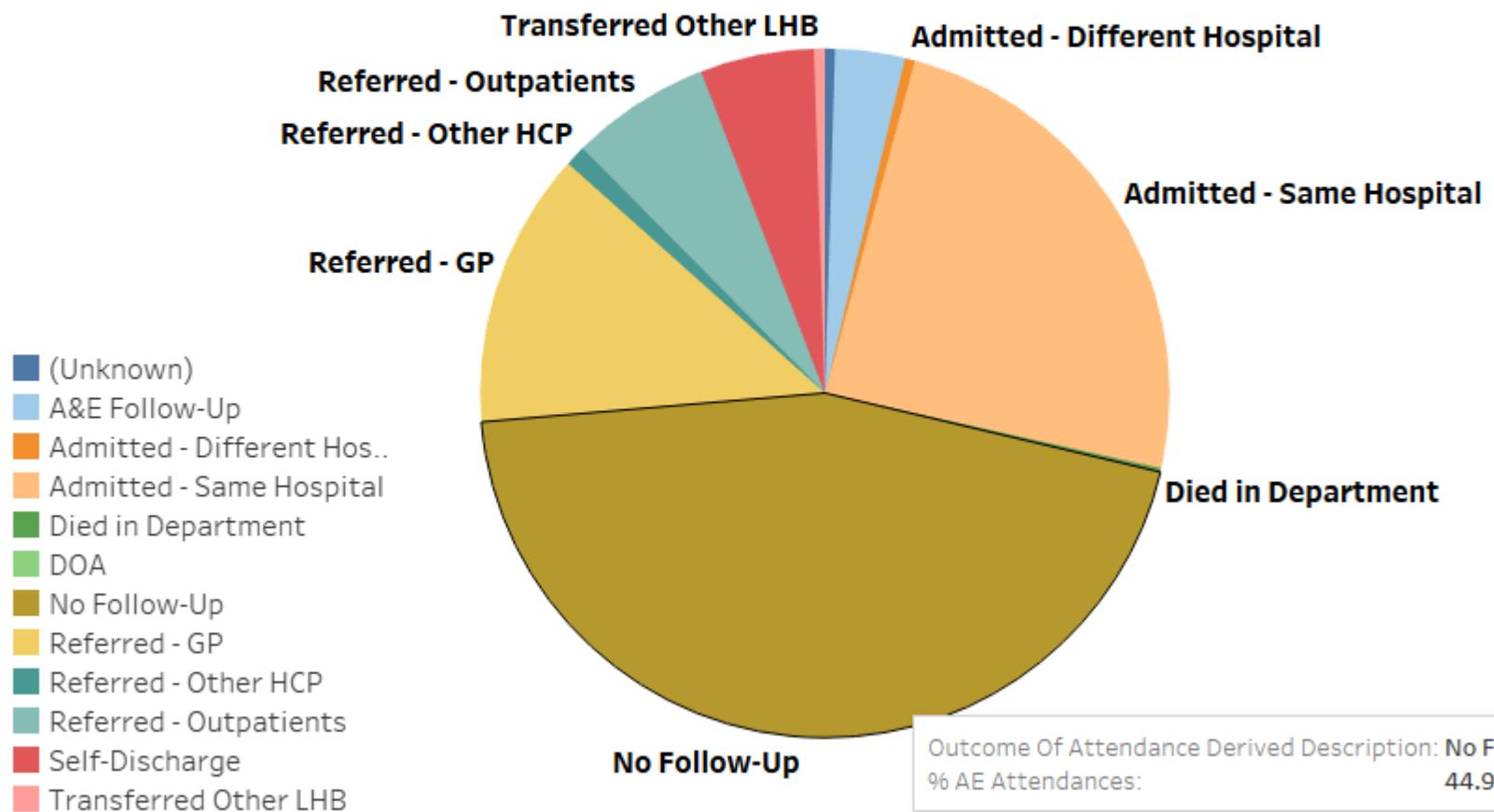
Outcomes of ED Attendances (Welsh Emergency Departments 2017)



World's Most Accurate Pie Chart







Outcome Of Attendance Derived Description: No Follow-Up
% AE Attendances: 44.98%

THINK
progress

2012 PRESIDENTIAL RUN

GOP CANDIDATES



BACK HUCKABEE

BACK ROMNEY

FOX

9:17 PM

SOURCE: OPINIONS

DYNAMIC

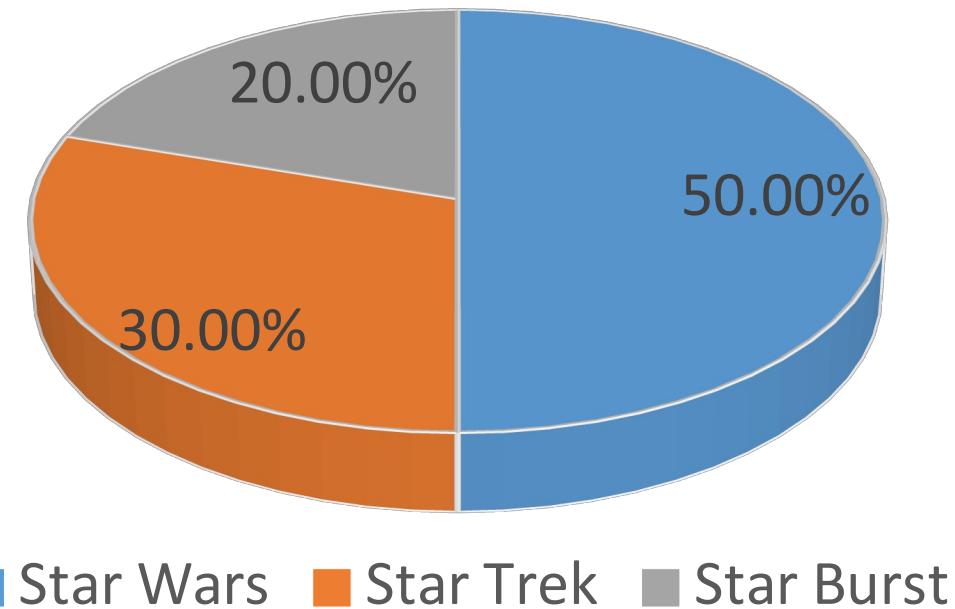


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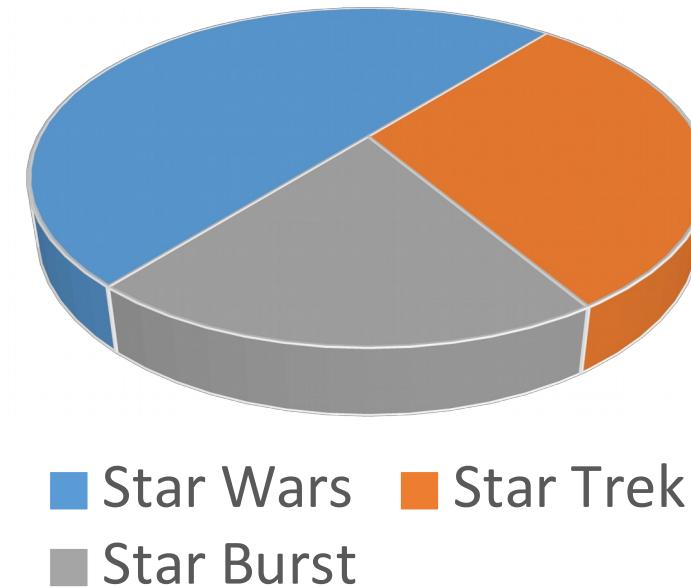
Services

