

# **AROC Impairment Specific Report**

## **Inpatient – Pathway 3**

### **BRAIN INJURY**

**Anywhere Hospital**

July 2015 – June 2016



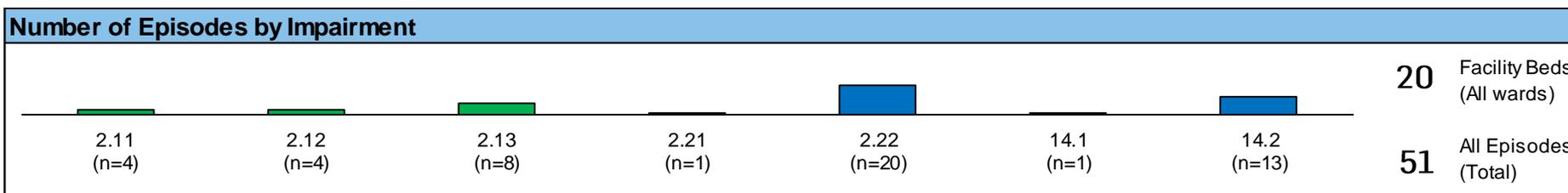
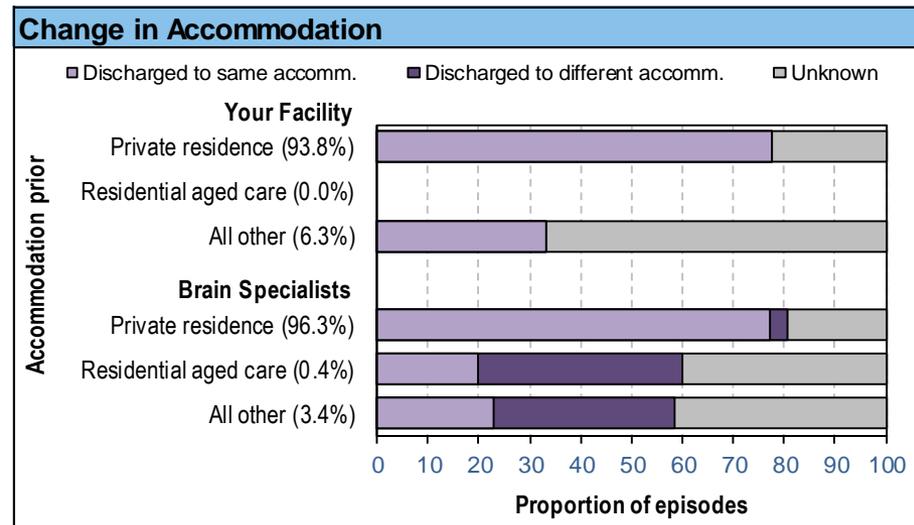
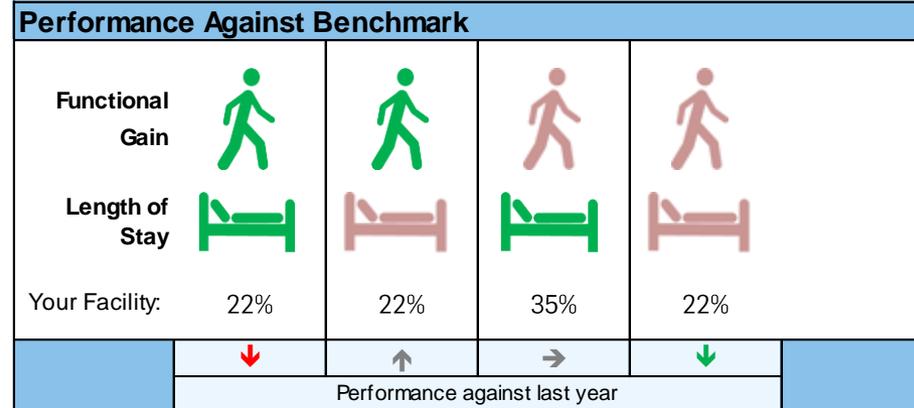
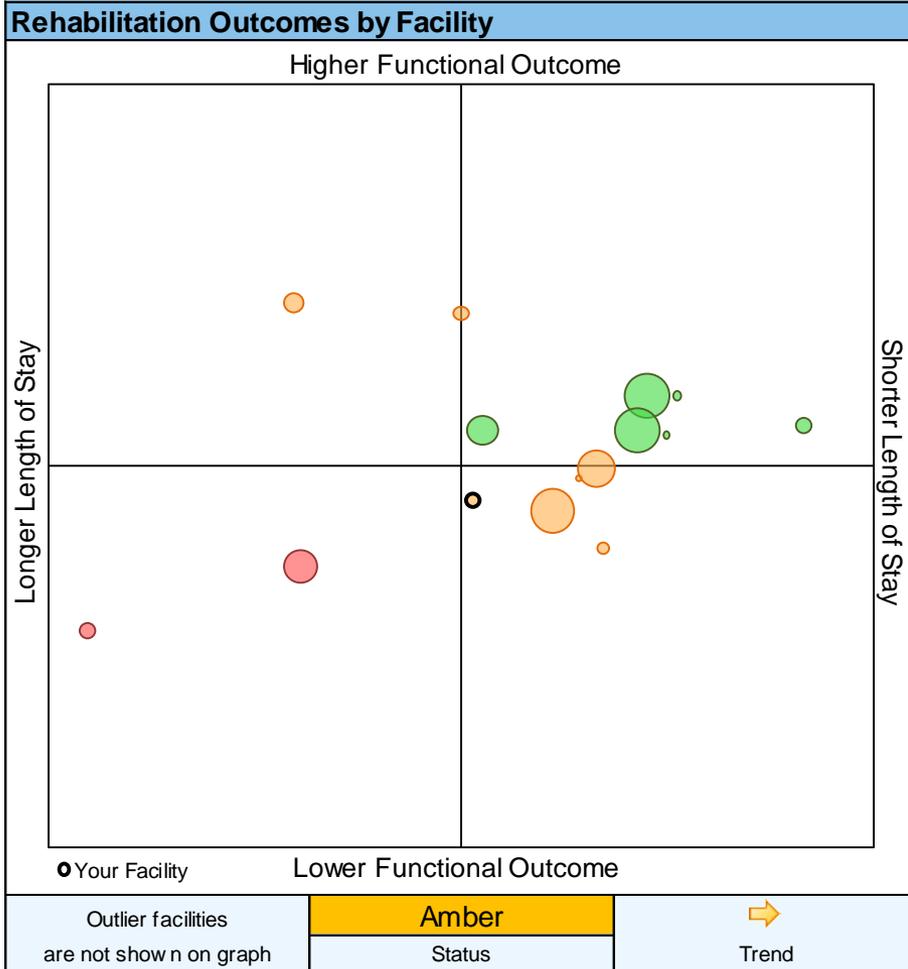
**Australasian Faculty  
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Medicine**

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# Brain Injury Dashboard (FY 2016)



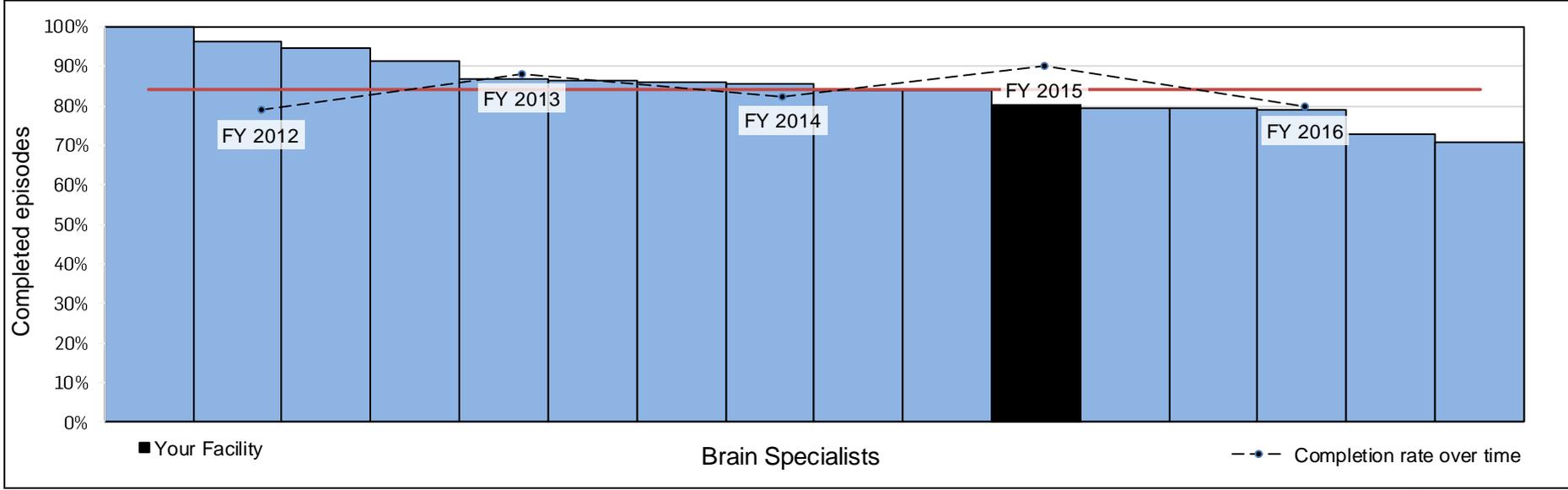
Key Indicators*	
Your Facility	Brain Specialists
Average Age: <b>44.8</b>	Average Age: <b>47.5</b>
Mortality Rate: <b>0.0%</b>	Mortality Rate: <b>0.1%</b>
% with at least one comorbidity: <b>45%</b>	% with at least one comorbidity: <b>45%</b>
% with at least one complication: <b>33%</b>	% with at least one complication: <b>29%</b>
% episodes with start delays: <b>16%</b>	% episodes with start delays: <b>16%</b>
Days between onset and rehab episode: <b>30.0</b>	Days between onset and rehab episode: <b>28.0</b>
Days between clinically rehab ready & start date: <b>1.0</b>	Days between clinically rehab ready & start date: <b>1.1</b>

\* Mean value provided unless otherwise specified

Facility FIM Training*	
FIM Credentialed Staff per 100 Episodes	FIM Credentialed Facility Trainers
10.0 Your Facility	<b>2</b> Your Facility
16.6 Brain Specialists (Mean)	<b>2</b> AROC Suggested Minimum

\* This includes all impairments from all wards

## Completed Episodes by Facility



# Introducing the Impairment Specific Reports

This is the third AROC Impairment Specific Report for brain injury which compares YOUR FACILITY's data to data from SPECIALIST brain injury services and data from NON-SPECIALIST brain injuries services (Australia and New Zealand). Each Impairment Specific Report is structured as a series of chapters. Each report will present an overall big picture chapter on the impairment followed by a chapter looking at FIM item scoring at YOUR FACILITY. An outcomes analysis chapter followed by an explanatory data chapter. At the end is analysis by impairment specific data items.

While SPECIALIST data includes all SPECIALIST facilities with data on this impairment and NON-SPECIALIST data includes all NON-SPECIALIST facilities with data on this impairment, facilities will only receive this report if they are considered a SPECIALIST facility.

AROC welcomes your feedback on this report.

NOTE: This report should be considered in conjunction with the Outcome Benchmarks Report for your facility.

# Data used in this report

This report summarises Brain Injury episodes in financial year 2016 (1 July 2015 to 30 June 2016 ) collected in the V4 data set - Pathway 3 (inpatient direct care). Unit of counting is by concatenated\* episode, not by patient.

All tables and graphs present financial year 2016 data unless otherwise indicated, and the number of episodes from Anywhere Hospital in 2016 are provided. Where there are less than five episodes within a subgroup, summary data are not provided.

Casemix analysis uses the version 4 AN-SNAP classes (Appendix 3), introduced July 2016. Casemix adjustment is against all SPECIALIST units.

NOTE: Appendix 1 (Glossary) contains definitions of concepts referred to in this report. An understanding of these will help with interpretation of the data.

\*Refer to Appendix 1 for more details about the process of data concatenation

# Brain injury impairment codes

Brain injury episodes were identified as those with the following AROC impairment codes:

## **Traumatic**

- 2.21 – Brain Dysfunction, Open injury
- 2.22 – Brain Dysfunction, Closed injury
- 14.1 – Major Multiple Trauma, Brain + Brain injury
- 14.2 – Major Multiple Trauma, Brain + multi fracture/amputation

## **Non-Traumatic**

- 2.11 – Brain Dysfunction, Sub-arachnoid haemorrhage
- 2.12 – Brain Dysfunction, Anoxic brain damage
- 2.13 – Brain Dysfunction, Other non-traumatic brain dysfunction

NOTE: A list of all impairment codes can be found in Appendix 2

# Brain injury AN-SNAP classes

Levels of functioning for spinal cord dysfunction are categorised by the following version 4 AN-SNAP classes:

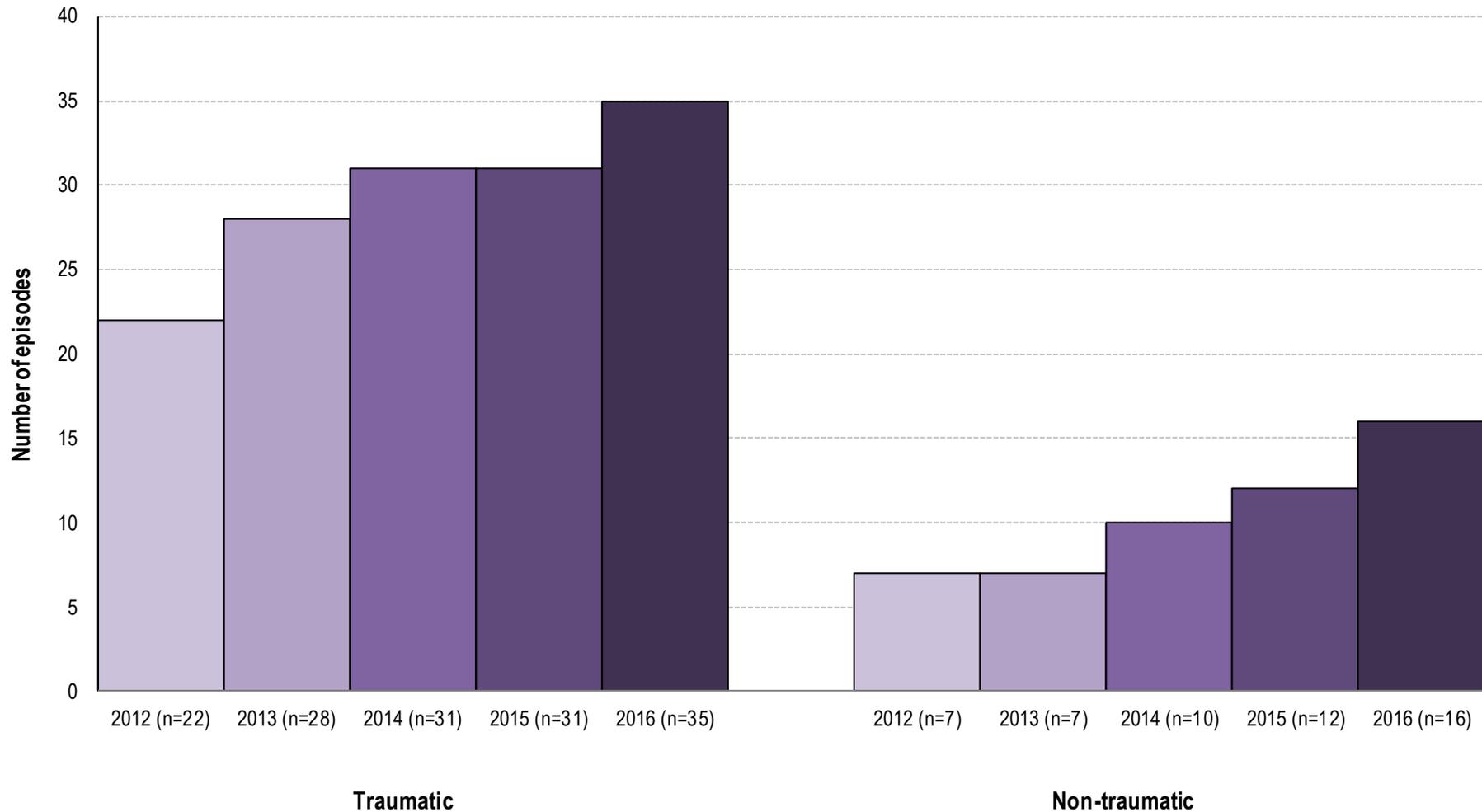
- 4AB1 Brain dysfunction, weighted FIM motor 71-91, FIM cognition 26-35
- 4AB2 Brain dysfunction, weighted FIM motor 71-91, FIM cognition 5-25
- 4AB3 Brain dysfunction, weighted FIM motor 41-70, FIM cognition 26-35
- 4AB4 Brain dysfunction, weighted FIM motor 41-70, FIM cognition 17-25
- 4AB5 Brain dysfunction, weighted FIM motor 41-70, FIM cognition 5-16
- 4AB6 Brain dysfunction, weighted FIM motor 29-40
- 4AB7 Brain dysfunction, weighted FIM motor 19-28
- 4AP1 Major Multiple Trauma, weighted FIM motor 19-91
- 4AZ1 Weighted FIM motor score 13-18, Brain, MMT, Age  $\geq$  49
- 4AZ2 Weighted FIM motor score 13-18, Brain, MMT, Age  $\leq$  48

NOTE: A list of all AN-SNAP classes can be found in Appendix 3

# The BIG picture

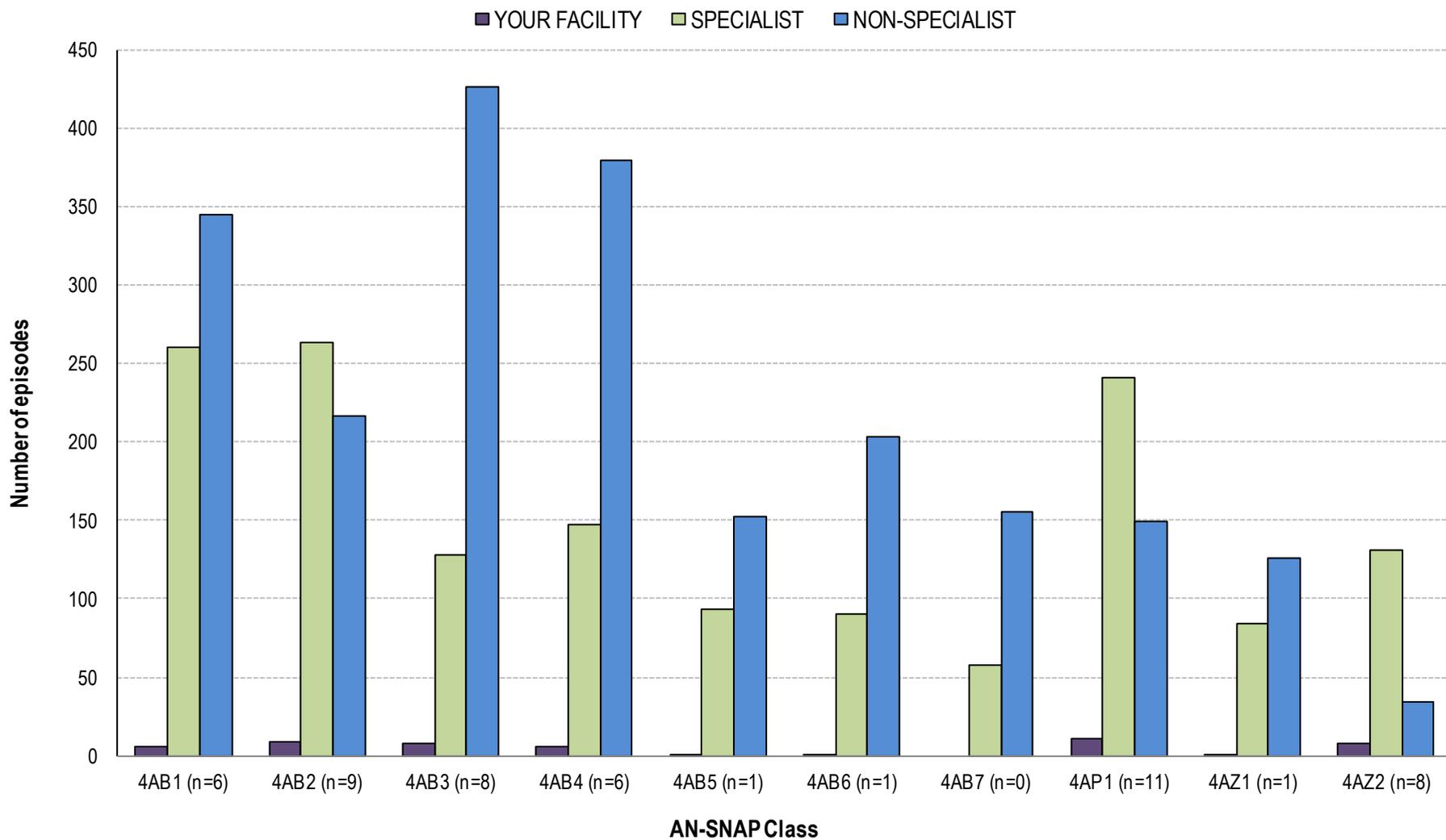


# Number of traumatic and non-traumatic episodes over time – YOUR FACILITY



YOUR FACILITY

# Number of episodes by AN-SNAP class

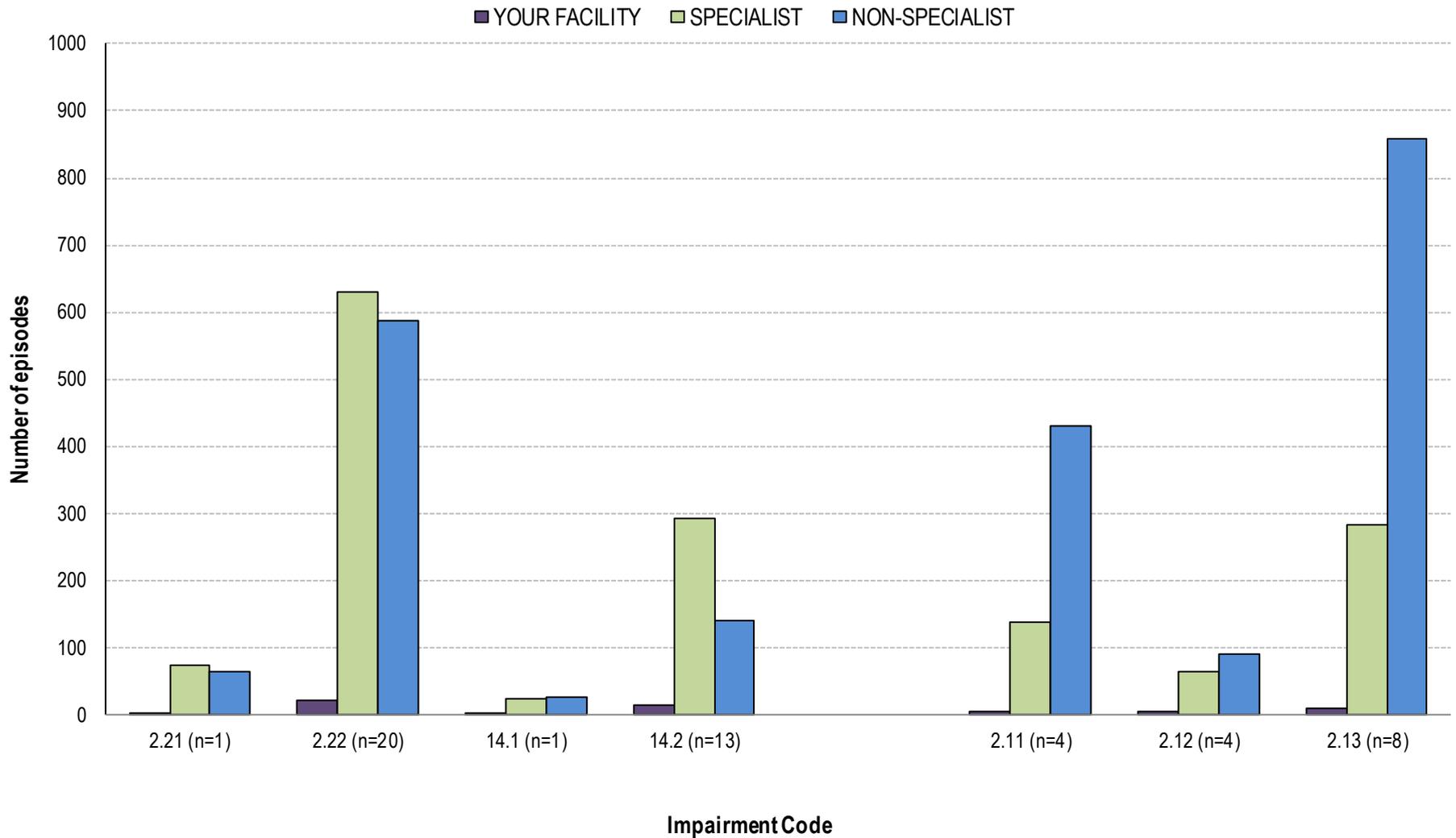


# Number of episodes by AN-SNAP class

AN-SNAP class	YOUR FACILITY		SPECIALIST		NON-SPECIALIST	
	No.	%	No.	%	No.	%
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	6	11.8	261	17.4	345	15.8
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	9	17.6	264	17.6	217	9.9
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	8	15.7	128	8.6	427	19.5
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	6	11.8	147	9.8	380	17.4
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	1	2.0	93	6.2	152	6.9
4AB6 (BI, weighted FIM motor 29-40)	1	2.0	90	6.0	203	9.3
4AB7 (BI, weighted FIM motor 19-28)	0	0.0	58	3.9	156	7.1
4AP1 (MMT, weighted FIM motor 19-91)	11	21.6	241	16.1	149	6.8
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	1	2.0	84	5.6	126	5.8
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	8	15.7	131	8.8	34	1.6
<b>All Brain AN-SNAP classes</b>	<b>51</b>	<b>100.0</b>	<b>1,497</b>	<b>100.0</b>	<b>2,189</b>	<b>100.0</b>

*Note: 0 episode(s) at YOUR FACILITY, 2 episode(s) at SPECIALIST facilities and 7 episode(s) at NON-SPECIALIST facilities had an AN-SNAP class of 499A.*

# Number of traumatic and non-traumatic episodes by impairment

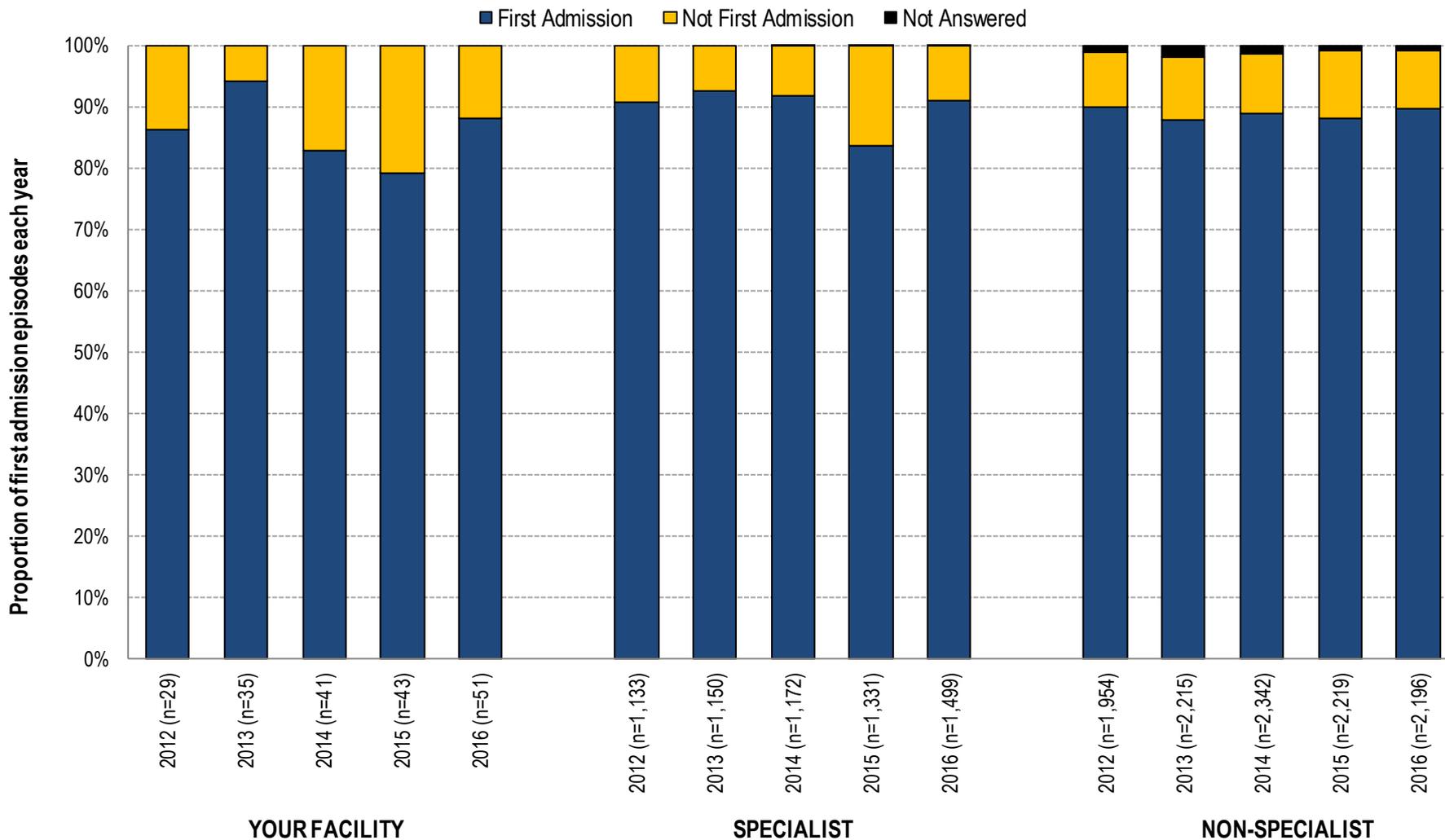


# Traumatic and non-traumatic episodes by impairment

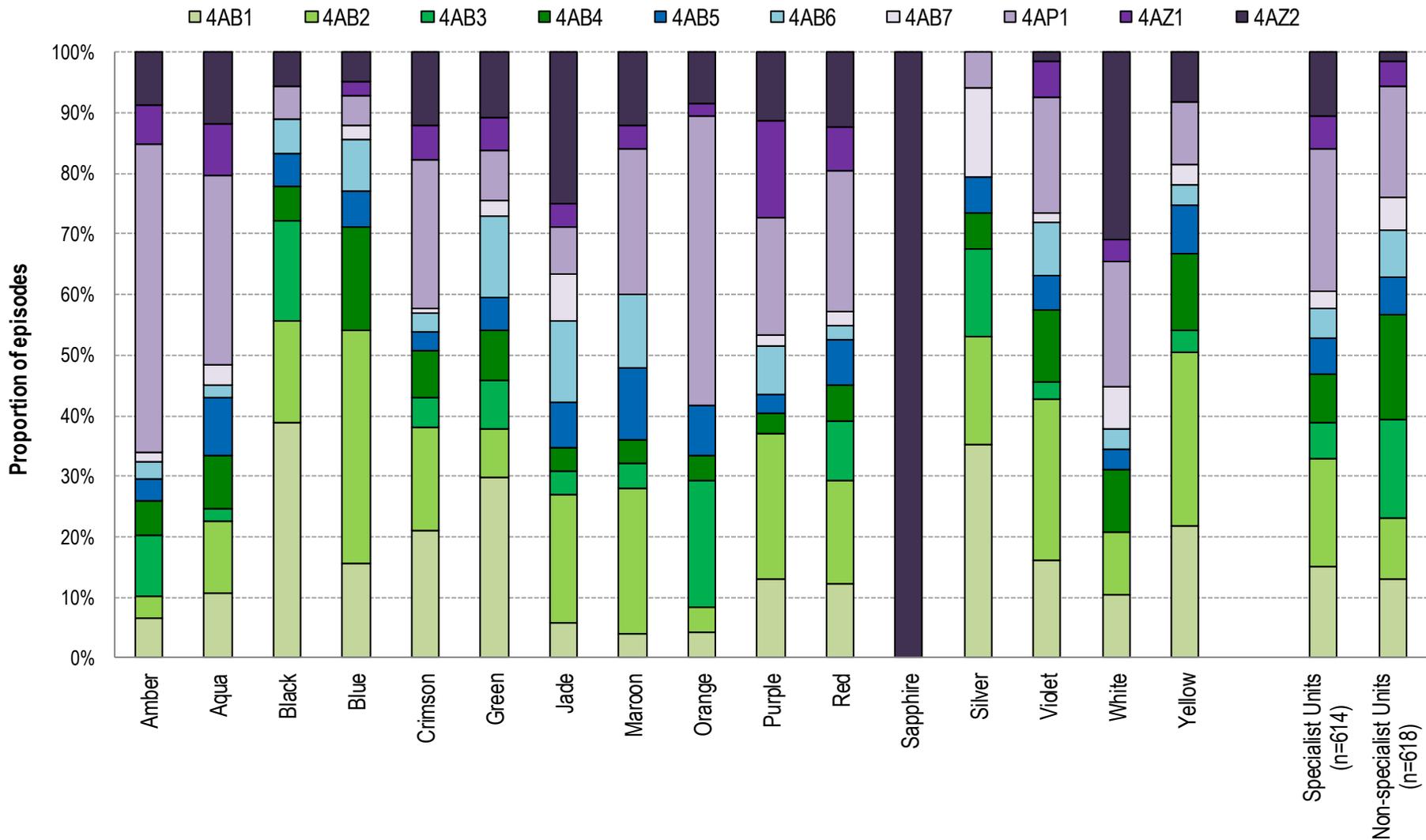


Impairment	YOUR FACILITY		SPECIALIST		NON-SPECIALIST	
	No.	%	No.	%	No.	%
<b><u>Traumatic impairments</u></b>						
2.21 Open injury	1	2.9	72	7.1	64	7.8
2.22 Closed injury	20	57.1	631	62.0	587	71.9
14.1 MMT: brain+spine	1	2.9	22	2.2	25	3.1
14.2 MMT: brain+other	13	37.1	292	28.7	140	17.2
<b>Total TBI</b>	<b>35</b>	<b>100.0</b>	<b>1,017</b>	<b>100.0</b>	<b>816</b>	<b>100.0</b>
<b><u>Non-traumatic impairments</u></b>						
2.11 Sub-arachnoid haemorrhage	4	25.0	136	28.2	431	31.2
2.12 Anoxic brain damage	4	25.0	63	13.1	90	6.5
2.13 Other NTBI	8	50.0	283	58.7	859	62.2
<b>Total NTBI</b>	<b>16</b>	<b>100.0</b>	<b>482</b>	<b>100.0</b>	<b>1,380</b>	<b>100.0</b>
<b>TOTAL BI</b>	<b>51</b>		<b>1,499</b>		<b>2,196</b>	

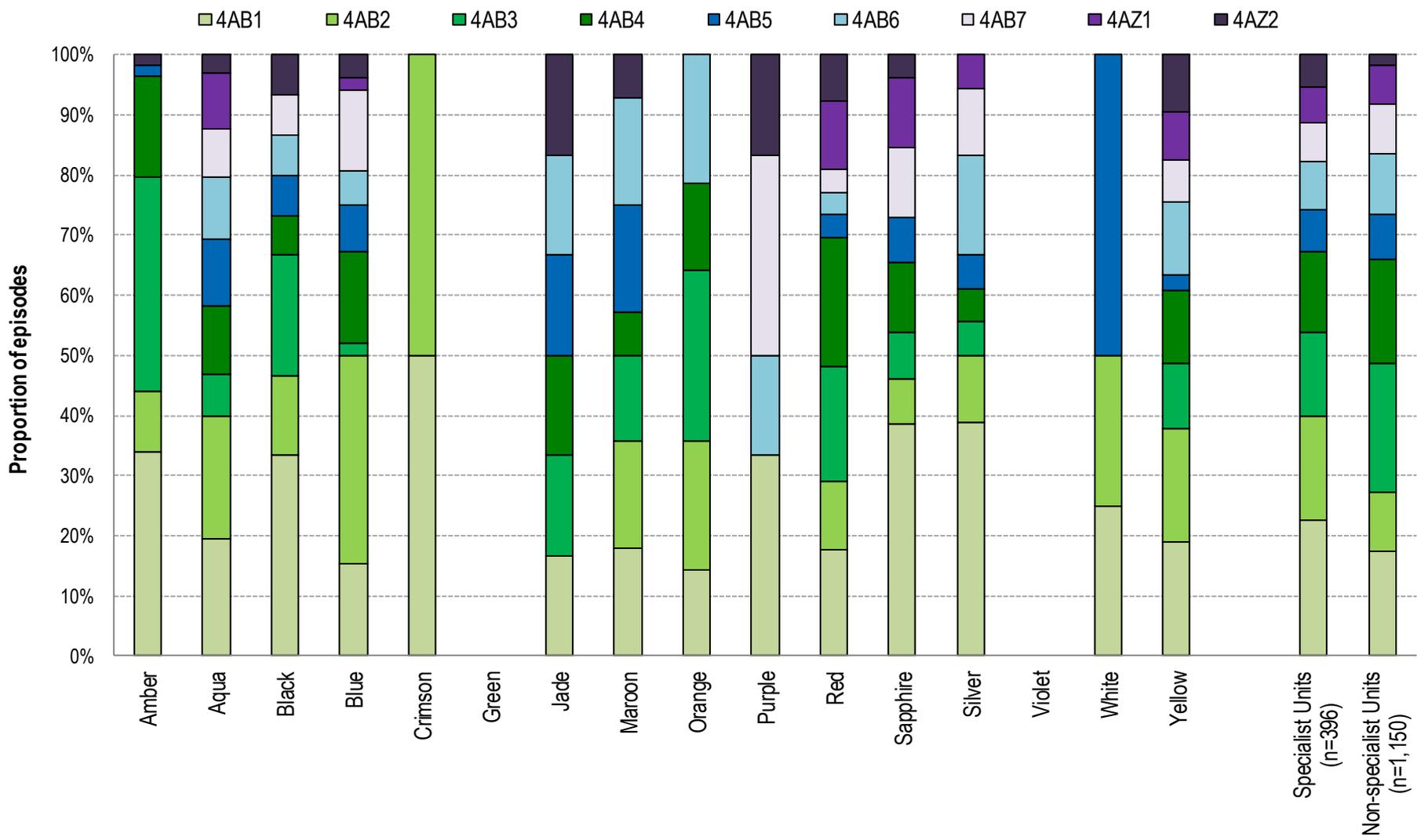
# Proportion of first admission episodes over time



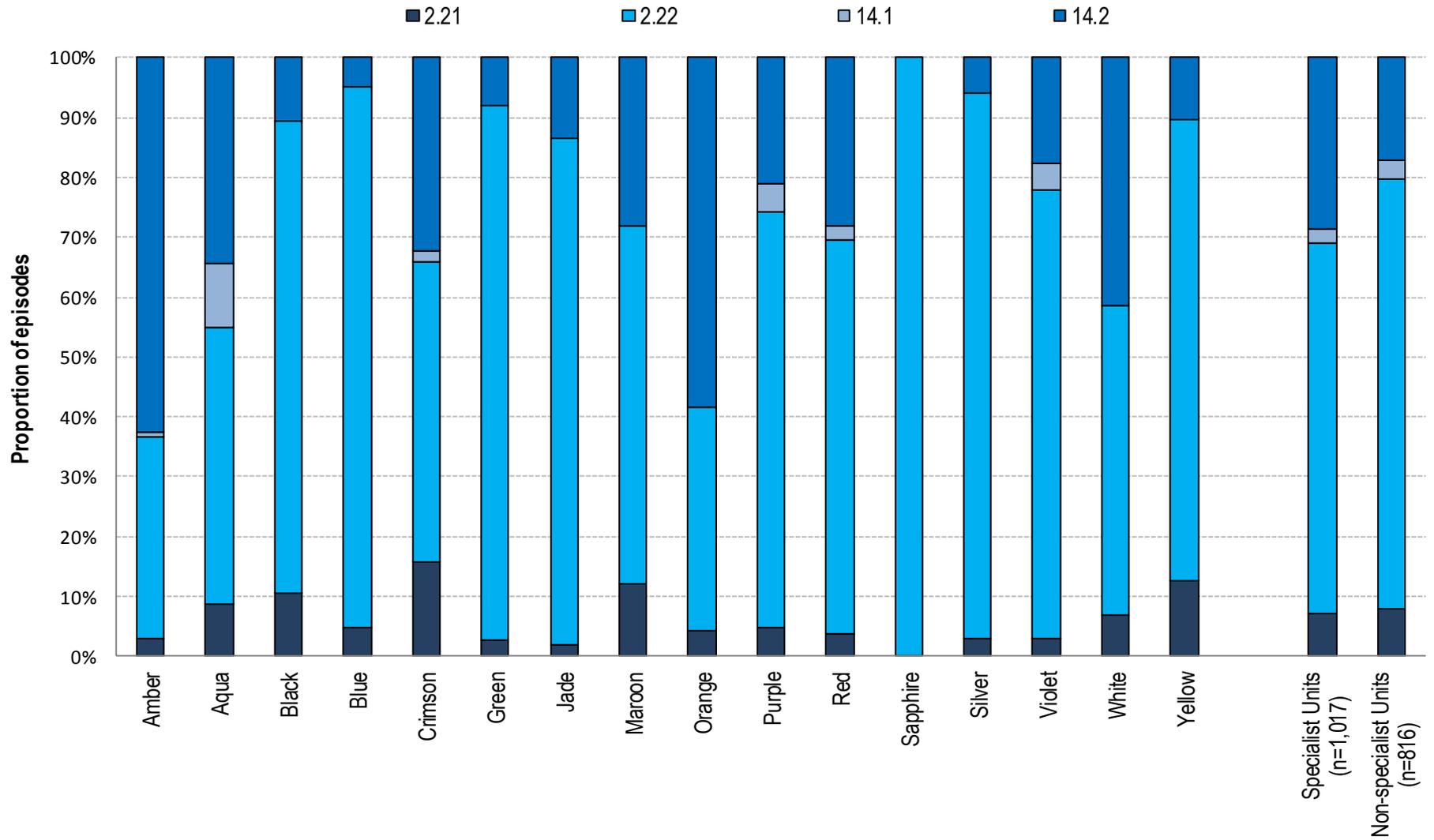
# Proportion of traumatic episodes by facility by AN-SNAP class



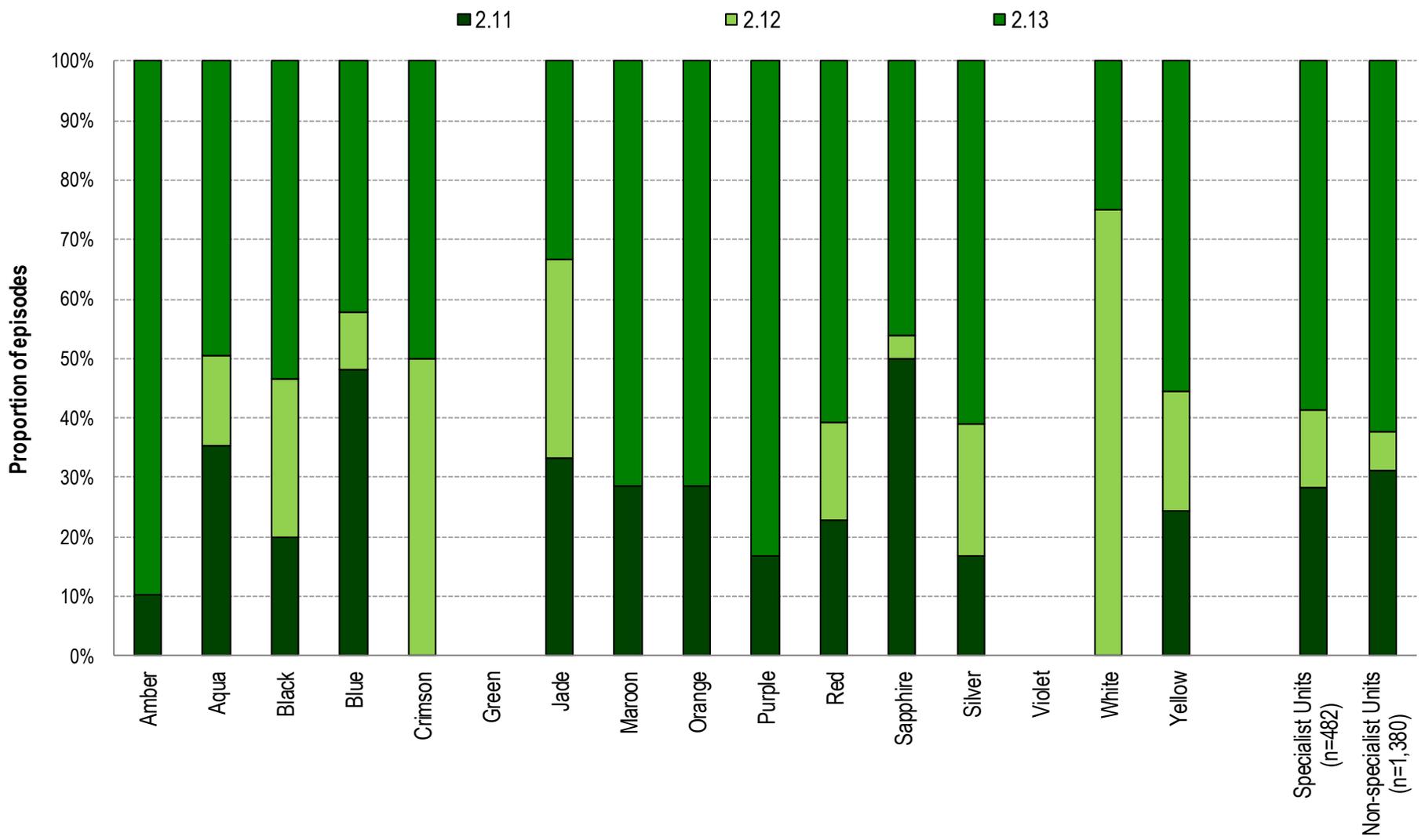
# Proportion of non-traumatic episodes by facility by AN-SNAP class