1gerddol am wneud gwahaniaeth
a thechnoleg ar gyfer gofal gwell
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and technology for better care

My Favourite Thing

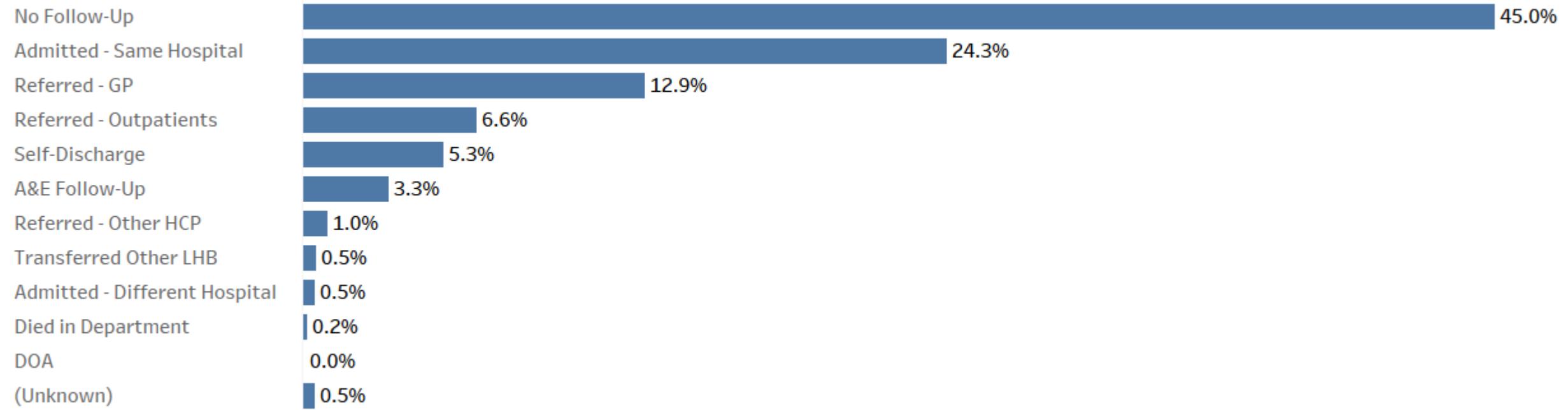


My Favourite Thing

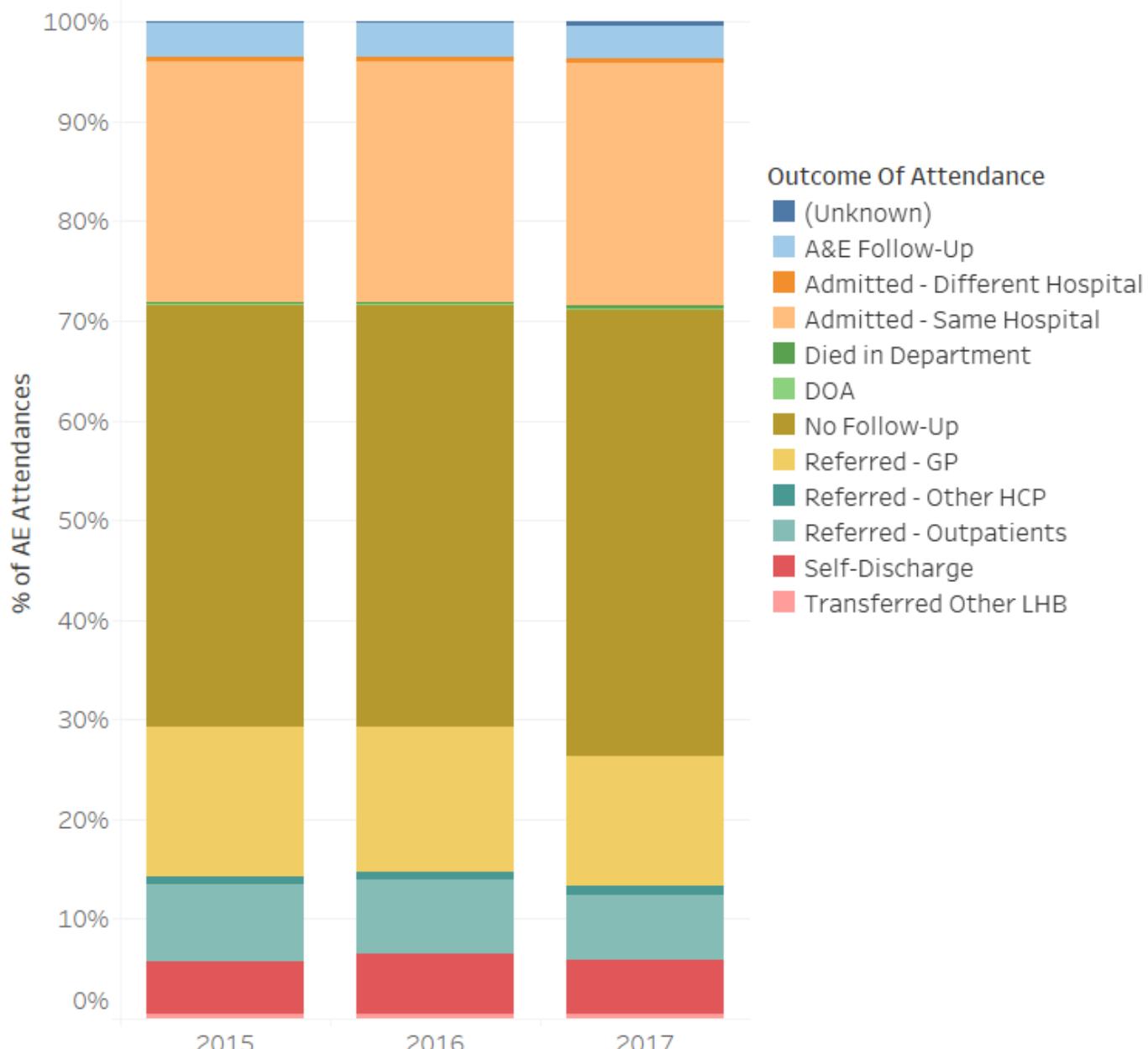




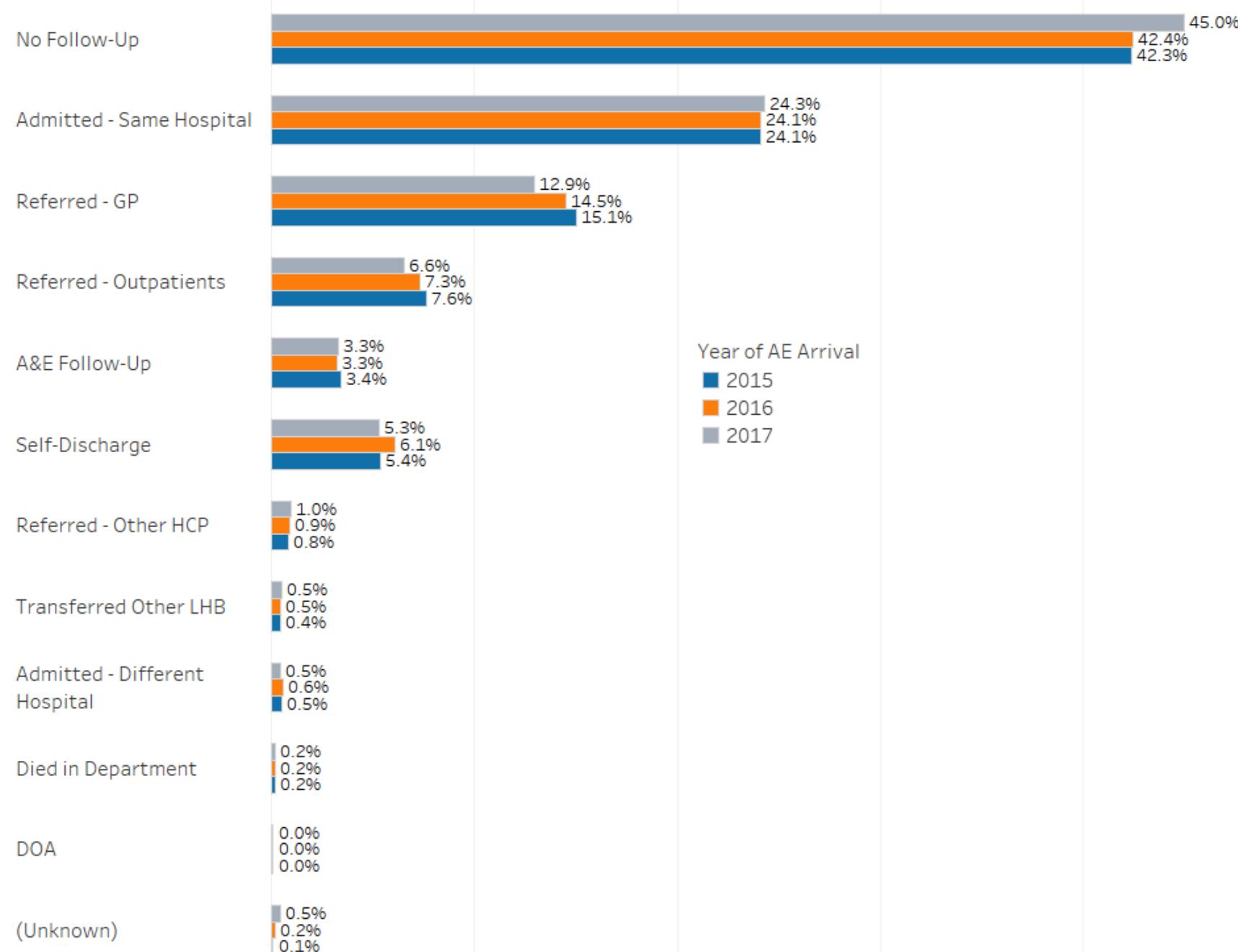
Outcome of ED Attendances (Welsh Emergency Departments 2017)



Outcomes of ED attendances by Year
(Welsh Emergency Departments)



Outcomes of ED attendances (Welsh Emergency Departments 2015 to 2017)



OBAMACARE ENROLLMENT

6,000,000

7,066,000

AS OF
MARCH 27

MARCH 31
GOAL

SOURCE: HHS



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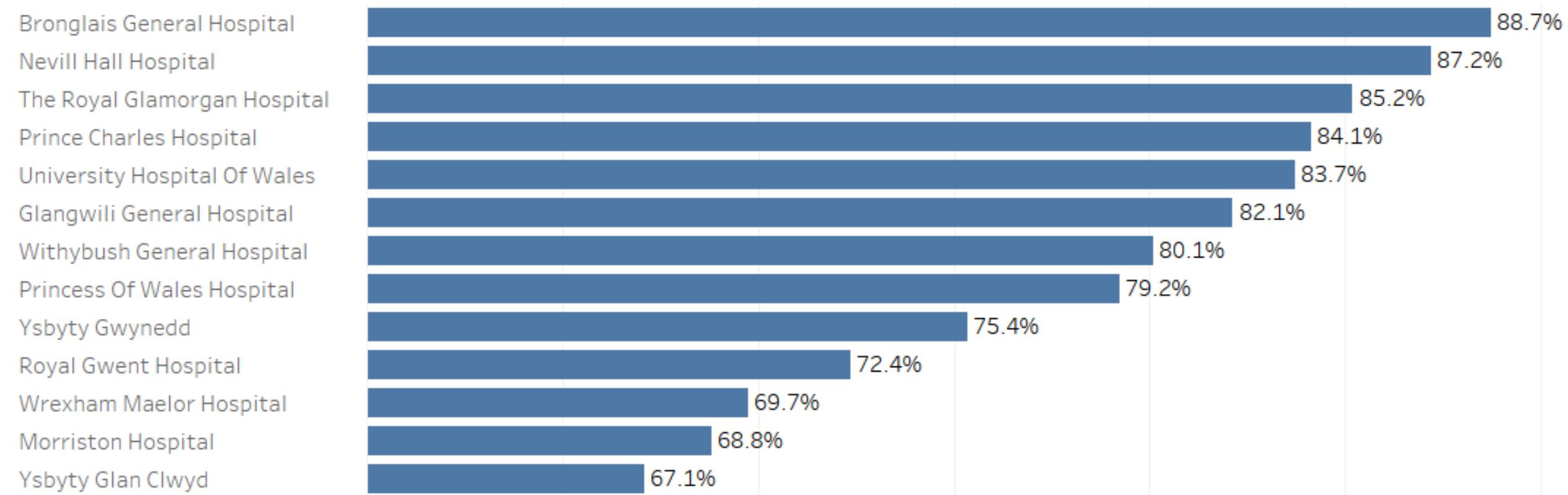


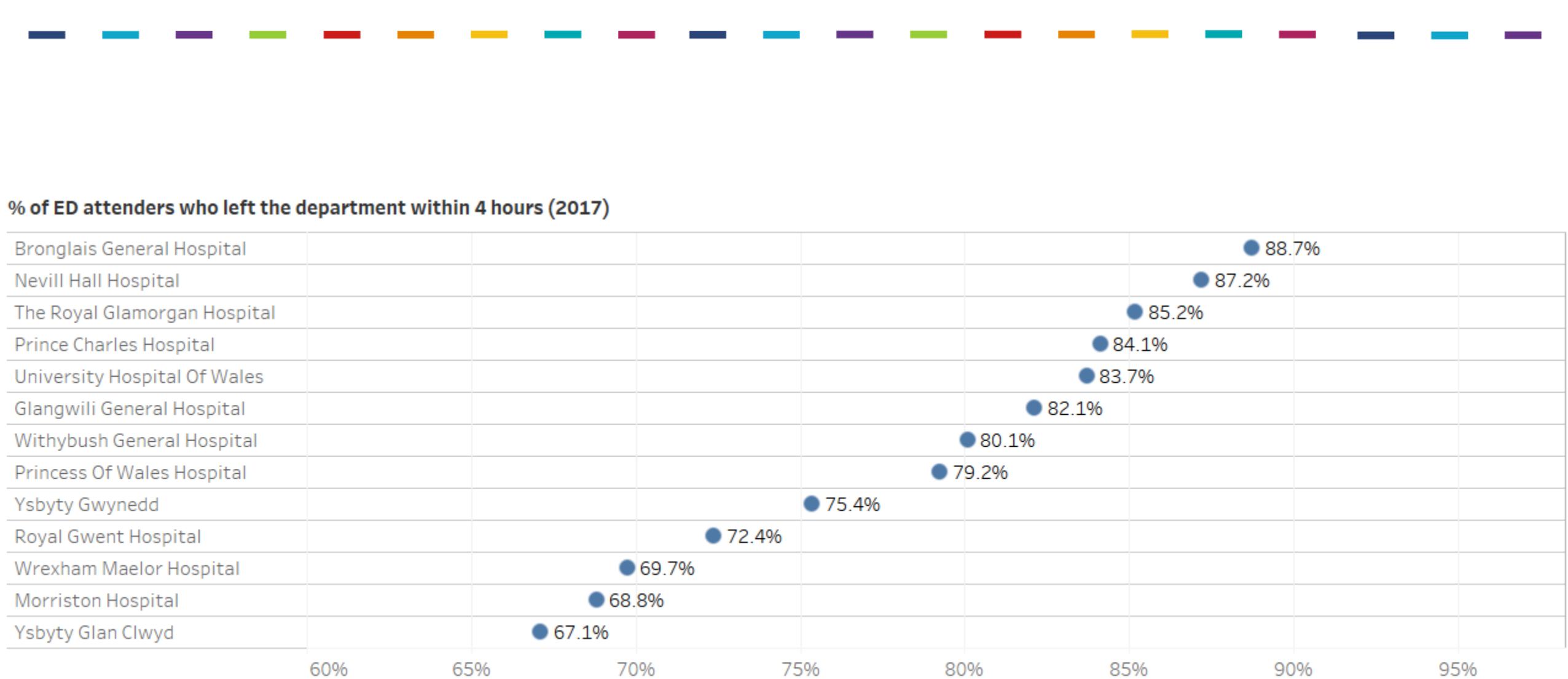
% of ED attenders who left the department within 4 hours (2017)