# Proportion of traumatic episodes by impairment by facility



# Proportion of non-traumatic episodes by Impairment by facility



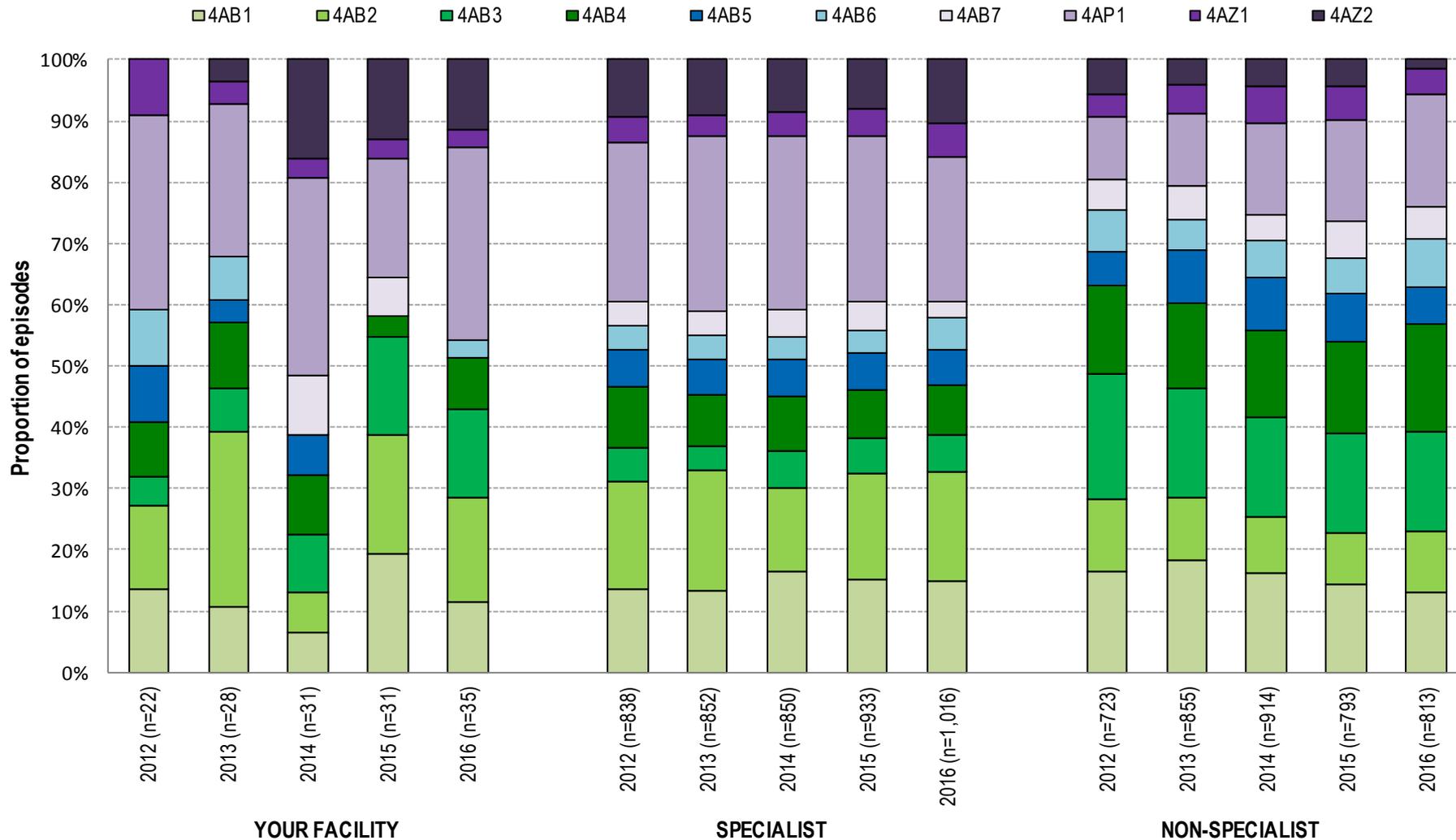
# Traumatic and non-traumatic episodes by impairment by AN-SNAP class

Traumatic Impairment	YOUR FACILITY										TOTAL	SPECIALIST	NON- SPECIALIST
	4AB1	4AB2	4AB3	4AB4	4AB5	4AB6	4AB7	4AP1	4AZ1	4AZ2			
2.21 Open injury	0	0	0	1	0	0	0	0	0	0	1	72	64
2.22 Closed injury	4	6	5	2	0	1	0	0	1	1	20	630	584
14.1 MMT: brain+spine	0	0	0	0	0	0	0	1	0	0	1	22	25
14.2 MMT: brain+other	0	0	0	0	0	0	0	10	0	3	13	292	140
<b>Total</b>	<b>4</b>	<b>6</b>	<b>5</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>11</b>	<b>1</b>	<b>4</b>	<b>35</b>	<b>1,016</b>	<b>813</b>
<b>SPECIALIST</b>	<b>152</b>	<b>181</b>	<b>61</b>	<b>82</b>	<b>60</b>	<b>51</b>	<b>27</b>	<b>241</b>	<b>55</b>	<b>106</b>	<b>1,016</b>		
<b>NON-SPECIALIST</b>	<b>105</b>	<b>83</b>	<b>132</b>	<b>141</b>	<b>50</b>	<b>63</b>	<b>44</b>	<b>149</b>	<b>34</b>	<b>12</b>	<b>813</b>		

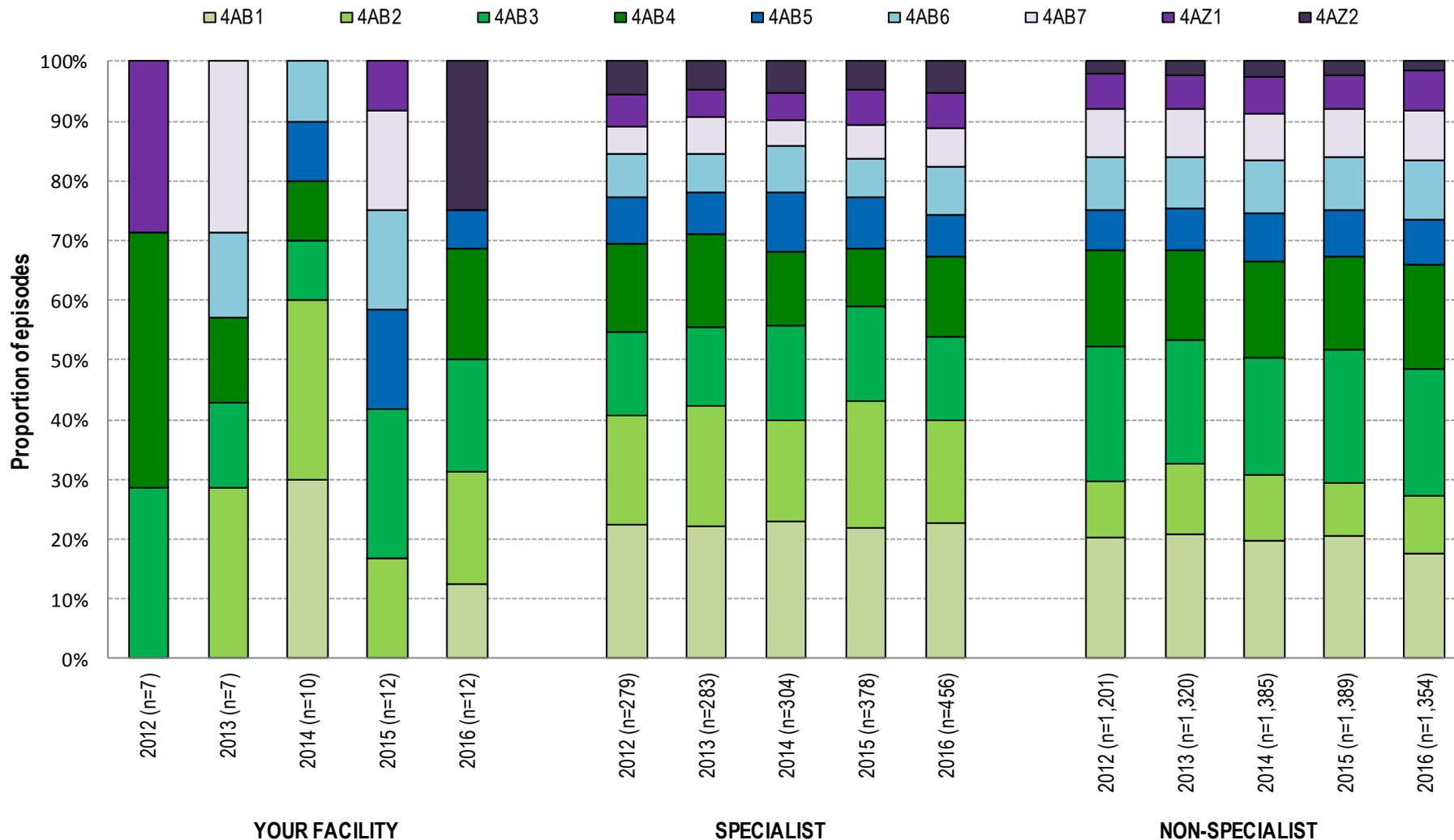
Non-traumatic Impairment	YOUR FACILITY										TOTAL	SPECIALIST	NON- SPECIALIST
	4AB1	4AB2	4AB3	4AB4	4AB5	4AB6	4AB7	4AZ1	4AZ2				
2.11 Sub-arachnoid haemorr	0	2	0	1	1	0	0	0	0	4	135	428	
2.12 Anoxic brain damage	1	0	0	1	0	0	0	0	0	2	63	90	
2.13 Other NTBI	1	1	3	1	0	0	0	0	0	6	283	858	
<b>Total</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>481</b>	<b>1,376</b>	
<b>SPECIALIST</b>	<b>109</b>	<b>83</b>	<b>67</b>	<b>65</b>	<b>33</b>	<b>39</b>	<b>31</b>	<b>29</b>	<b>25</b>	<b>481</b>			
<b>NON-SPECIALIST</b>	<b>240</b>	<b>134</b>	<b>295</b>	<b>239</b>	<b>102</b>	<b>140</b>	<b>112</b>	<b>92</b>	<b>22</b>	<b>1,376</b>			

Note: 0 episode(s) at YOUR FACILITY, 2 episode(s) at SPECIALIST facilities and 7 episode(s) at NON-SPECIALIST facilities had an AN-SNAP class of 499A.

# Proportion of traumatic episodes by AN-SNAP class over time



# Proportion of non-traumatic episodes by AN-SNAP class over time

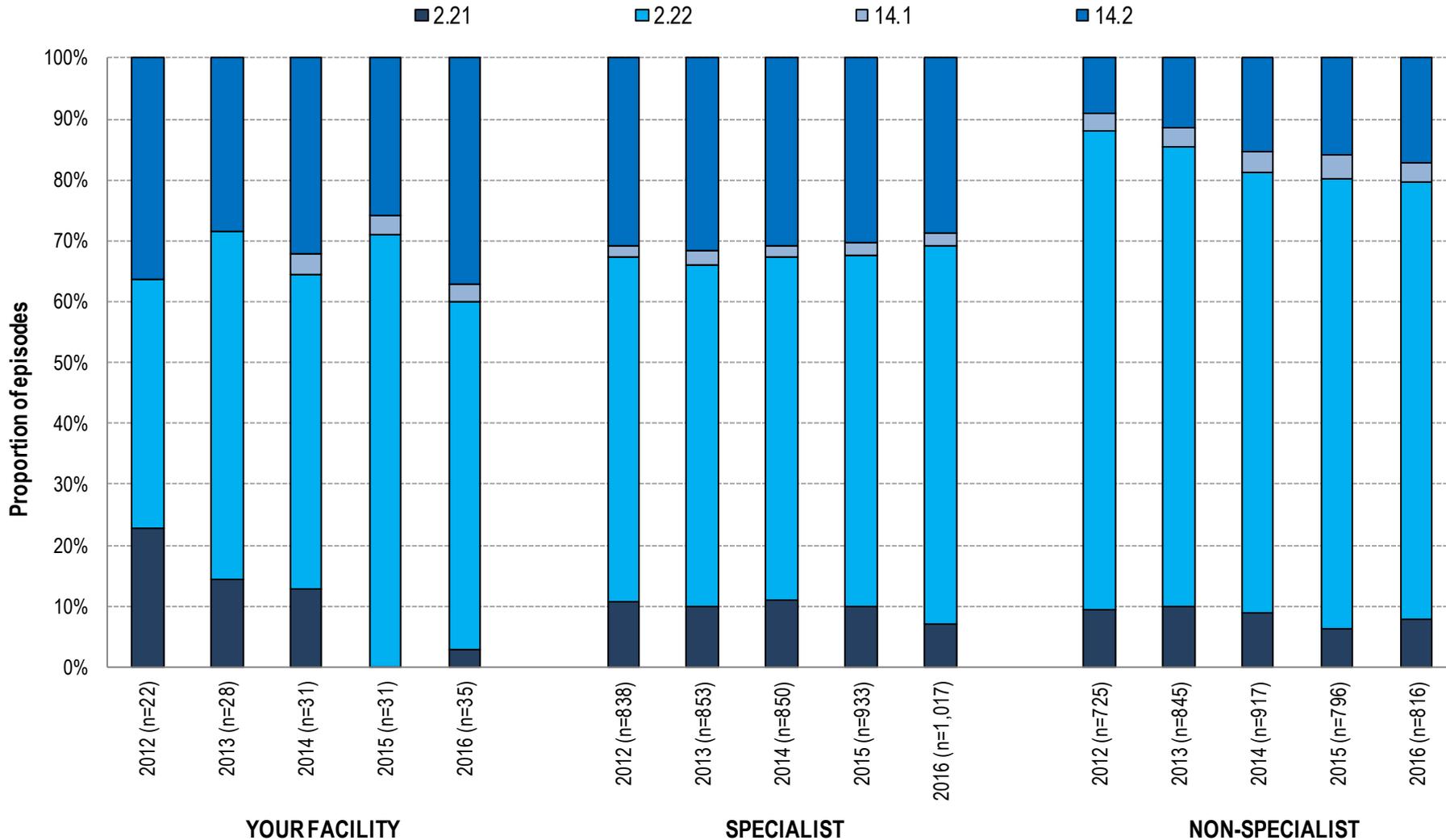


# Traumatic and non-traumatic episodes by AN-SNAP class over time

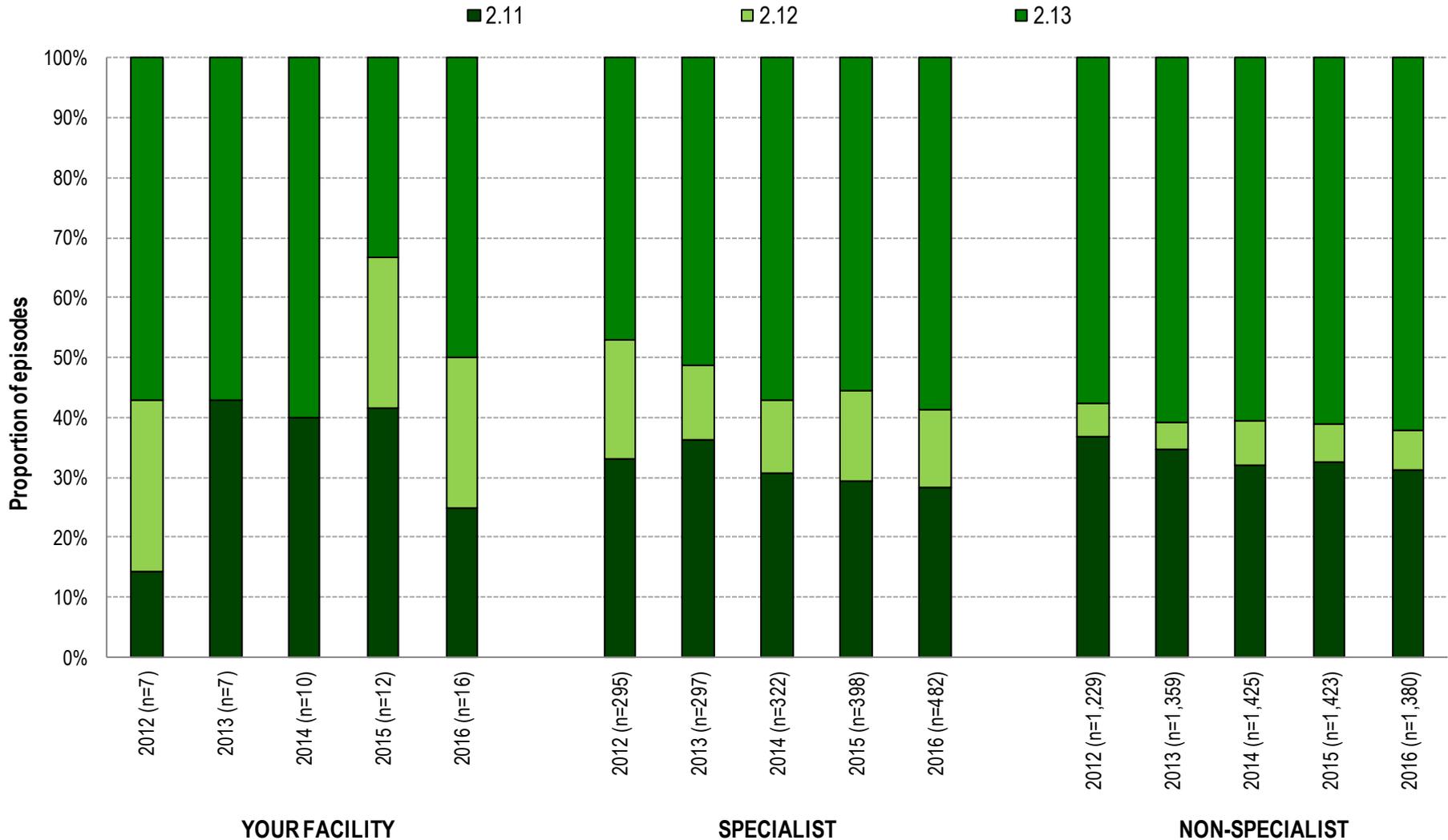
Traumatic AN-SNAP class	YOUR FACILITY					SPECIALIST					NON-SPECIALIST				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	3	3	2	6	4	114	113	140	142	152	119	157	147	113	105
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	3	8	2	6	6	146	168	116	160	181	85	87	84	68	83
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	1	2	3	5	5	47	33	50	55	61	148	152	149	128	132
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	2	3	3	1	3	83	71	76	72	82	105	119	131	119	141
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	2	1	2	0	0	51	49	52	57	60	40	74	77	62	50
4AB6 (BI, weighted FIM motor 29-40)	2	2	0	0	1	34	34	31	34	51	49	43	55	46	63
4AB7 (BI, weighted FIM motor 19-28)	0	0	3	2	0	32	33	39	45	27	36	47	39	47	44
4AP1 (MMT, weighted FIM motor 19-91)	7	7	10	6	11	218	244	241	251	241	73	100	136	131	149
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	2	1	1	1	1	34	30	33	42	55	27	42	57	44	34
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	0	1	5	4	4	79	77	72	75	106	41	34	39	35	12
<b>All Brain AN-SNAP classes</b>	<b>22</b>	<b>28</b>	<b>31</b>	<b>31</b>	<b>35</b>	<b>838</b>	<b>852</b>	<b>850</b>	<b>933</b>	<b>1,016</b>	<b>723</b>	<b>855</b>	<b>914</b>	<b>793</b>	<b>813</b>

Non-traumatic AN-SNAP class	YOUR FACILITY					SPECIALIST					NON-SPECIALIST				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	0	0	3	0	2	66	66	74	87	109	250	280	279	291	240
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	0	2	3	2	3	54	60	54	84	83	114	161	159	126	134
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	2	1	1	3	3	41	39	51	63	67	276	280	278	318	295
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	3	1	1	0	3	44	46	40	39	65	197	206	228	222	239
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	0	0	1	2	1	23	21	32	34	33	84	92	113	112	102
4AB6 (BI, weighted FIM motor 29-40)	0	1	1	2	0	21	19	25	25	39	109	118	129	125	140
4AB7 (BI, weighted FIM motor 19-28)	0	2	0	2	0	14	18	13	23	31	97	107	109	114	112
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	2	0	0	1	0	16	14	15	23	29	74	76	90	81	92
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	0	0	0	0	4	16	14	17	19	25	25	33	35	33	22
<b>All Brain AN-SNAP classes</b>	<b>7</b>	<b>7</b>	<b>10</b>	<b>12</b>	<b>16</b>	<b>295</b>	<b>297</b>	<b>321</b>	<b>397</b>	<b>481</b>	<b>1,226</b>	<b>1,353</b>	<b>1,420</b>	<b>1,422</b>	<b>1,376</b>

# Proportion of traumatic episodes by impairment over time



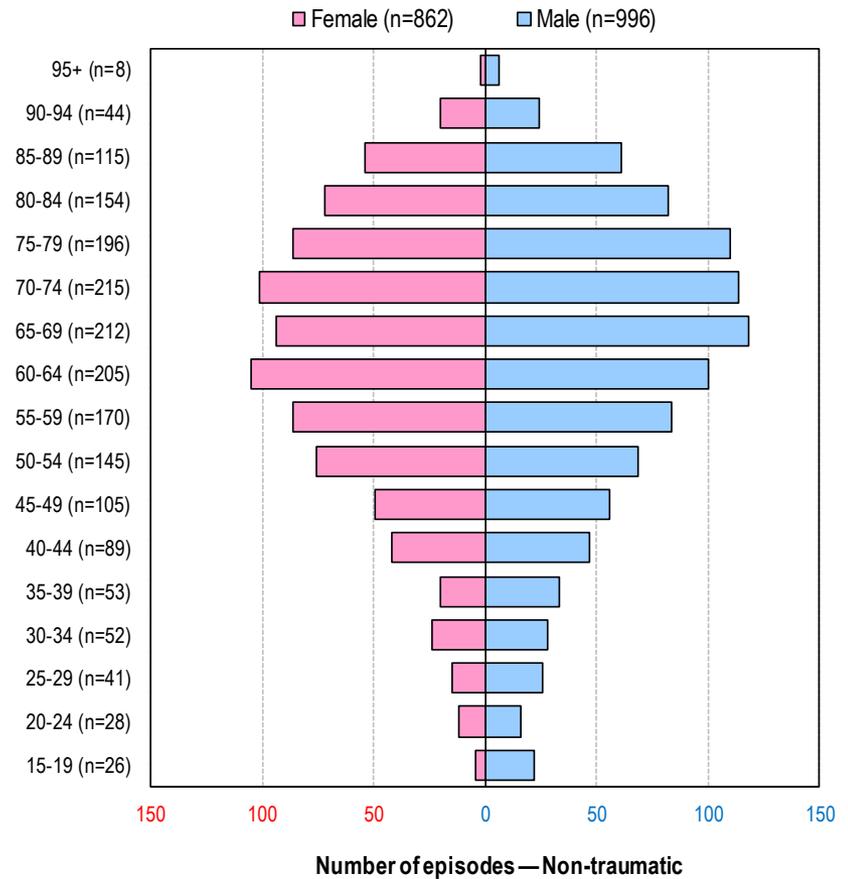
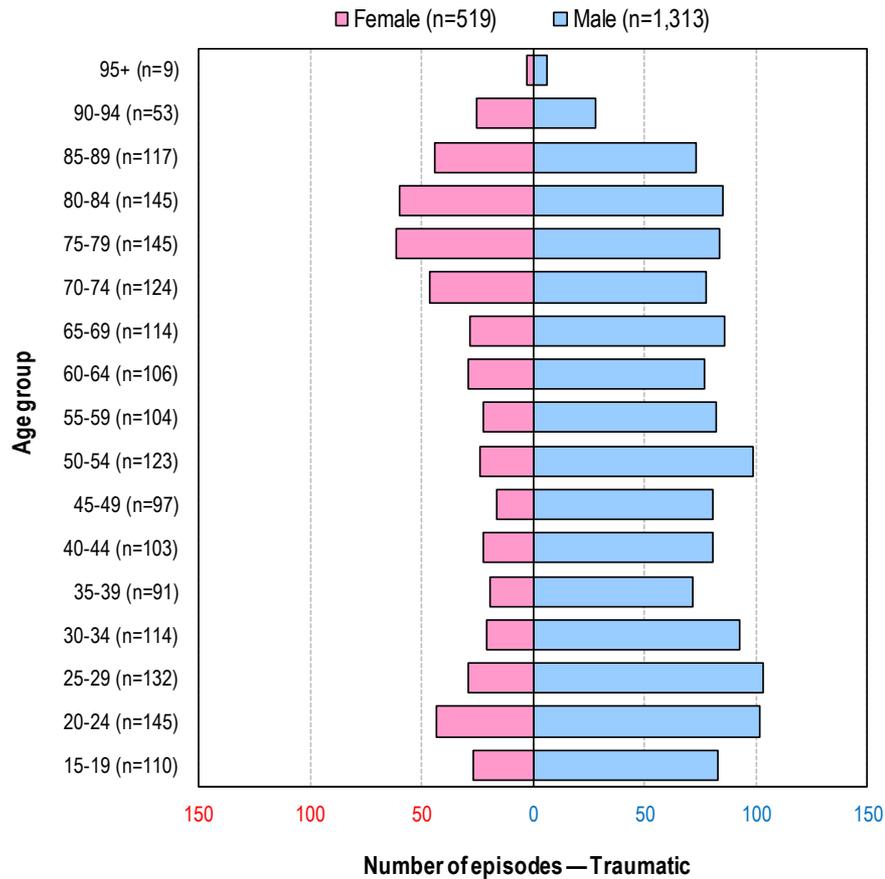
# Proportion of non-traumatic episodes by impairment over time



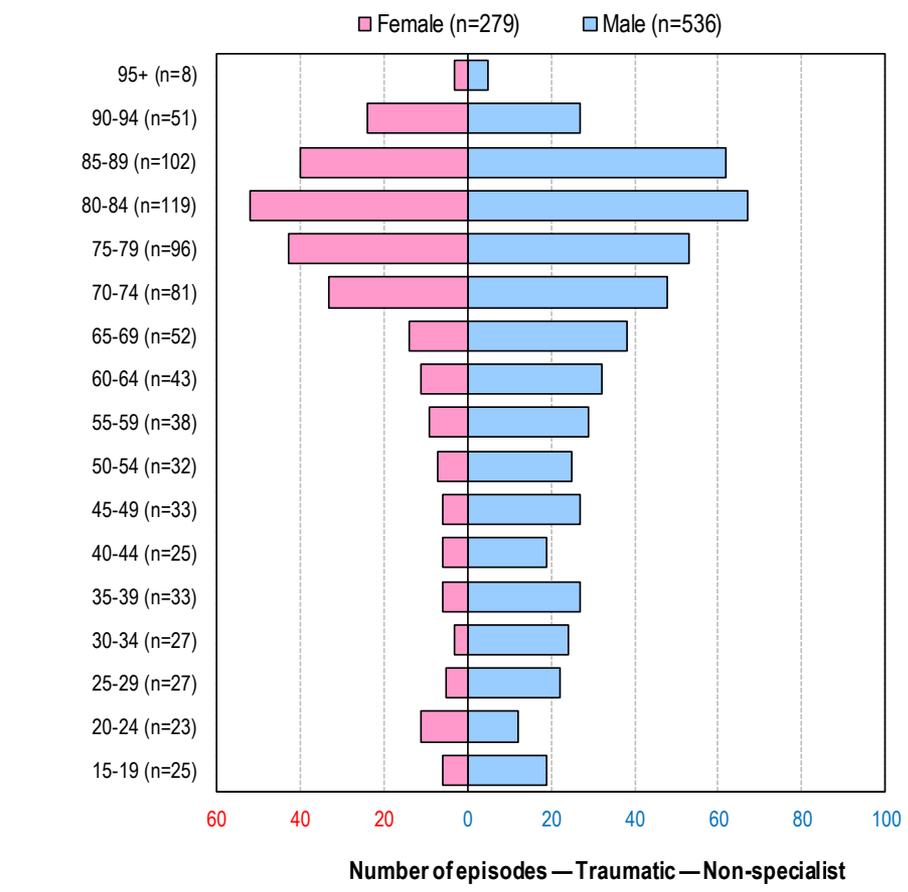
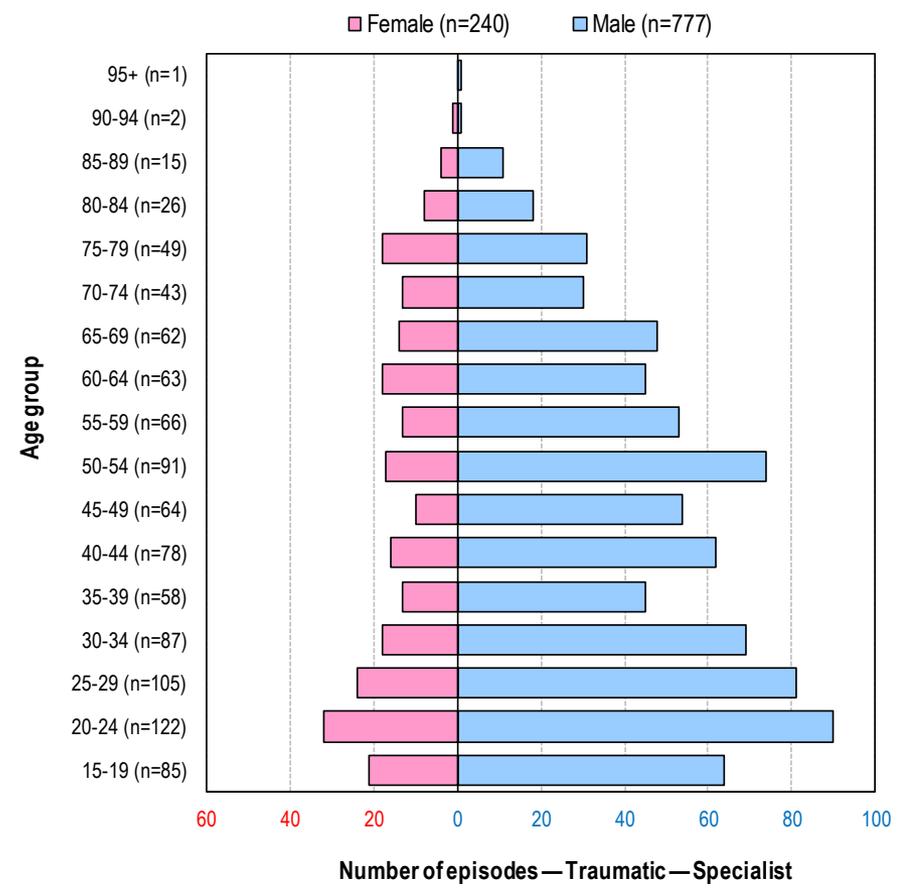
# Traumatic and non-traumatic episodes by impairment over time

Impairment	YOUR FACILITY					SPECIALIST					NON-SPECIALIST				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
<b><u>Traumatic impairments</u></b>															
2.21 Open injury	5	4	4	0	1	90	84	93	93	72	68	84	81	51	64
2.22 Closed injury	9	16	16	22	20	475	480	480	537	631	570	639	665	587	587
14.1 MMT: brain+spine	0	0	1	1	1	15	20	15	21	22	21	25	29	31	25
14.2 MMT: brain+other	8	8	10	8	13	258	269	262	282	292	66	97	142	127	140
<b>Total TBI</b>	<b>22</b>	<b>28</b>	<b>31</b>	<b>31</b>	<b>35</b>	<b>838</b>	<b>853</b>	<b>850</b>	<b>933</b>	<b>1,017</b>	<b>725</b>	<b>845</b>	<b>917</b>	<b>796</b>	<b>816</b>
<b><u>Non-traumatic impairments</u></b>															
2.11 Sub-arachnoid haemorrhage	1	3	4	5	4	98	108	99	117	136	451	472	455	462	431
2.12 Anoxic brain damage	2	0	0	3	4	58	37	39	60	63	71	62	107	93	90
2.13 Other NTBI	4	4	6	4	8	139	152	184	221	283	707	825	863	868	859
<b>Total NTBI</b>	<b>7</b>	<b>7</b>	<b>10</b>	<b>12</b>	<b>16</b>	<b>295</b>	<b>297</b>	<b>322</b>	<b>398</b>	<b>482</b>	<b>1,229</b>	<b>1,359</b>	<b>1,425</b>	<b>1,423</b>	<b>1,380</b>
<b>TOTAL BI</b>	<b>29</b>	<b>35</b>	<b>41</b>	<b>43</b>	<b>51</b>	<b>1,133</b>	<b>1,150</b>	<b>1,172</b>	<b>1,331</b>	<b>1,499</b>	<b>1,954</b>	<b>2,204</b>	<b>2,342</b>	<b>2,219</b>	<b>2,196</b>

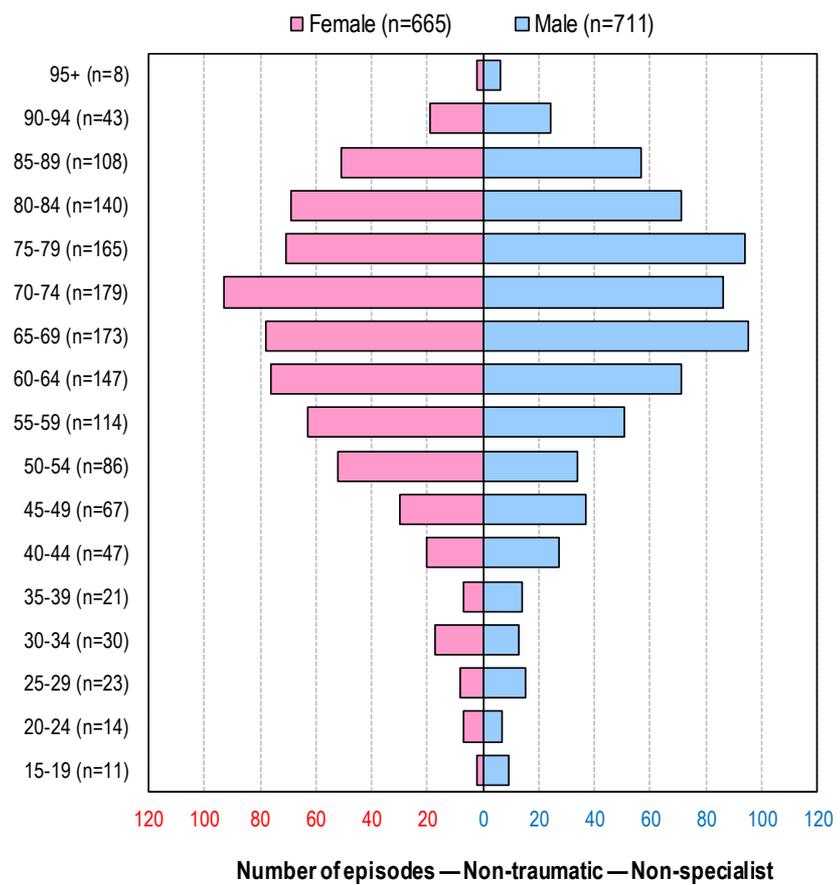
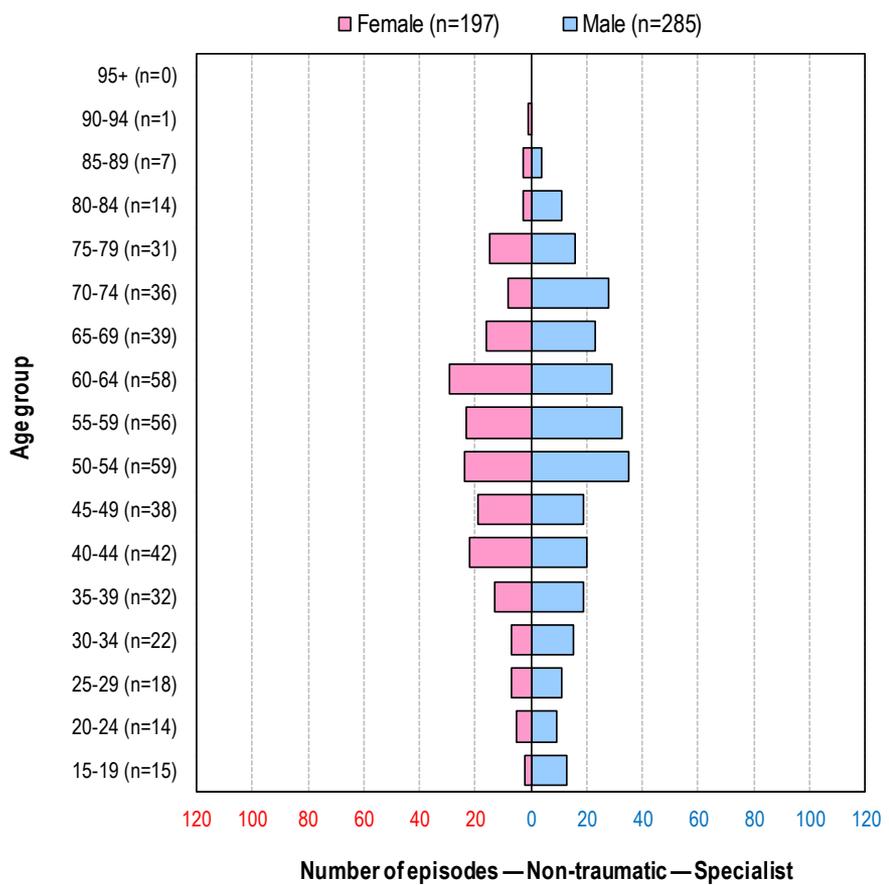
# Number of traumatic and non-traumatic episodes by age group and sex



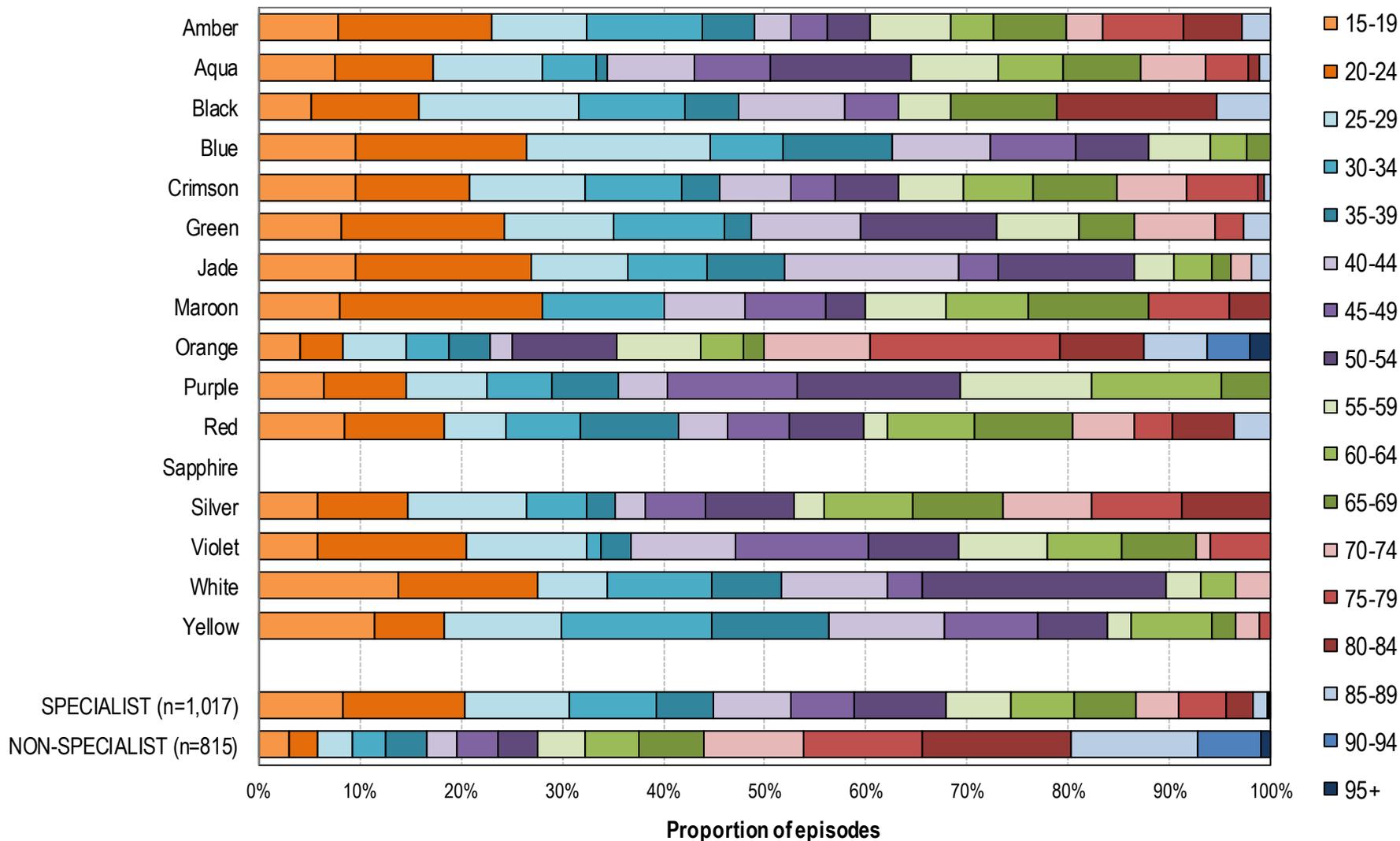
# Number of traumatic specialist and non specialist episodes by age group and sex



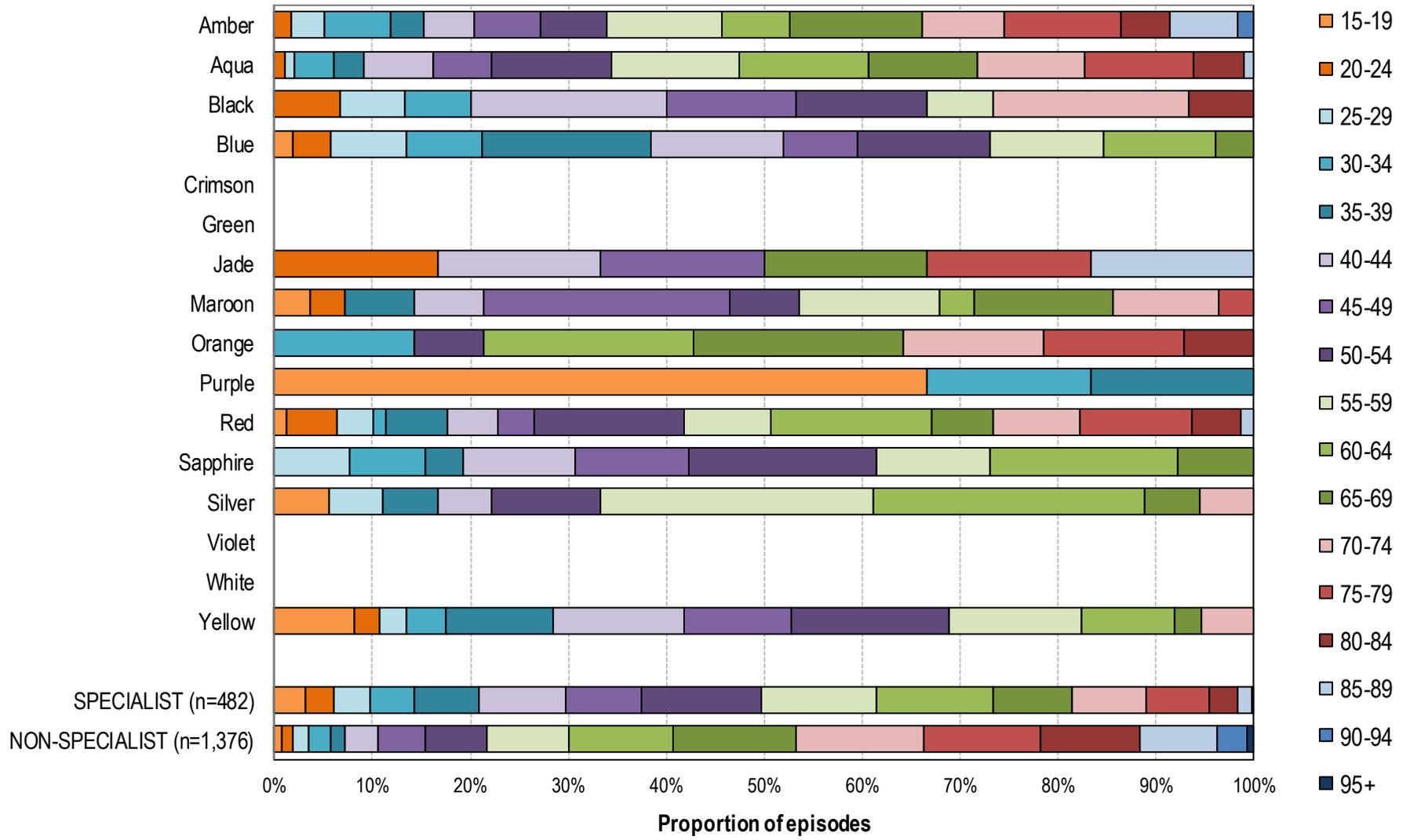
# Number of non-traumatic specialist and non specialist episodes by age group and sex



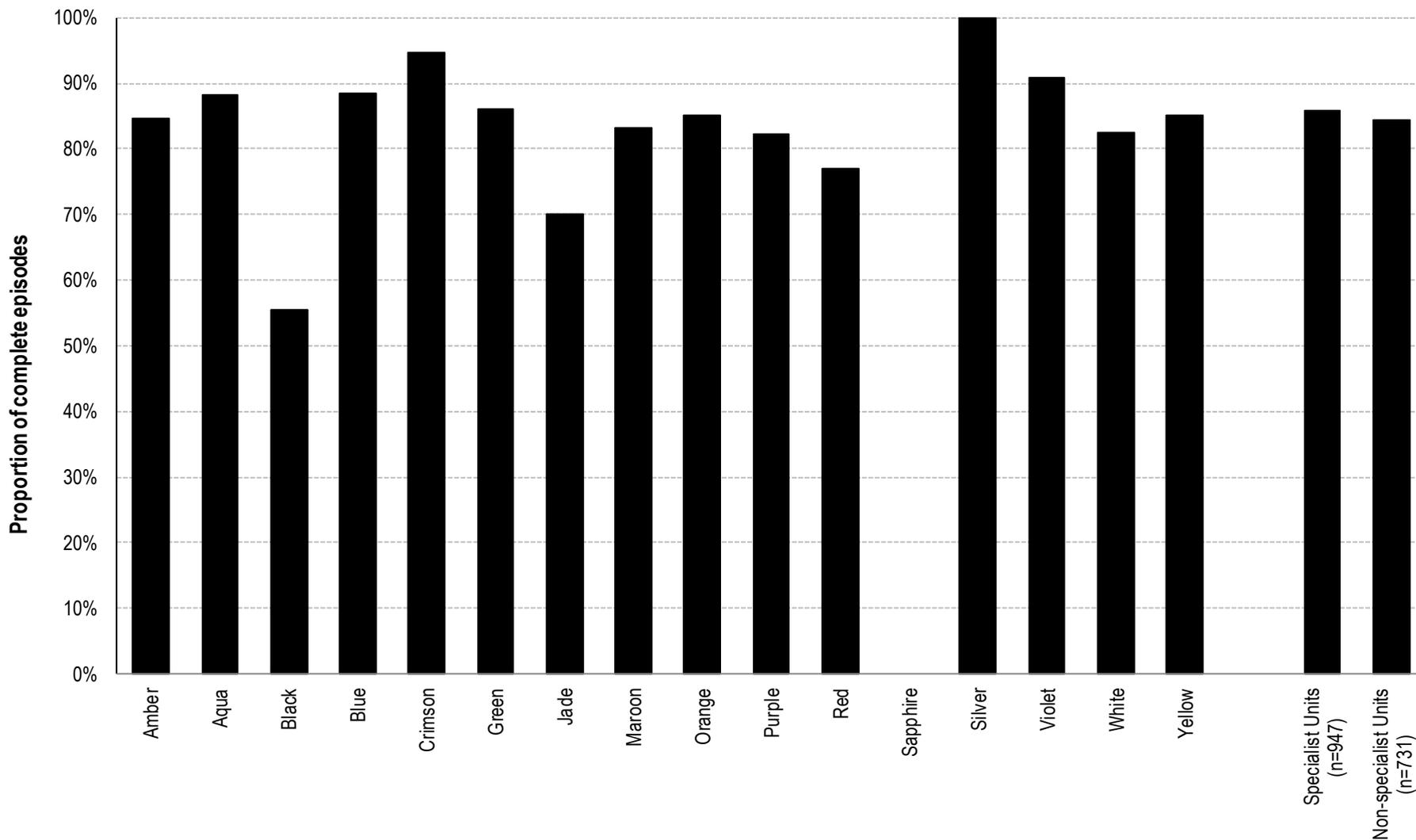
# Number of traumatic episodes by facility and age group



# Number of non-traumatic episodes by facility and age group

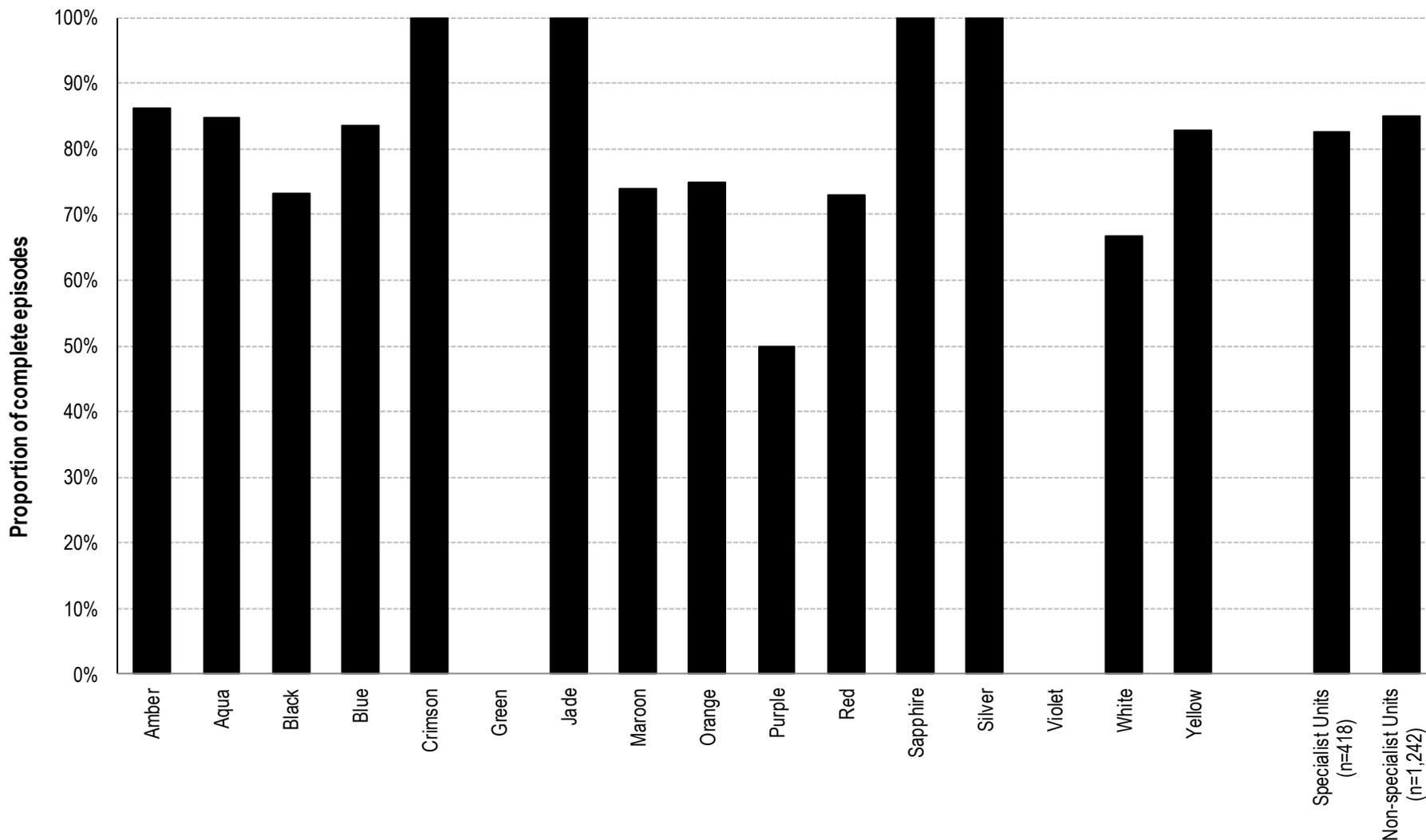


# Proportion of complete\* first admission traumatic episodes by facility



\*See glossary for definition of a 'complete' episode

# Proportion of complete\* first admission non-traumatic episodes by facility



\*See glossary for definition of a 'complete' episode

# Traumatic and non-traumatic complete episodes by AN-SNAP class and impairment

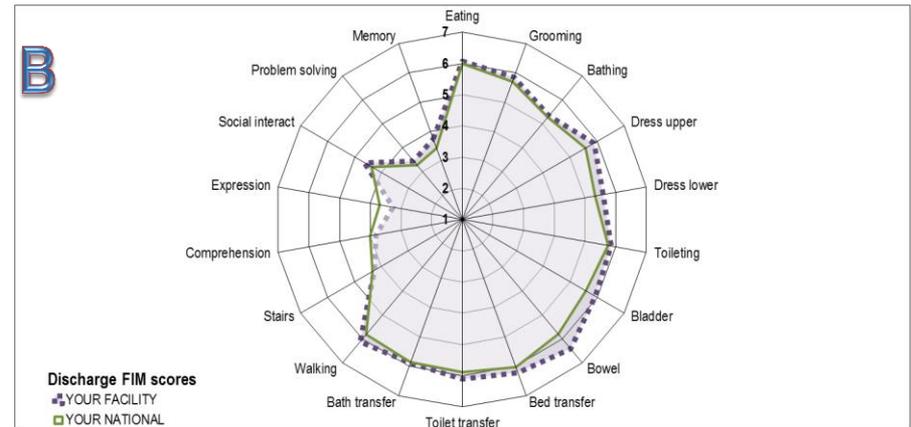
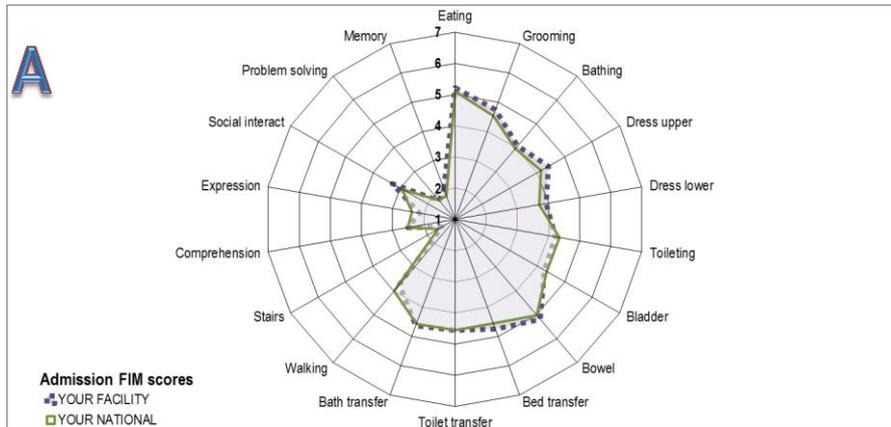
AN-SNAP class	YOUR FACILITY			SPECIALIST			NON-SPECIALIST		
	All episodes	Completed episodes	%Complete	All episodes	Completed episodes	%Complete	All episodes	Completed episodes	%Complete
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	6	4	66.7%	245	235	95.9%	316	302	95.6%
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	9	7	77.8%	248	224	90.3%	188	171	91.0%
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	7	6	85.7%	119	104	87.4%	392	341	87.0%
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	5	4	80.0%	131	114	87.0%	339	303	89.4%
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	1	1	100.0%	87	69	79.3%	136	109	80.1%
4AB6 (BI, weighted FIM motor 29-40)	1	1	100.0%	78	62	79.5%	175	141	80.6%
4AB7 (BI, weighted FIM motor 19-28)	0	0	—	50	36	72.0%	142	105	73.9%
4AP1 (MMT, weighted FIM motor 19-91)	9	9	100.0%	213	189	88.7%	137	108	78.8%
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	1	1	100.0%	75	51	68.0%	113	72	63.7%
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	6	4	66.7%	117	75	64.1%	31	19	61.3%
<b>All Brain AN-SNAP classes</b>	<b>45</b>	<b>37</b>	<b>82.2%</b>	<b>1,363</b>	<b>1,159</b>	<b>85.0%</b>	<b>1,969</b>	<b>1,671</b>	<b>84.9%</b>

\*First Admission Only (excludes AN-SNAP class 499A)

Impairment	YOUR FACILITY			SPECIALIST			NON-SPECIALIST		
	All episodes	Completed episodes	%Complete	All episodes	Completed episodes	%Complete	All episodes	Completed episodes	%Complete
<b><u>Traumatic impairments</u></b>									
2.21 Open injury	1	0	0.0%	68	60	88.2%	59	53	89.8%
2.22 Closed injury	20	18	90.0%	599	514	85.8%	521	444	85.2%
14.1 MMT: brain+spine	1	1	100.0%	19	18	94.7%	20	18	90.0%
14.2 MMT: brain+other	10	9	90.0%	261	222	85.1%	131	102	77.9%
<b>Total TBI</b>	<b>32</b>	<b>28</b>	<b>87.5%</b>	<b>947</b>	<b>814</b>	<b>86.0%</b>	<b>731</b>	<b>617</b>	<b>84.4%</b>
<b><u>Non-traumatic impairments</u></b>									
2.11 Sub-arachnoid haemorrhage	2	2	100.0%	122	101	82.8%	390	336	86.2%
2.12 Anoxic brain damage	4	3	75.0%	56	45	80.4%	81	65	80.2%
2.13 Other NTBI	4	4	100.0%	240	199	82.9%	771	654	84.8%
<b>Total NTBI</b>	<b>10</b>	<b>9</b>	<b>90.0%</b>	<b>418</b>	<b>345</b>	<b>82.5%</b>	<b>1,242</b>	<b>1,055</b>	<b>84.9%</b>
<b>TOTAL BI</b>	<b>42</b>	<b>37</b>	<b>88.1%</b>	<b>1,365</b>	<b>1,159</b>	<b>84.9%</b>	<b>1,973</b>	<b>1,672</b>	<b>84.7%</b>

# Review of FIM item scoring by AN-SNAP class

# Interpreting your comparative FIM scoring charts



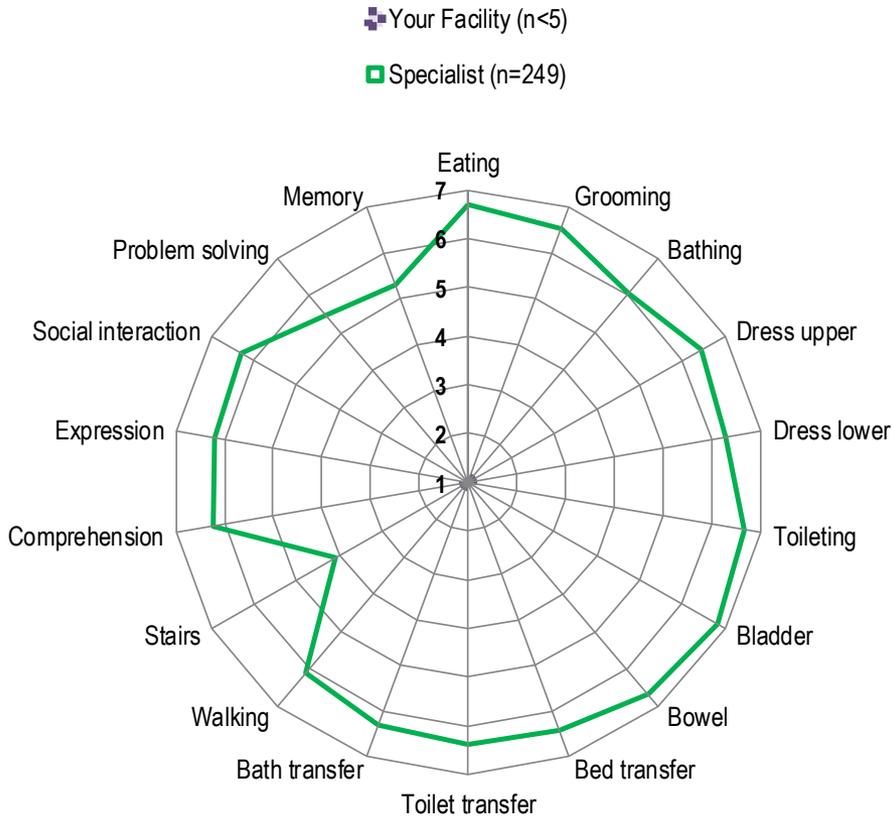
The FIM splat provides a graphic presentation of functional status in a radar chart. The 18 FIM items are arranged in order as 'spokes' of a wheel and the scoring levels from 1 (total dependence) to 7 (total independence) run from the centre outwards. The mean FIM item score for each item is indicated — a perfect score would be demonstrated as a large circle. The two FIM splats compare FIM scoring on admission (Figure A) and discharge (Figure B) between YOUR FACILITY and SPECIALIST data — differences in the two shaded areas indicate differences in mean admission/discharge scoring. Graphs include completed episodes with valid FIM scoring.