% of ED attenders who left the department within 4 hours (2017)

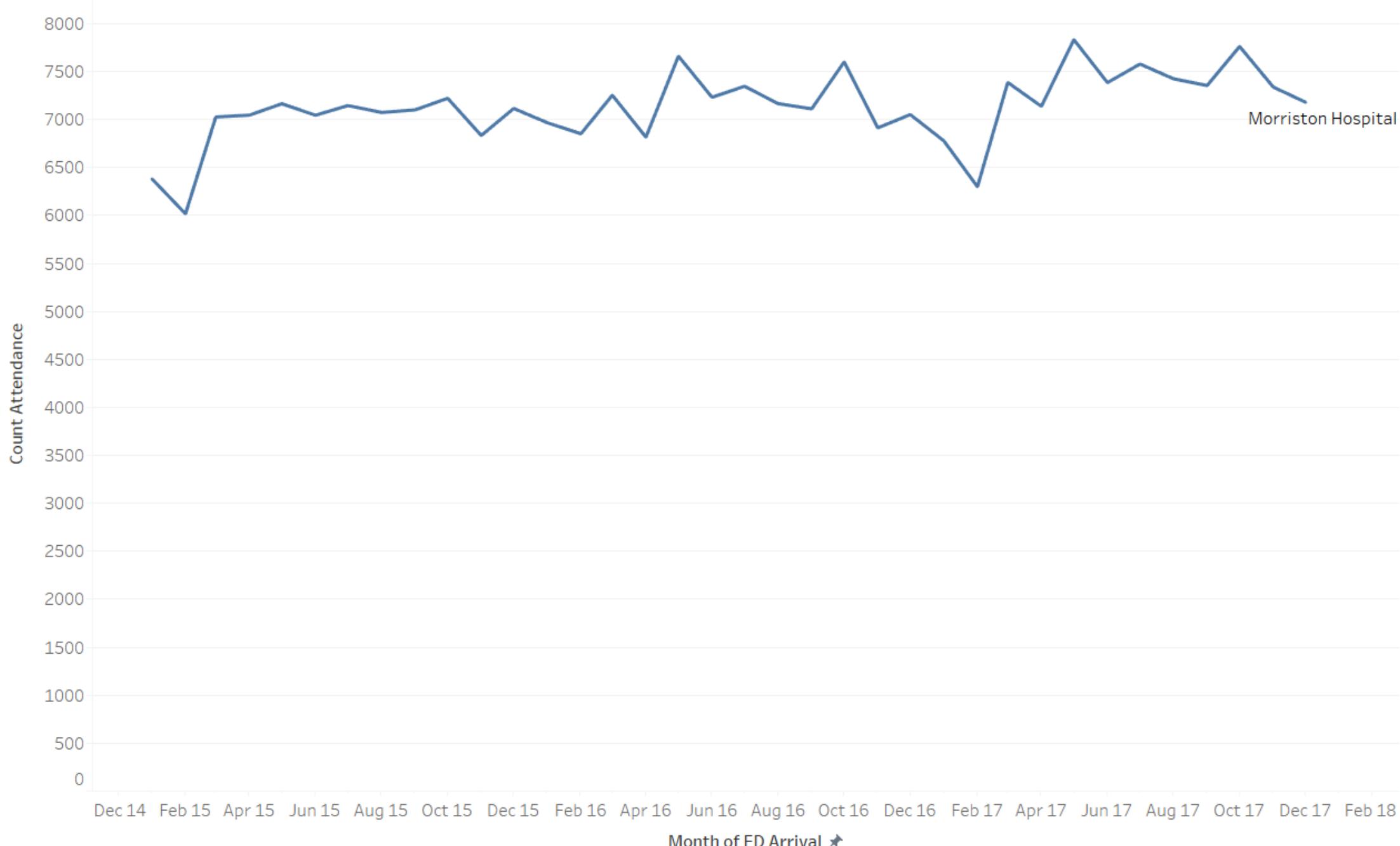




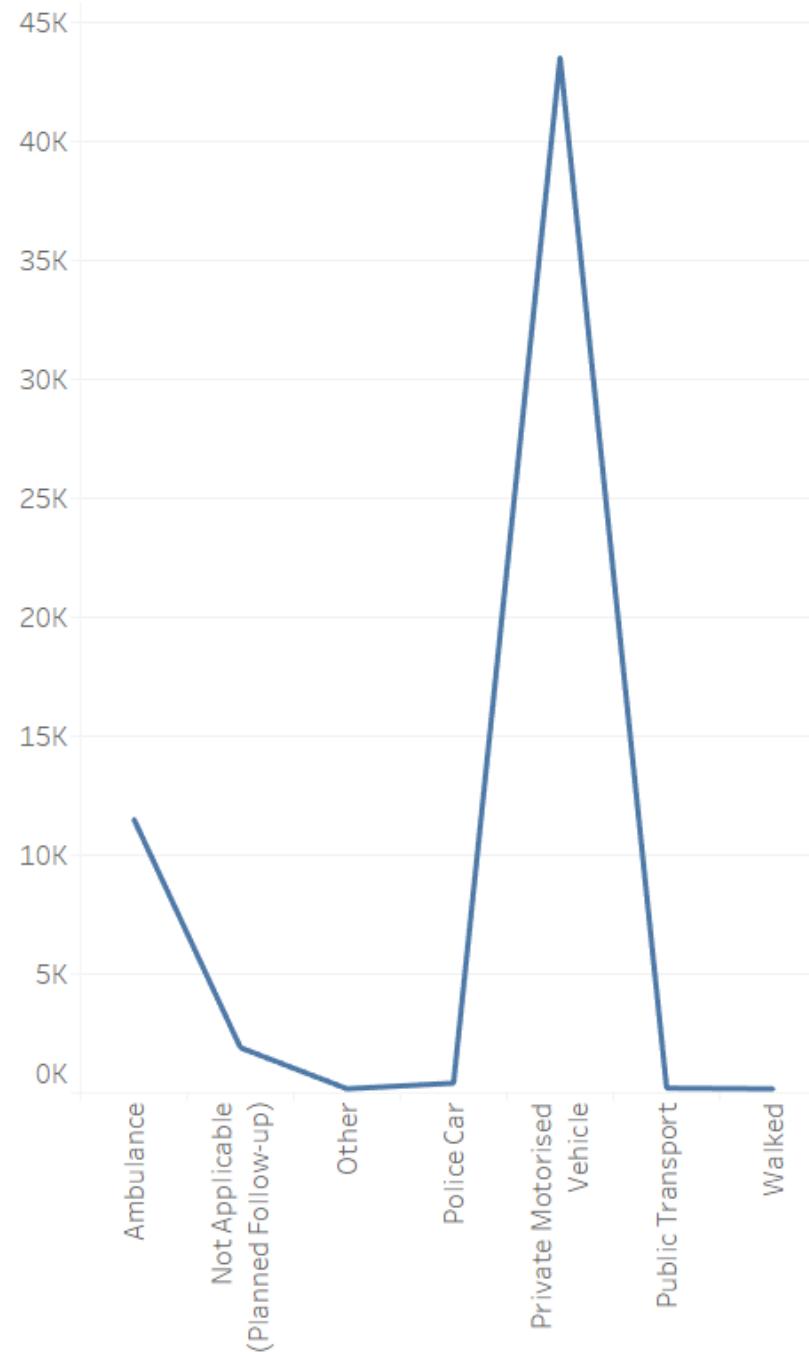
Line Graphs



Number of ED Attendances per Month



Outcomes of ED Attendances (Princess of Wales Hospital, 2017)