# Comparative FIM item scoring

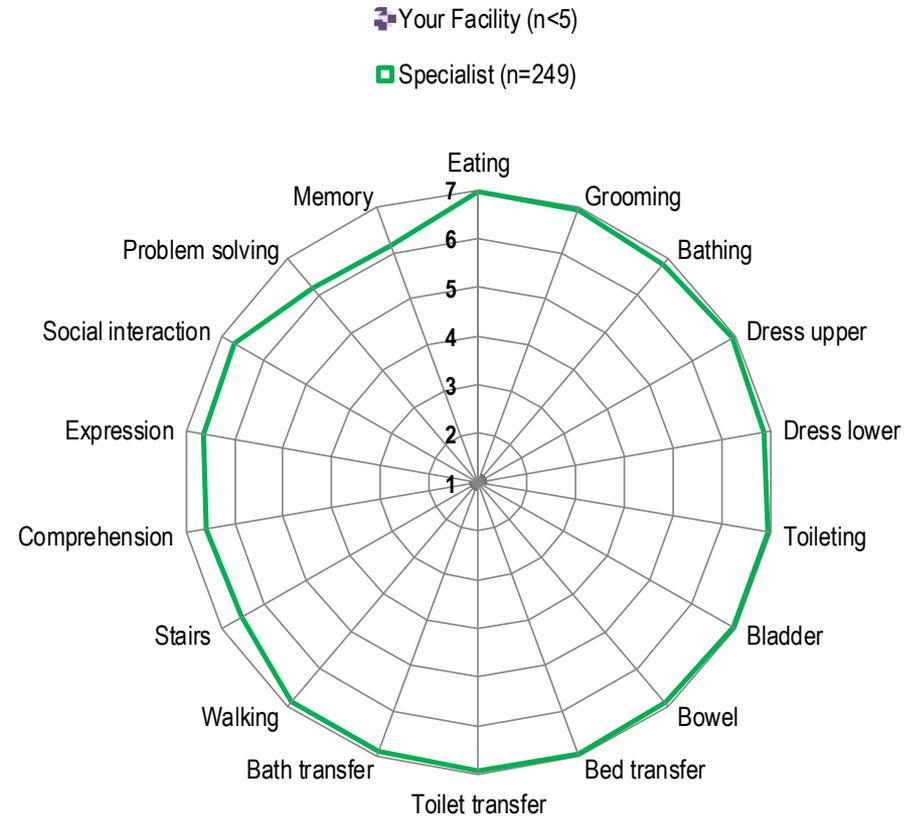
## AN-SNAP class 4AB1



4AB1 Admission FIM scores



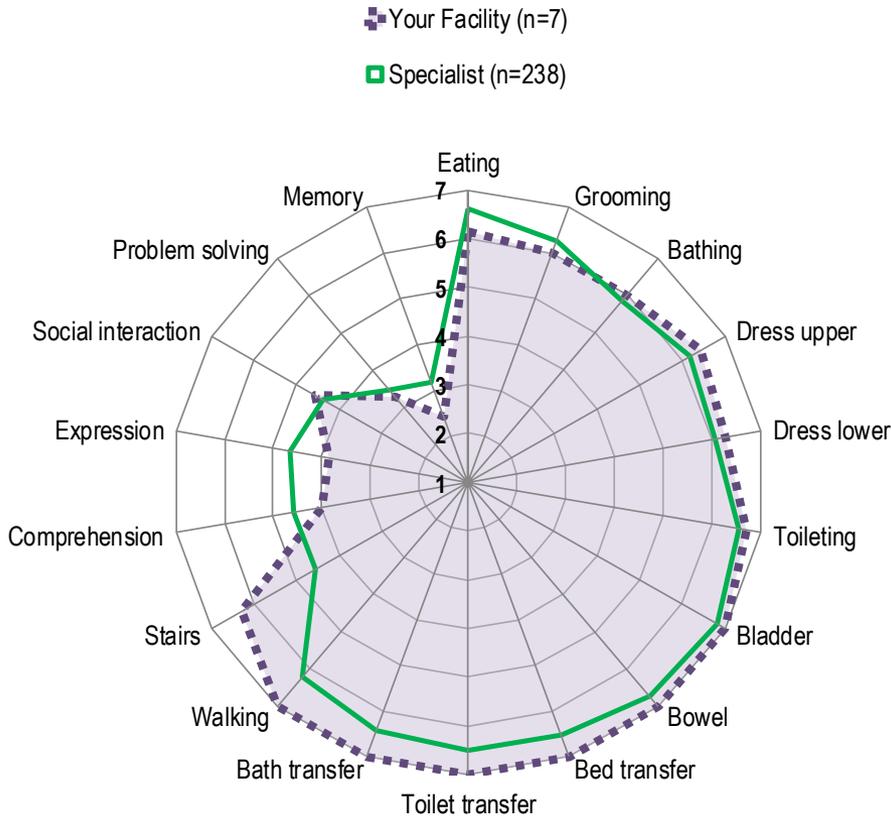
4AB1 Discharge FIM scores



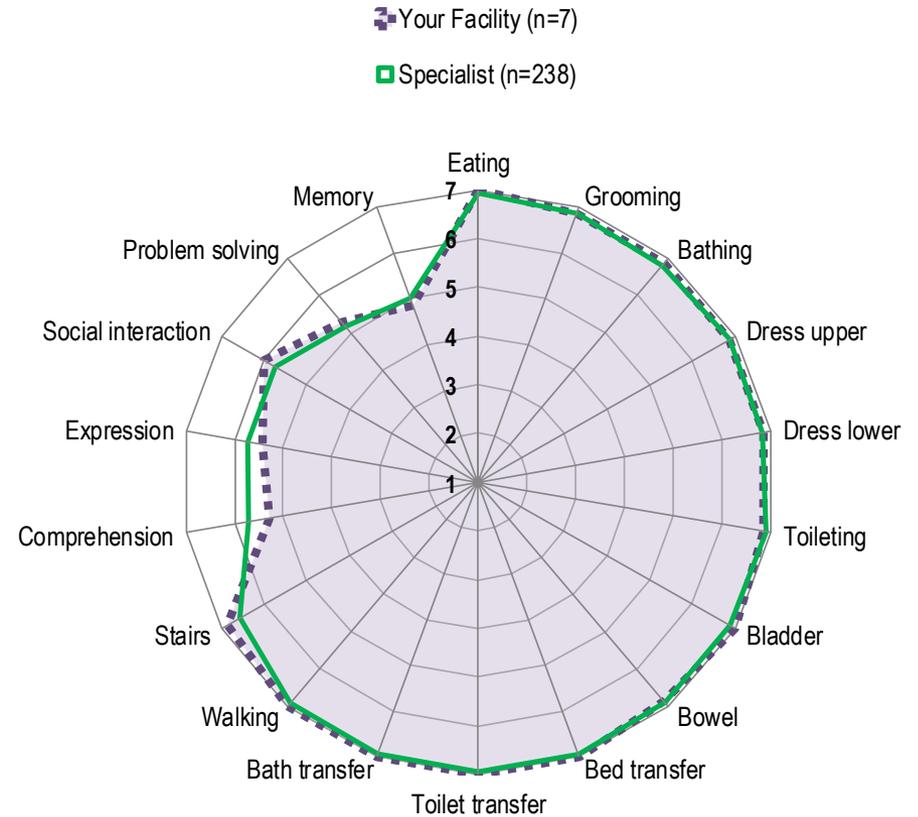
# Comparative FIM item scoring

## AN-SNAP class 4AB2

4AB2 Admission FIM scores



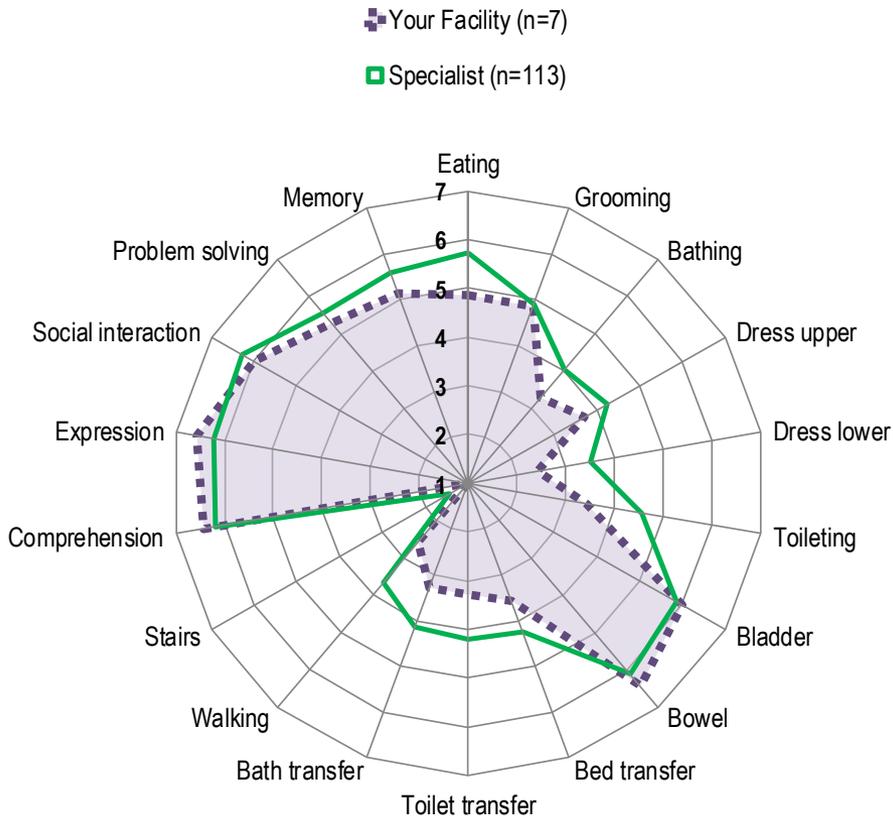
4AB2 Discharge FIM scores



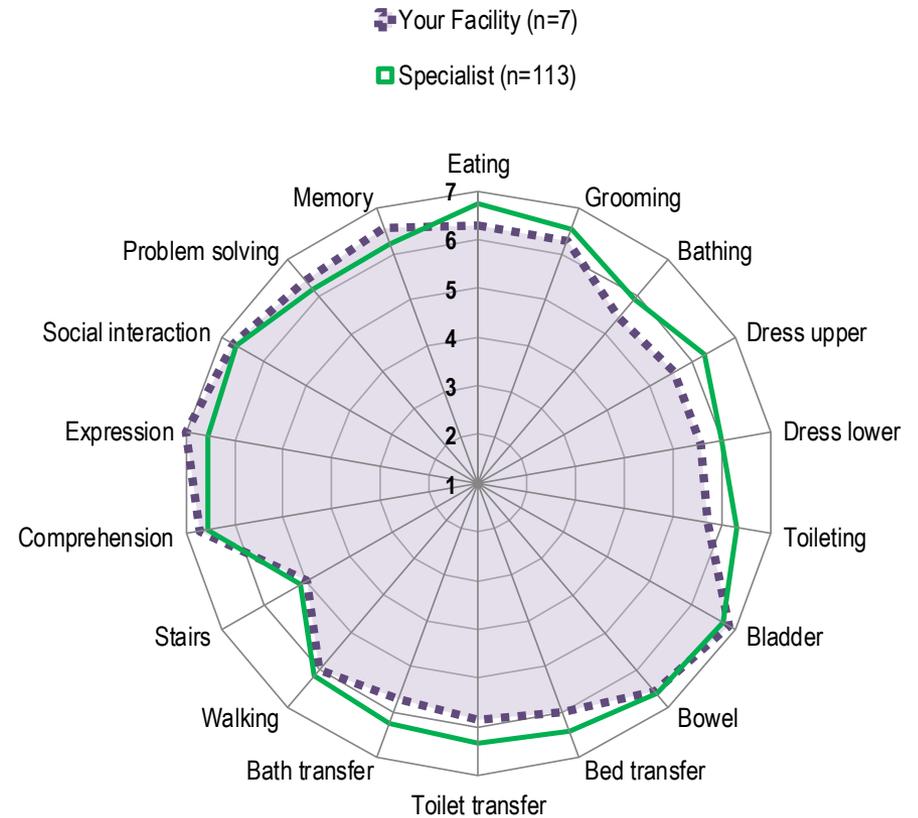
# Comparative FIM item scoring

## AN-SNAP class 4AB3

4AB3 Admission FIM scores



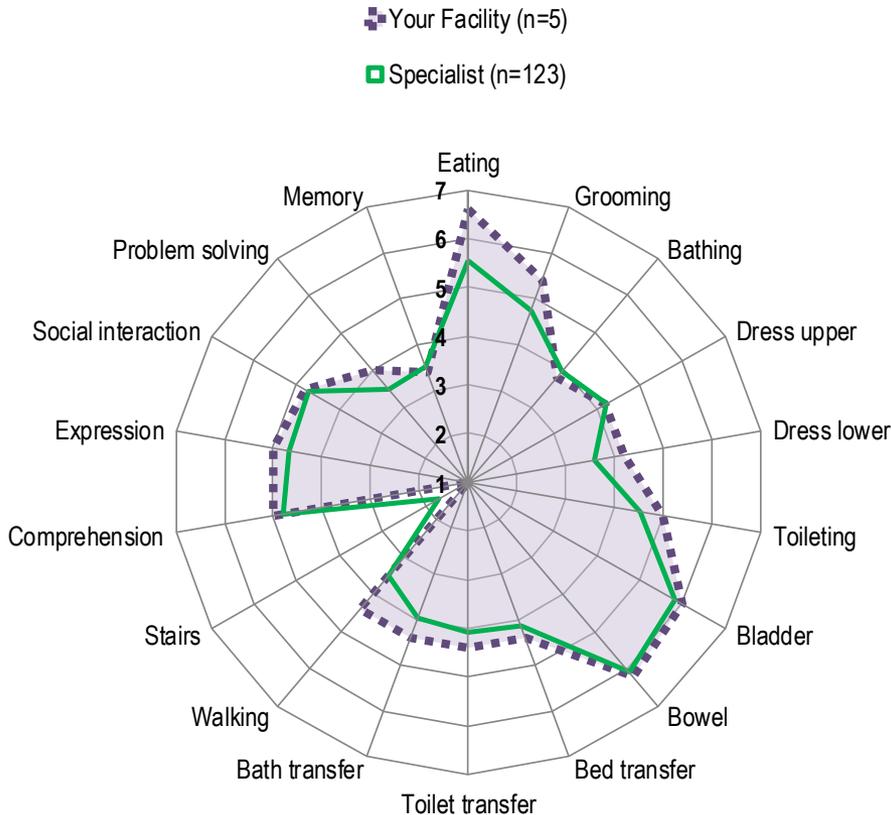
4AB3 Discharge FIM scores



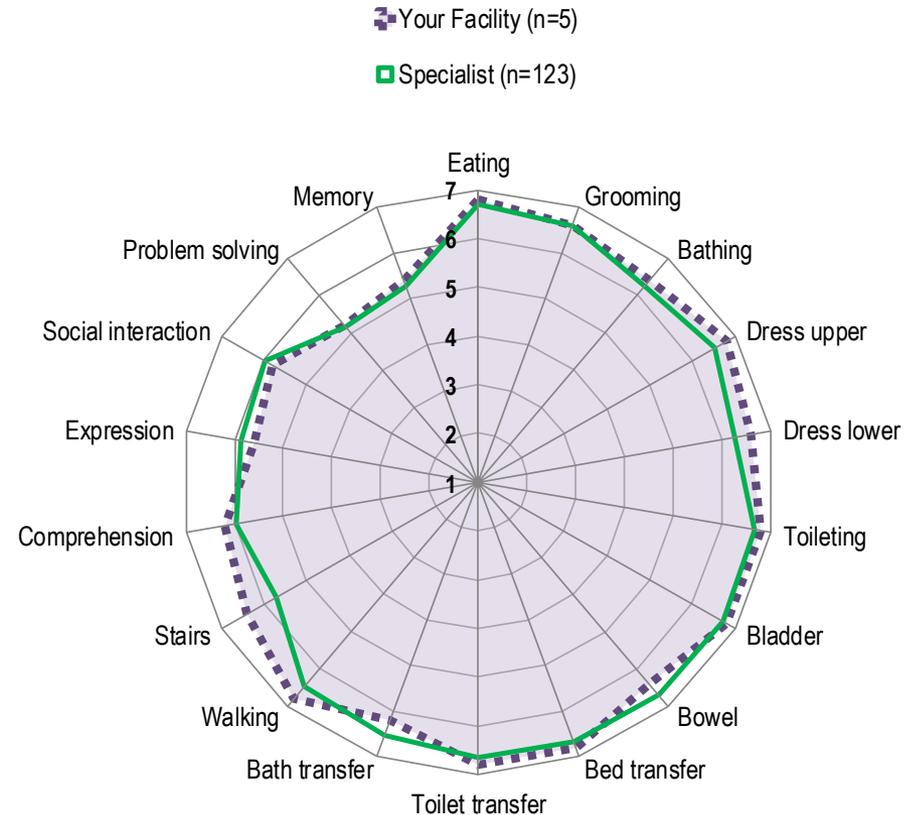
# Comparative FIM item scoring

## AN-SNAP class 4AB4

4AB4 Admission FIM scores



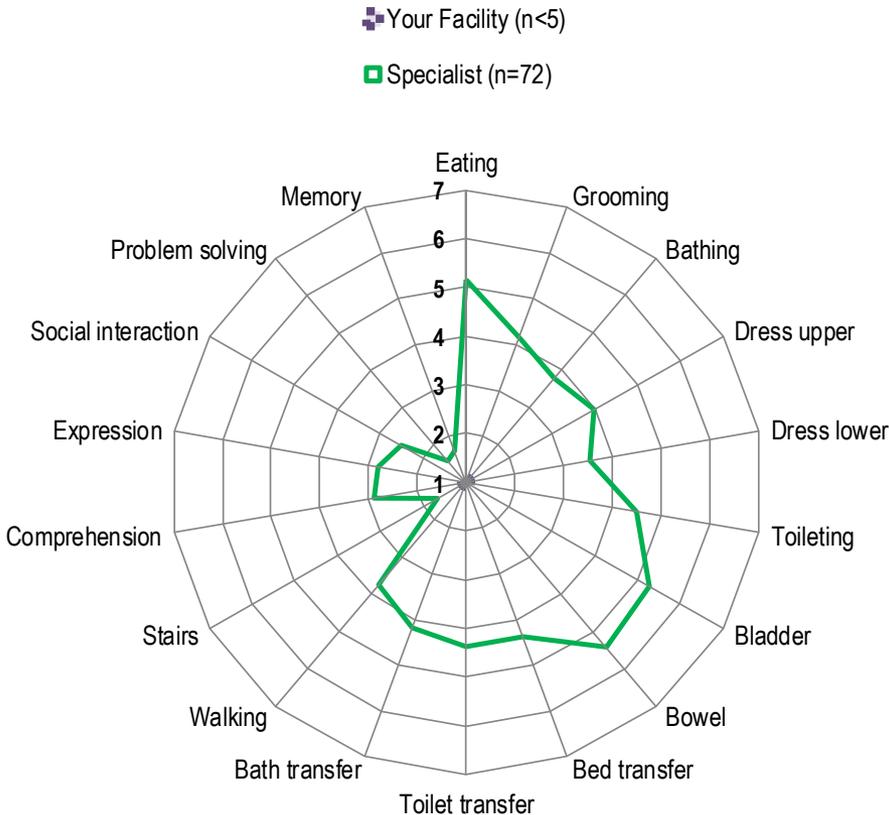
4AB4 Discharge FIM scores



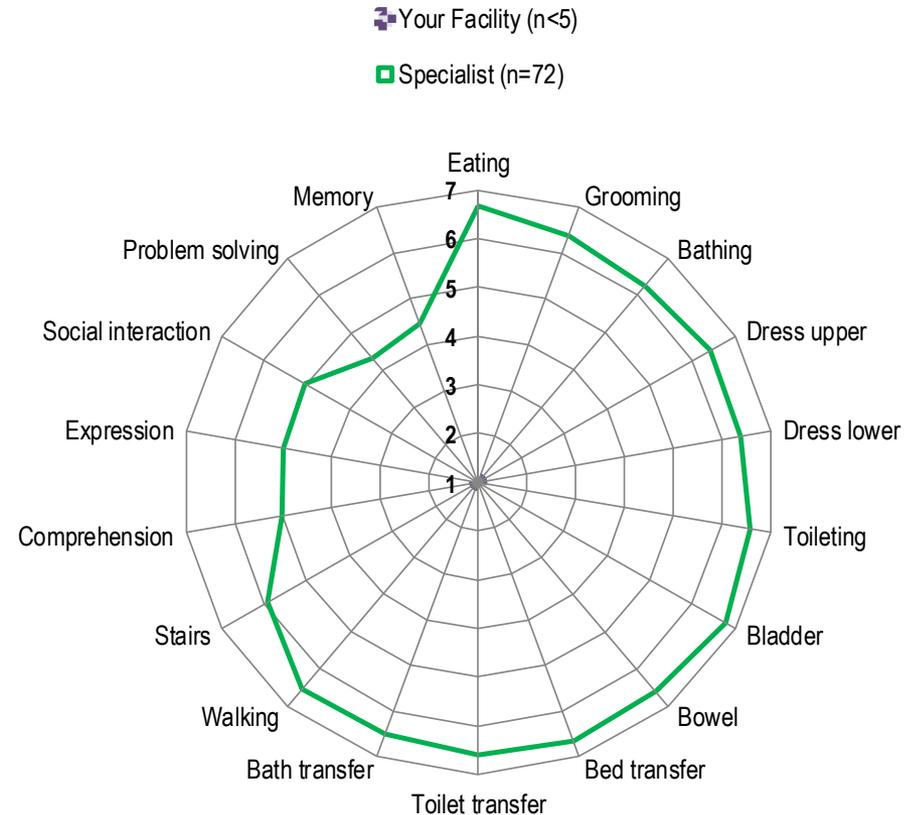
# Comparative FIM item scoring

## AN-SNAP class 4AB5

4AB5 Admission FIM scores



4AB5 Discharge FIM scores

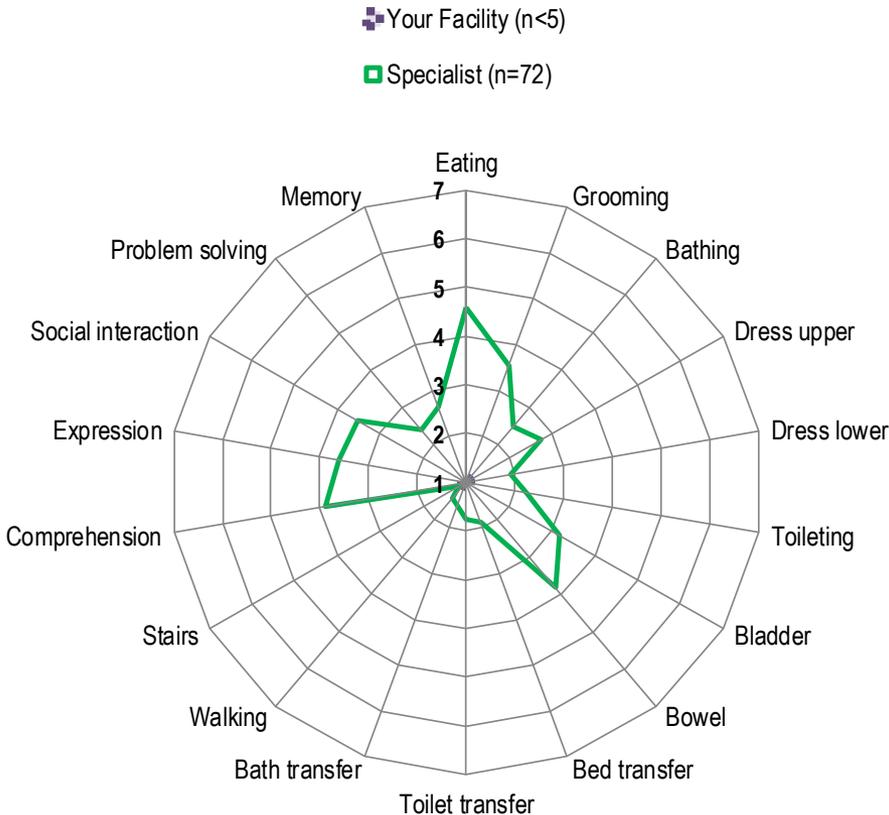


# Comparative FIM item scoring

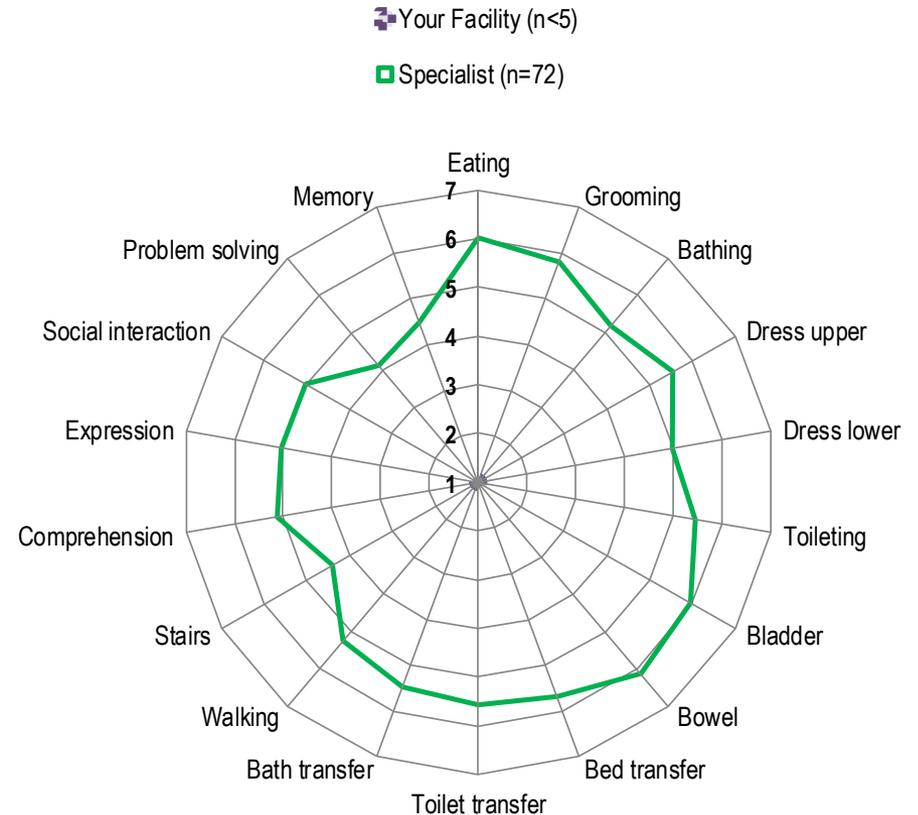
## AN-SNAP class 4AB6



4AB6 Admission FIM scores



4AB6 Discharge FIM scores

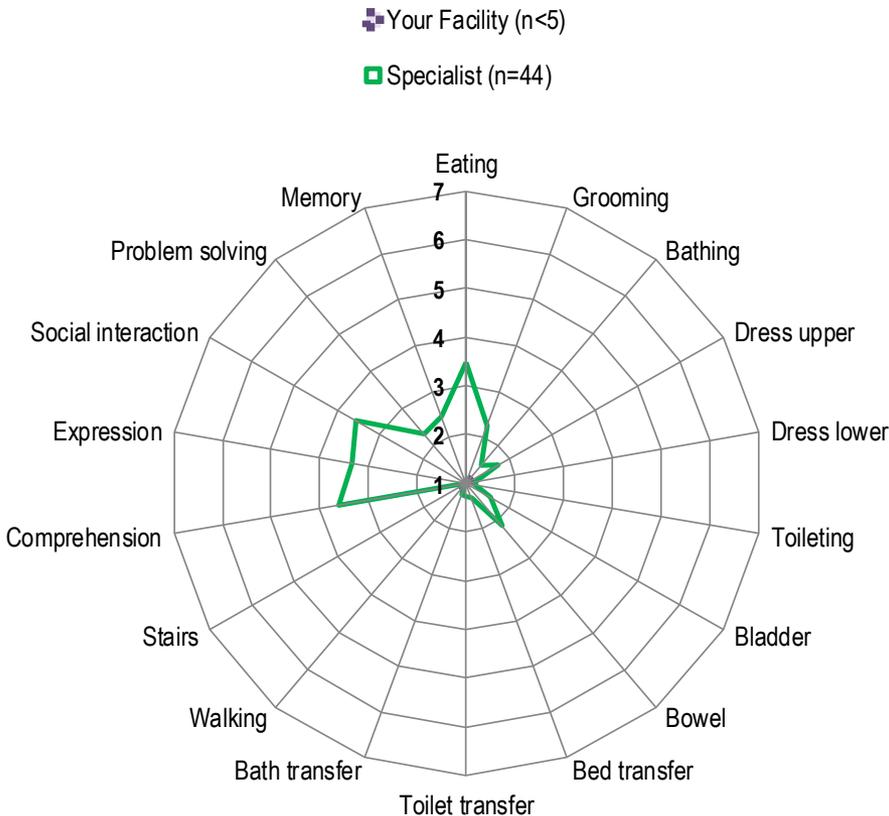


# Comparative FIM item scoring

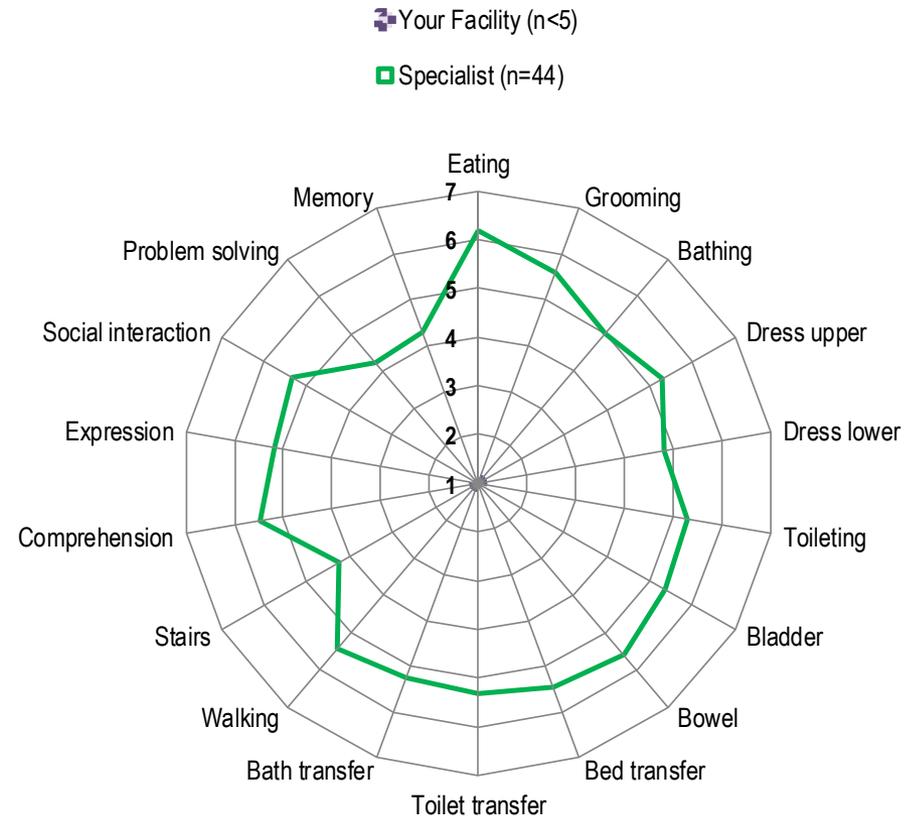
## AN-SNAP class 4AB7



4AB7 Admission FIM scores



4AB7 Discharge FIM scores



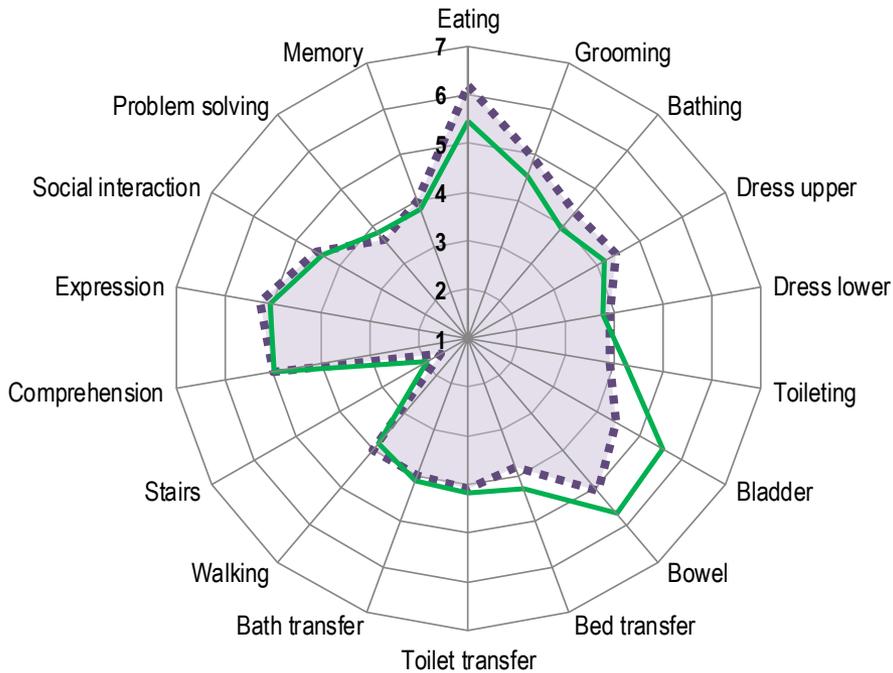
# Comparative FIM item scoring

## AN-SNAP class 4AP1



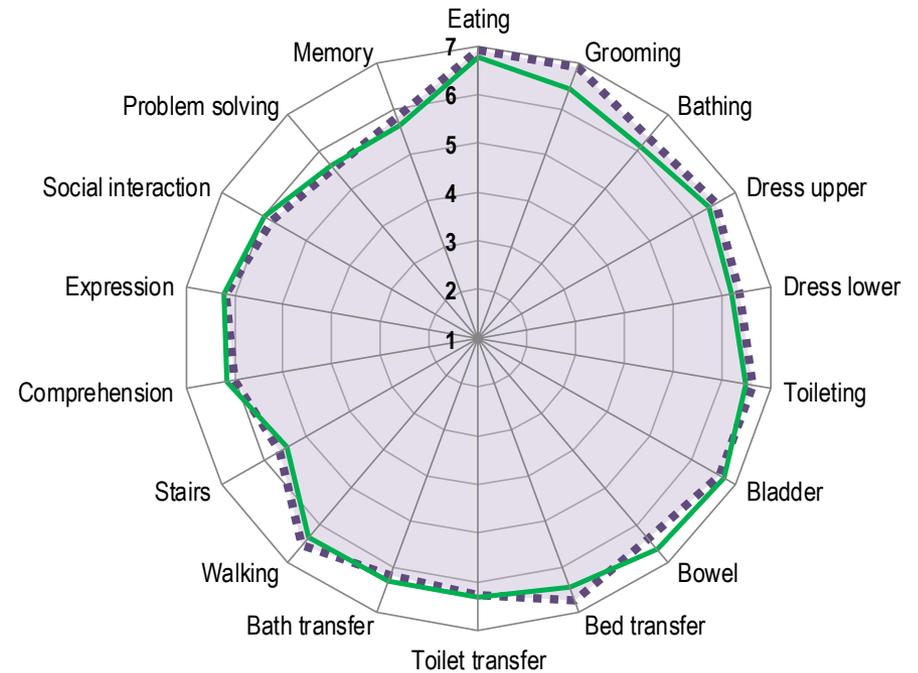
4AP1 Admission FIM scores

■ Your Facility (n=11)  
■ Specialist (n=215)



4AP1 Discharge FIM scores

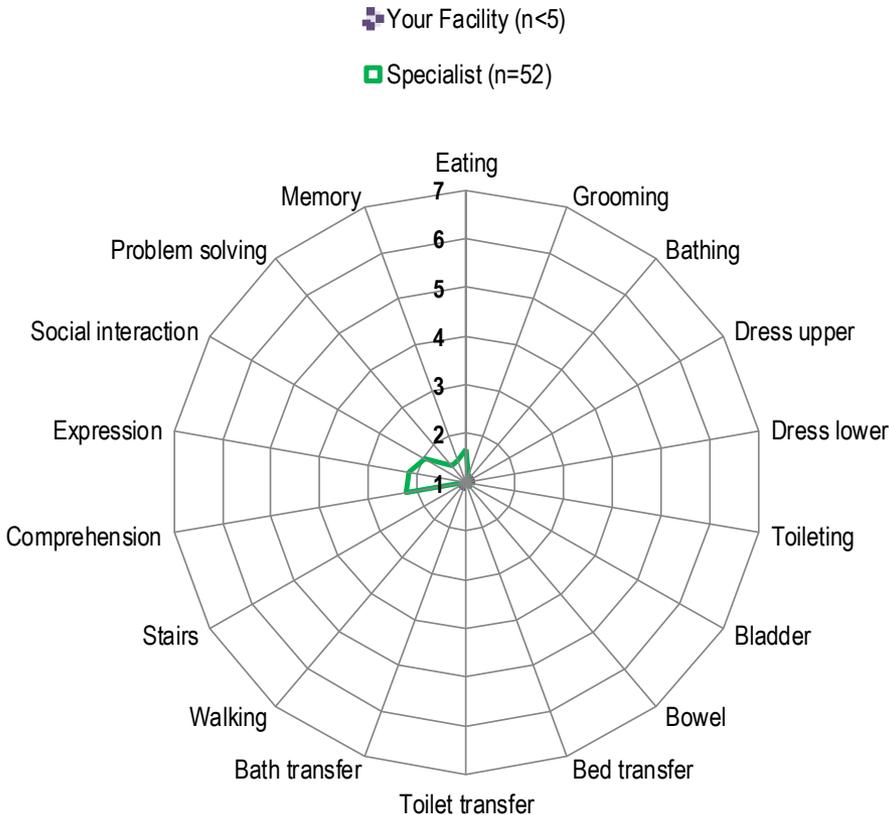
■ Your Facility (n=11)  
■ Specialist (n=215)



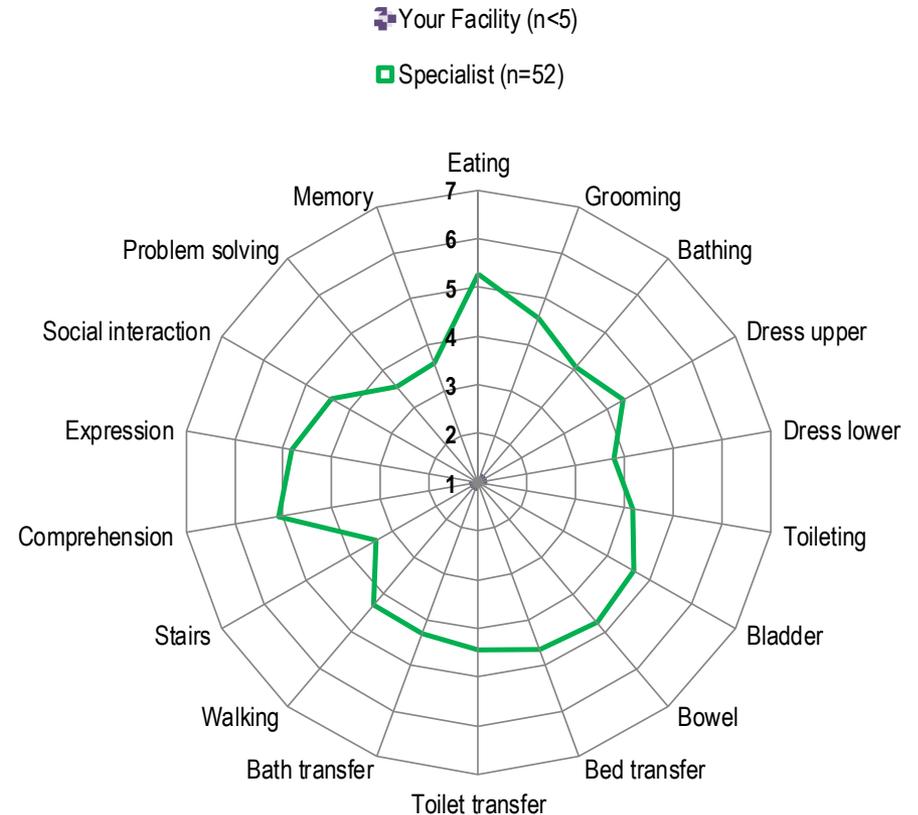
# Comparative FIM item scoring

## AN-SNAP class 4AZ1

4AZ1 Admission FIM scores



4AZ1 Discharge FIM scores



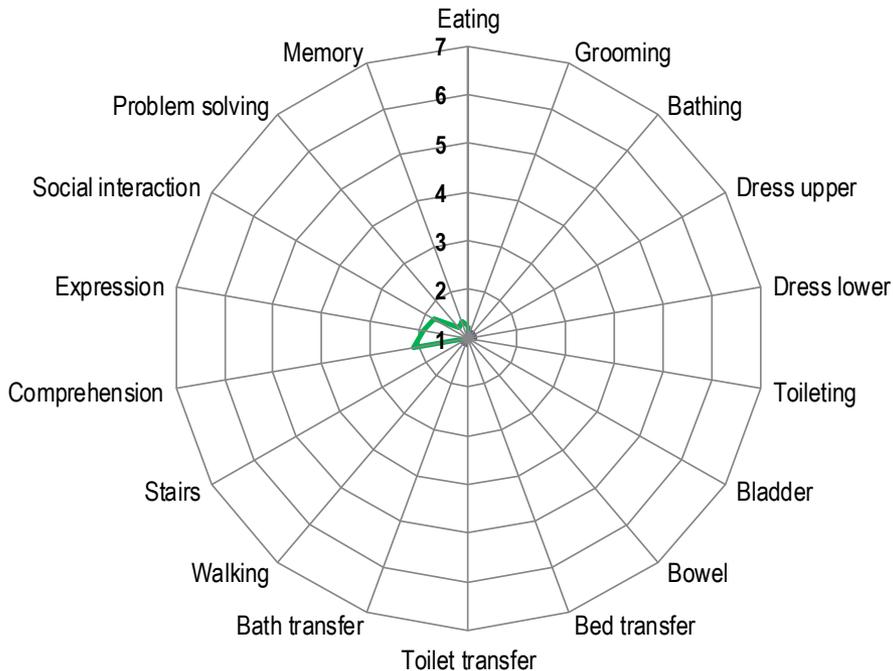
# Comparative FIM item scoring

## AN-SNAP class 4AZ2

4AZ2 Admission FIM scores

✚ Your Facility (n<5)

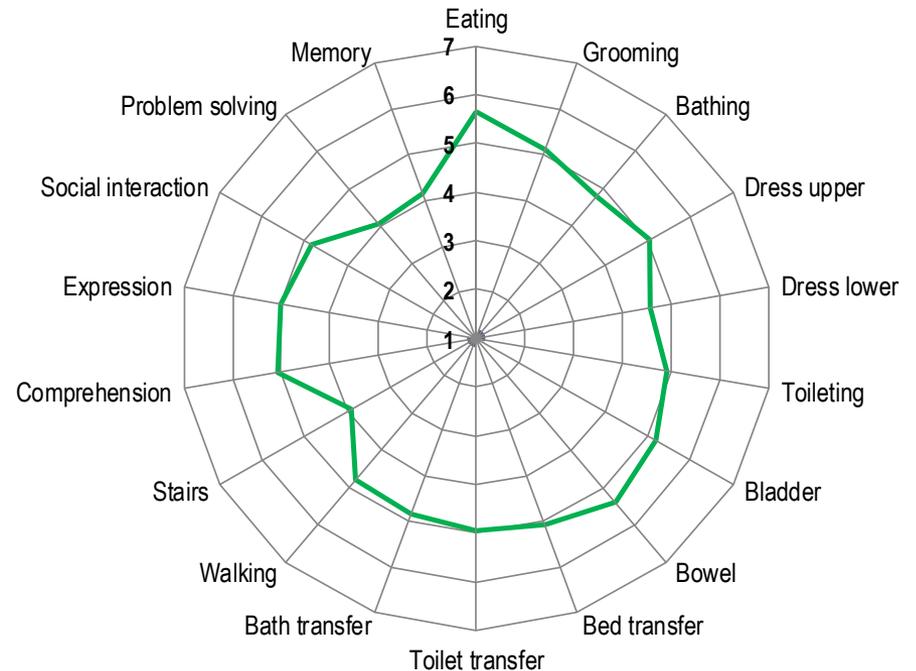
■ Specialist (n=82)



4AZ2 Discharge FIM scores

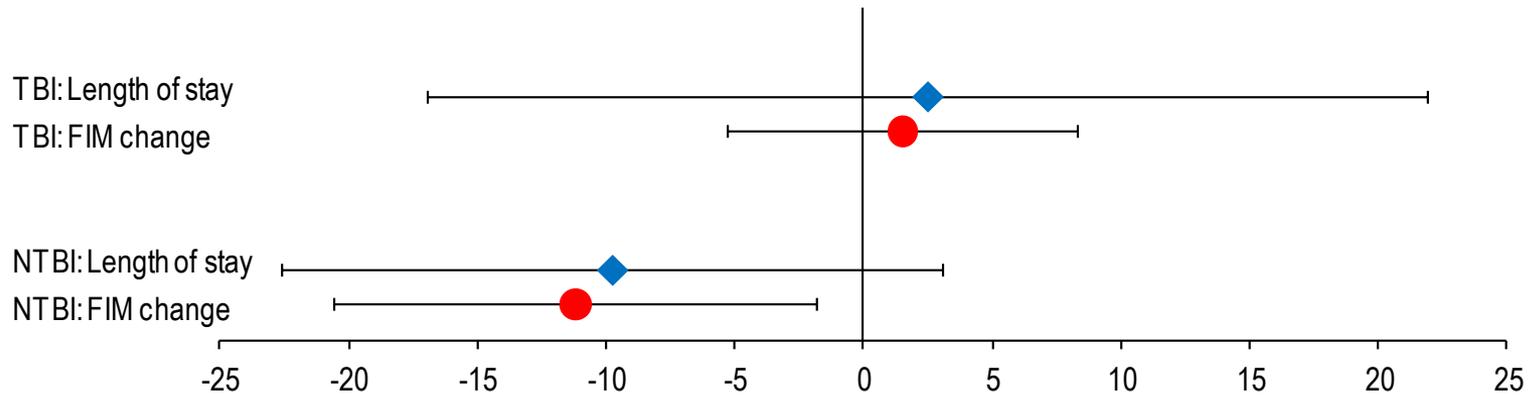
✚ Your Facility (n<5)

■ Specialist (n=82)



# Outcomes Analysis

# Casemix-adjusted\* relative means



Casemix-adjusted relative means with 95% confidence intervals

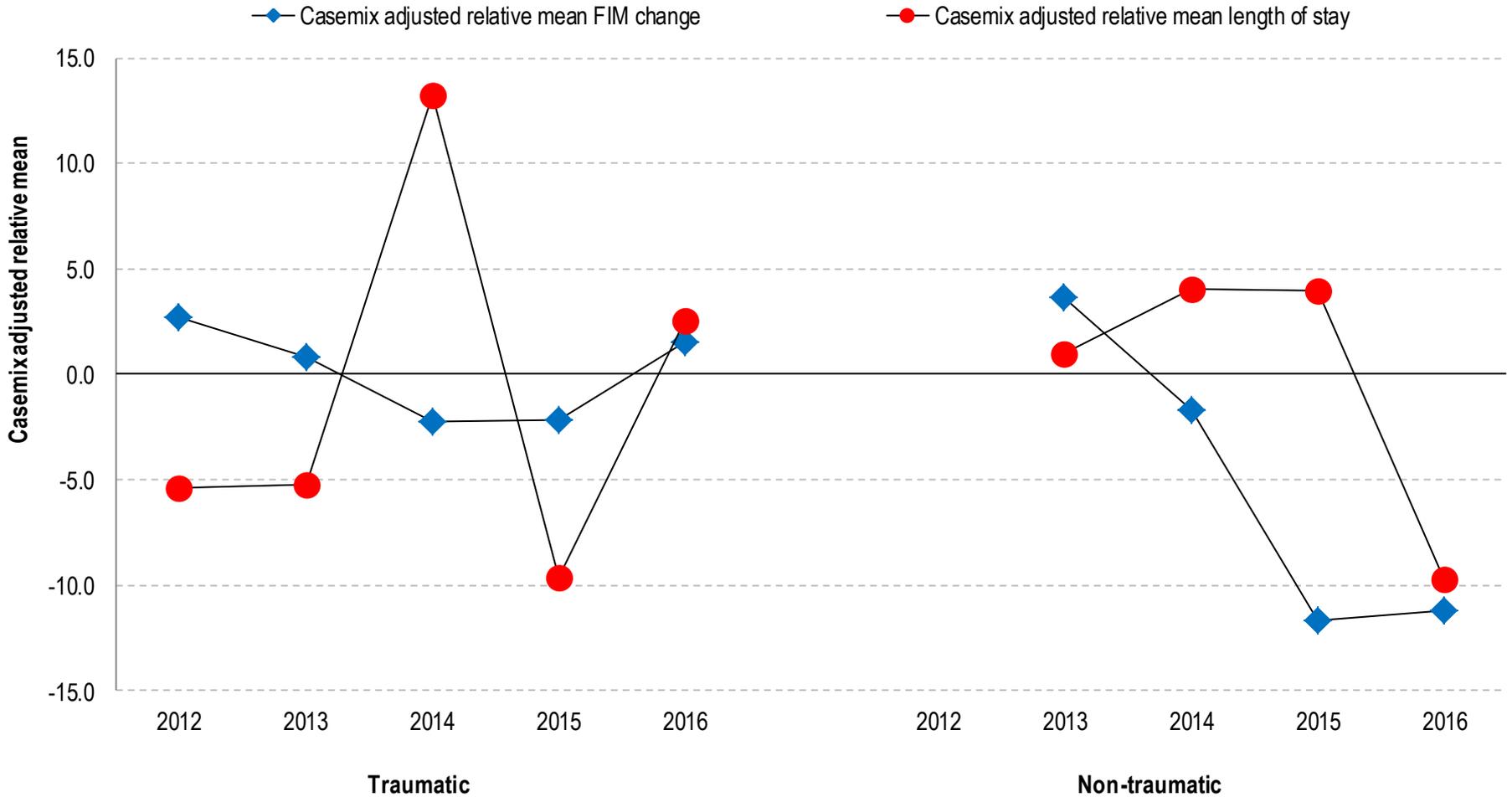
Outcome measures	Traumatic		YOUR FACILITY		Non-traumatic	
	Casemix adjustment relative mean	95% CI	Casemix adjustment relative mean	95% CI	Casemix adjustment relative mean	95% CI
Length of stay	2.5	-16.9 to 21.9	-9.7	-22.6 to 3.1	-9.7	-22.6 to 3.1
FIM change	1.5	-5.3 to 8.3	-11.2	-20.6 to -1.8	-11.2	-20.6 to -1.8

\*Casemix Adjustment is by FY2016 Specialist Units first admissions

# Traumatic and non-traumatic casemix-adjusted\* relative means

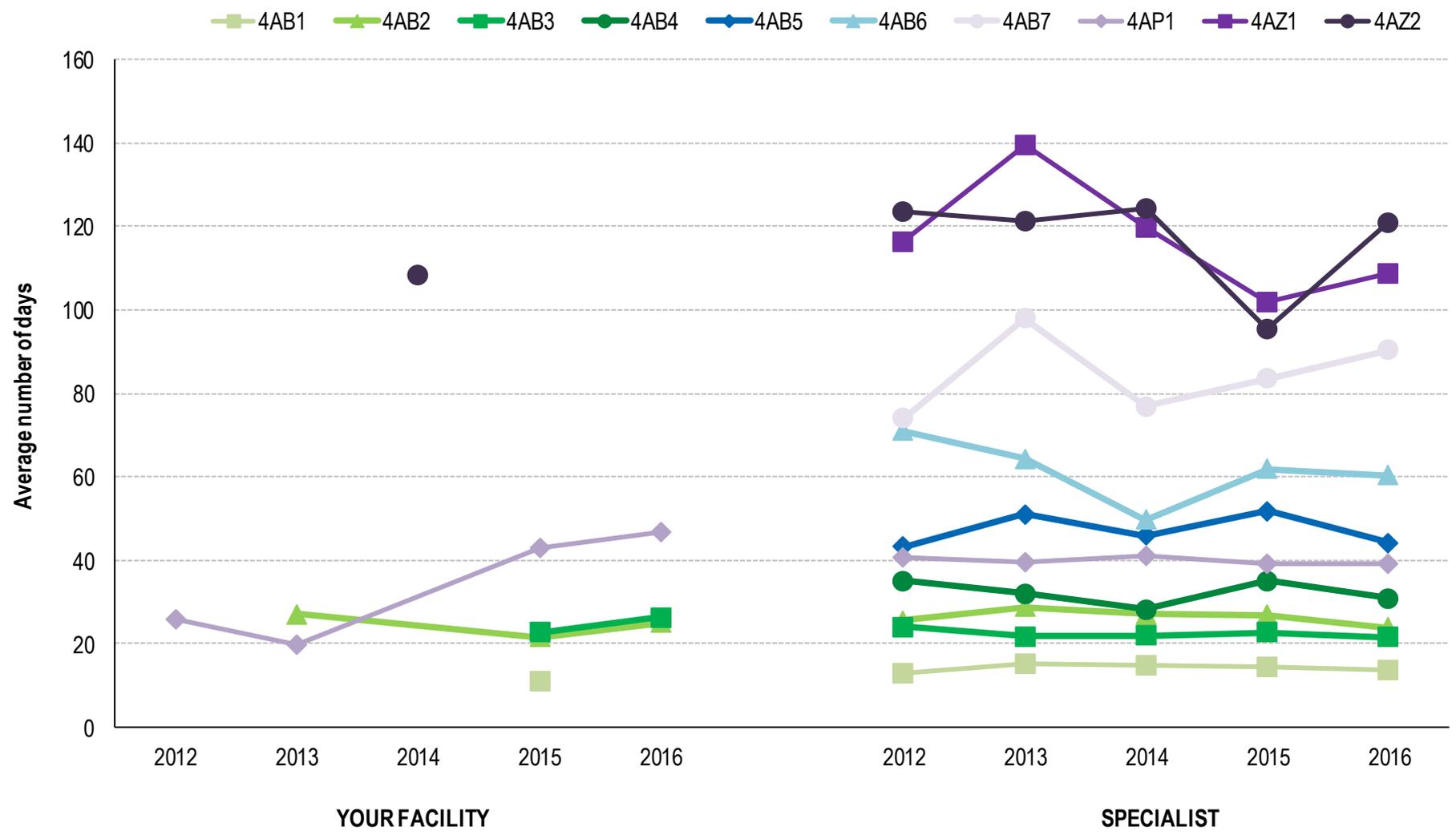


(base year = 2016)



\*Casemix Adjustment is by FY2016 Specialist Units first admissions

# Average LOS by AN-SNAP class over time



Note: First admission, completed episodes

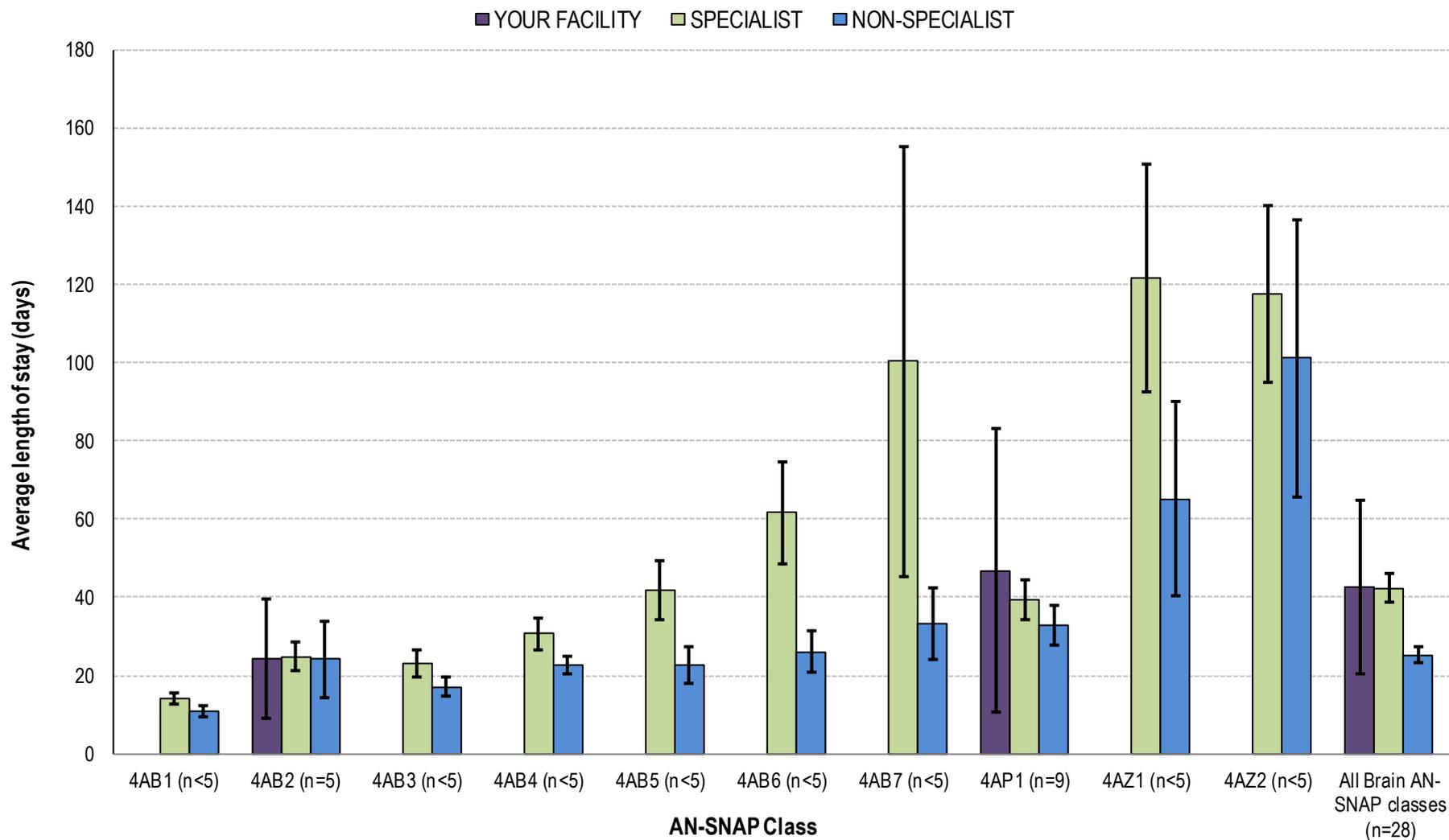
# Average LOS by AN-SNAP class over time



AN-SNAP class	YOUR FACILITY					SPECIALIST					NON-SPECIALIST				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	—	—	—	11.0	—	12.8	15.2	14.8	14.4	13.6	14.3	13.0	13.5	12.7	11.9
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	—	27.1	—	21.6	25.0	25.6	28.7	27.1	26.9	23.9	22.3	22.4	19.6	20.2	23.4
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	—	—	—	22.8	26.3	24.1	21.8	21.9	22.8	21.6	20.8	20.0	20.6	19.7	17.9
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	—	—	—	—	—	35.0	32.0	28.2	35.0	30.9	25.4	22.8	23.6	23.3	21.5
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	—	—	—	—	—	43.2	51.1	45.9	51.8	44.2	33.9	33.1	29.0	28.4	25.1
4AB6 (BI, weighted FIM motor 29-40)	—	—	—	—	—	70.9	64.4	49.7	61.9	60.4	41.7	37.3	33.4	34.3	29.6
4AB7 (BI, weighted FIM motor 19-28)	—	—	—	—	—	74.0	98.0	77.0	83.5	90.4	57.4	49.9	42.8	42.0	37.9
4AP1 (MMT, weighted FIM motor 19-91)	25.9	19.8	—	42.8	46.9	40.6	39.4	41.1	39.2	39.2	30.0	30.3	35.5	35.1	32.8
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	—	116.3	139.7	119.9	102.1	108.8	68.6	57.0	75.2	71.3	60.1
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	108.4	—	—	123.5	121.4	124.3	95.3	120.8	109.3	122.5	99.5	97.1	87.4
<b>All Brain AN-SNAP classes</b>	<b>30.7</b>	<b>28.7</b>	<b>62.1</b>	<b>38.6</b>	<b>41.9</b>	<b>41.0</b>	<b>41.6</b>	<b>39.4</b>	<b>39.2</b>	<b>39.9</b>	<b>28.3</b>	<b>26.7</b>	<b>27.4</b>	<b>26.3</b>	<b>24.3</b>

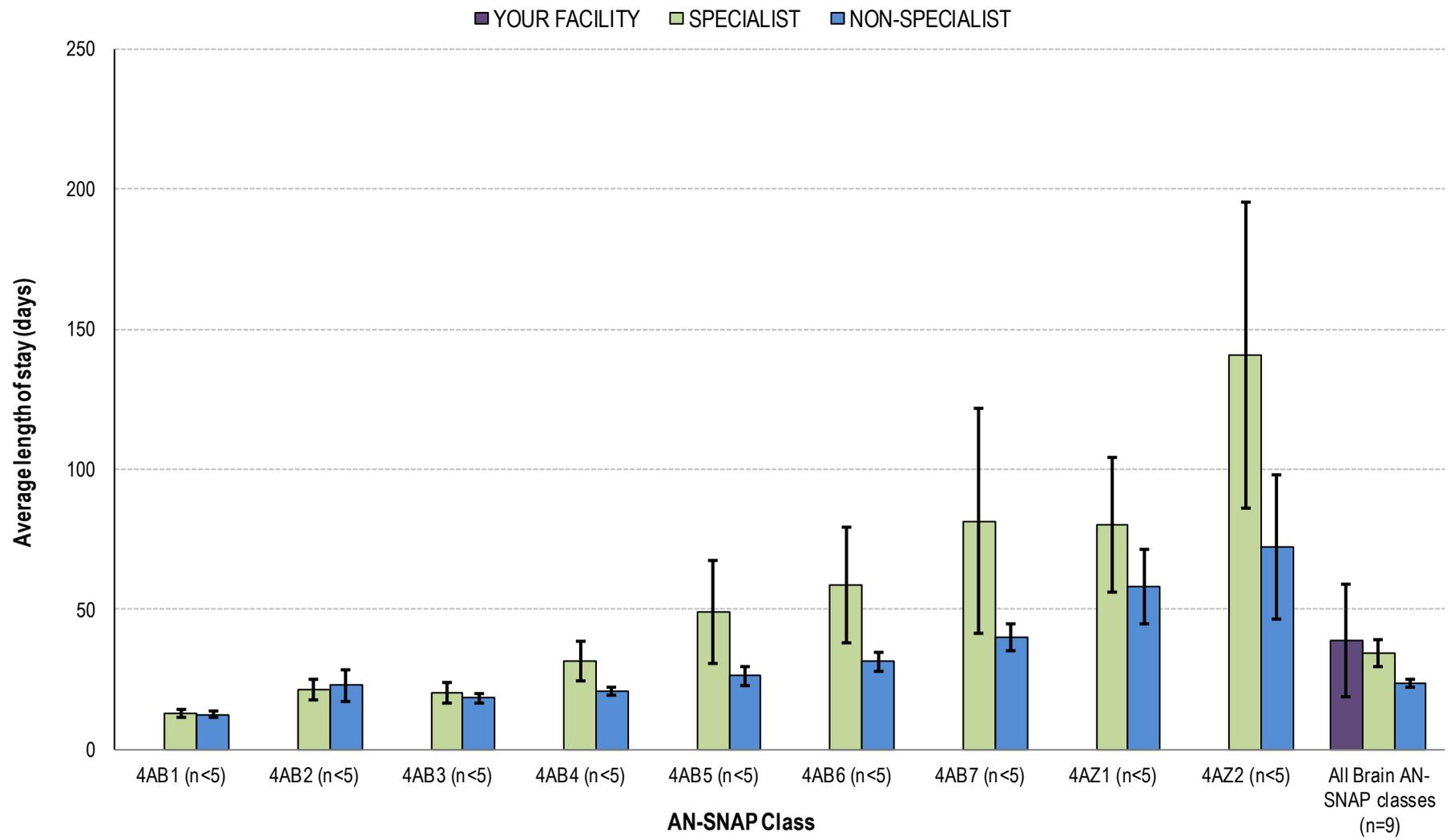
Note: First admission, completed episodes

# Traumatic ALOS by AN-SNAP class



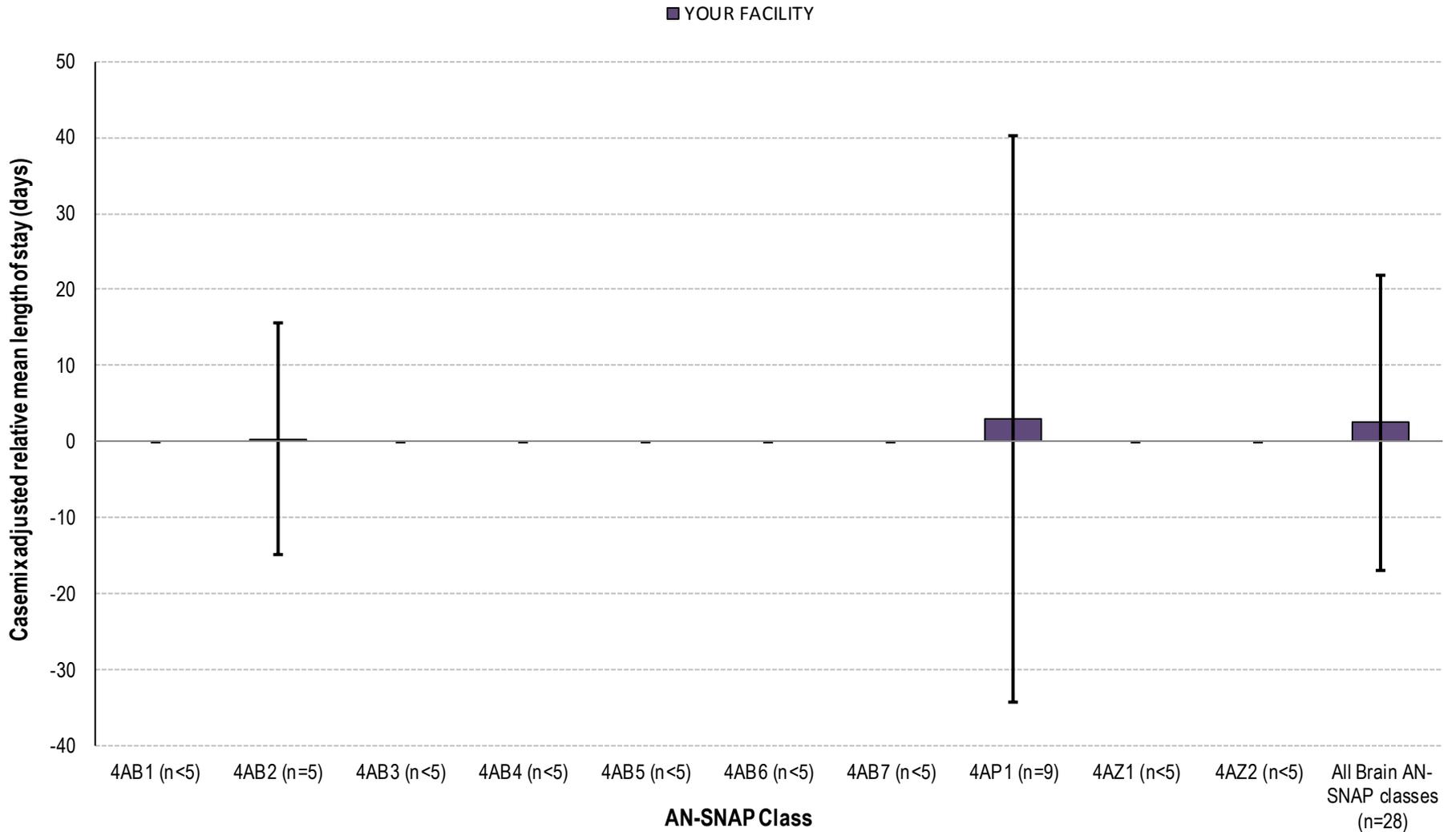
Note: First admission, completed episodes

# Non-traumatic ALOS by AN-SNAP class



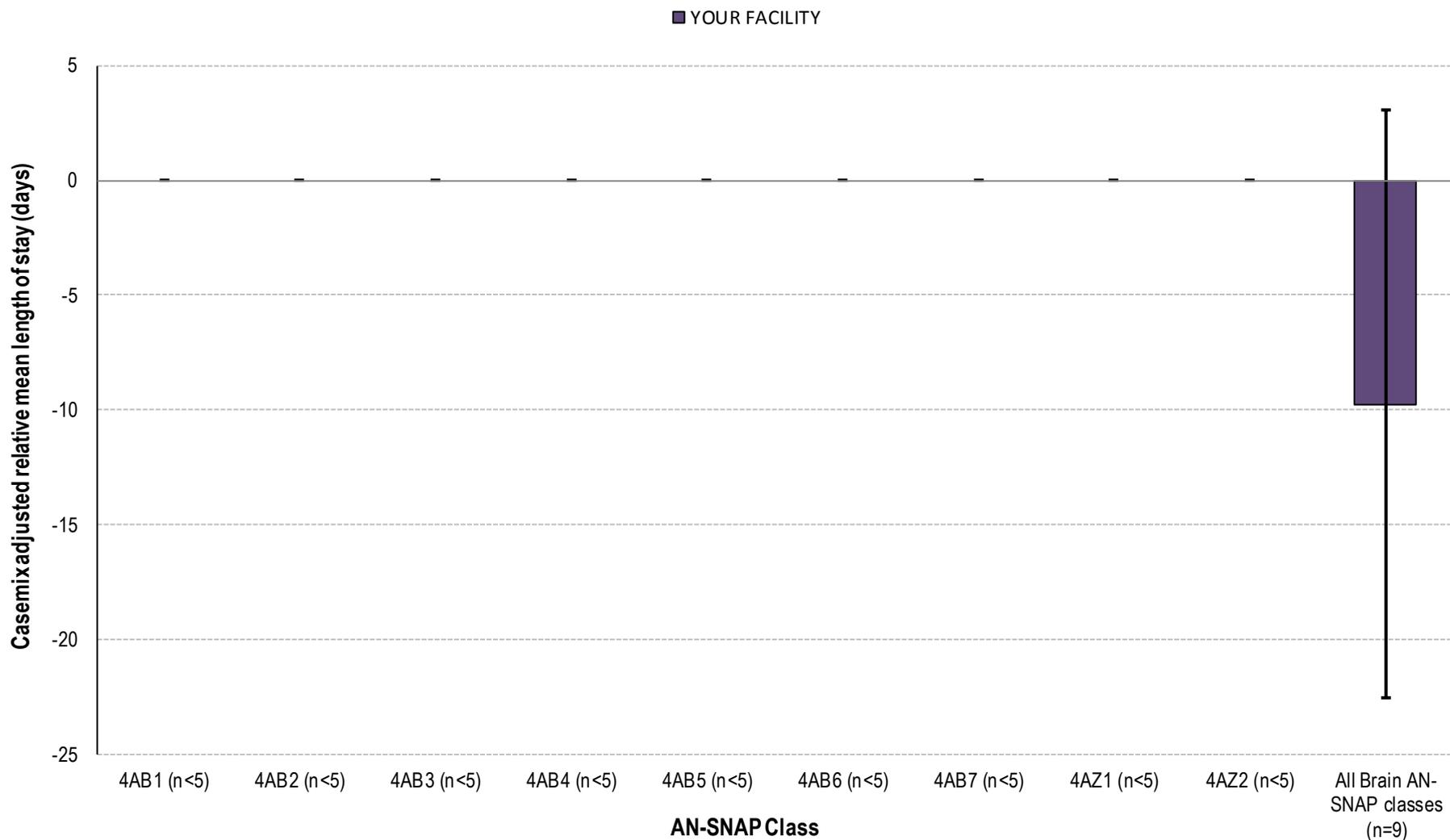
Note: First admission, completed episodes