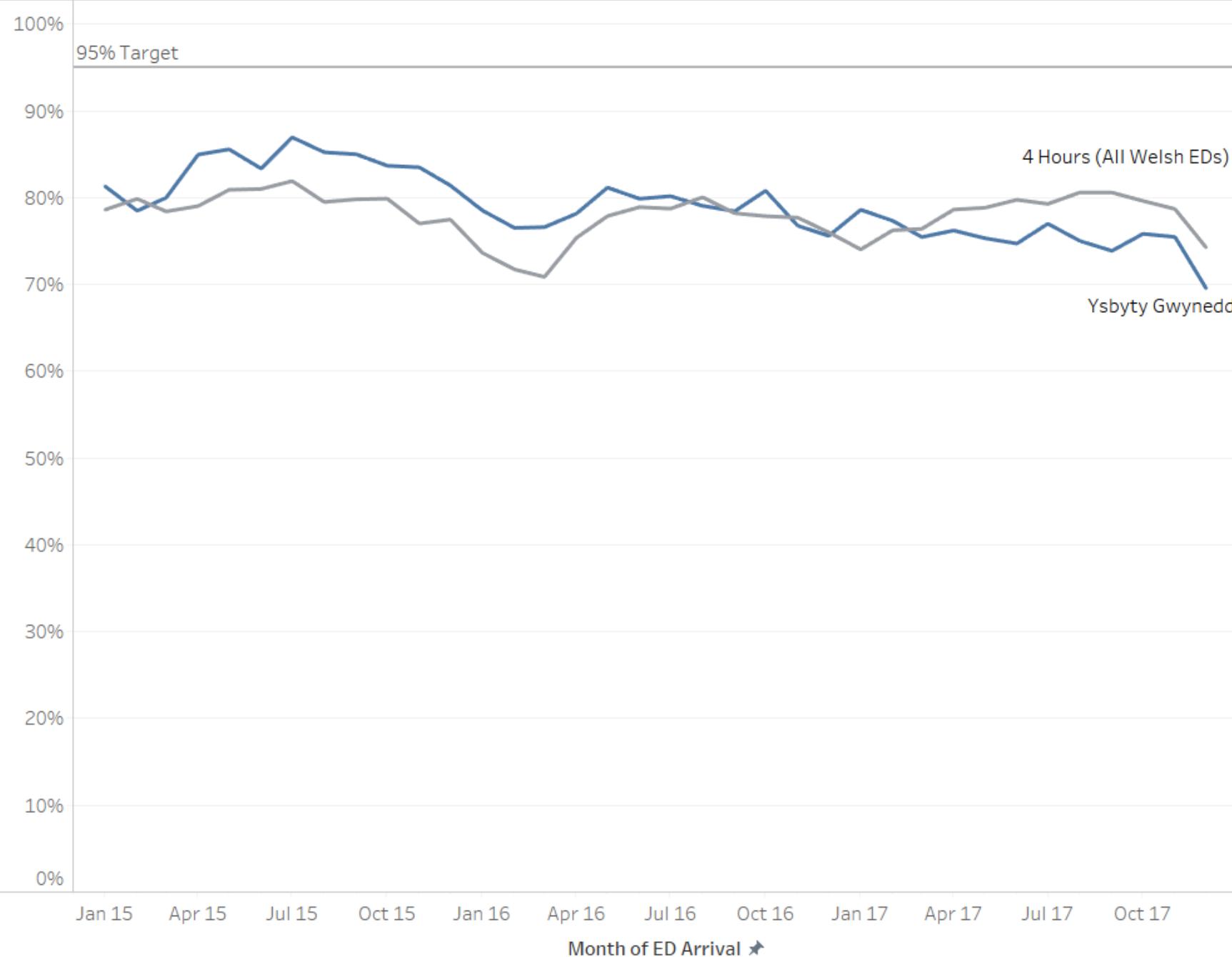


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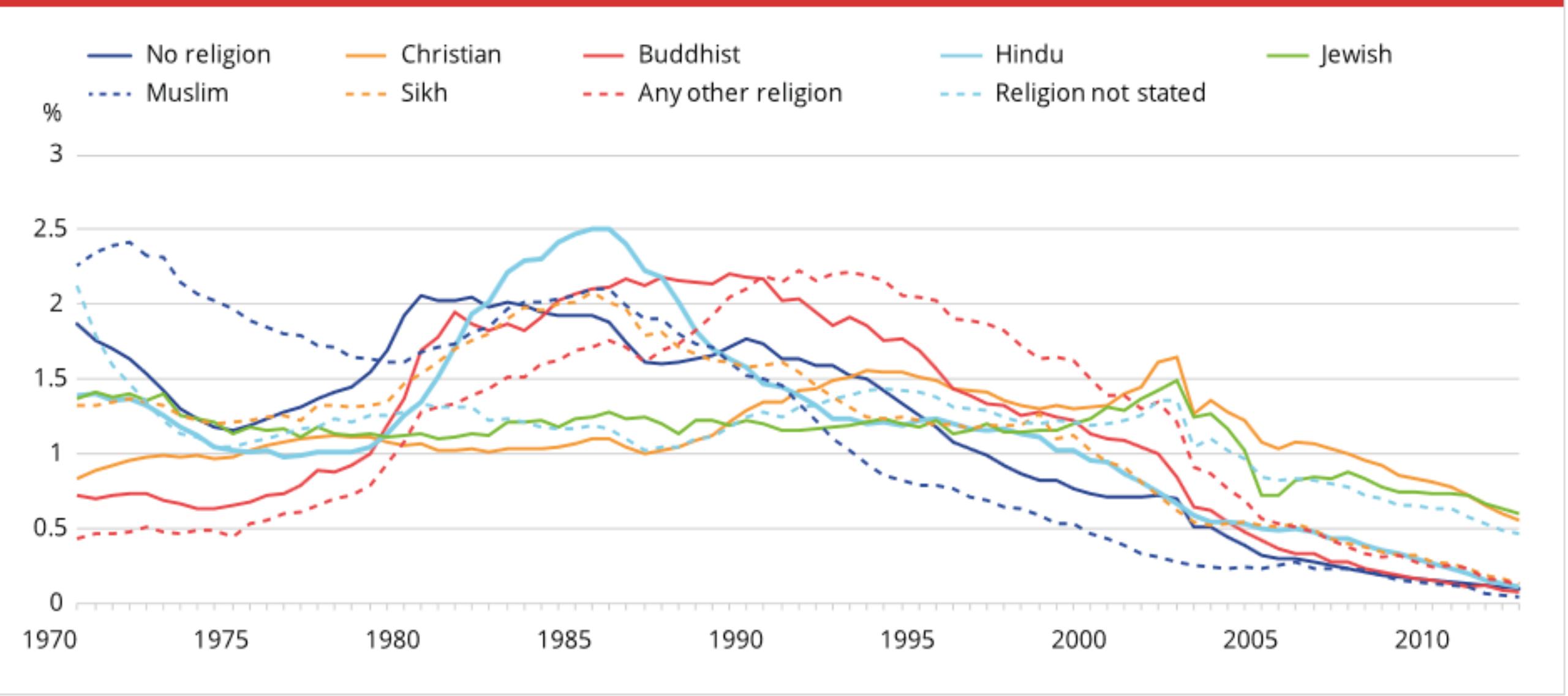
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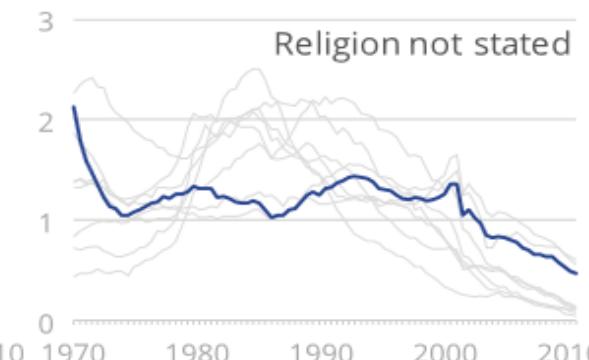
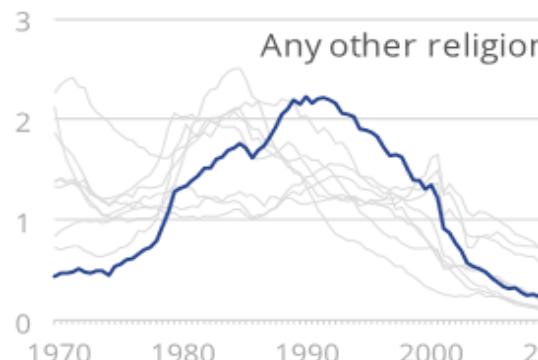
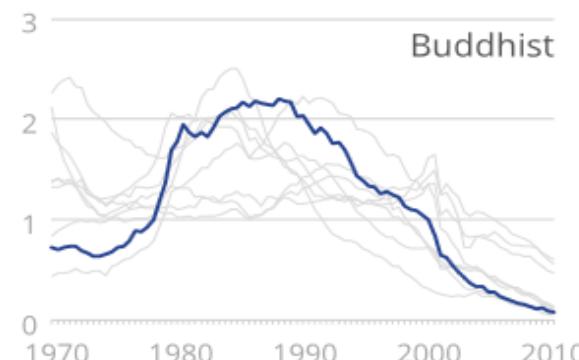
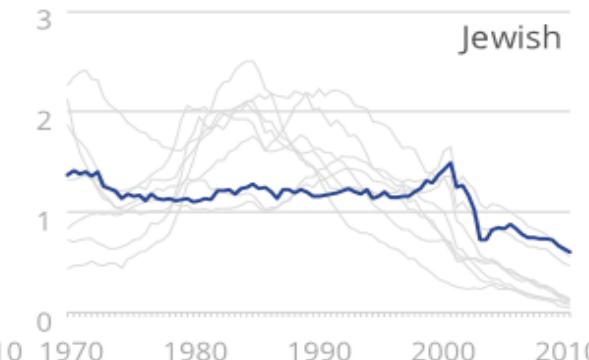
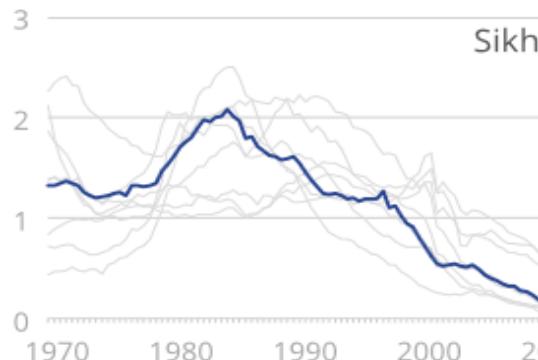
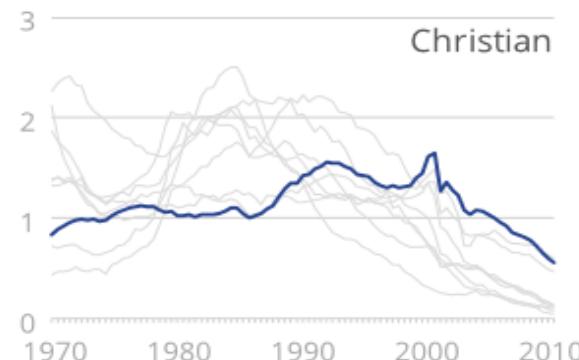
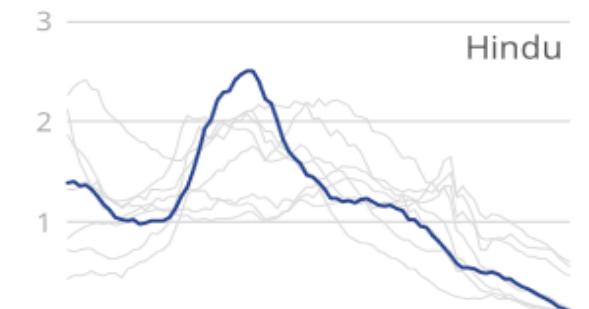
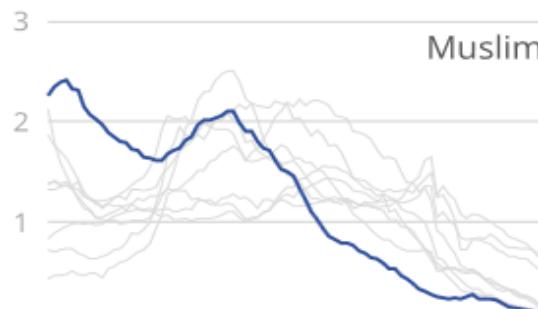
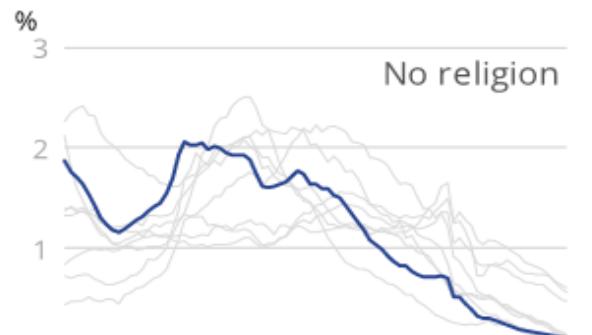
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% attenders who left ED within 4 hours