# Traumatic casemix-adjusted\* relative mean LOS by AN-SNAP class



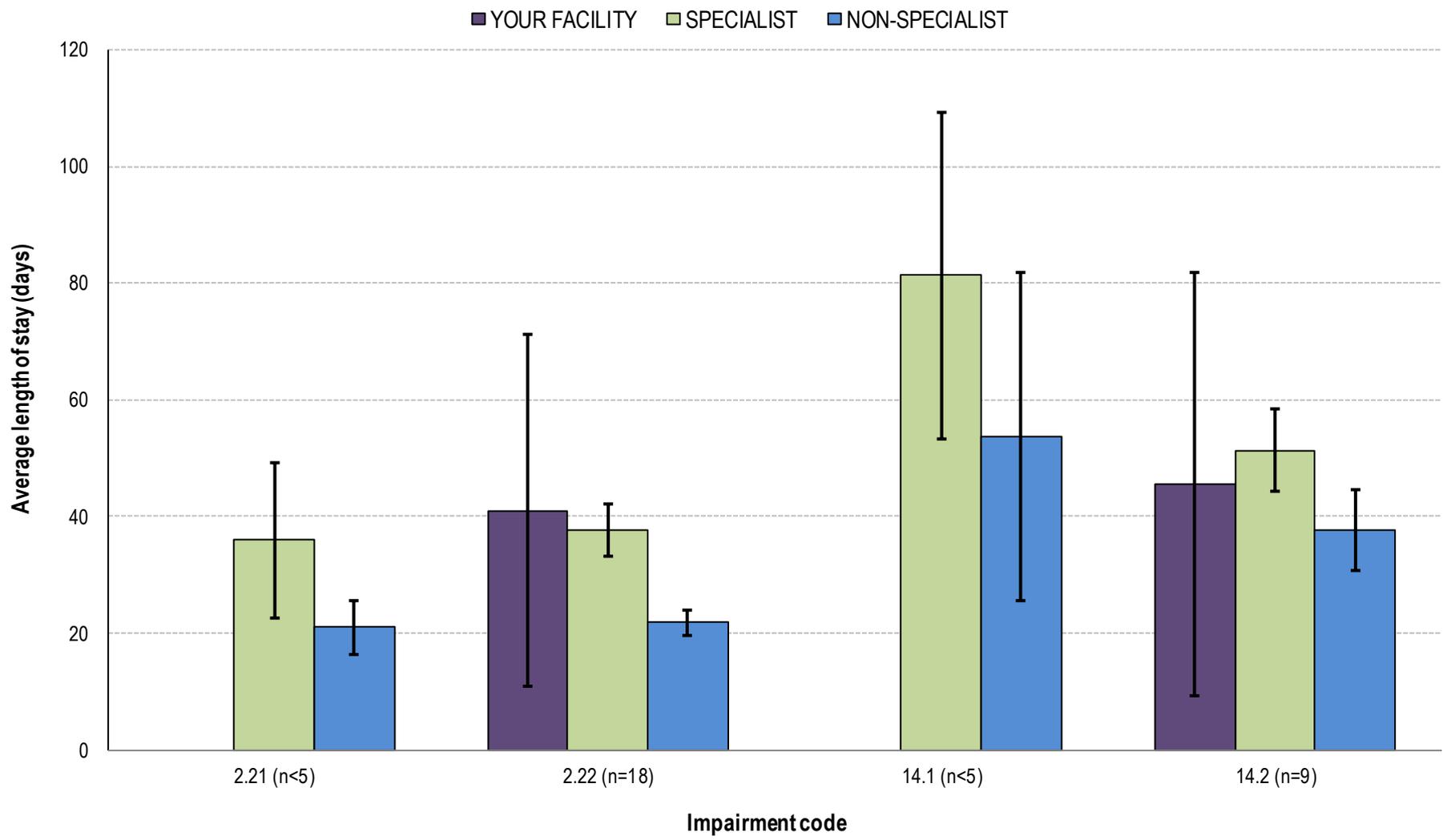
\*Casemix Adjustment is by FY2016 Specialist Units first admissions

# Non-traumatic casemix-adjusted\* relative mean LOS by AN-SNAP class



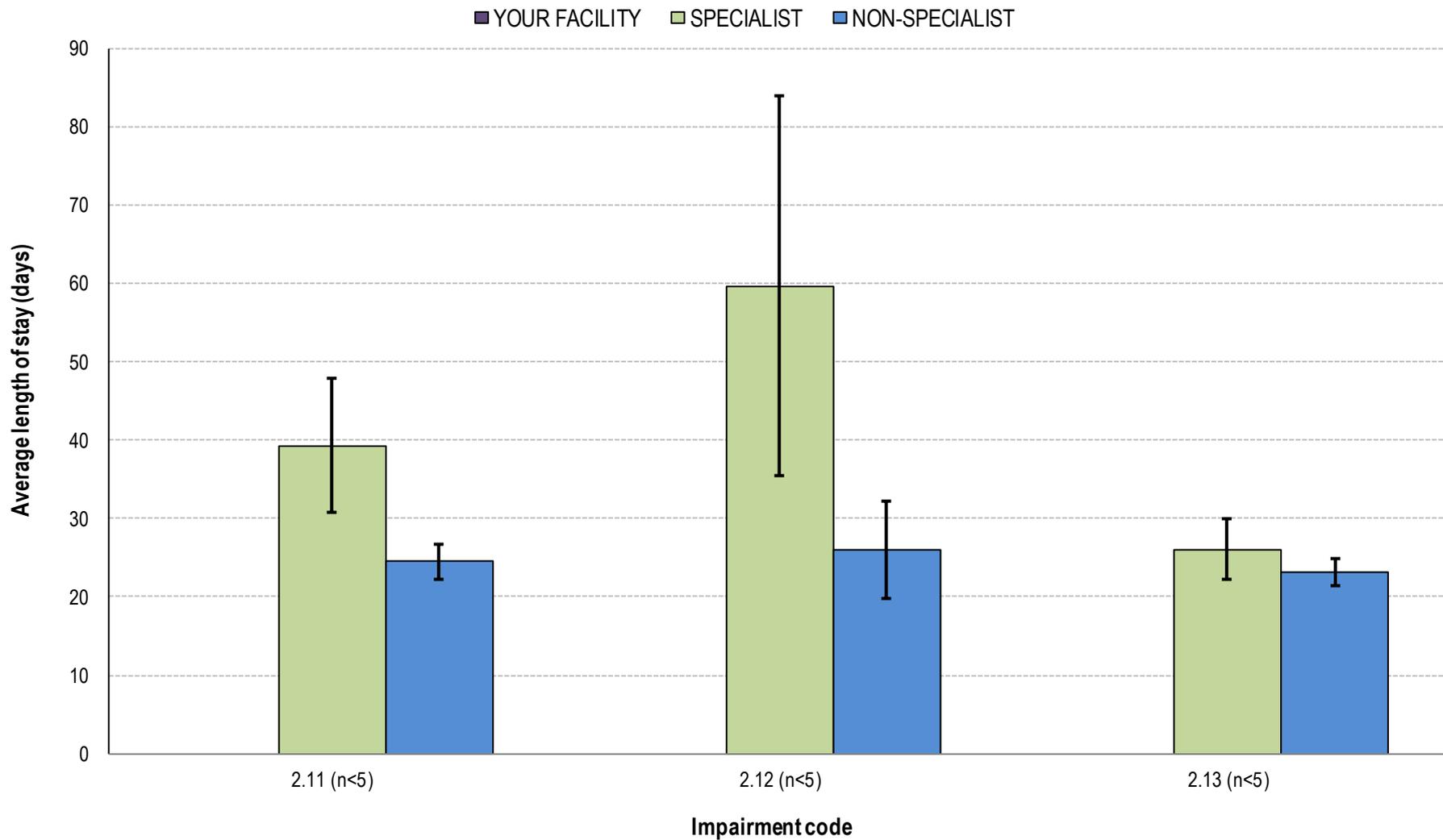
\*Casemix Adjustment is by FY2016 Specialist Units first admissions

# Traumatic ALOS by impairment



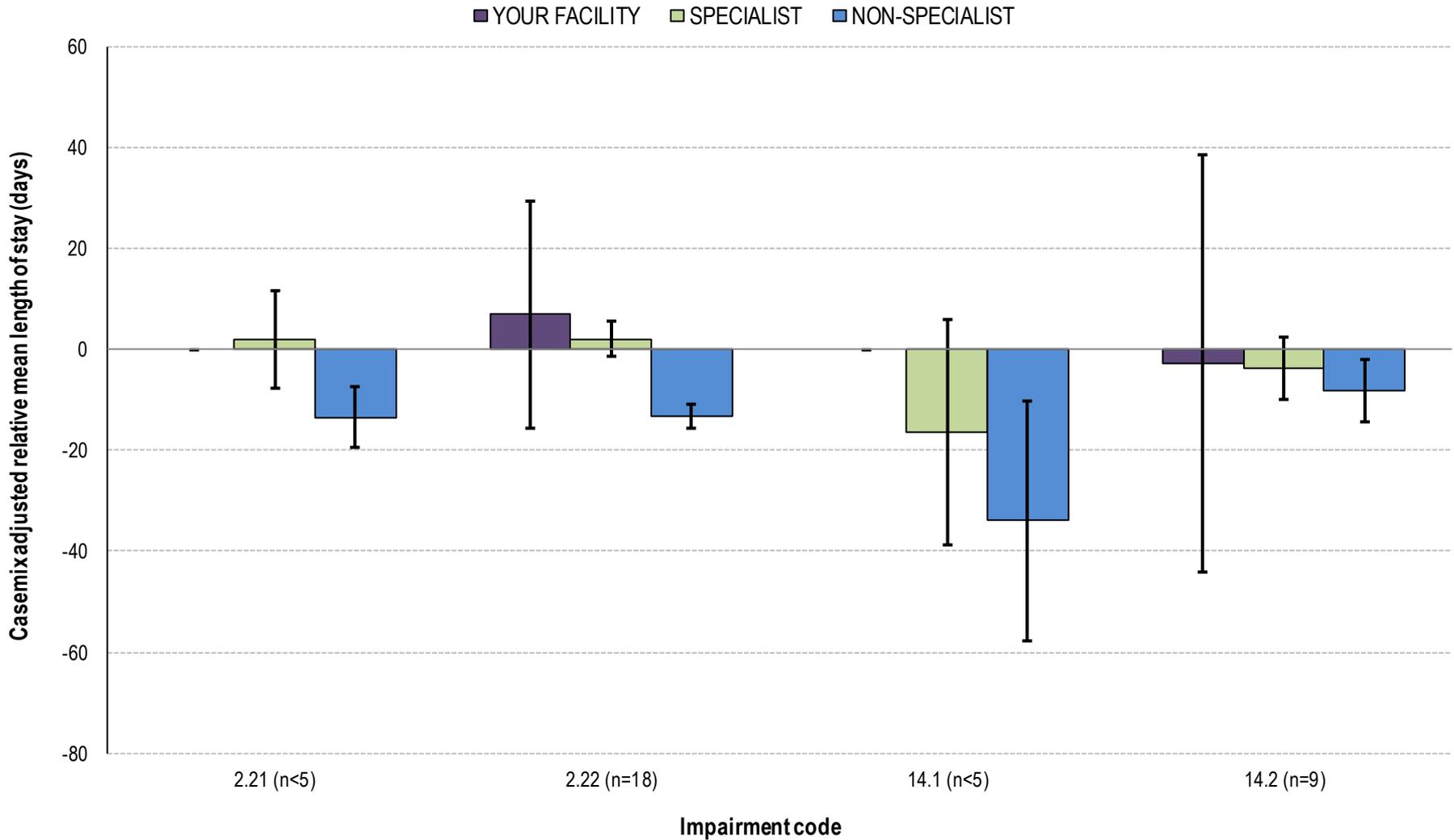
Note: First admission, completed episodes

# Non-traumatic ALOS by impairment



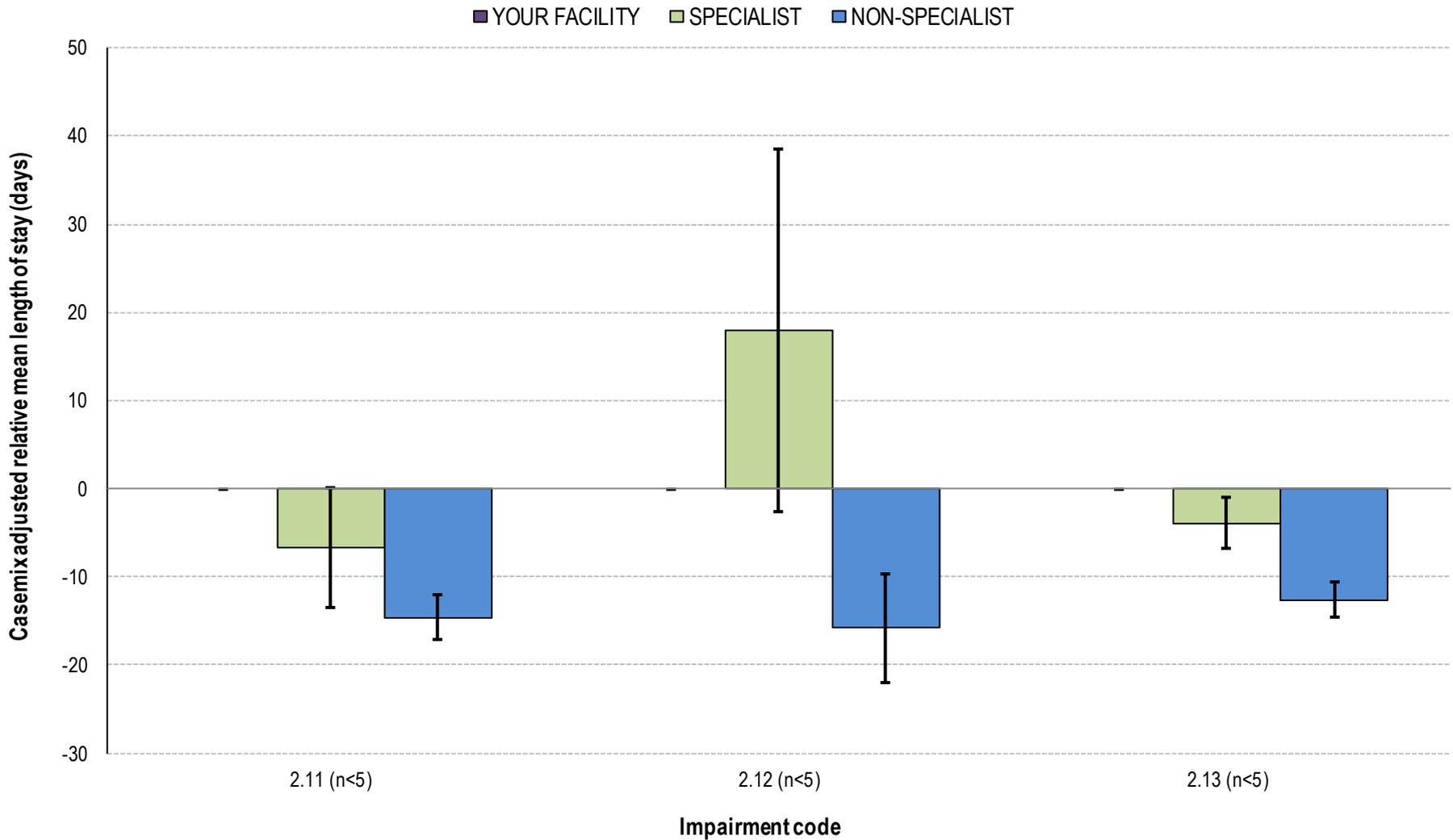
Note: First admission, completed episodes

# Traumatic casemix-adjusted\* relative mean LOS by impairment



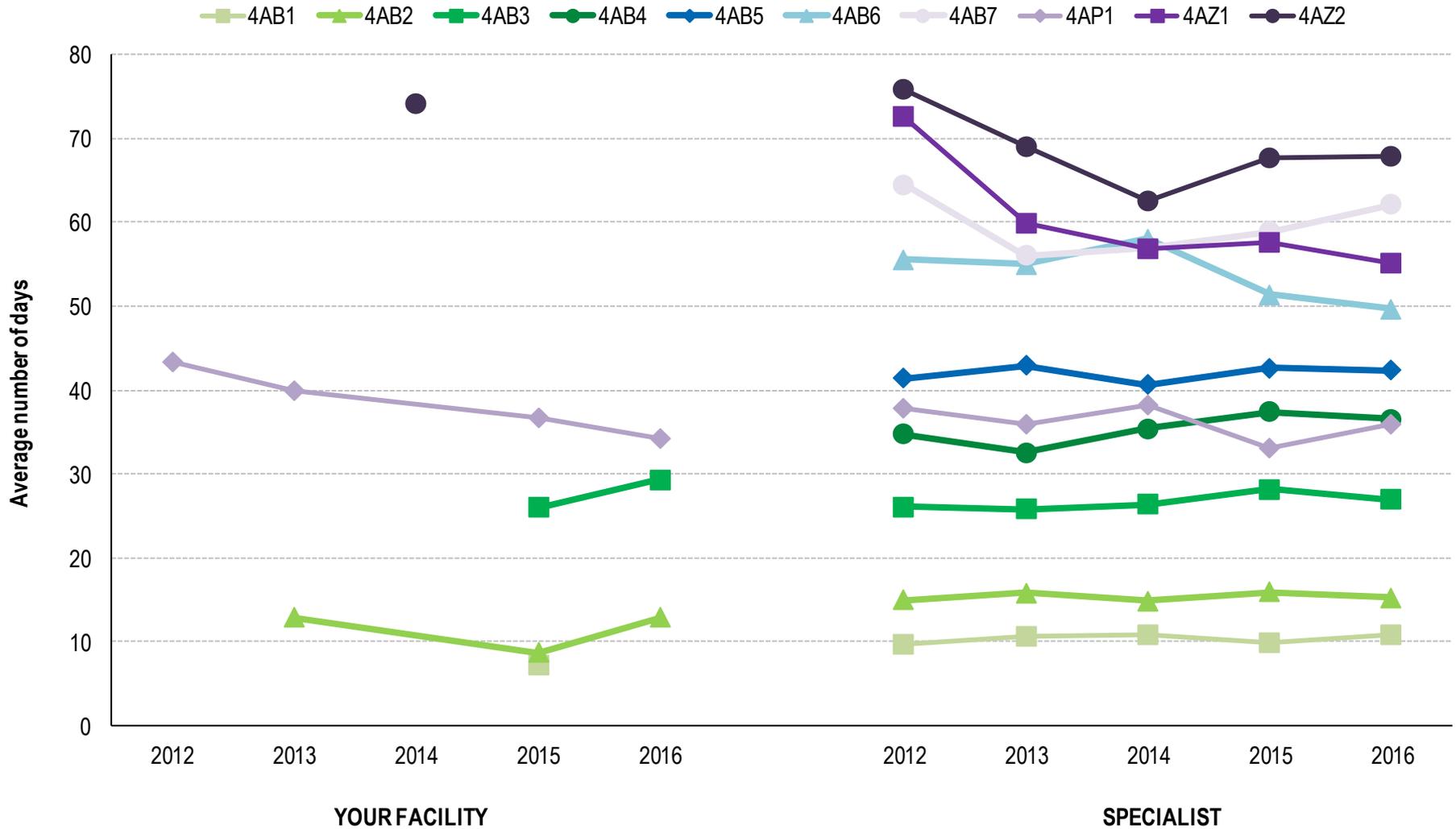
\*Casemix Adjustment is by FY2016 Specialist Units first admissions

# Non-traumatic casemix-adjusted\* relative mean LOS by impairment



\*Casemix Adjustment is by FY2016 Specialist Units first admissions

# Average FIM change by AN-SNAP class over time



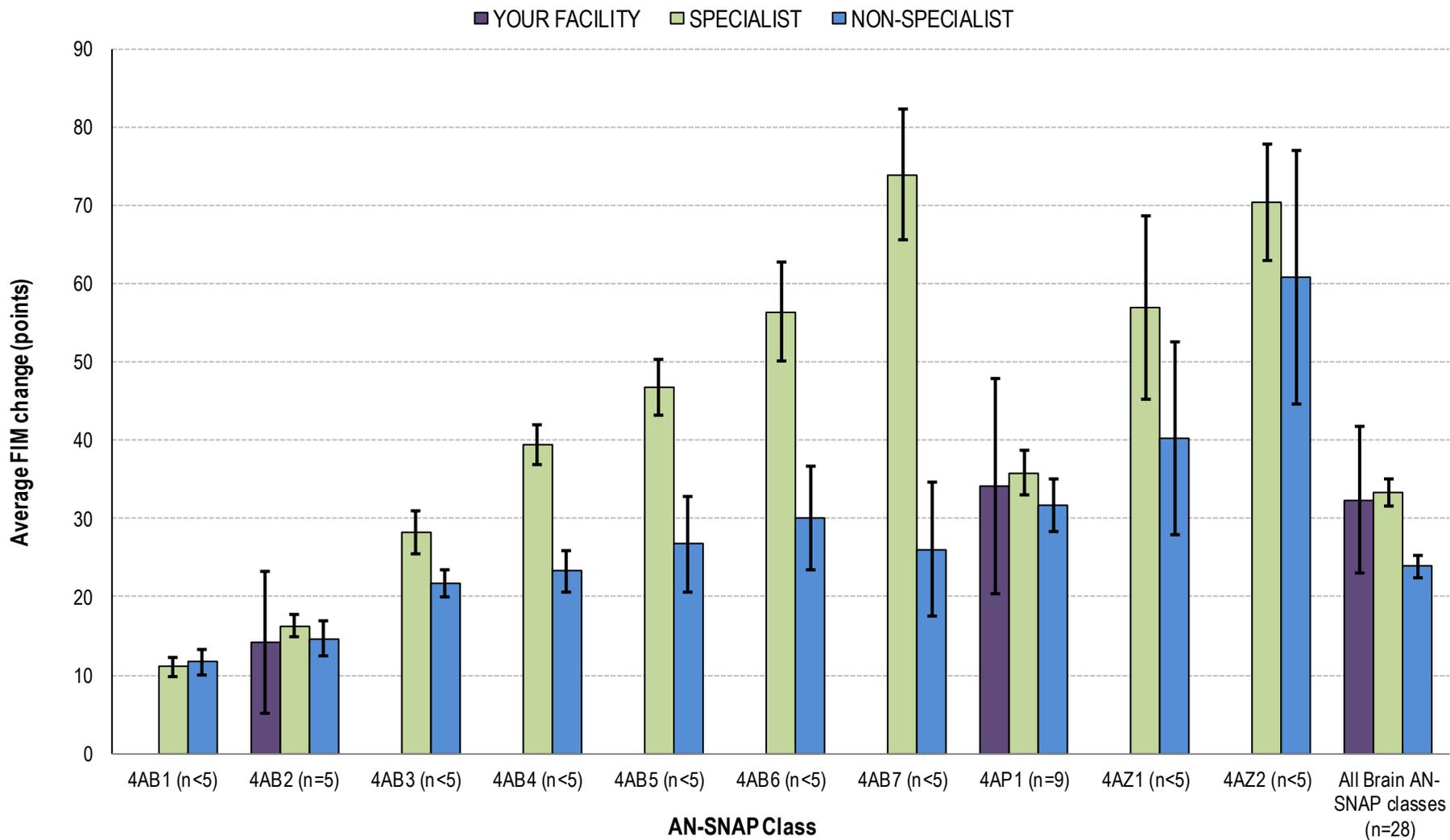
Note: First admission, completed episodes

# Average FIM change by AN-SNAP class over time

AN-SNAP class	YOUR FACILITY					SPECIALIST					NON-SPECIALIST				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	—	—	—	7.2	—	9.6	10.7	10.8	9.8	10.8	9.8	9.6	9.5	9.5	10.9
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	—	12.9	—	8.7	12.9	15.0	15.9	14.9	15.9	15.3	15.6	14.9	13.7	14.2	13.0
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	—	—	—	26.0	29.3	26.1	25.8	26.3	28.2	27.0	23.3	22.6	21.7	21.8	22.1
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	—	—	—	—	—	34.7	32.6	35.4	37.4	36.6	27.3	26.2	23.9	24.3	24.2
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	—	—	—	—	—	41.4	42.9	40.6	42.7	42.3	36.1	33.6	29.4	27.5	29.9
4AB6 (BI, weighted FIM motor 29-40)	—	—	—	—	—	55.6	55.0	58.0	51.4	49.6	38.7	32.6	36.7	31.6	32.9
4AB7 (BI, weighted FIM motor 19-28)	—	—	—	—	—	64.5	56.1	56.9	58.9	62.2	43.7	36.5	38.1	35.0	37.1
4AP1 (MMT, weighted FIM motor 19-91)	43.3	39.8	—	36.7	34.2	37.9	35.9	38.1	33.0	35.9	26.0	29.5	30.2	30.8	31.7
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	—	72.6	59.9	56.9	57.6	55.1	44.7	38.0	34.5	40.9	35.4
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	74.2	—	—	75.9	69.0	62.5	67.8	67.9	56.0	53.8	59.8	47.7	52.9
<b>All Brain AN-SNAP classes</b>	<b>34.7</b>	<b>29.7</b>	<b>34.9</b>	<b>27.9</b>	<b>30.9</b>	<b>32.6</b>	<b>30.5</b>	<b>31.2</b>	<b>30.1</b>	<b>30.9</b>	<b>24.5</b>	<b>23.1</b>	<b>23.1</b>	<b>22.6</b>	<b>23.4</b>

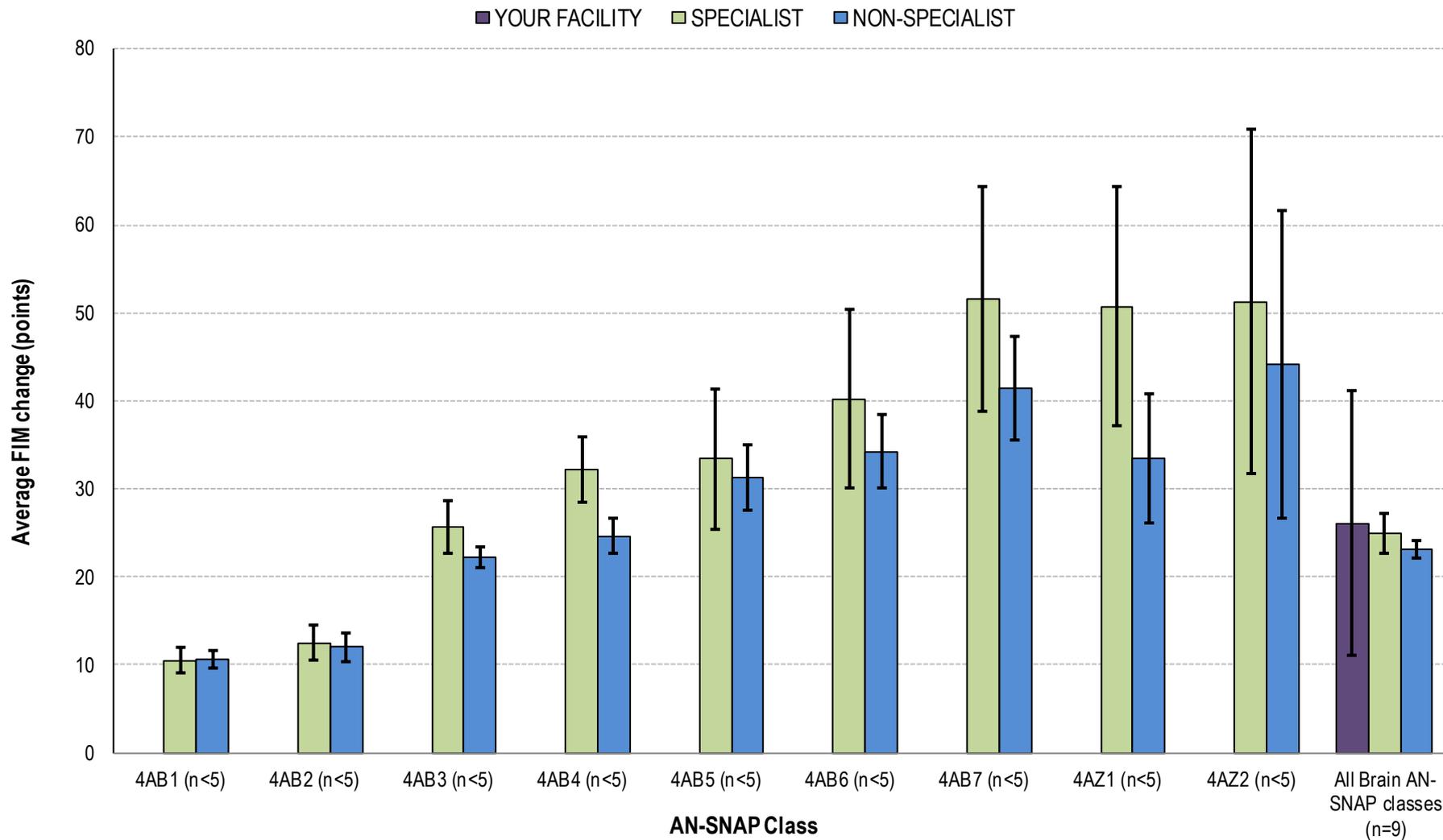
Note: First admission, completed episodes

# Traumatic average FIM change by AN-SNAP class



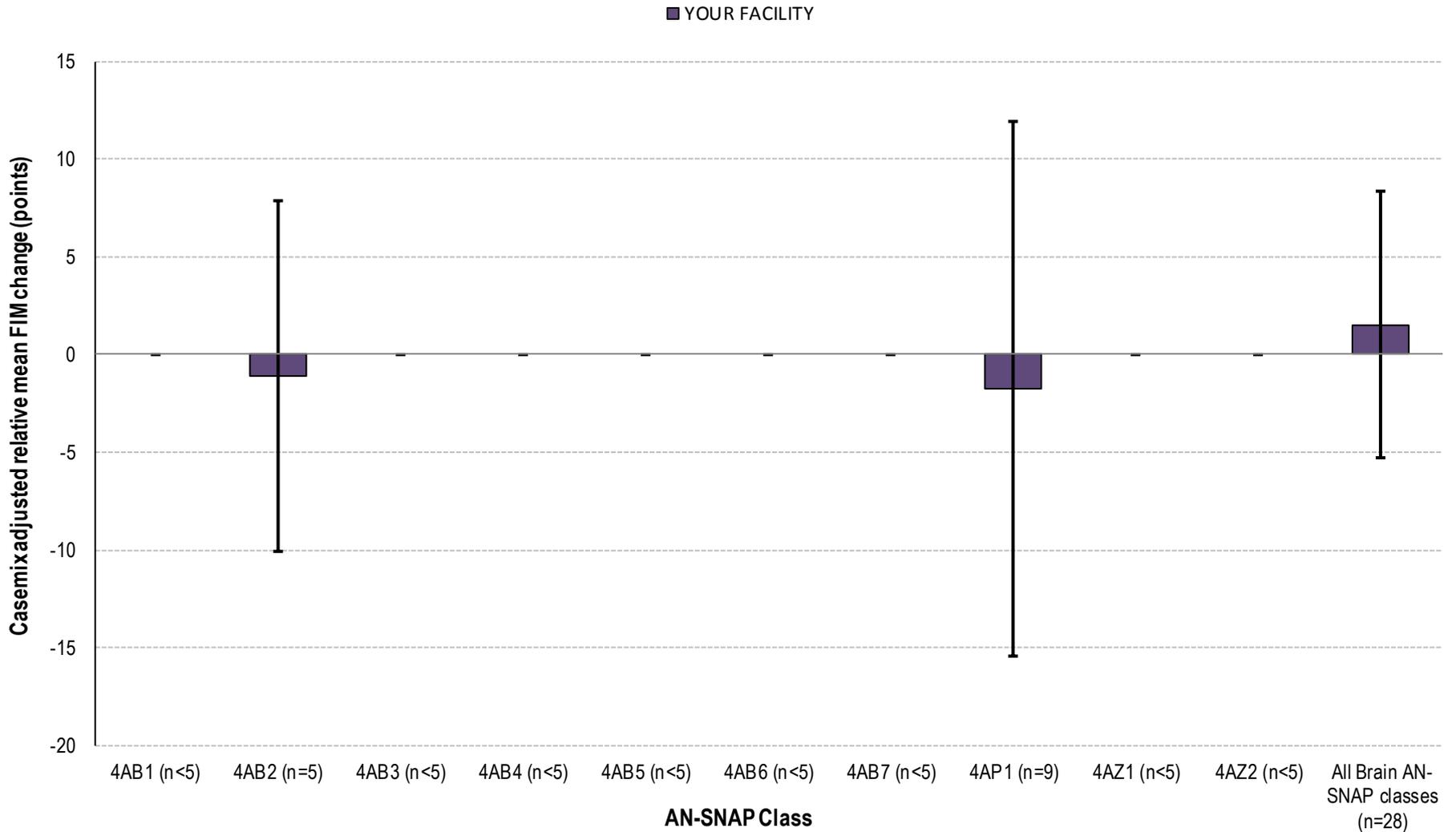
Note: First admission, completed episodes

# Non-traumatic average FIM change by AN-SNAP class



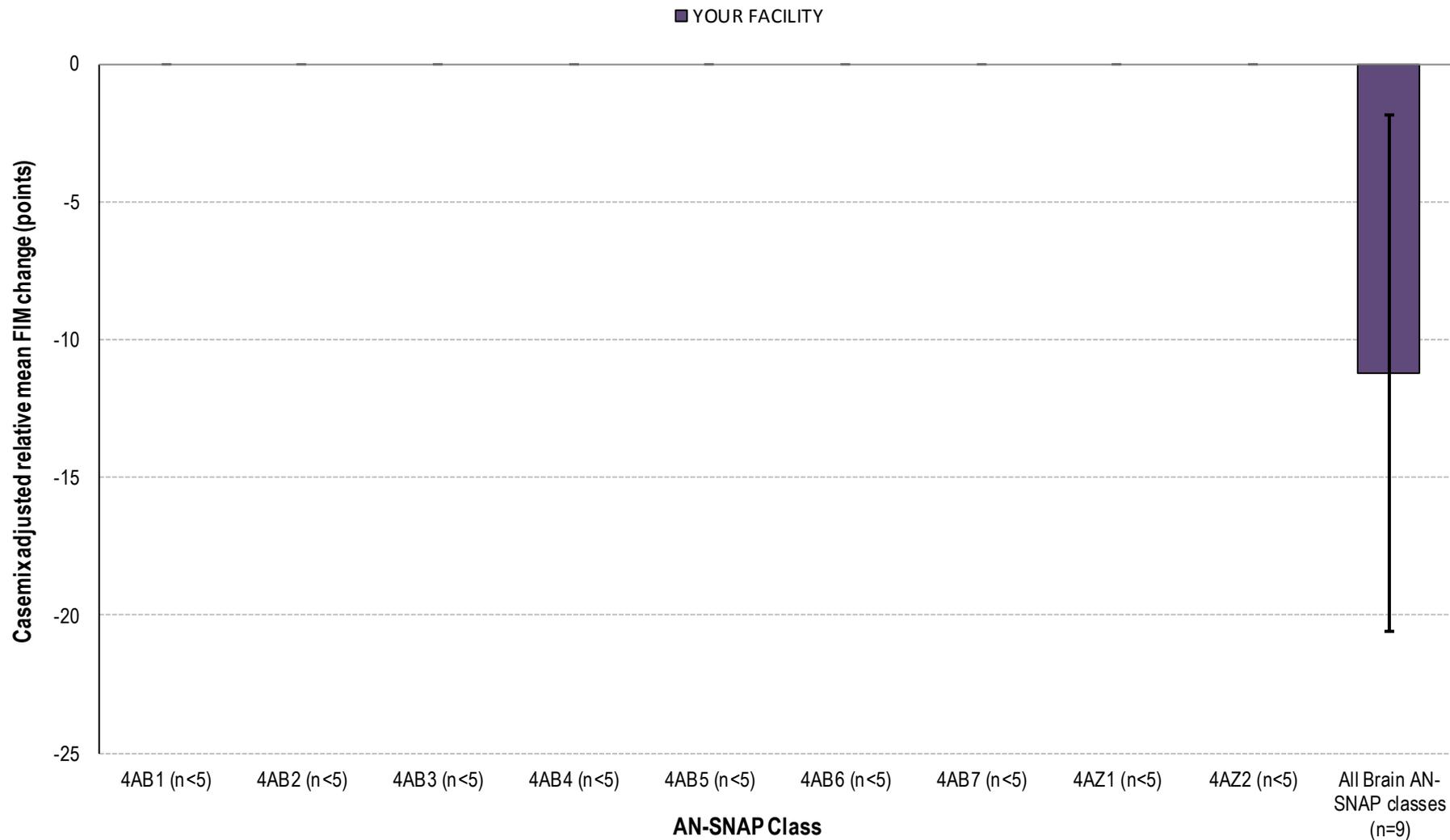
Note: First admission, completed episodes

# Traumatic casemix-adjusted\* relative mean FIM change by AN-SNAP class



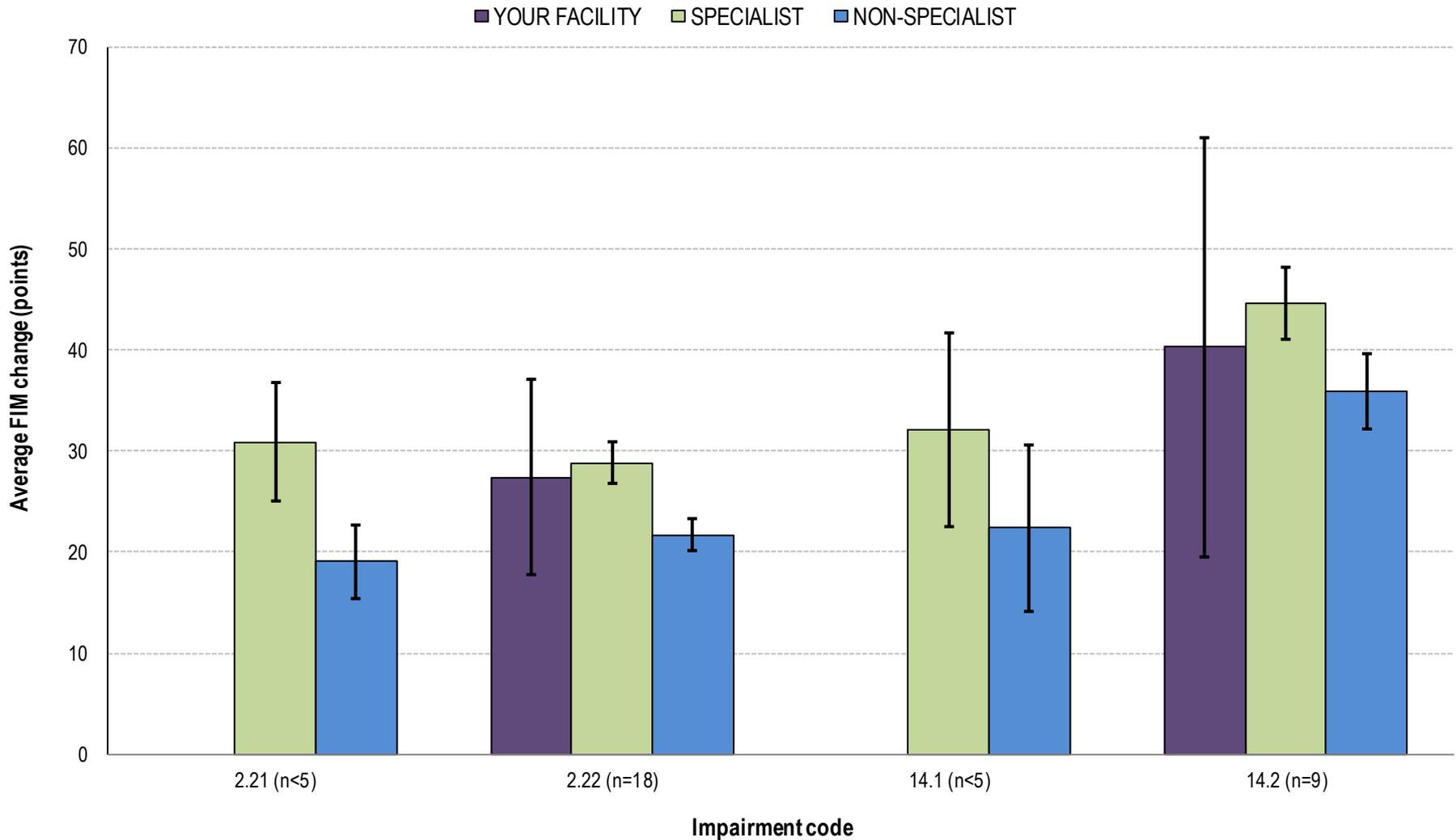
\*Casemix Adjustment is by FY2016 Specialist Units first admissions

# Non-traumatic casemix-adjusted\* relative mean FIM change by AN-SNAP class



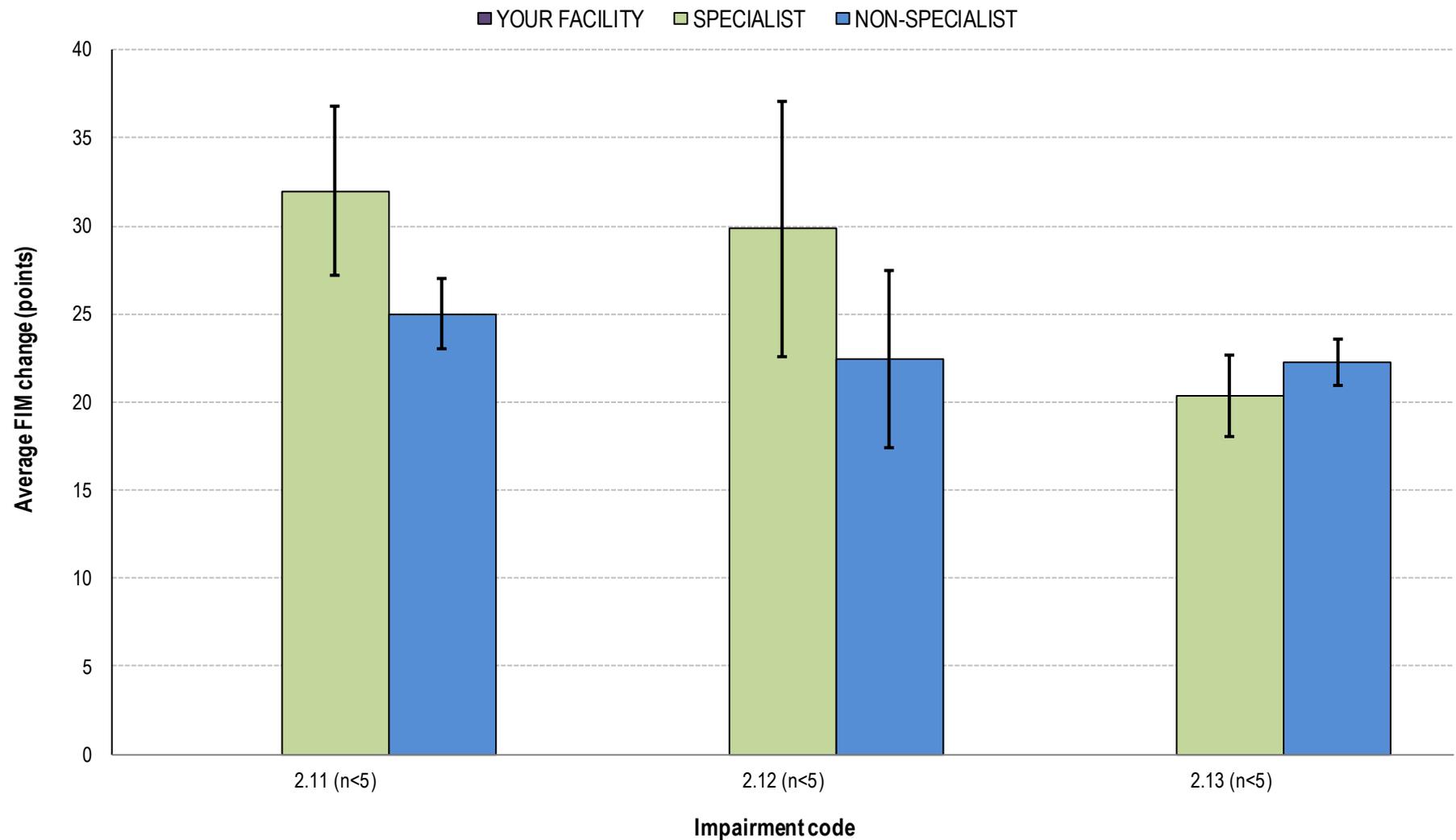
\*Casemix Adjustment is by FY2016 Specialist Units first admissions