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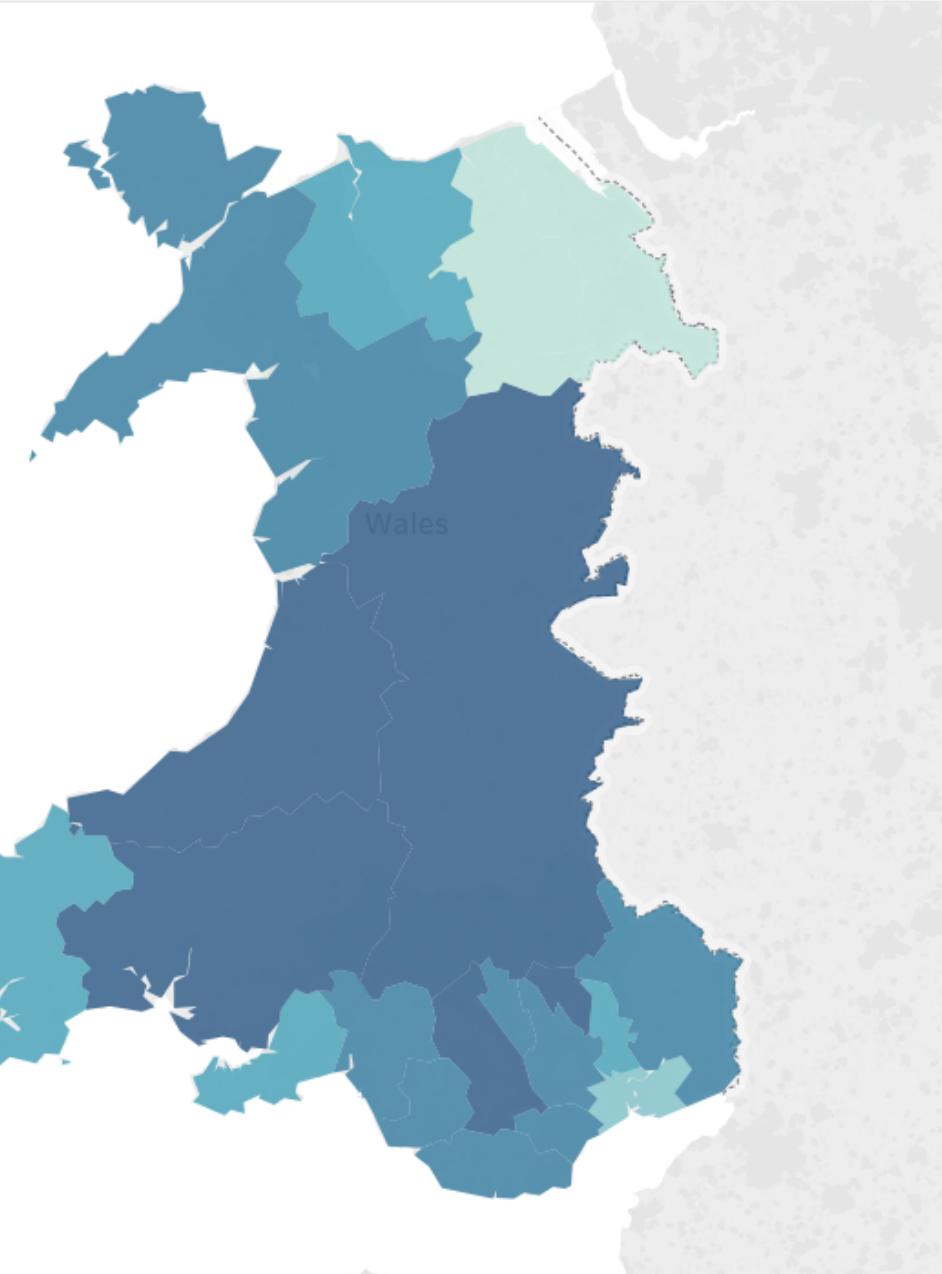


Maps



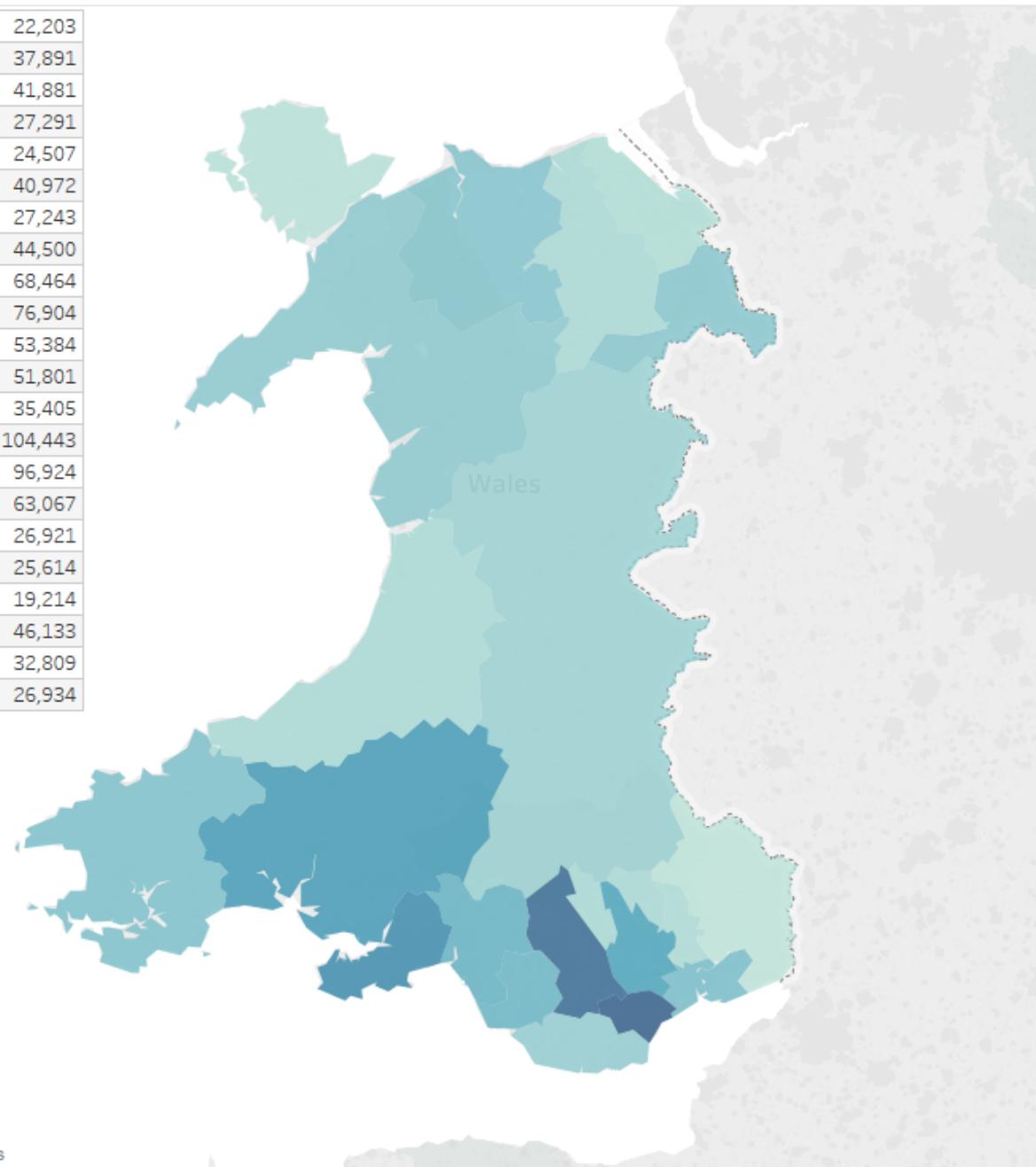
ED attenders who left department within 4 hours
by Unitary authority of residence (2017)