# Traumatic average FIM change by impairment



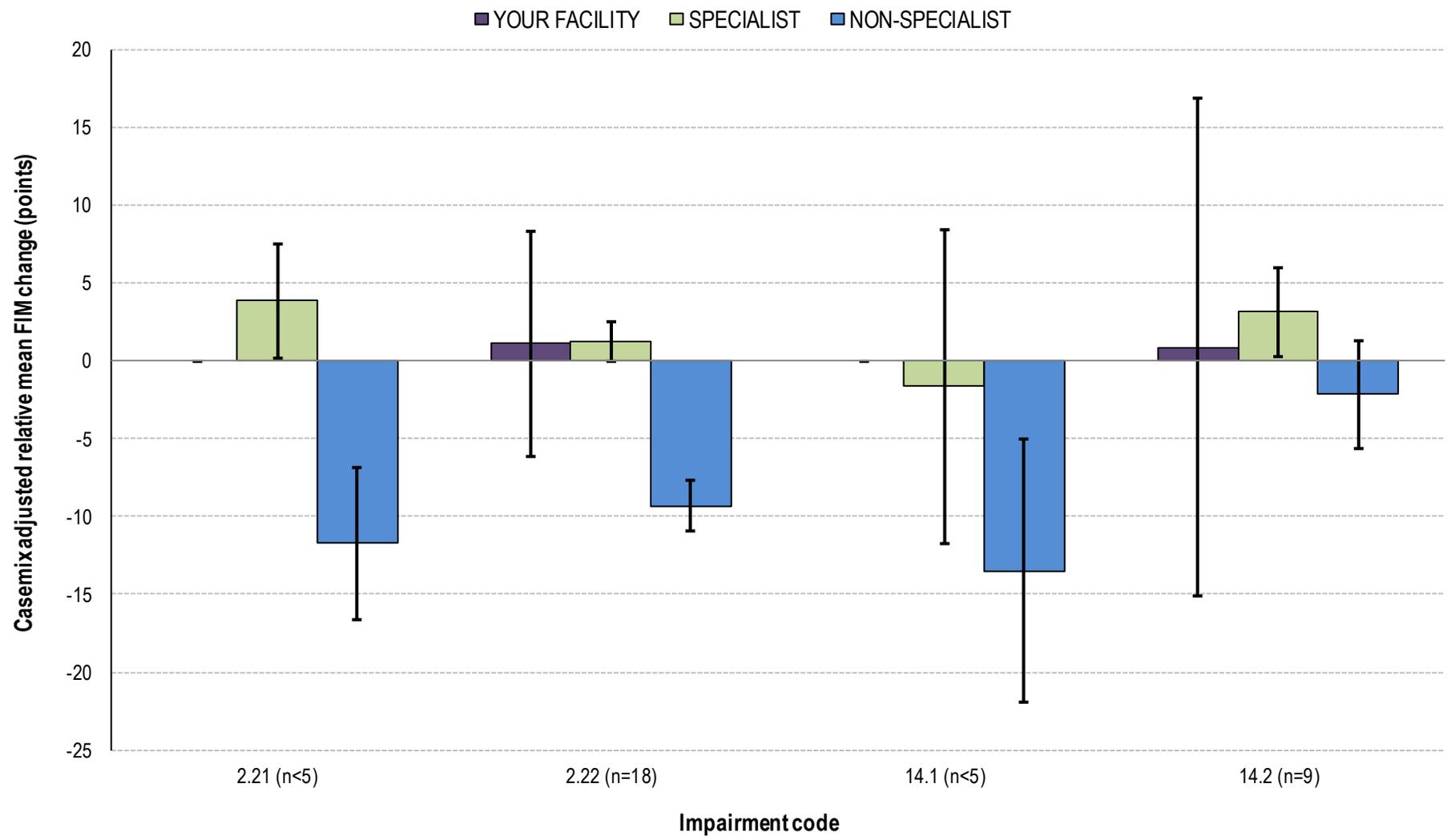
Note: First admission, completed episodes

# Non-traumatic average FIM change by impairment



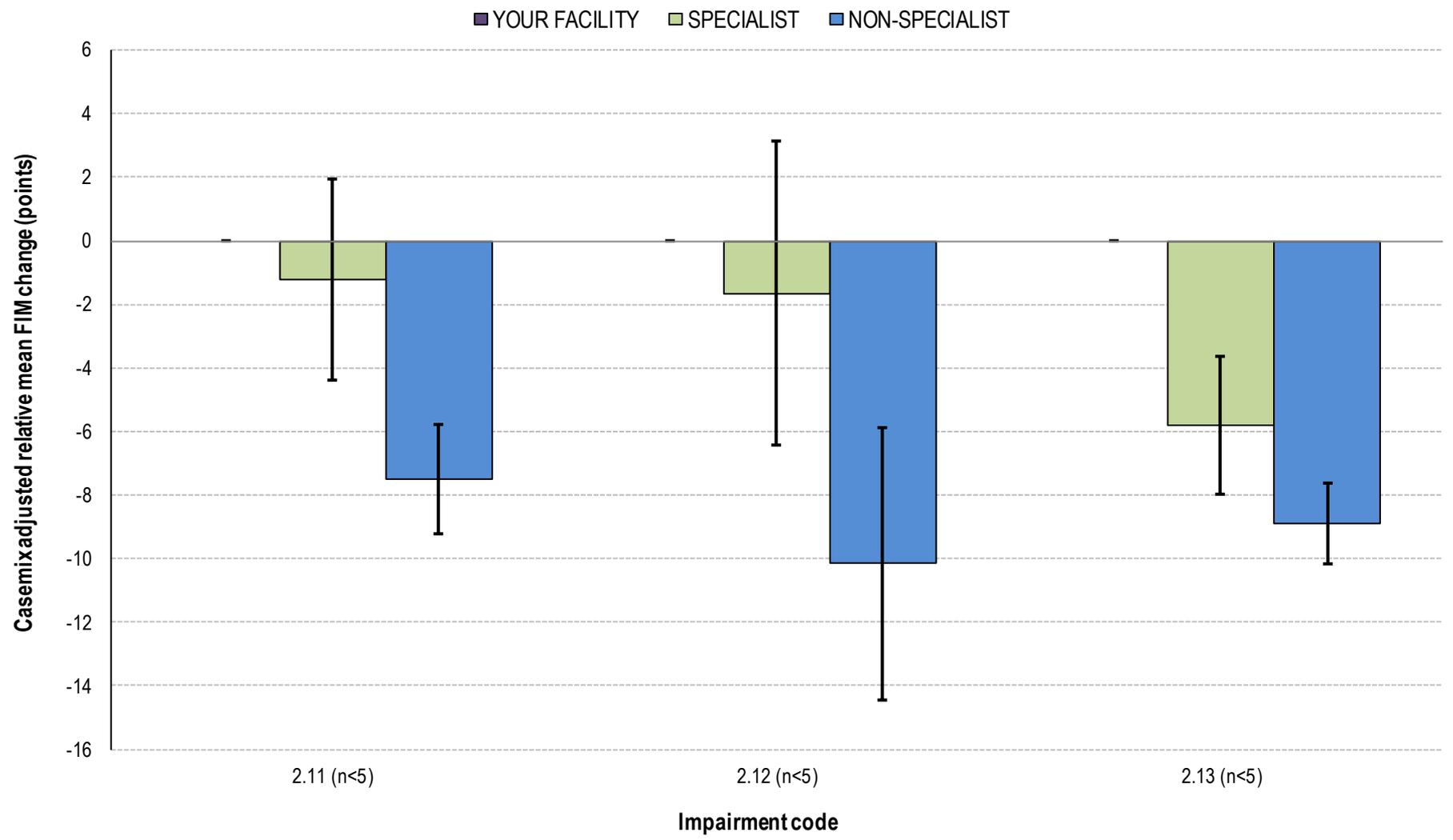
Note: First admission, completed episodes

# Traumatic casemix-adjusted\* relative mean FIM change by impairment



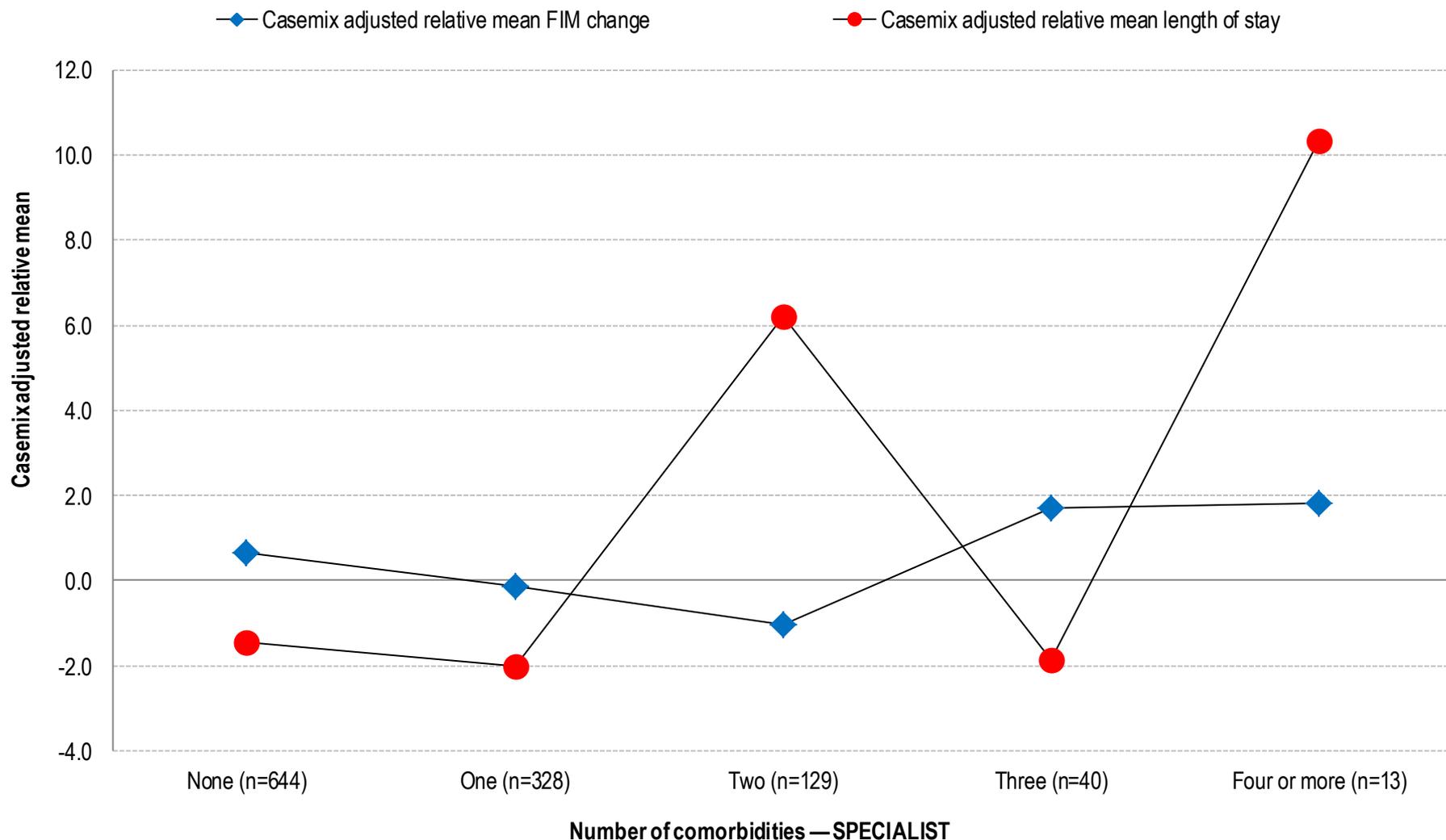
\*Casemix Adjustment is by FY2016 Specialist Units first admissions

# Non-traumatic casemix-adjusted\* relative mean FIM change by impairment



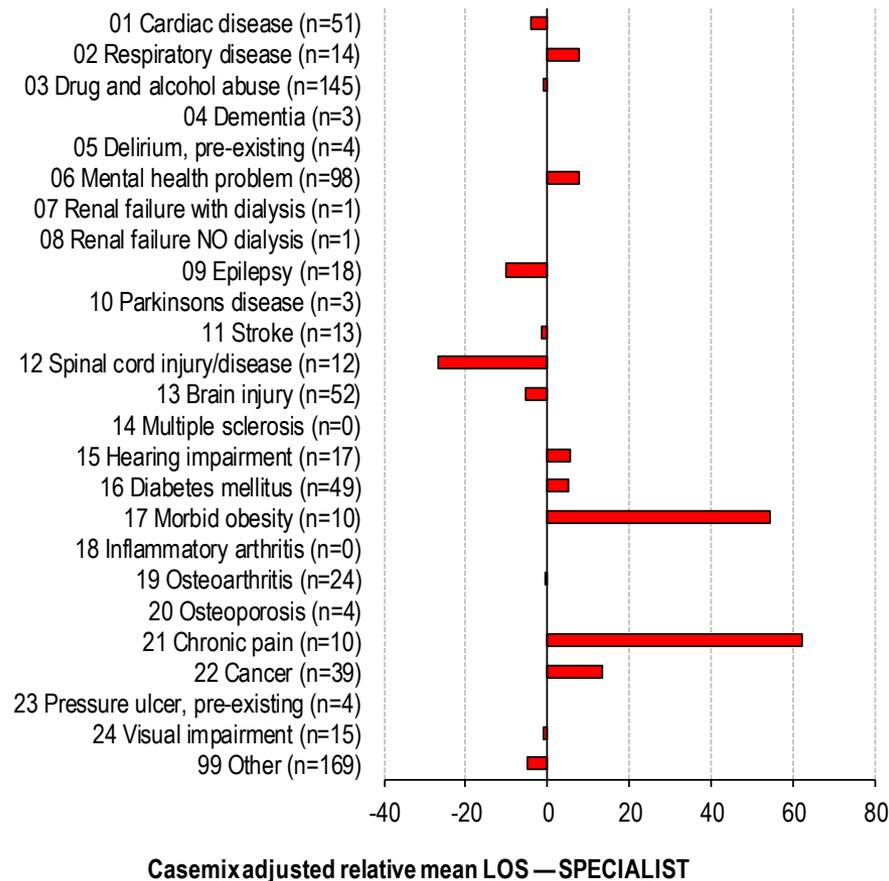
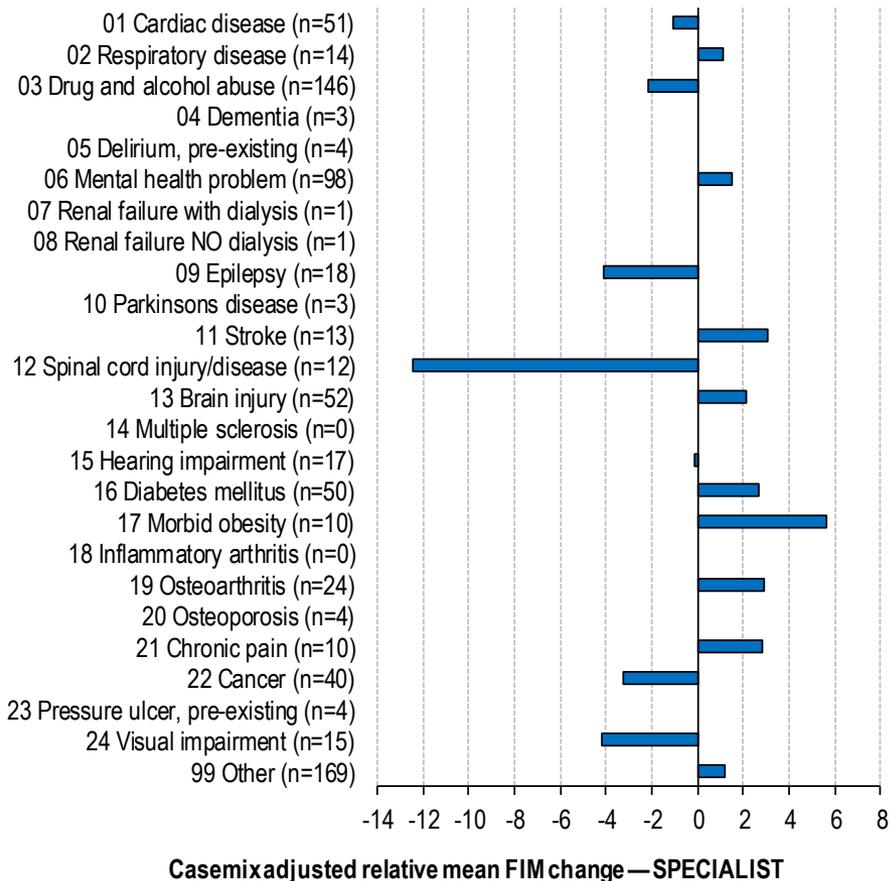
\*Casemix Adjustment is by FY2016 Specialist Units first admissions

# Casemix-adjusted\* relative mean LOS and FIM change by number of comorbidities



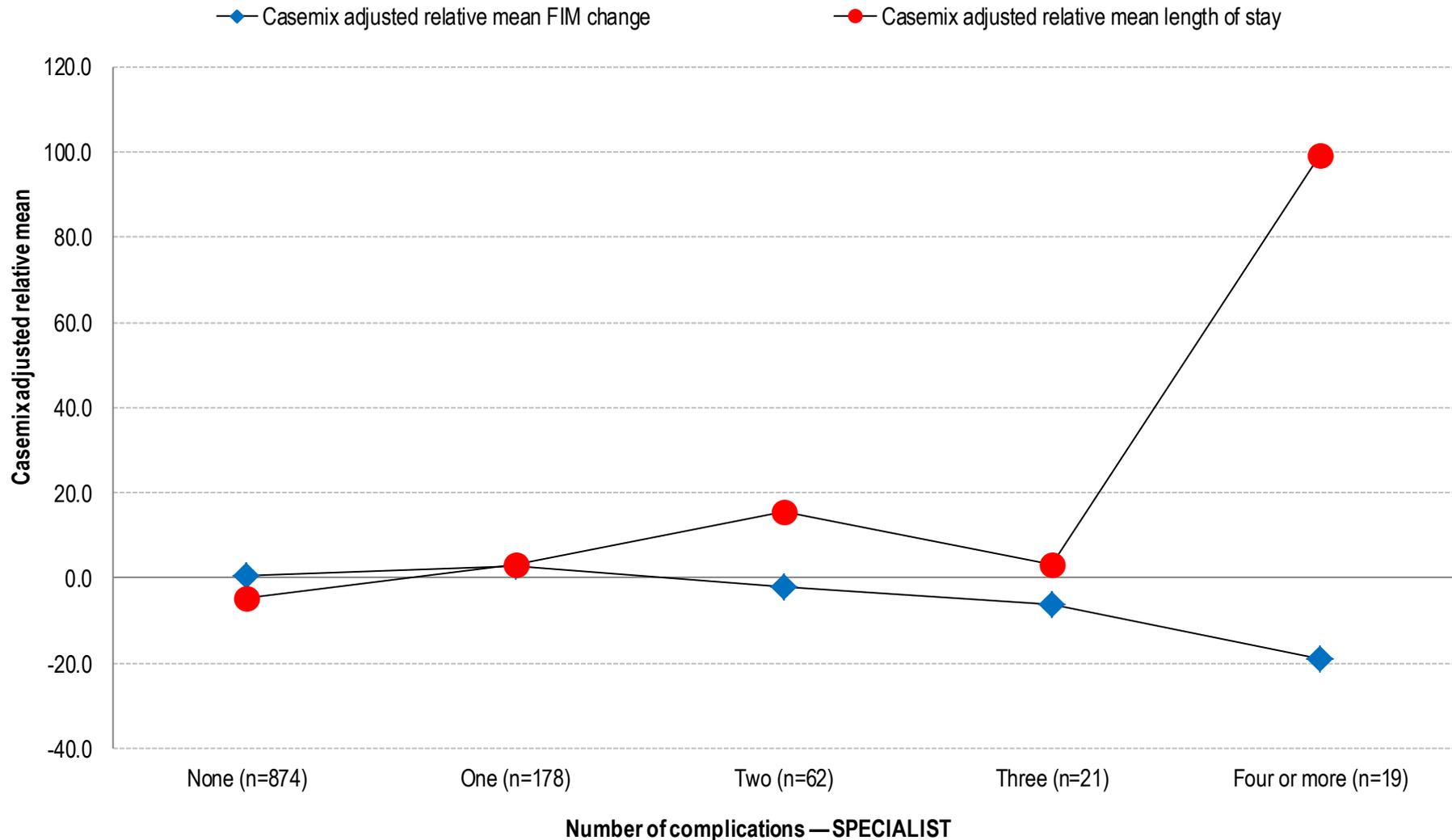
\*Casemix Adjustment is by FY2016 Specialist Units first admissions

# Casemix-adjusted\* relative mean LOS and FIM change by type of comorbidity



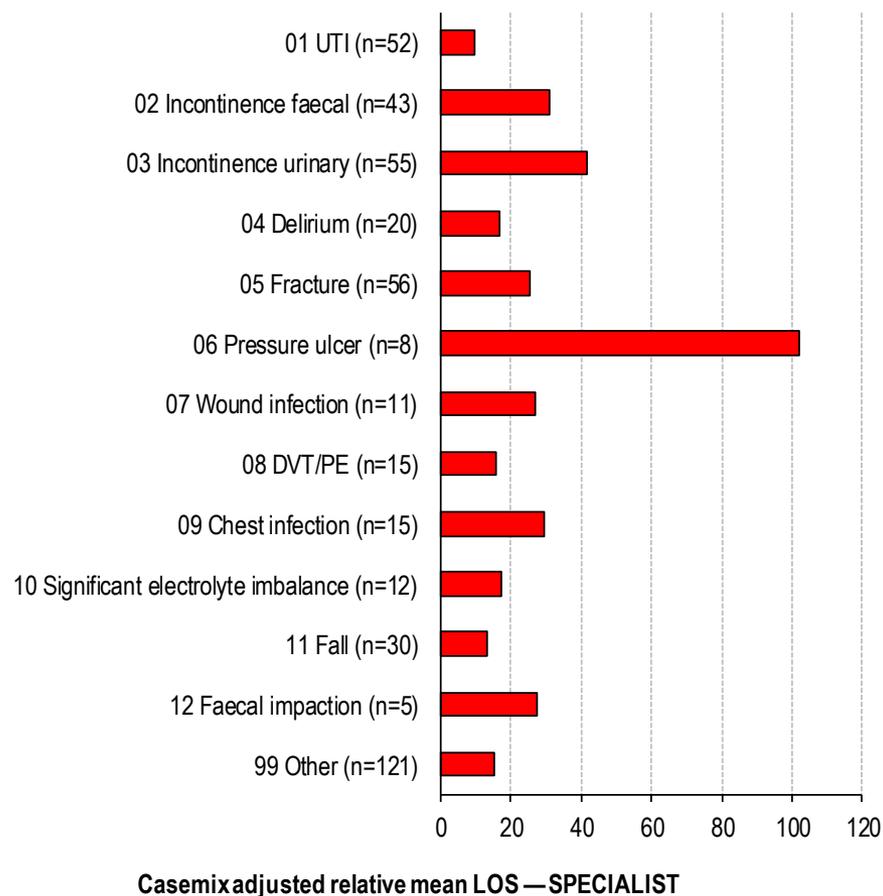
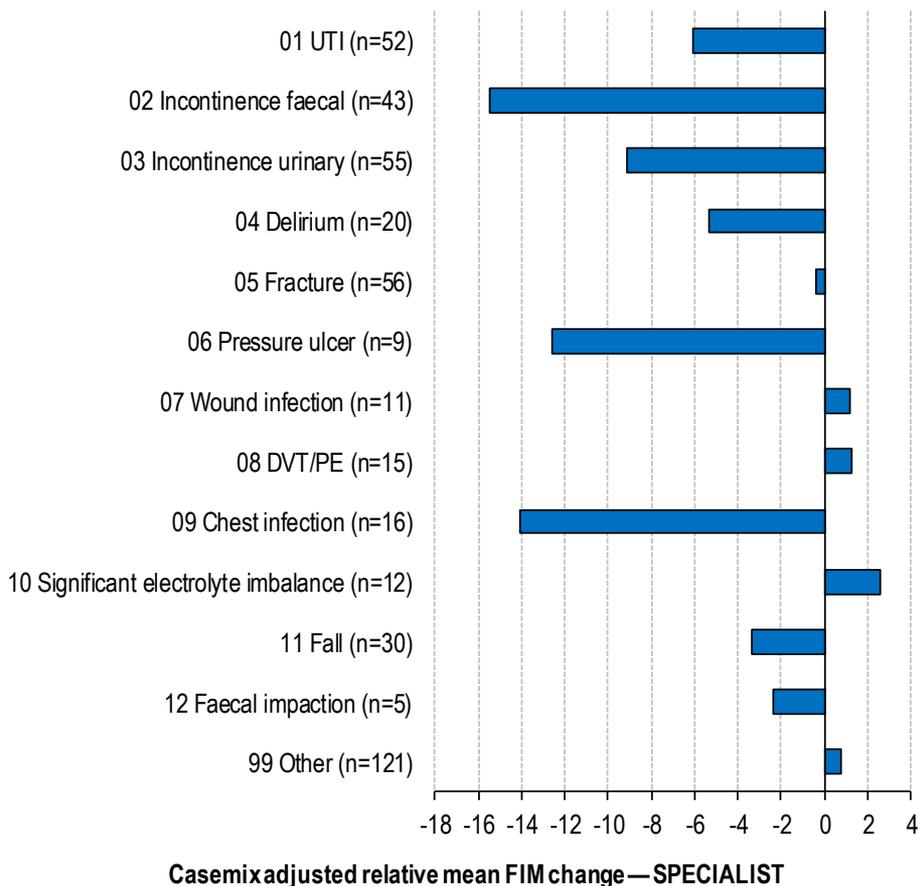
\*Casemix Adjustment is by FY2016 Specialist Units first admissions

# Casemix-adjusted\* relative mean LOS and FIM change by number of complications



\*Casemix Adjustment is by FY2016 Specialist Units first admissions

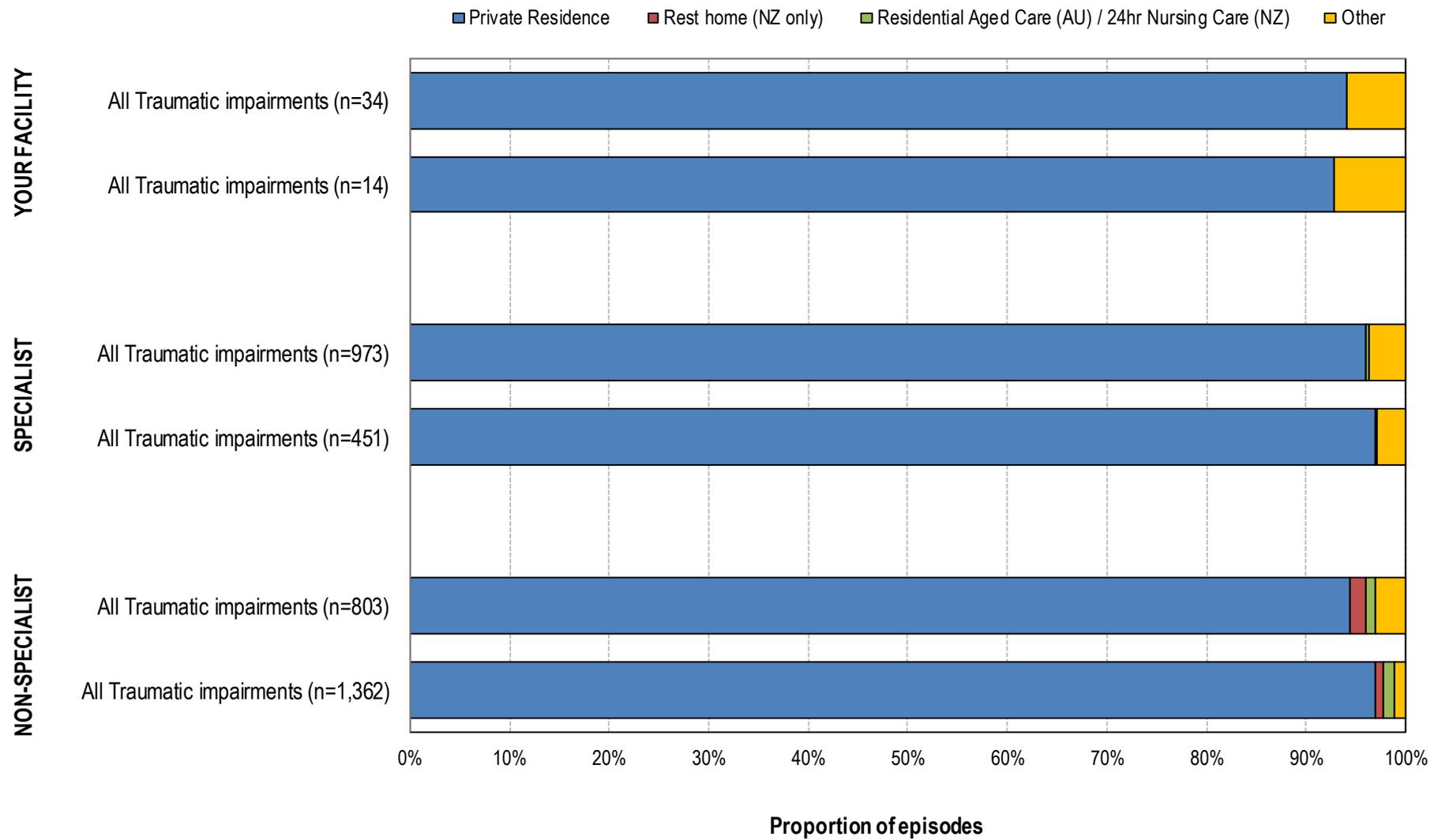
# Casemix-adjusted\* relative mean LOS and FIM change by type of complication



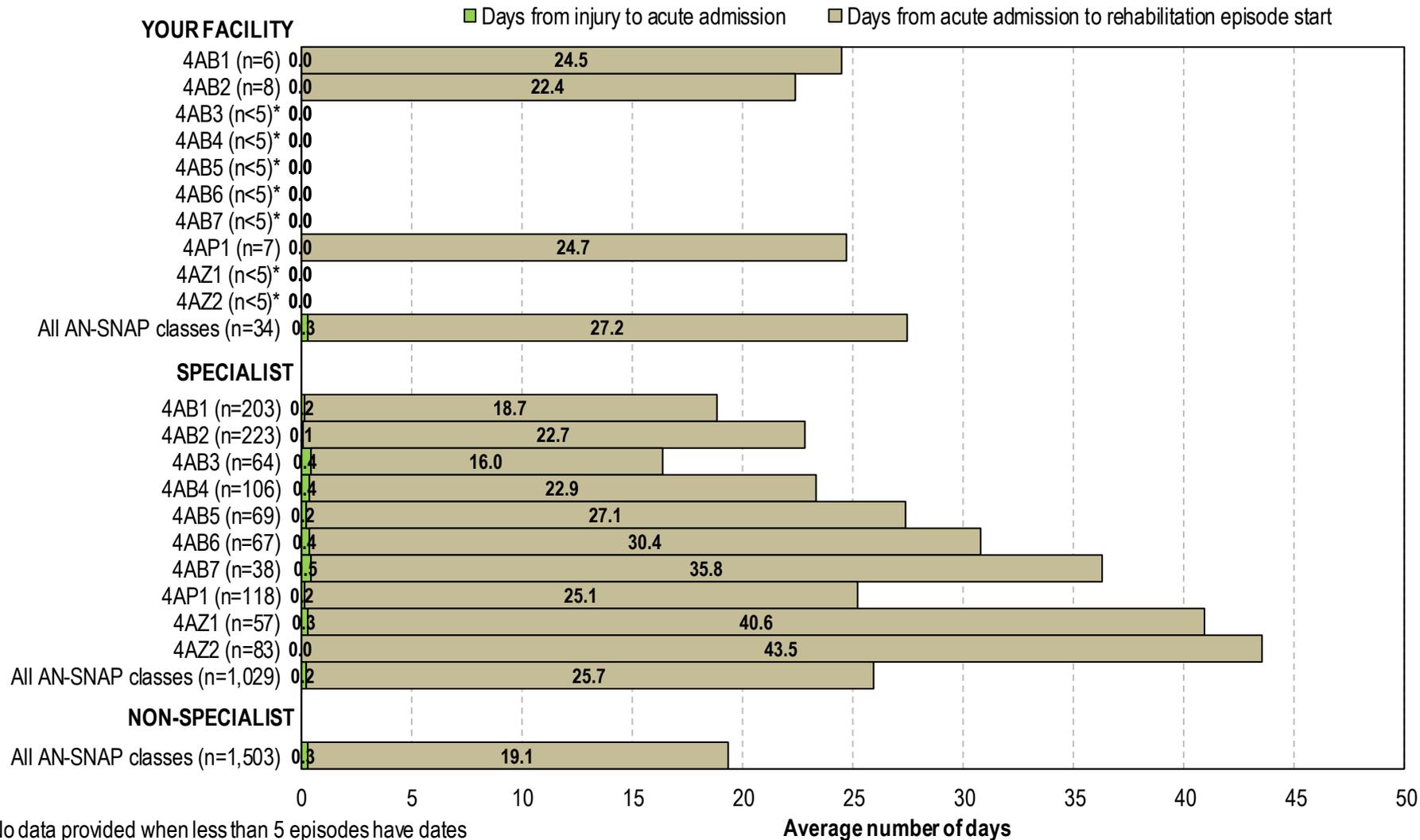
\*Casemix Adjustment is by FY2016 Specialist Units first admissions

# Explanatory Data

# Type of accommodation prior to impairment



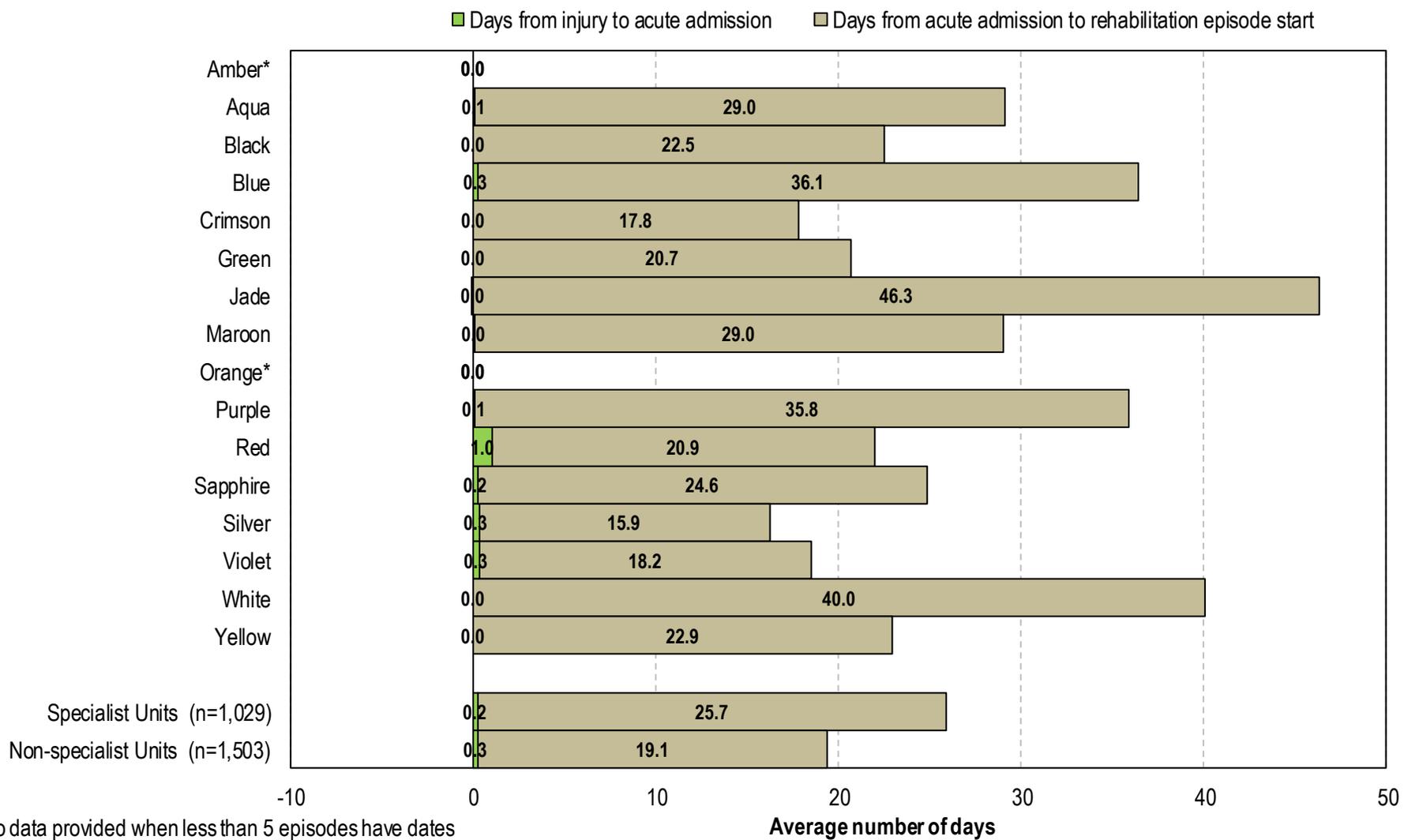
# Days from injury to episode start with an acute admission by AN-SNAP class



\*No data provided when less than 5 episodes have dates

Note: First admission episodes

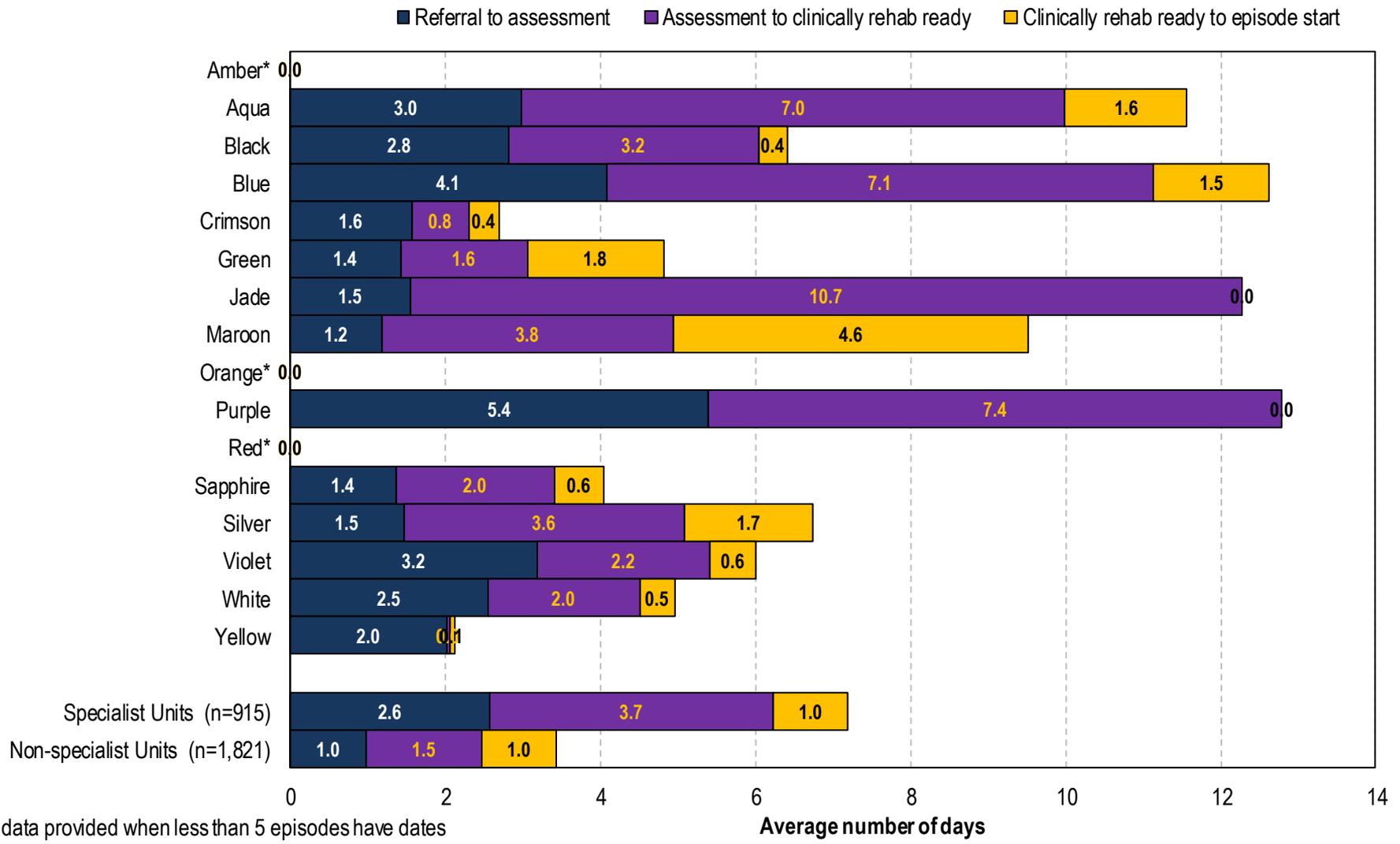
# Days from injury to episode start with an acute admission by facility



\*No data provided when less than 5 episodes have dates

Note: First admission episodes

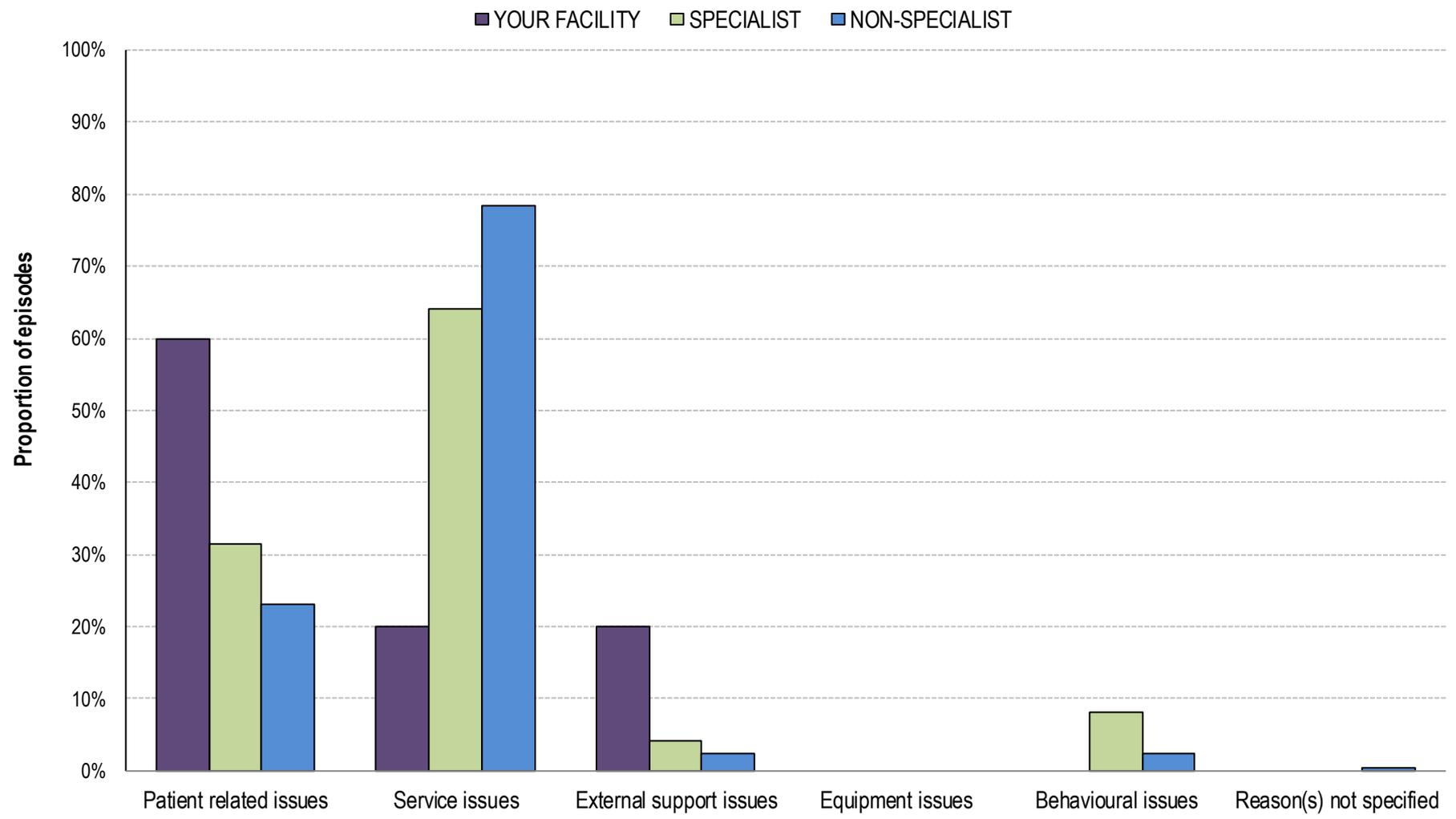
# Days from referral to episode start by facility



\*No data provided when less than 5 episodes have dates

Note: First admission episodes

# Reason for delay in episode start

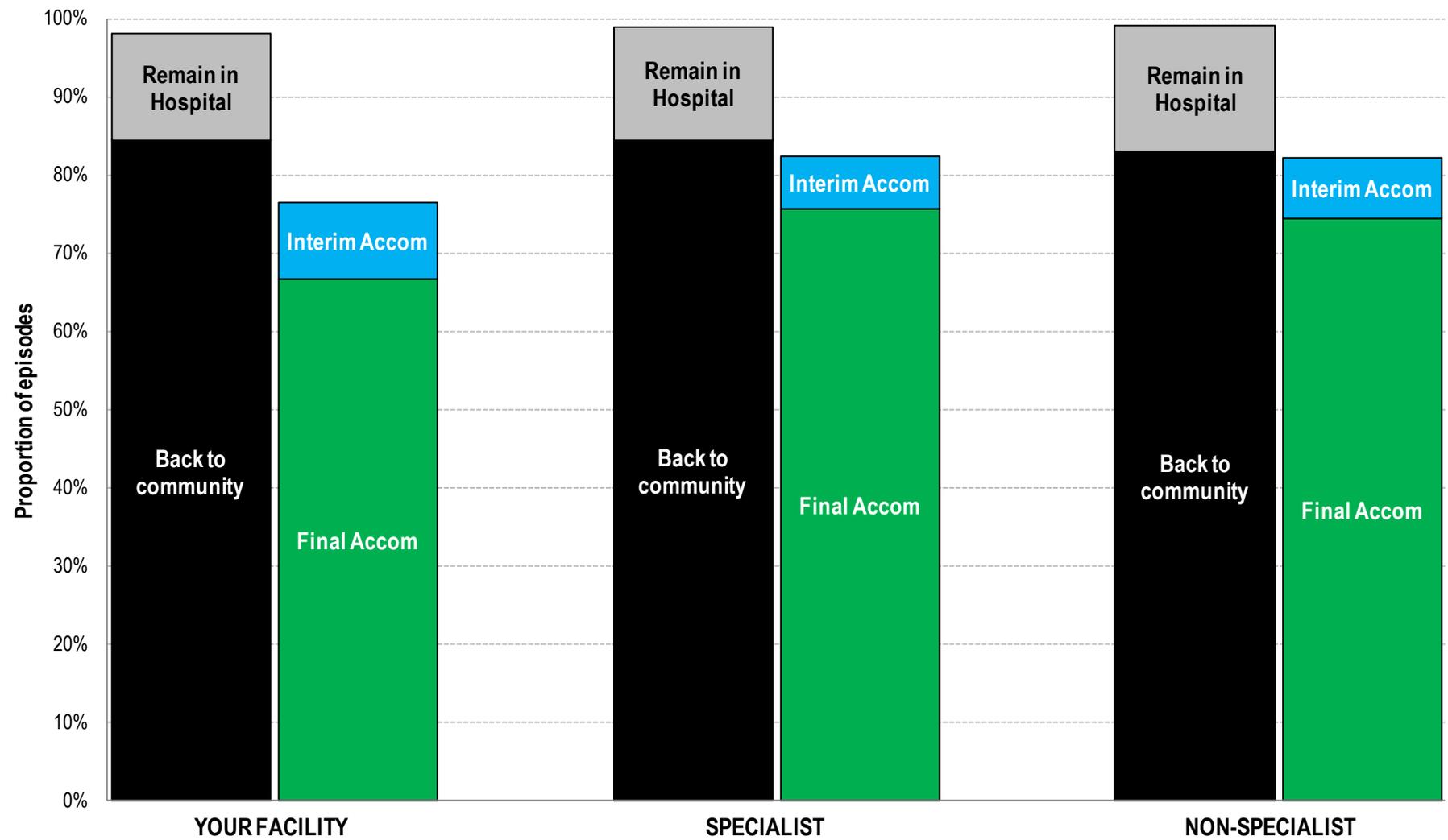


# Delays in episode start

<b>Delay in episode start</b>	<b>YOUR FACILITY</b>		<b>SPECIALIST</b>	
	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>
No delay	27	52.9	903	60.2
Delay in episode start	5	9.8	175	11.7
Missing	19		421	
<b>All episodes in private residence</b>	<b>51</b>	<b>100.0</b>	<b>1,499</b>	<b>100.0</b>

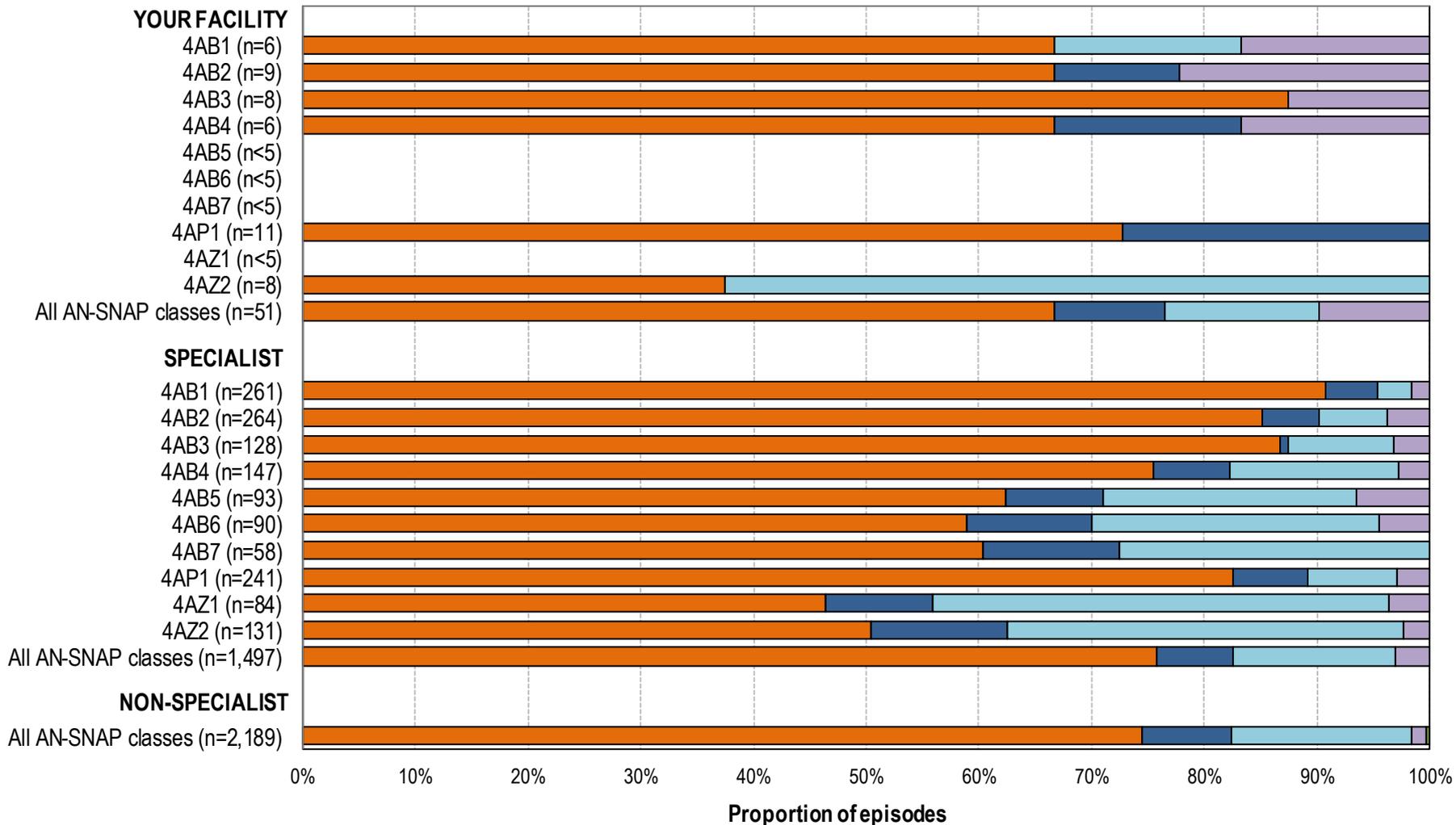
<b>Delay in episode start</b>	<b>YOUR FACILITY</b>		<b>SPECIALIST</b>	
	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>
Patient related issues	3	60.0	55	31.4
Service issues	1	20.0	112	64.0
External support issues	1	20.0	7	4.0
Equipment issues	0	—	0	0.0
Behavioural issues	0	—	14	8.0
Reason(s) not specified	0	—	0	0.0

# Discharge destination



# Mode of episode end by AN-SNAP class

■ Final Accommodation   
 ■ Interim Accommodation   
 ■ Remaining in Hospital   
 ■ Other   
 ■ Unknown

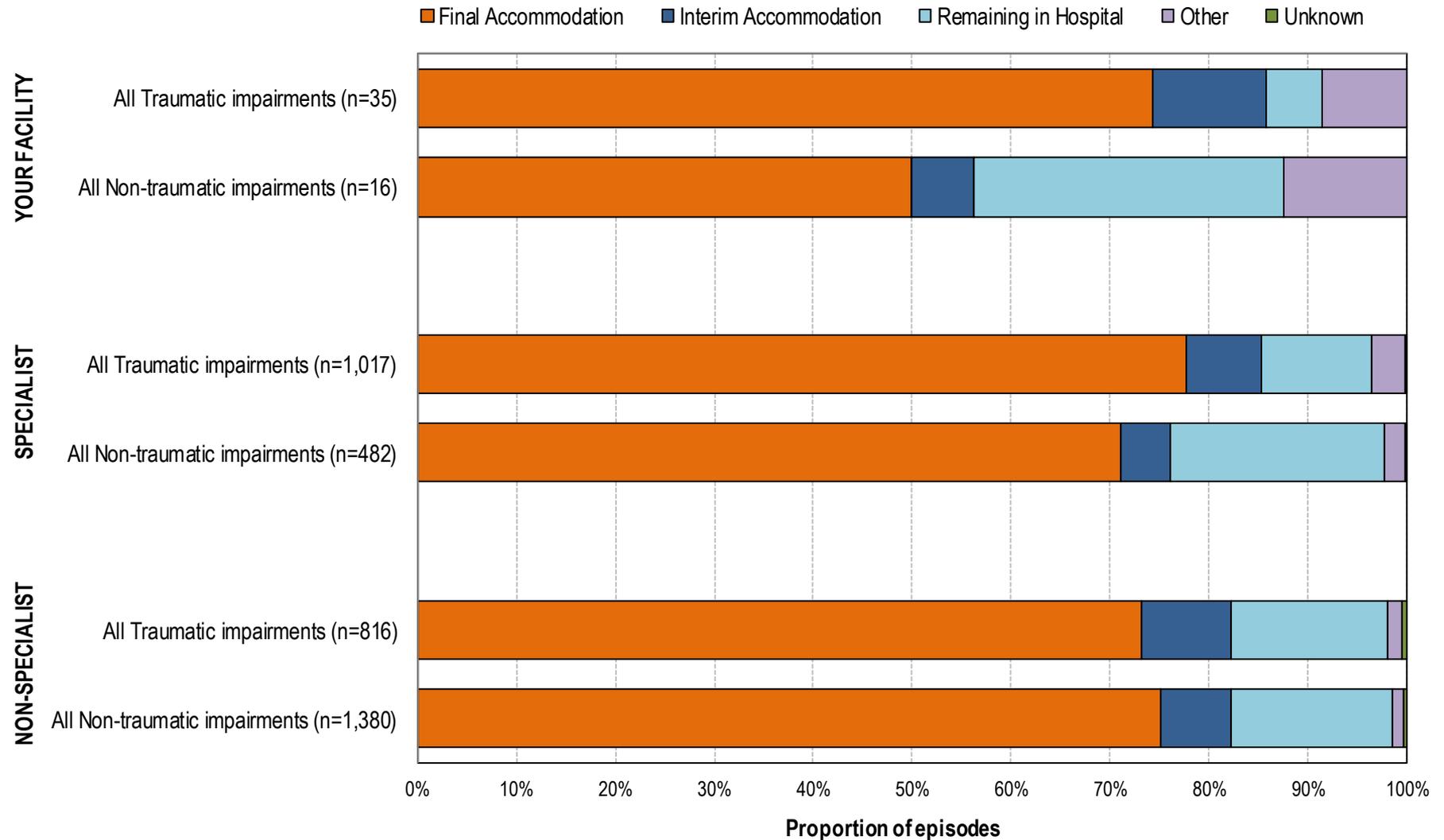


# Discharge destination by AN-SNAP class

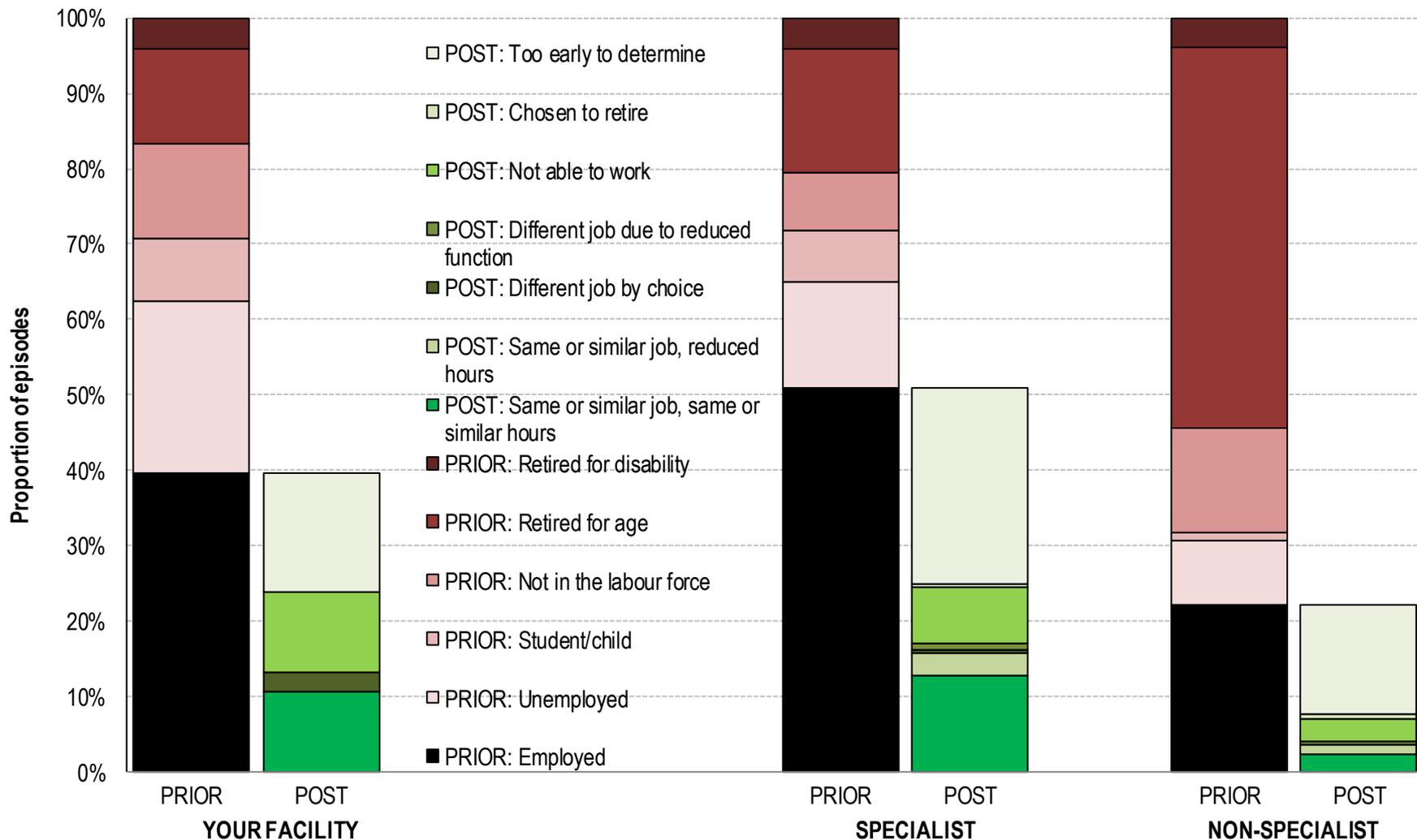


		Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown
AN-SNAP class		No.					%				
<b>Your Facility</b>	4AB1	4	0	1	1	0	66.7	0.0	16.7	16.7	0.0
	4AB2	6	1	0	2	0	66.7	11.1	0.0	22.2	0.0
	4AB3	7	0	0	1	0	87.5	0.0	0.0	12.5	0.0
	4AB4	4	1	0	1	0	66.7	16.7	0.0	16.7	0.0
	4AB5	0	0	1	0	0	0.0	0.0	100.0	0.0	0.0
	4AB6	1	0	0	0	0	100.0	0.0	0.0	0.0	0.0
	4AB7	0	0	0	0	0	—	—	—	—	—
	4AP1	8	3	0	0	0	72.7	27.3	0.0	0.0	0.0
	4AZ1	1	0	0	0	0	100.0	0.0	0.0	0.0	0.0
	4AZ2	3	0	5	0	0	37.5	0.0	62.5	0.0	0.0
<b>All AN-SNAP classes</b>		<b>34</b>	<b>5</b>	<b>7</b>	<b>5</b>	<b>0</b>	<b>66.7</b>	<b>9.8</b>	<b>13.7</b>	<b>9.8</b>	<b>0.0</b>
<b>SPECIALIST Units</b>		<b>1,134</b>	<b>101</b>	<b>217</b>	<b>45</b>	<b>0</b>	<b>75.8</b>	<b>6.7</b>	<b>14.5</b>	<b>3.0</b>	<b>0.0</b>
<b>NON-SPECIALIST Units</b>		<b>1,631</b>	<b>172</b>	<b>351</b>	<b>28</b>	<b>7</b>	<b>74.5</b>	<b>7.9</b>	<b>16.0</b>	<b>1.3</b>	<b>0.3</b>

# Traumatic and non-traumatic mode of episodes end



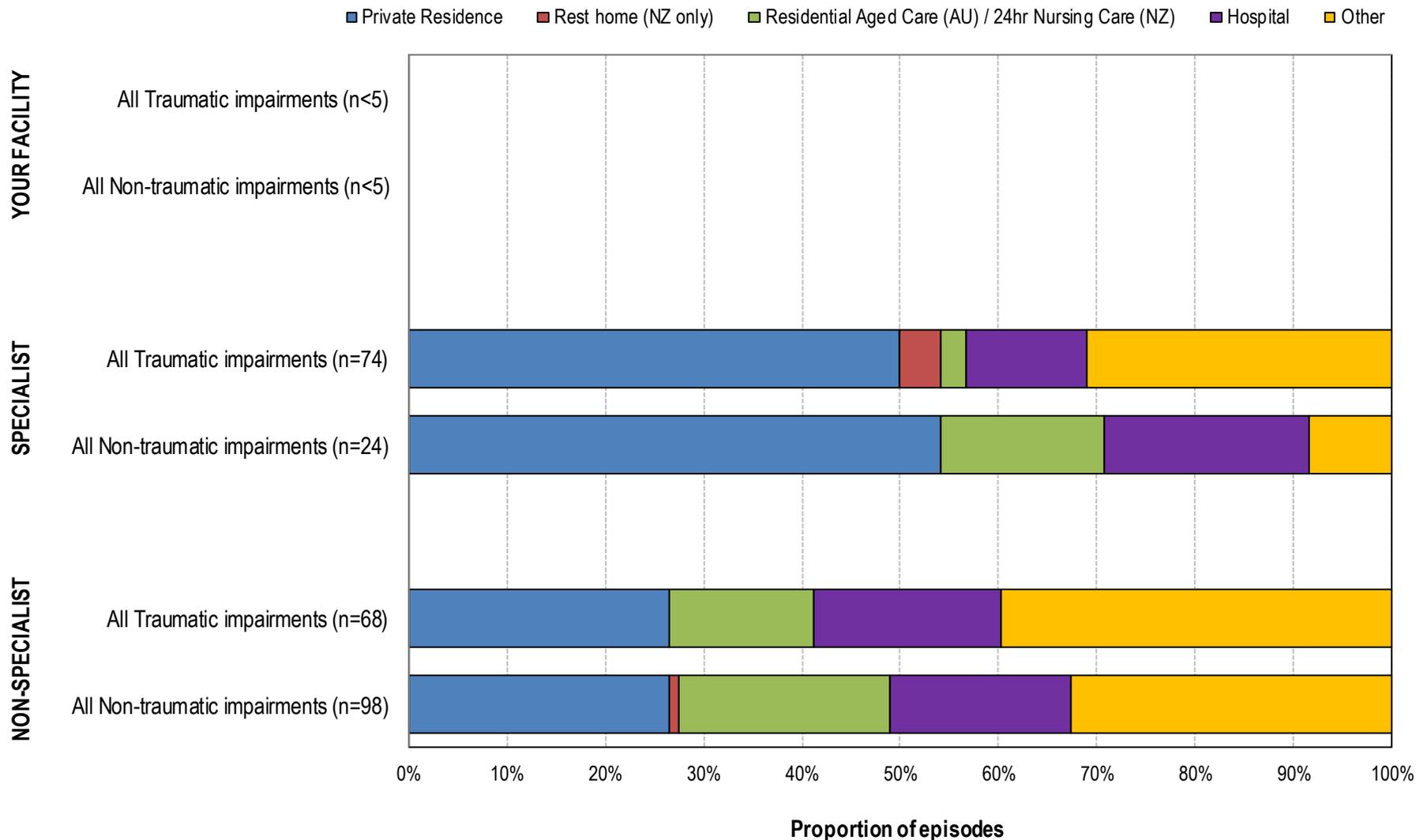
# Employment status prior and post impairment



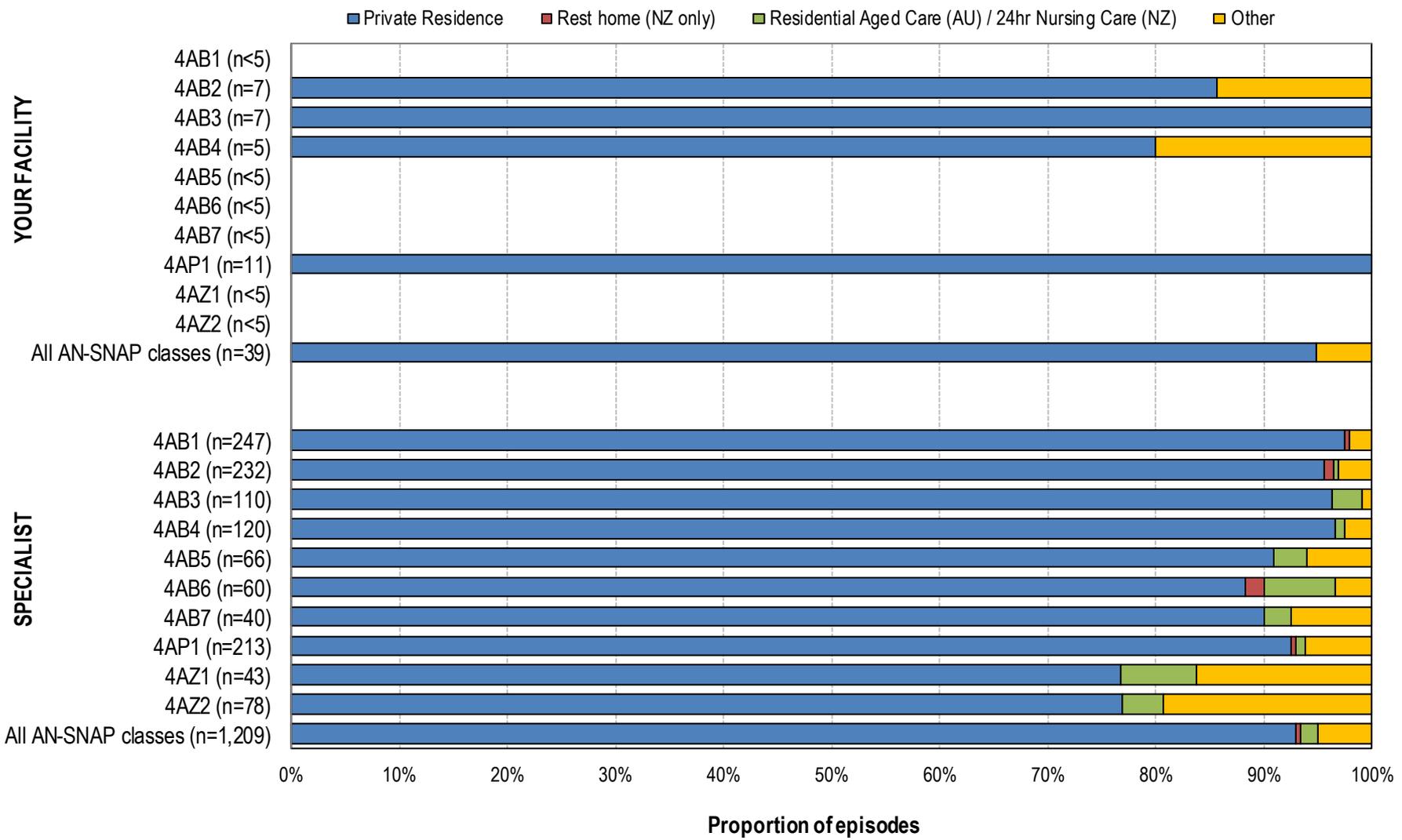
# Employment status prior and post impairment

Employment status	YOUR FACILITY		SPECIALIST		NON-SPECIALIST	
	No.	%	No.	%	No.	%
<u>Prior to this impairment:</u>						
Employed	19	39.6	722	50.8	474	22.1
Unemployed	11	22.9	202	14.2	184	8.6
Student/child	4	8.3	97	6.8	23	1.1
Not in the labour force	6	12.5	108	7.6	298	13.9
Retired for age	6	12.5	233	16.4	1087	50.6
Retired for disability	2	4.2	59	4.2	82	3.8
Not answered	3		78		48	
<b>Total</b>	<b>51</b>	<b>100.0</b>	<b>1,499</b>	<b>100.0</b>	<b>2,196</b>	<b>100.0</b>
<u>After discharge (if previously employed):</u>						
<i>Same or similar job, same or similar hour:</i>	4	26.7	142	24.8	40	10.0
<i>Same or similar job, reduced hours</i>	0	0.0	34	5.9	24	6.0
<i>Different job by choice</i>	1	6.7	5	0.9	1	0.2
<i>Different job due to reduced function</i>	0	0.0	10	1.7	6	1.5
<i>Not able to work</i>	4	26.7	84	14.7	57	14.2
<i>Chosen to retire</i>	0	0.0	6	1.0	11	2.7
<i>Too early to determine</i>	6	40.0	291	50.9	262	65.3
<i>Not answered</i>	4		150		73	
<b>Total employed prior</b>	<b>19</b>	<b>100.0</b>	<b>722</b>	<b>100.0</b>	<b>474</b>	<b>100.0</b>

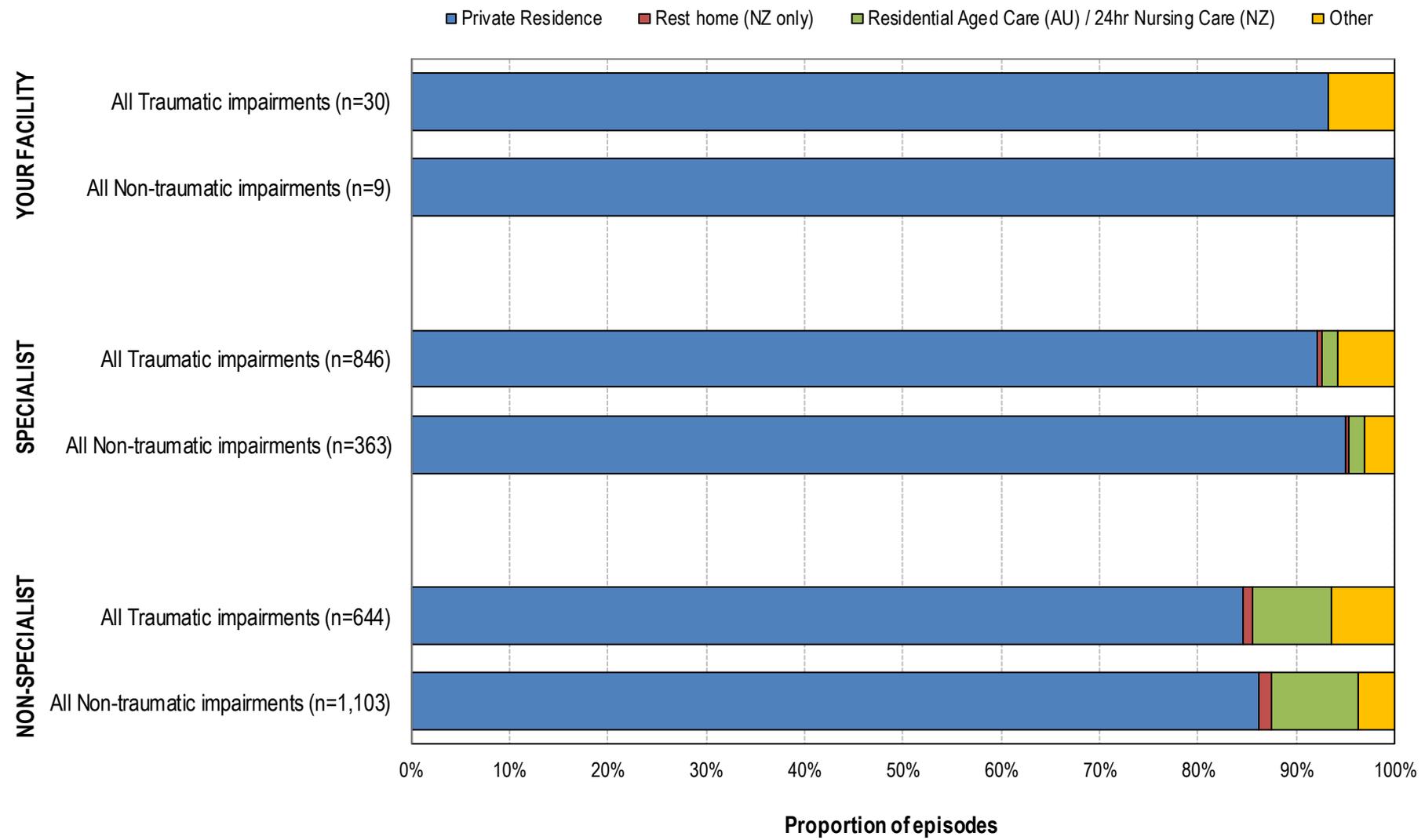
# Traumatic and non-traumatic Interim accommodation post discharge



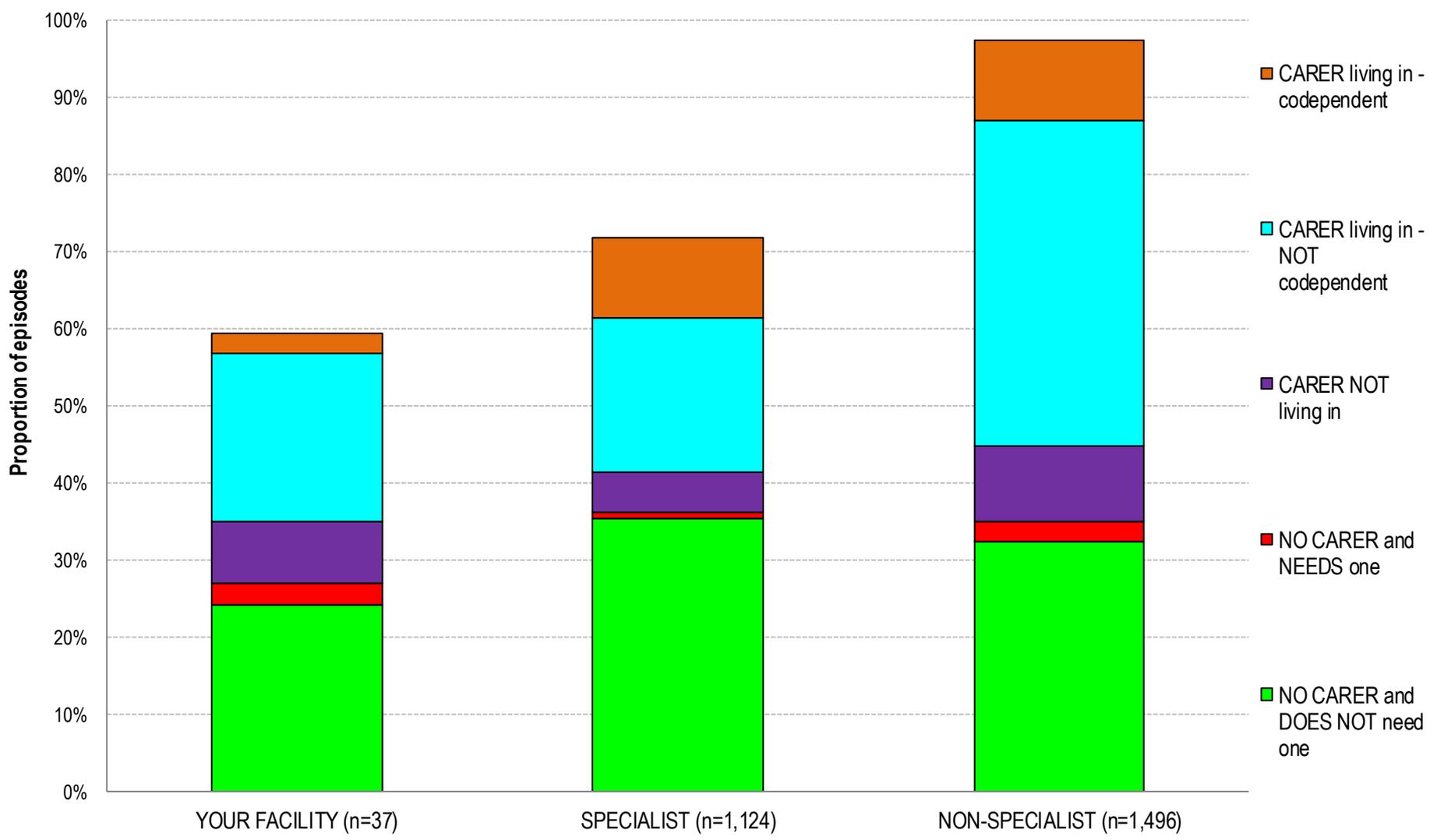
# Final accommodation post discharge by AN-SNAP class



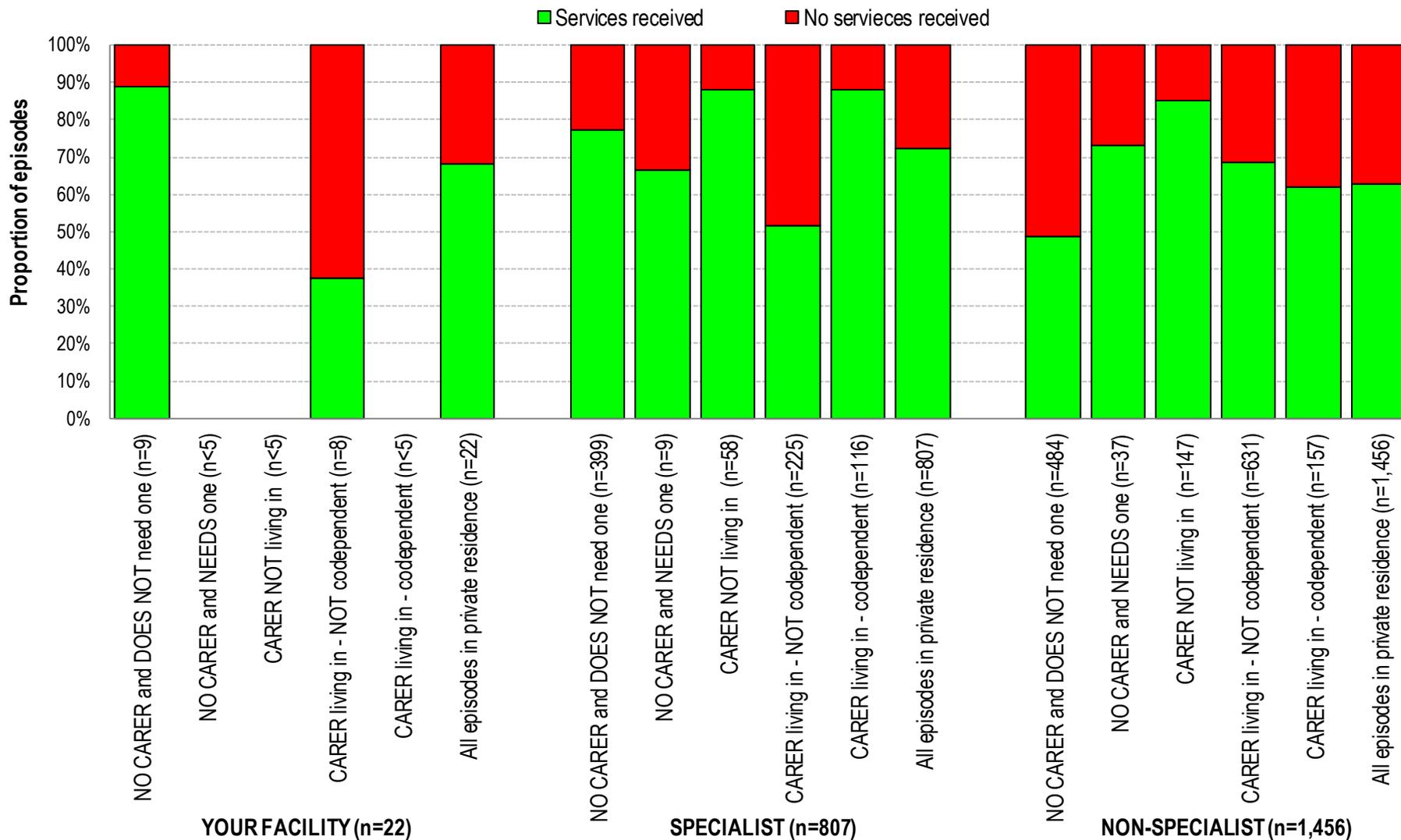
# Traumatic and non-traumatic final accommodation post discharge



# Carer status post discharge



# Any services received post discharge by carer status



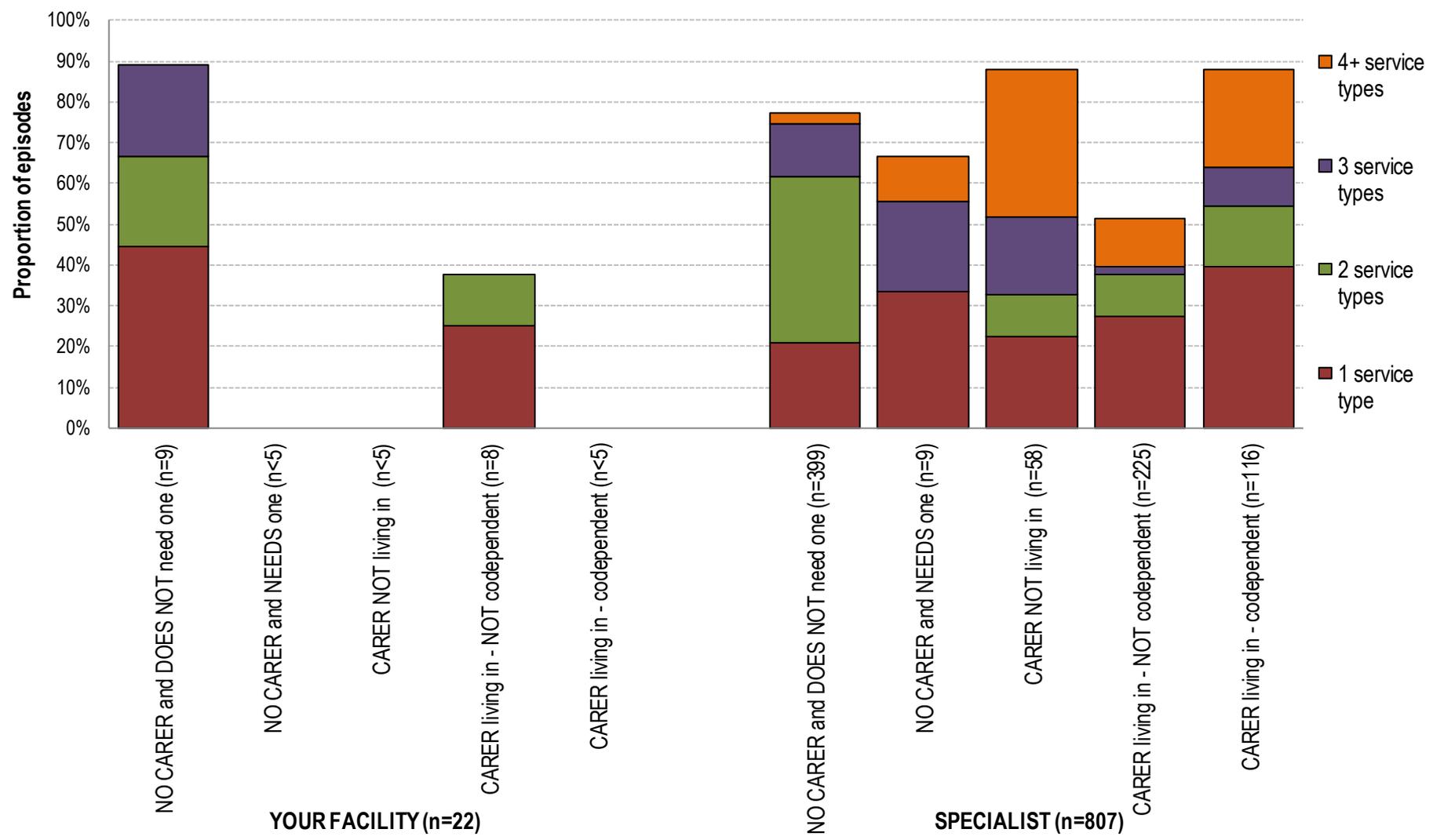
# Carer status and any services received post discharge



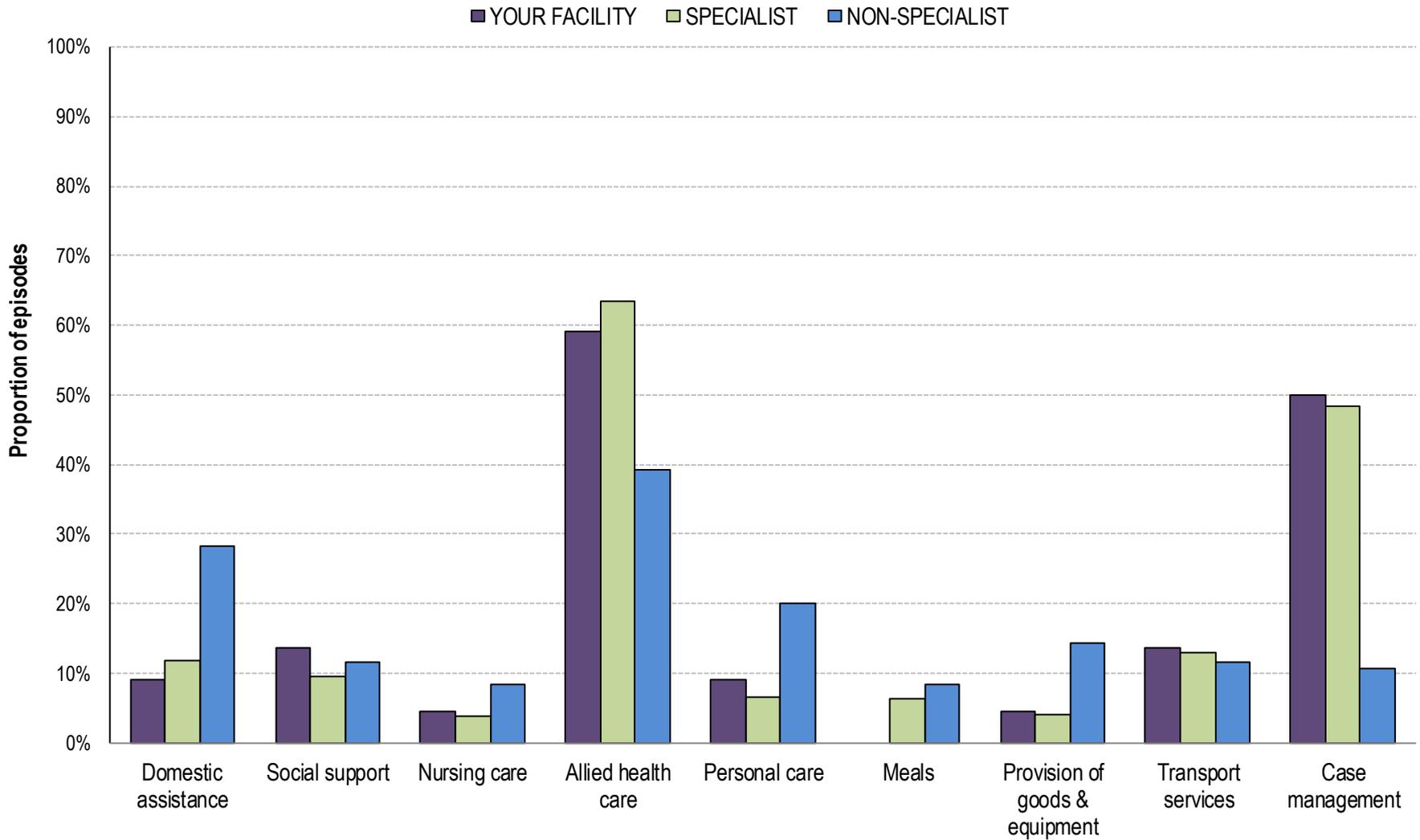
Carer status post discharge	YOUR FACILITY		SPECIALIST		NON-SPECIALIST	
	No.	%	No.	%	No.	%
NO CARER and DOES NOT need one	9	40.9	399	49.4	486	33.3
NO CARER and NEEDS one	1	4.5	9	1.1	37	2.5
CARER NOT living in	3	13.6	58	7.2	147	10.1
CARER living in - NOT codependent	8	36.4	225	27.9	632	43.3
CARER living in - codependent	1	4.5	116	14.4	157	10.8
Missing	15		317		37	
<b>All episodes in private residence</b>	<b>37</b>	<b>100.0</b>	<b>1,124</b>	<b>100.0</b>	<b>1,496</b>	<b>100.0</b>