Isle of Anglesey	82.1%
Gwynedd	81.7%
Conwy	77.9%
Denbighshire	69.3%
Flintshire	66.1%
Wrexham	71.0%
Ceredigion	87.9%
Pembrokeshire	80.5%
Carmarthenshire	87.8%
Swansea	77.6%
Neath Port Talbot	81.8%
Bridgend	81.7%
The Vale of Glamorgan	85.8%
Cardiff	84.4%
Rhondda Cynon Taf	87.0%
Caerphilly	84.5%
Blaenau Gwent	89.2%
Torfaen	81.0%
Monmouthshire	82.0%
Newport	75.8%
Powys	91.7%
Merthyr Tydfil	85.1%



ED attendances by Unitary authority of residence (2017)

Isle of Anglesey	22,203
Gwynedd	37,891
Conwy	41,881
Denbighshire	27,291
Flintshire	24,507
Wrexham	40,972
Ceredigion	27,243
Pembrokeshire	44,500
Carmarthenshire	68,464
Swansea	76,904
Neath Port Talbot	53,384
Bridgend	51,801
The Vale of Glamorgan	35,405
Cardiff	104,443
Rhondda Cynon Taf	96,924
Caerphilly	63,067
Blaenau Gwent	26,921
Torfaen	25,614
Monmouthshire	19,214
Newport	46,133
Powys	32,809
Merthyr Tydfil	26,934



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Pretty Stuff



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Average ED Arrivals per day (Prince Charles Hospital, 2017)

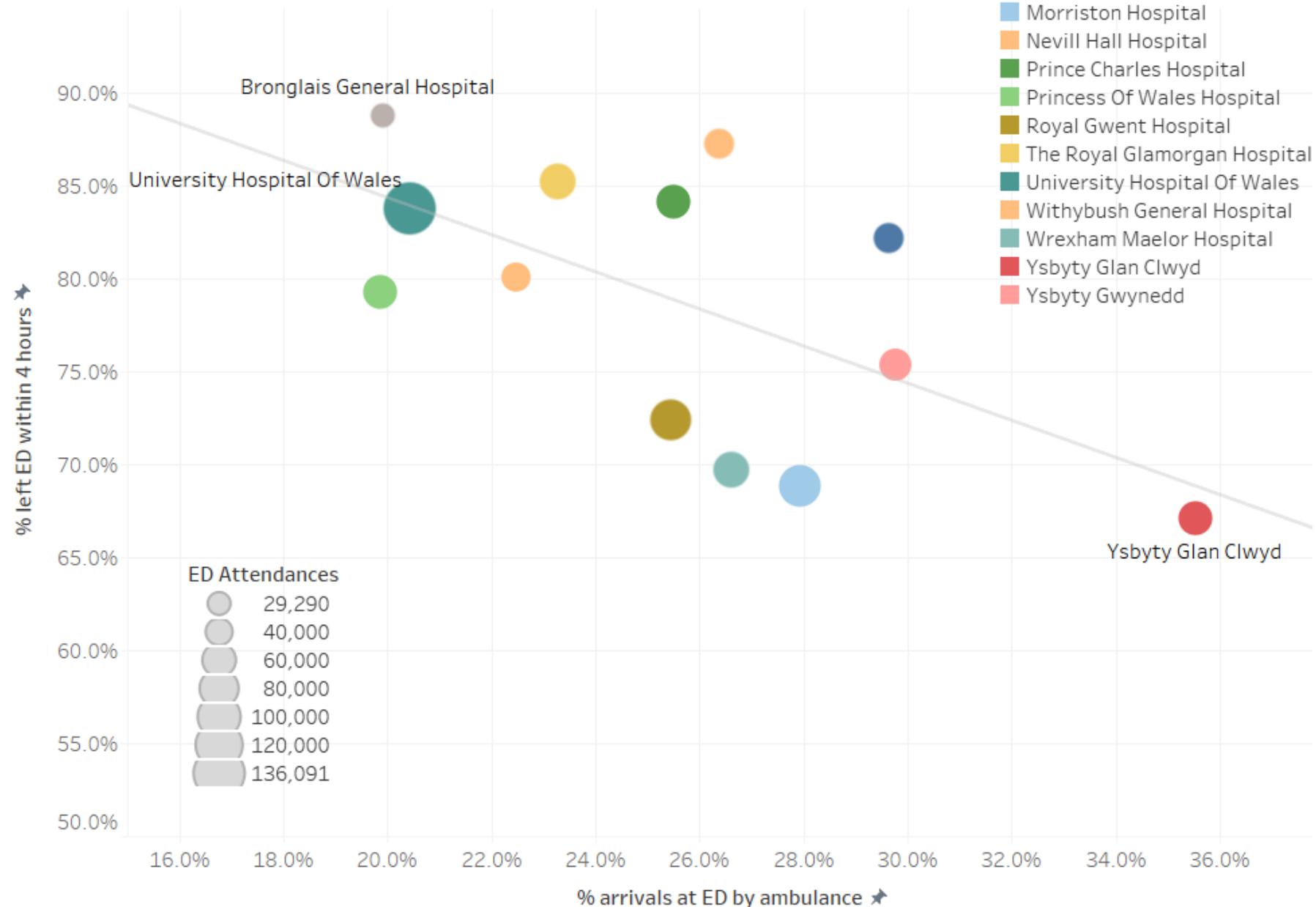
	Mon	Tue	Wed	Thu	Fri	Sat	Sun
12 AM	3	3	4	4	4	4	4
1 AM	3	2	2	3	3	3	4
2 AM	3	2	3	2	2	3	3
3 AM	3	2	3	2	2	3	3
4 AM	2	2	2	2	2	3	2
5 AM	2	2	2	2	2	2	2
6 AM	2	2	2	2	2	2	2
7 AM	3	3	3	3	3	3	3
8 AM	7	6	5	6	6	5	6
9 AM	10	10	10	8	9	8	9
10 AM	14	14	13	10	12	9	10
11 AM	14	14	14	11	13	10	12
12 PM	12	11	11	10	10	10	12
1 PM	11	9	10	10	10	10	12
2 PM	10	10	10	10	9	10	12
3 PM	11	9	10	9	10	10	11
4 PM	10	10	10	11	10	10	11
5 PM	12	11	11	11	11	10	11
6 PM	12	10	10	10	10	10	9
7 PM	10	9	9	9	8	8	9
8 PM	9	8	8	8	8	8	9
9 PM	7	7	7	6	7	7	7
10 PM	6	6	6	5	6	6	6
11 PM	5	5	5	5	5	5	5



% Time Spent in ED < 4hrs versus % Arrivals at ED by Ambulance

(Size of circle denotes number of attendances)

Welsh Emergency Departments, 2017



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