Carer status post discharge	Any services received post discharge?					
	YOUR FACILITY		SPECIALIST		NON-SPECIALIST	
	Yes (%)	No (%)	Yes (%)	No (%)	Yes (%)	No (%)
NO CARER and DOES NOT need one	88.9	11.1	77.2	22.8	48.4	51.23
NO CARER and NEEDS one	100.0	0.0	66.7	33.3	73.0	27.03
CARER NOT living in	100.0	0.0	87.9	12.1	85.0	14.97
CARER living in - NOT codependent	37.5	62.5	51.6	48.4	68.4	31.49
CARER living in - codependent	0.0	100.0	87.9	12.1	61.8	38.22
<b>All episodes in private residence</b>	<b>68.2</b>	<b>31.8</b>	<b>72.2</b>	<b>27.8</b>	<b>62.8</b>	<b>37.0</b>

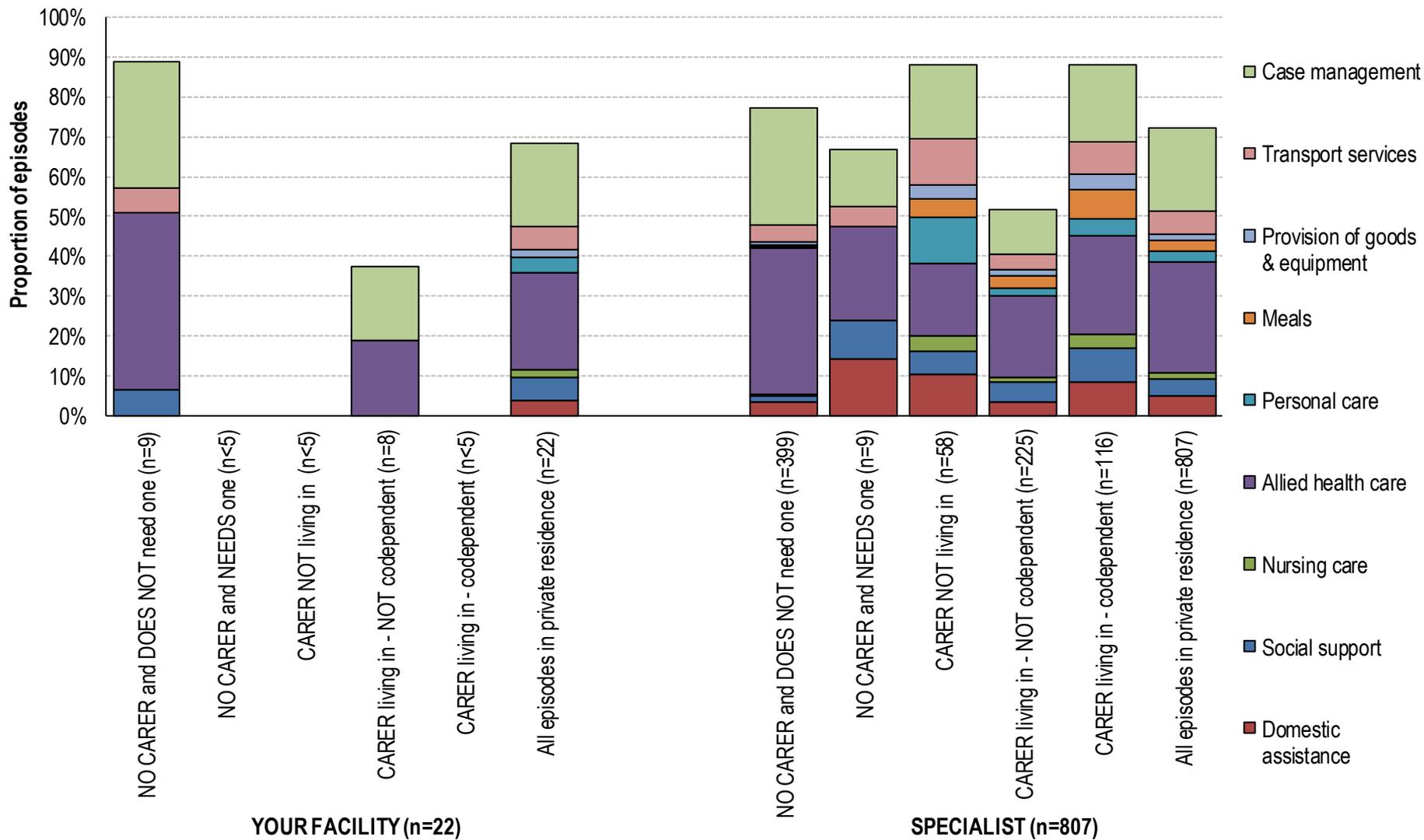
# Number of services received post discharge by carer status



# Type of services received post discharge



# Type of services received post discharge by carer status



# Number and type of services received post Discharge by carer status – YOUR FACILITY

Services received post discharge (NOTE: Discharge to private residence)	Carer status post discharge - YOUR FACILITY					
	NO CARER and DOES NOT need one	NO CARER and NEEDS one	CARER NOT living in	CARER living in - NOT codependent	CARER living in - codependent	All episodes in private residence
Number of episodes in private residence	9	1	3	8	1	
<b>Percent of episodes receiving:</b>						
No services	11.1	0.0	0.0	62.5	100.0	<b>31.8</b>
1 service type	44.4	0.0	0.0	25.0	0.0	<b>27.3</b>
2 service types	22.2	0.0	33.3	12.5	0.0	<b>18.2</b>
3 service types	22.2	0.0	0.0	0.0	0.0	<b>9.1</b>
4 or more service types	0.0	100.0	66.7	0.0	0.0	<b>13.6</b>
<b>Service Type received</b>						
Domestic assistance	0.0	100.0	33.3	0.0	0.0	<b>0.1</b>
Social support	11.1	100.0	33.3	0.0	0.0	<b>0.1</b>
Nursing care	0.0	0.0	33.3	0.0	0.0	<b>0.0</b>
Allied health care	77.8	100.0	100.0	25.0	0.0	<b>0.6</b>
Personal care	0.0	0.0	66.7	0.0	0.0	<b>0.1</b>
Meals	0.0	0.0	0.0	0.0	0.0	<b>0.0</b>
Provision of goods & equipment	0.0	0.0	33.3	0.0	0.0	<b>0.0</b>
Transport services	11.1	100.0	33.3	0.0	0.0	<b>0.1</b>
Case management	55.6	100.0	100.0	25.0	0.0	<b>0.5</b>

# Number and type of services received post Discharge by carer status – SPECIALIST

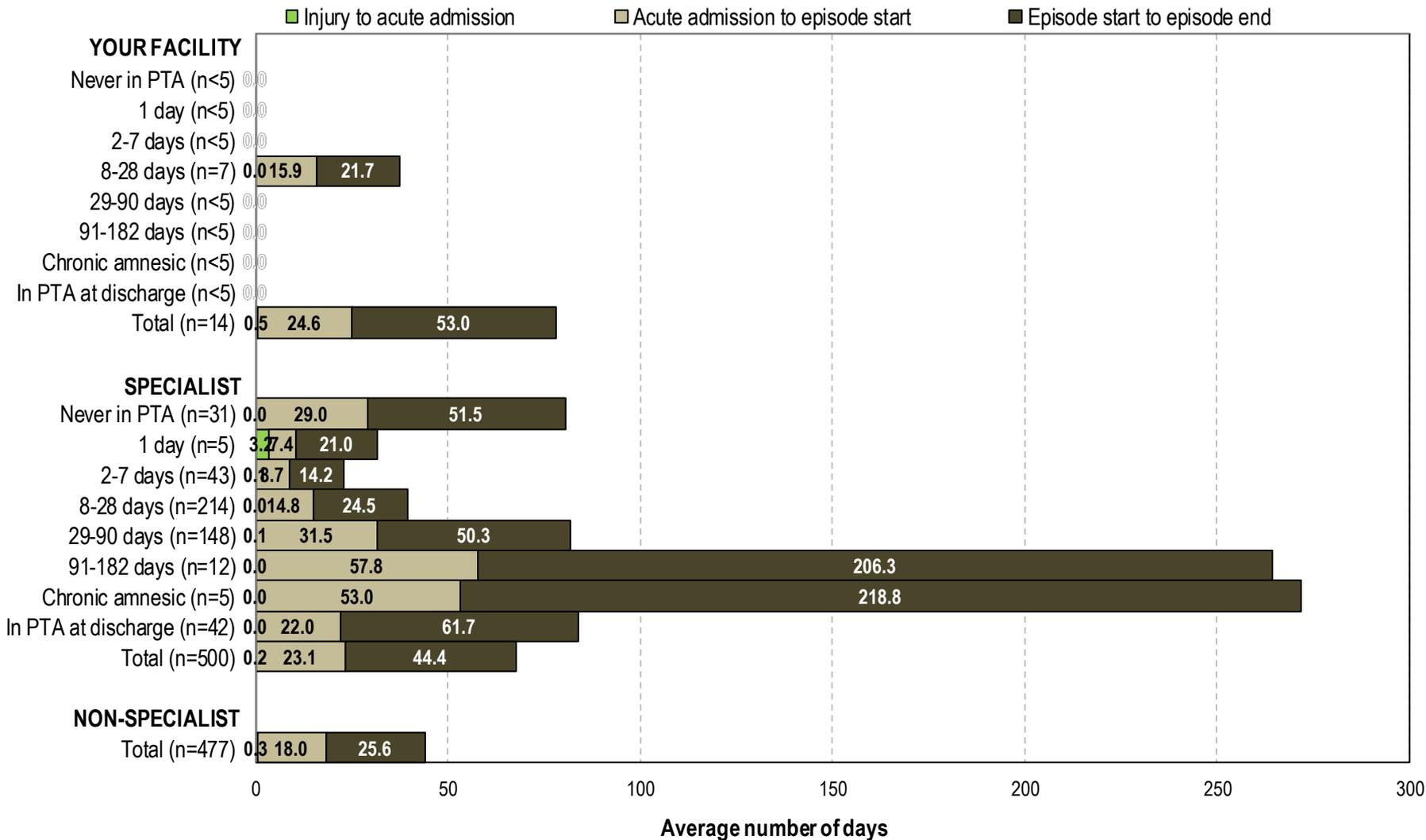
Services received post discharge (NOTE: Discharge to private residence)	Carer status post discharge - SPECIALIST					
	NO CARER and DOES NOT need one	NO CARER and NEEDS one	CARER NOT living in	CARER living in - NOT codependent	CARER living in - codependent	All episodes in private residence
Number of episodes in private residence	399	9	58	225	116	
<b>Percent of episodes receiving:</b>						
No services	22.8	33.3	12.1	48.4	12.1	<b>27.8</b>
1 service type	20.8	33.3	22.4	27.1	39.7	<b>25.5</b>
2 service types	40.9	0.0	10.3	10.2	14.7	<b>25.9</b>
3 service types	12.8	22.2	19.0	2.2	9.5	<b>9.9</b>
4 or more service types	2.8	11.1	36.2	11.6	24.1	<b>10.8</b>
<b>Service Type received</b>						
Domestic assistance	6.5	33.3	36.2	8.0	24.1	<b>0.1</b>
Social support	3.0	22.2	19.0	10.7	24.1	<b>0.1</b>
Nursing care	1.3	0.0	13.8	3.1	9.5	<b>0.0</b>
Allied health care	72.4	55.6	62.1	44.9	69.8	<b>0.6</b>
Personal care	1.0	0.0	39.7	4.4	12.9	<b>0.1</b>
Meals	1.0	0.0	15.5	6.7	19.8	<b>0.1</b>
Provision of goods & equipment	1.3	0.0	12.1	3.6	11.2	<b>0.0</b>
Transport services	8.5	11.1	39.7	8.9	23.3	<b>0.1</b>
Case management	58.1	33.3	63.8	24.4	54.3	<b>0.5</b>

# Number and type of services received post Discharge by carer status – NON SPECIALIST

Services received post discharge (NOTE: Discharge to private residence)	Carer status post discharge - NON-SPECIALIST					
	NO CARER and DOES NOT need one	NO CARER and NEEDS one	CARER NOT living in	CARER living in - NOT codependent	CARER living in - codependent	All episodes in private residence
Number of episodes in private residence	486	37	147	632	157	
<b>Percent of episodes receiving:</b>						
No services	51.2	27.0	15.0	31.5	38.2	<b>37.0</b>
1 service type	24.9	27.0	17.7	27.7	24.8	<b>25.4</b>
2 service types	10.9	21.6	20.4	15.3	15.3	<b>14.5</b>
3 service types	7.4	8.1	13.6	9.3	8.9	<b>9.0</b>
4 or more service types	5.1	16.2	33.3	16.0	12.7	<b>13.8</b>
<b>Service Type received</b>						
Domestic assistance	20.8	32.4	57.1	27.4	25.5	<b>0.3</b>
Social support	4.9	13.5	24.5	13.9	10.8	<b>0.1</b>
Nursing care	5.6	5.4	13.6	10.1	6.4	<b>0.1</b>
Allied health care	28.2	45.9	44.9	45.3	40.8	<b>0.4</b>
Personal care	9.5	32.4	46.3	21.5	19.1	<b>0.2</b>
Meals	4.1	2.7	21.1	9.0	7.0	<b>0.1</b>
Provision of goods & equipment	7.6	18.9	25.2	16.0	17.2	<b>0.1</b>
Transport services	6.0	13.5	19.0	13.8	12.1	<b>0.1</b>
Case management	6.6	18.9	21.1	10.3	12.1	<b>0.1</b>

# Brain Injury Specific Data

# Days from injury to episode start with an acute admission by duration of PTA



# ALOS by AN-SNAP class and duration of PTA



AN-SNAP class	YOUR FACILITY							
	Never in PTA	1 day	2-7 days	8-28 days	29-90 days	91-182 days	Chronic amnesic	In PTA at discharge
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	—	—	—	—	—	—	—	—
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	—	—	—	—	—	—	—	—
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	—	—	—	—	—	—	—	—
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	—	—	—	—	—	—	—	—
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	—	—	—	—	—	—	—	—
4AB6 (BI, weighted FIM motor 29-40)	—	—	—	—	—	—	—	—
4AB7 (BI, weighted FIM motor 19-28)	—	—	—	—	—	—	—	—
4AP1 (MMT, weighted FIM motor 19-91)	—	—	—	—	—	—	—	—
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	—	—	—	—
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	—	—	—	—	—
<b>All Brain AN-SNAP classes</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>19.9</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>

AN-SNAP class	SPECIALIST							
	Never in PTA	1 day	2-7 days	8-28 days	29-90 days	91-182 days	Chronic amnesic	In PTA at discharge
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	13.8	—	9.8	14.9	17.3	—	—	—
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	14.2	—	17.7	20.3	34.0	—	—	54.0
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	—	—	—	21.4	44.2	—	—	—
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	33.4	—	—	28.5	36.4	—	—	—
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	—	—	—	30.6	46.3	—	—	53.3
4AB6 (BI, weighted FIM motor 29-40)	91.4	—	—	—	52.2	—	—	40.0
4AB7 (BI, weighted FIM motor 19-28)	—	—	—	—	—	—	—	—
4AP1 (MMT, weighted FIM motor 19-91)	—	—	14.4	28.2	41.0	—	—	53.0
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	66.9	—	—	98.8
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	—	79.6	230.3	—	93.4
<b>All Brain AN-SNAP classes</b>	<b>46.2</b>	<b>18.8</b>	<b>13.9</b>	<b>22.5</b>	<b>46.9</b>	<b>167.9</b>	<b>184.7</b>	<b>58.0</b>

AN-SNAP class	NON-SPECIALIST							
	Never in PTA	1 day	2-7 days	8-28 days	29-90 days	91-182 days	Chronic amnesic	In PTA at discharge
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	10.3	—	9.7	11.5	—	—	—	—
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	37.8	—	—	11.5	38.4	—	—	—
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	16.8	11.3	14.0	16.1	17.2	—	—	—
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	20.6	12.0	20.0	20.3	32.1	—	—	28.4
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	28.2	—	—	—	—	—	—	33.6
4AB6 (BI, weighted FIM motor 29-40)	18.9	—	—	18.9	—	—	—	—
4AB7 (BI, weighted FIM motor 19-28)	22.1	—	—	—	—	—	—	—
4AP1 (MMT, weighted FIM motor 19-91)	—	—	—	21.6	—	—	—	—
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	—	—	—	—
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	—	—	—	—	—
<b>All Brain AN-SNAP classes</b>	<b>19.5</b>	<b>16.6</b>	<b>16.1</b>	<b>17.1</b>	<b>35.5</b>	<b>—</b>	<b>—</b>	<b>30.5</b>

# Average FIM admission by AN-SNAP class and duration of PTA



AN-SNAP class	YOUR FACILITY							
	Never in PTA	1 day	2-7 days	8-28 days	29-90 days	91-182 days	Chronic amnesic	In PTA at discharge
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	—	—	—	—	—	—	—	—
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	—	—	—	—	—	—	—	—
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	—	—	—	—	—	—	—	—
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	—	—	—	—	—	—	—	—
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	—	—	—	—	—	—	—	—
4AB6 (BI, weighted FIM motor 29-40)	—	—	—	—	—	—	—	—
4AB7 (BI, weighted FIM motor 19-28)	—	—	—	—	—	—	—	—
4AP1 (MMT, weighted FIM motor 19-91)	—	—	—	—	—	—	—	—
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	—	—	—	—
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	—	—	—	—	—
<b>All Brain AN-SNAP classes</b>	—	—	—	<b>102.9</b>	—	—	—	—

AN-SNAP class	SPECIALIST							
	Never in PTA	1 day	2-7 days	8-28 days	29-90 days	91-182 days	Chronic amnesic	In PTA at discharge
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	111.3	—	114.9	111.5	112.3	—	—	—
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	102.1	—	101.3	103.4	103.1	—	—	99.7
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	—	—	—	89.5	87.2	—	—	—
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	71.4	—	—	80.2	76.6	—	—	—
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	—	—	—	67.4	66.9	—	—	64.8
4AB6 (BI, weighted FIM motor 29-40)	47.6	—	—	—	47.8	—	—	46.4
4AB7 (BI, weighted FIM motor 19-28)	—	—	—	—	—	—	—	—
4AP1 (MMT, weighted FIM motor 19-91)	—	—	103.3	93.9	71.9	—	—	70.8
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	26.4	—	—	21.2
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	—	21.1	20.0	—	20.4
<b>All Brain AN-SNAP classes</b>	<b>80.2</b>	<b>95.3</b>	<b>106.3</b>	<b>98.1</b>	<b>68.3</b>	<b>37.5</b>	<b>39.9</b>	<b>59.7</b>

AN-SNAP class	NON-SPECIALIST							
	Never in PTA	1 day	2-7 days	8-28 days	29-90 days	91-182 days	Chronic amnesic	In PTA at discharge
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	108.7	—	106.0	111.8	—	—	—	—
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	101.3	—	—	104.2	96.7	—	—	—
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	87.3	88.3	87.2	85.8	89.2	—	—	—
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	76.0	77.3	—	79.3	74.0	—	—	78.8
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	65.6	—	—	—	—	—	—	65.8
4AB6 (BI, weighted FIM motor 29-40)	49.6	—	—	56.5	—	—	—	—
4AB7 (BI, weighted FIM motor 19-28)	33.3	—	—	—	—	—	—	—
4AP1 (MMT, weighted FIM motor 19-91)	—	—	—	79.1	—	—	—	—
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	—	—	—	—
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	—	—	—	—	—
<b>All Brain AN-SNAP classes</b>	<b>82.8</b>	<b>73.3</b>	<b>86.3</b>	<b>85.0</b>	<b>73.5</b>	—	—	<b>72.4</b>

# Average FIM change by AN-SNAP class and duration of PTA



AN-SNAP class	YOUR FACILITY							
	Never in PTA	1 day	2-7 days	8-28 days	29-90 days	91-182 days	Chronic amnesic	In PTA at discharge
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	—	—	—	—	—	—	—	—
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	—	—	—	—	—	—	—	—
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	—	—	—	—	—	—	—	—
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	—	—	—	—	—	—	—	—
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	—	—	—	—	—	—	—	—
4AB6 (BI, weighted FIM motor 29-40)	—	—	—	—	—	—	—	—
4AB7 (BI, weighted FIM motor 19-28)	—	—	—	—	—	—	—	—
4AP1 (MMT, weighted FIM motor 19-91)	—	—	—	—	—	—	—	—
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	—	—	—	—
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	—	—	—	—	—
<b>All Brain AN-SNAP classes</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>14.9</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>

AN-SNAP class	SPECIALIST							
	Never in PTA	1 day	2-7 days	8-28 days	29-90 days	91-182 days	Chronic amnesic	In PTA at discharge
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	7.2	—	9.1	10.8	8.3	—	—	—
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	10.6	—	20.0	16.8	13.7	—	—	14.8
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	—	—	—	32.7	29.0	—	—	—
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	46.8	—	—	38.5	38.8	—	—	—
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	—	—	—	49.4	46.9	—	—	41.2
4AB6 (BI, weighted FIM motor 29-40)	61.6	—	—	—	60.6	—	—	28.6
4AB7 (BI, weighted FIM motor 19-28)	—	—	—	—	—	—	—	—
4AP1 (MMT, weighted FIM motor 19-91)	—	—	17.1	24.1	42.5	—	—	28.3
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	83.8	—	—	43.4
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	—	84.6	52.0	—	47.6
<b>All Brain AN-SNAP classes</b>	<b>28.0</b>	<b>21.8</b>	<b>15.7</b>	<b>22.3</b>	<b>45.2</b>	<b>53.2</b>	<b>23.9</b>	<b>35.7</b>

AN-SNAP class	NON-SPECIALIST							
	Never in PTA	1 day	2-7 days	8-28 days	29-90 days	91-182 days	Chronic amnesic	In PTA at discharge
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	10.1	—	13.7	8.0	—	—	—	—
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	13.5	—	—	13.5	15.7	—	—	—
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	21.5	20.4	20.3	27.6	26.0	—	—	—
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	22.6	14.4	—	30.0	34.4	—	—	19.5
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	25.6	—	—	—	—	—	—	33.6
4AB6 (BI, weighted FIM motor 29-40)	24.3	—	—	34.9	—	—	—	—
4AB7 (BI, weighted FIM motor 19-28)	29.7	—	—	—	—	—	—	—
4AP1 (MMT, weighted FIM motor 19-91)	—	—	—	33.9	—	—	—	—
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	—	—	—	—
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	—	—	—	—	—
<b>All Brain AN-SNAP classes</b>	<b>20.1</b>	<b>24.1</b>	<b>19.2</b>	<b>23.2</b>	<b>32.1</b>	<b>—</b>	<b>—</b>	<b>24.8</b>

# Appendix 1: Glossary

## ***AN-SNAP class***

The Australian National Sub-Acute and Non-Acute Patient Classification (AN-SNAP) is a casemix classification for sub-acute and non-acute care provided in a variety of treatment settings. Version 4, introduced in July 2016 and used in these reports, uses the episode's impairment, age, weighted FIM motor admission score and FIM cognition score to determine which of 50 inpatient (admitted overnight adult) rehabilitation classes the episode should be assigned to.

Between AN-SNAP V3 and V4 there have been some minor refinements to the positioning of age and FIM score splits, however the greatest change has been the introduction of impairment-specific weights to FIM item scores in the calculation of a motor score, the introduction of reconditioning only classes and the removal of orthopaedic replacement classes (now grouped with all other orthopaedic conditions). Refer Appendix 3 for the full list of classes and the section Impairment-specific weighted FIM scores below for more detail about how the items are weighted. For more information about AN-SNAP class V4 please refer to the AROC website.

## ***AROC***

The Australasian Rehabilitation Outcomes Centre (AROC) was established in 2002 and current membership encompasses close to 100% of all Australian and New Zealand rehabilitation facilities. Facilities routinely submit deidentified data to AROC for each rehabilitation episode, including information about demographics, process indicators and functional status.

## ***Benchmark group***

In Calendar Year 2015 new benchmark groups have been introduced. With the exception of brain injury and spinal cord dysfunction an episode's benchmark group is determined by the country of the submitting facility and can be either Australia or New Zealand. For episodes recorded as brain injury or spinal cord dysfunction (or major multi trauma involving brain injury and/or spinal cord dysfunction) the benchmark group is determined by first admission episodes reported by all specialist (brain/spinal) units in both Australia and New Zealand. The benchmark data set is all episodes during the reporting period in the AROC database.

# Glossary ... continued



## ***Casemix-adjusted relative mean***

A comparison of some statistics such as length of stay and FIM change is only possible if the groups being compared comprise similar episodes. The specific impairment, level of functional independence, age and other factors relating to the episode have an impact on these statistics. If, for example, your average length of stay were different from the benchmark group, we could not tell if your episodes really were different or if the difference was merely due to the unique casemix.

To overcome this difficulty, it is possible to statistically control for casemix. This is achieved by adjusting measures such as length of stay and FIM change so that the comparison is only made between similar types of episodes.

In this report we have calculated casemix-adjusted relative mean length of stay and casemix-adjusted relative mean FIM change for completed episodes. To do this, we needed to know the LOS (or FIM change) and AN-SNAP class for each episode as well as the mean LOS (or FIM change) for the benchmark group for each AN-SNAP class. We then calculated the difference between each episode LOS (or FIM change) and the mean LOS (or FIM change) of the appropriate AN-SNAP class. These differences were then averaged to produce the casemix-adjusted relative mean. This may be easier to understand as a set of two equations illustrated below.

For each episode calculate:

$LOS_{diff} = \text{episode's LOS} - \text{mean LOS appropriate AN-SNAP class}$

$\text{Casemix-adjusted relative mean} = \frac{\text{Sum of } LOS_{diff} \text{ for all episodes}}{\text{Number of episodes}}$

A casemix-adjusted relative mean length of stay of, say, -2 days would indicate that, on average, your facility has a LOS of 2 days less than similar episodes in the benchmark group. A casemix-adjusted relative mean FIM change of, say, 4 would indicate that, on average, your facility improved 4 FIM points more than similar episodes in the benchmark group. It is important to consider both of these statistics together. For example, your episodes may have stayed longer than similar episodes in the benchmark group, but they may also have achieved a greater functional improvement.

## ***Complete/incomplete episode***

An episode is considered "complete" for the purpose of calculating outcome statistics in this report if (A) the mode of episode end was either 1 (discharged to usual accommodation) or 2 (discharged to interim accommodation) AND total FIM score at episode end was greater than 18, or (B) the mode of episode end was 7 (change of care type within sub-acute/non-acute care) AND length of stay greater than 6 days.

## ***Confidence interval for a mean***

To decide if a difference between your facility's mean score and the benchmark group's mean is statistically significant, look at the two confidence intervals. If they overlap, the difference is not likely to be statistically significant. For example your facility's mean onset to first admission may be 16 days while the benchmark group's mean is 12 days. These values are certainly different, but the difference may not be statistically significant. If the 95% confidence interval of your data were (13 – 19) (i.e. 13 days to 19 days) and that of the benchmark group data set were (10.5 – 13.5) (i.e. 10.5 days to 13.5 days), the difference is not likely to be statistically significant as the two confidence intervals overlap. Note that this is a conservative comparison and is not as accurate as a formal statistical test.

## ***Data Concatenation***

Increasingly some jurisdictions have introduced business rules around data collection that have resulted in episodes of rehabilitation being ended and then re-commenced a few days later. AROC definitions would record these as one episode with the period in between defined as a suspension of rehabilitation. Such business rules result in two (or more) episodes of rehabilitation being reported to AROC when only one full episode should be reported.

Whilst this happens much more frequently in some impairment groups (e.g. spinal cord dysfunction & brain injury) it does impact all impairments to some degree. Reporting of multiple episodes impacts outcomes analysis, resulting in shorter than real length of stays and reduced FIM change being reported.

Concatenated episodes will have a revised Length of stay and FIM change (start details will be taken from the identified primary episode; end details from the identified final episode), and will also have a revised number of suspensions (being the sum across all concatenated 'submitted episodes' plus the number of breaks between 'submitted episodes') and a revised number of suspension days (being the sum across all concatenated 'submitted episodes' plus the sum of all days between 'submitted episodes').

Submitted episodes to AROC are identified for concatenation based on the following rules:

- Subsequent episodes MUST have same impairment code and be from same reporting facility with same MRN and DOB
- Leading episode must be discharged into the hospital system with following episode being admitted from hospital system
- Number of days between episodes being 0-14 days for spinal and 0-7 days for all other impairments

To make it easier for AROC to identify episodes that should be concatenated in January 2014 the data item Mode of Episode Start had an additional code set value added: 9 = *recommenced rehabilitation episode following suspension*

## ***Data quality score***

The data quality score is the average percent reported for all AROC data items (including impairment specific items where relevant) with the exception of those items that are optional. Path, facility code, facility name, MRN and episode end date are not included as these fields are used to extract the data for reporting.

## ***Functional Independence Measure (FIM)***

The Functional Independence Measure (FIM) is used as a tool to assess the functional independence of patients at episode start and end.

- The FIM motor score is the sum of the scores obtained for the first thirteen (13) items in the FIM instrument. A higher FIM motor score indicates a greater level of functional independence in motor skills.
- The FIM cognition score is the sum of the scores obtained for the final five (5) items in the FIM instrument. A higher FIM cognition score indicates better cognitive function.

## ***FIM change***

The change in functional status from the beginning to the end of the episode is measured by the change in FIM score. This is calculated as the FIM score at the end of the episode minus the FIM score at the start of the episode. In some instances the change in total FIM score (the sum of items 1 to 18) is calculated. In other cases either the change in FIM motor score (the sum of items 1 to 13) or the change in FIM cognition score (the sum of items 14 to 18) is calculated.

A higher FIM score corresponds to higher level of function while a lower FIM score represents less functional independence. This means that a positive value for the change in FIM score indicates functional improvement during the episode. A negative value for the change in FIM score indicates a decline in functional independence during the episode.

## ***FIM efficiency***

The FIM efficiency indicates the average FIM improvement per day. This statistic is calculated as the mean FIM change divided by the mean length of stay (LOS).

# Glossary ... continued



## ***Impairment-specific weighted FIM motor scores***

Impairment-specific weighted FIM motor scores are new to the inpatient (admitted overnight adult) rehabilitation AN-SNAP V4 classes. Weights reflect the relative impact of each item on the cost of caring for the rehabilitation patient. If an item has a weight of more than 1, it will have an impact on the cost of care that is more than average – a weight less than 1 implies the impact will be less than average. Within each impairment type, the weights are scaled to sum to 13 – thus both weighted and unweighted scores range from a minimum of 13 to a maximum of 91. Where impairments are grouped together in the classification, a single set of weights for that group has been derived. The exception is Major Multiple Trauma (MMT) where there were too few episodes to develop relative weights and so all weights were set to 1.

## ***Interquartile range (IQR)***

The middle 50% — between the 25% percentile and the 75% percentile.

## ***Length of stay (LOS)***

The length of stay (LOS) of an episode is the number of days on which care has been provided. It is calculated as the end date minus the start date, minus the number of leave days during the episode.

## ***Mean***

The mean, or average, is a measure of the "centre" of your data. It is calculated by adding all data values and dividing by the number of values. The mean can be used to calculate a total. For example, if the mean length of stay were 21 days for a group of 30 episodes, the total number of bed days could be calculated as 21 multiplied by 30

# Glossary ... continued



## ***Mean or median - which to use?***

The mean and the median are both measures of the "centre" of your data. For data that are symmetric about the mean (e.g. normally distributed data), the mean and the median will be close to each other. However they may have very different values for some data sets.

As an example, consider length of stay. Typically, most episodes within a class will have roughly the same length of stay. However, there will be a few episodes that are longer than the others and a smaller number that are very long. These longer lengths of stay have the effect of increasing the mean length of stay, but have little or no effect on the median.

If you want to know how long episodes in this class "typically" stay, you will probably be interested in the median as this gives you the middle value - half the episodes are longer and half the episodes are shorter. If, however, your interest is in allocation of resources and you want to know how long episodes stay on average, or if you want to get an idea of the total number of days of care provided to episodes in this class, you will need to look at the mean. (The total days can be calculated by multiplying the mean with the number in the class.)

## ***Median***

The median provides the middle value of your data – half the values lie above it and half the values lie below. For example, if your median length of stay were 20 days, half of your episodes would have stayed for 20 days or less, while the other half would have stayed 20 days or longer. Note that the median, unlike the mean, cannot be used to calculate the total number of bed days.

## ***Submitted versus reporting episodes***

Submitted episodes are those submitted to AROC either via direct data entry or upload through AROC Online Services. These episodes have not been concatenated.

The reporting data used by AROC in this report is made up of concatenated episodes. For most episodes there is no difference between the submitted episode and the one used for reporting.

# Glossary ... continued

## ***Valid FIM***

For an episode to have a Valid FIM flag it must be a complete episode and each of the 18 items on admission and discharge must have been answered with a valid response of 1-7.

## ***Valid LOS***

For an episode to have a Valid LOS flag it must be a complete episode with a length of stay ranging between 1 and 500 days.

## ***Version 4 data set***

The version 4 (V4) AROC dataset was introduced on 1 July 2012. V4 is designed as a bank of data items, combinations of which are used to describe 6 possible pathways of care (see the AROC website for more information about the different pathways). NOTE: This report utilises only Pathway 3 data (inpatient direct care).

# Appendix 2: AROC impairment codes

## STROKE

### Haemorrhagic

- 1.11 Left body involvement
- 1.12 Right body involvement
- 1.13 Bilateral involvement
- 1.14 No paresis
- 1.19 Other Orthopaedic fractures

### Ischaemic

- 1.21 Left body involvement (right brain)
- 1.22 Right body involvement (left brain)
- 1.23 Bilateral involvement
- 1.24 No paresis
- 1.29 Other Orthopaedic fractures

## BRAIN DYSFUNCTION

### Non-traumatic

- 2.11 Sub-arachnoid haemorrhage
- 2.12 Anoxic brain damage
- 2.13 Other non-traumatic brain dysfunction

### Traumatic

- 2.21 Open injury
- 2.22 Closed injury

## NEUROLOGICAL CONDITIONS

- 3.1 Multiple Sclerosis
- 3.2 Parkinsonism
- 3.3 Polyneuropathy
- 3.4 Guillian-Barre
- 3.5 Cerebral palsy
- 3.8 Neuromuscular disorders
- 3.9 Other neurological conditions

## SPINAL CORD DYSFUNCTION

### Non traumatic spinal cord dysfunction

- 4.111 Paraplegia, incomplete
- 4.112 Paraplegia, complete
- 4.1211 Quadriplegia, incomplete C1-4
- 4.1212 Quadriplegia, incomplete C5-8
- 4.1221 Quadriplegia, complete C1-4
- 4.1222 Quadriplegia, complete C5-8
- 4.13 Other non-traumatic spinal cord dysfunction

### Traumatic spinal cord dysfunction

- 4.211 Paraplegia, incomplete
- 4.212 Paraplegia, complete
- 4.2211 Quadriplegia, incomplete C1-4
- 4.2212 Quadriplegia, incomplete C5-8
- 4.2221 Quadriplegia, complete C1-4
- 4.2222 Quadriplegia, complete C5-8
- 4.23 Other traumatic spinal cord dysfunction

## AMPUTATION OF LIMB

### Not resulting from trauma

- 5.11 Single upper above elbow
- 5.12 Single upper below elbow
- 5.13 Single lower above knee (includes through knee)
- 5.14 Single lower below knee
- 5.15 Double lower above knee (includes through knee)
- 5.16 Double lower above/below knee
- 5.17 Double lower below knee
- 5.18 Partial foot (single or double)
- 5.19 Other amputation not from trauma

## AMPUTATION OF LIMB

### Resulting from trauma

- 5.21 Single upper above elbow
- 5.22 Single upper below elbow
- 5.23 Single lower above knee (includes through knee)
- 5.24 Single lower below knee
- 5.25 Double lower above knee (includes through knee)
- 5.26 Double lower above/below knee
- 5.27 Double lower below knee
- 5.28 Partial foot (single or double)
- 5.29 Other amputation from trauma

## ARTHRITIS

- 6.1 Rheumatoid arthritis
- 6.2 Osteoarthritis
- 6.9 Other arthritis

## PAIN SYNDROMES

- 7.1 Neck pain
- 7.2 Back Pain
- 7.3 Extremity pain
- 7.4 Headache (includes migraine)
- 7.5 Multi-site pain
- 7.9 Other pain (includes abdo/chest wall)

# AROC impairment codes...continued

## **ORTHOPAEDIC CONDITIONS**

### **Fractures (includes dislocation)**

- 8.111 Fracture of hip, unilateral (incl. #NOF)
- 8.112 Fracture of hip, bilateral (incl. #NOF)
- 8.12 Fracture of shaft of femur
- 8.13 Fracture of pelvis
- 8.141 Fracture of knee
- 8.142 Fracture of lower leg, ankle, foot
- 8.15 Fracture of upper limb
- 8.16 Fracture of spine
- 8.17 Fracture of multiple sites
- 8.19 Other orthopaedic fracture

### **Post Orthopaedic Surgery**

- 8.211 Unilateral hip replacement
- 8.212 Bilateral hip replacement
- 8.221 Unilateral knee replacement
- 8.222 Bilateral knee replacement
- 8.231 Knee and hip replacement, same side
- 8.232 Knee and hip replacement, diff sides
- 8.24 Shoulder replacement
- 8.25 Post spinal surgery
- 8.26 Other orthopaedic surgery

### **Soft tissue injury**

- 8.3 Soft tissue injury

## **CARDIAC**

- 9.1 Following recent onset of new cardiac impairment
- 9.2 Chronic cardiac insufficiency
- 9.3 Heart and heart/lung transplant

## **PULMONARY**

- 10.1 Chronic obstructive pulmonary disease
- 10.2 Lung transplant
- 10.9 Other pulmonary

## **BURNS**

- 11 Burns

## **CONGENITAL DEFORMITIES**

- 12.1 Spina bifida
- 12.9 Other congenital deformity

## **OTHER DISABLING IMPAIRMENTS**

- 13.1 Lymphoedema
- 13.3 Conversion disorder
- 13.9 Other disabling impairments that cannot be classified into a specific group

## **MAJOR MULTIPLE TRAUMA**

- 14.1 Brain + spinal cord injury
- 14.2 Brain + multiple fracture/amputation
- 14.3 Spinal cord + multi fracture/amputation
- 14.9 Other multiple trauma

## **DEVELOPMENTAL DISABILITIES**

- 15.1 Developmental disabilities (excludes cerebral palsy)

## **RE-CONDITIONING/RESTORATIVE**

- 16.1 Re-conditioning following surgery
- 16.2 Reconditioning following medical illness
- 16.3 Cancer rehabilitation

# Appendix 3: AN-SNAP V4 overnight rehabilitation classes (pathway 3)



Class	Description of AN-SNAP class	Class	Description of AN-SNAP class
4AZ1	Weighted FIM motor score 13-18, Brain, Spine, MMT, Age ≥ 49	4AE1	Amputation of limb, Age ≥ 54, weighted FIM motor 68-91
4AZ2	Weighted FIM motor score 13-18, Brain, Spine, MMT, Age ≤ 48	4AE2	Amputation of limb, Age ≥ 54, weighted FIM motor 31-67
4AZ3	Weighted FIM motor score 13-18, All other impairments, Age ≥ 65	4AE3	Amputation of limb, Age ≥ 54, weighted FIM motor 19-30
4AZ4	Weighted FIM motor score 13-18, All other impairments, Age ≤ 64	4AE4	Amputation of limb, Age ≤ 53, weighted FIM motor 19-91
4AA1	Stroke, weighted FIM motor 51-91, FIM cognition 29-35	4AH1	Orthopaedic conditions, fractures, weighted FIM motor 49-91, FIM cognition 33-35
4AA2	Stroke, weighted FIM motor 51-91, FIM cognition 19-28	4AH2	Orthopaedic conditions, fractures, weighted FIM motor 49-91, FIM cognition 5-32
4AA3	Stroke, weighted FIM motor 51-91, FIM cognition 5-18	4AH3	Orthopaedic conditions, fractures, weighted FIM motor 38-48
4AA4	Stroke, weighted FIM motor 36-50, Age ≥ 68	4AH4	Orthopaedic conditions, fractures, weighted FIM motor 19-37
4AA5	Stroke, weighted FIM motor 36-50, Age ≤ 67	4A21	Orthopaedic conditions, all other, weighted FIM motor 68-91
4AA6	Stroke, weighted FIM motor 19-35, Age ≥ 68	4A22	Orthopaedic conditions, all other, weighted FIM motor 50-67
4AA7	Stroke, weighted FIM motor 19-35, Age ≤ 67	4A23	Orthopaedic conditions, all other, weighted FIM motor 19-49
4AB1	Brain dysfunction, weighted FIM motor 71-91, FIM cognition 26-35	4A31	Cardiac, Pain syndromes, Pulmonary, weighted FIM motor 72-91
4AB2	Brain dysfunction, weighted FIM motor 71-91, FIM cognition 5-25	4A32	Cardiac, Pain syndromes, Pulmonary, weighted FIM motor 55-71
4AB3	Brain dysfunction, weighted FIM motor 41-70, FIM cognition 26-35	4A33	Cardiac, Pain syndromes, Pulmonary, weighted FIM motor 34-54
4AB4	Brain dysfunction, weighted FIM motor 41-70, FIM cognition 17-25	4A34	Cardiac, Pain syndromes, Pulmonary, weighted FIM motor 19-33
4AB5	Brain dysfunction, weighted FIM motor 41-70, FIM cognition 5-16	4AP1	Major Multiple Trauma, weighted FIM motor 19-91
4AB6	Brain dysfunction, weighted FIM motor 29-40	4AR1	Reconditioning, weighted FIM motor 67-91
4AB7	Brain dysfunction, weighted FIM motor 19-28	4AR2	Reconditioning, weighted FIM motor 50-66, FIM cognition 26-35
4AC1	Neurological conditions, weighted FIM motor 62-91	4AR3	Reconditioning, weighted FIM motor 50-66, FIM cognition 5-25
4AC2	Neurological conditions, weighted FIM motor 43-61	4AR4	Reconditioning, weighted FIM motor 34-49, FIM cognition 31-35
4AC3	Neurological conditions, weighted FIM motor 19-42	4AR5	Reconditioning, weighted FIM motor 34-49, FIM cognition 5-30
4AD1	Spinal cord dysfunction, Age ≥ 50, weighted FIM motor 42-91	4AR6	Reconditioning, weighted FIM motor 19-33
4AD2	Spinal cord dysfunction, Age ≥ 50, weighted FIM motor 19-41	4A91	All other impairments, weighted FIM motor 55-91
4AD3	Spinal cord dysfunction, Age ≤ 49, weighted FIM motor 34-91	4A92	All other impairments, weighted FIM motor 33-54
4AD4	Spinal cord dysfunction, Age ≤ 49, weighted FIM motor 19-33	4A93	All other impairments, weighted FIM motor 19-32
		499A	Adult Overnight Rehabilitation - Ungroupable

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