aroc
Australasian Rehabilitation Outcomes Centre

australian health services research institute

AROC Impairment Specific Report

Inpatient – Pathway 3

BRAIN INJURY

Anywhere Hospital

January 2016 – December 2016

Australasian Faculty of Rehabilitation Medicine

UNIVERSITY OF WOLLONGONG

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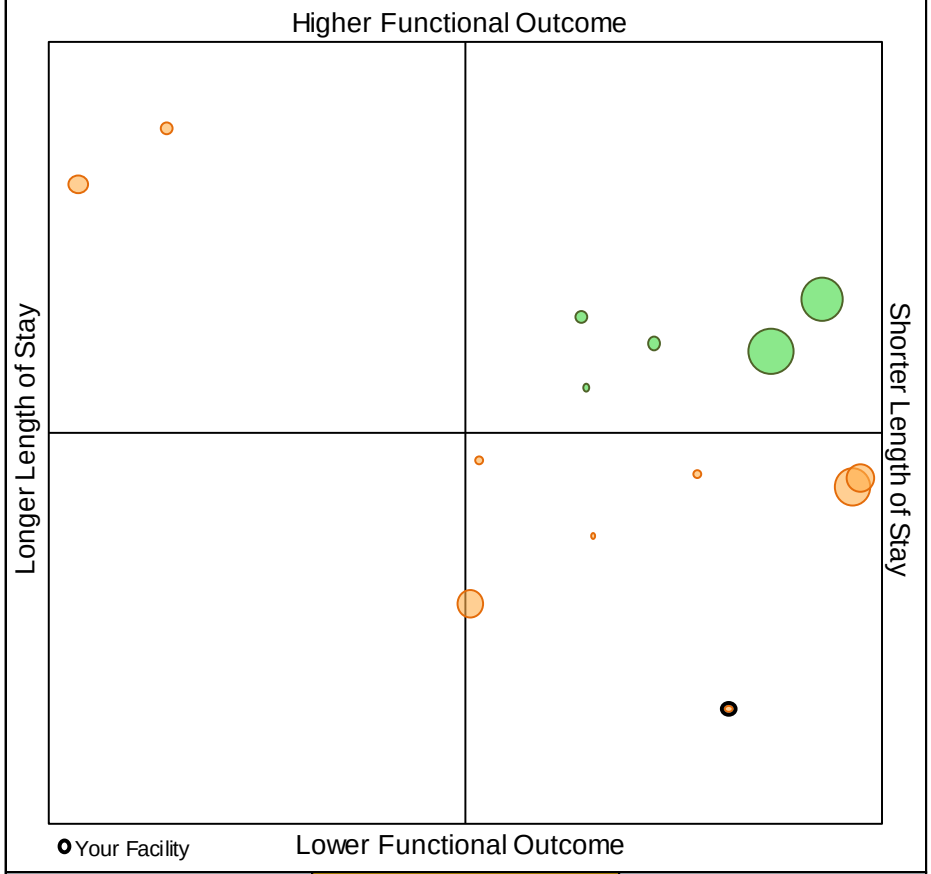
Brain Injury Dashboard (CY 2016)

Rehabilitation Outcomes by Facility

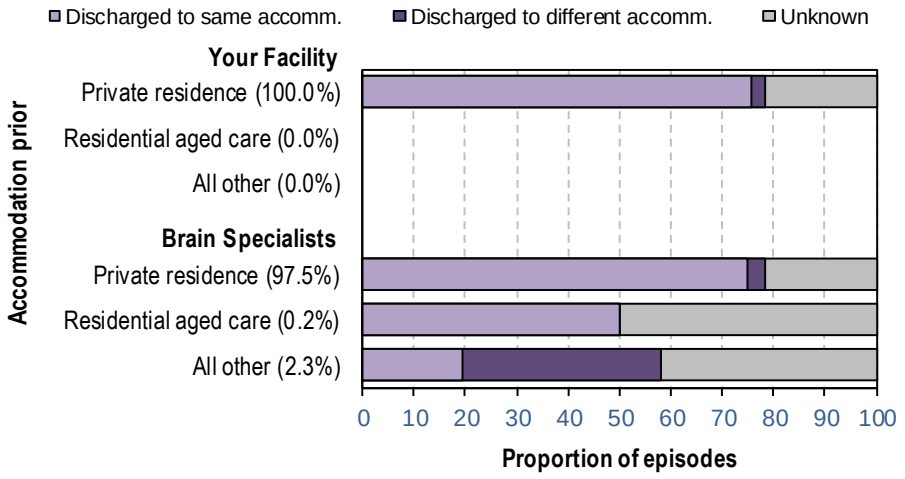


Outlier facilities are not shown on graph	Amber (Status)	Trend

Performance Against Benchmark

Functional Gain				
Length of Stay				
Your Facility:	15%	15%	44%	26%
Performance against last year	↓	↓	↑	↑

Change in Accommodation



Number of Episodes by Impairment

20 Facility Beds (All wards)

38 All Episodes (Total)

Brain Injury Dashboard (CY 2016)

Key Indicators*

Your Facility		Brain Specialists	
Average Age:	46.2	Average Age:	47.0
Mortality Rate:	0.0%	Mortality Rate:	0.1%
% with at least one comorbidity:	53%	% with at least one comorbidity:	41%
% with at least one complication:	32%	% with at least one complication:	29%
% episodes with start delays:	27%	% episodes with start delays:	21%
Days between onset and rehab episode:	31.2	Days between onset and rehab episode:	29.4
Days between clinically rehab ready & start date:	1.3	Days between clinically rehab ready & start date:	1.3

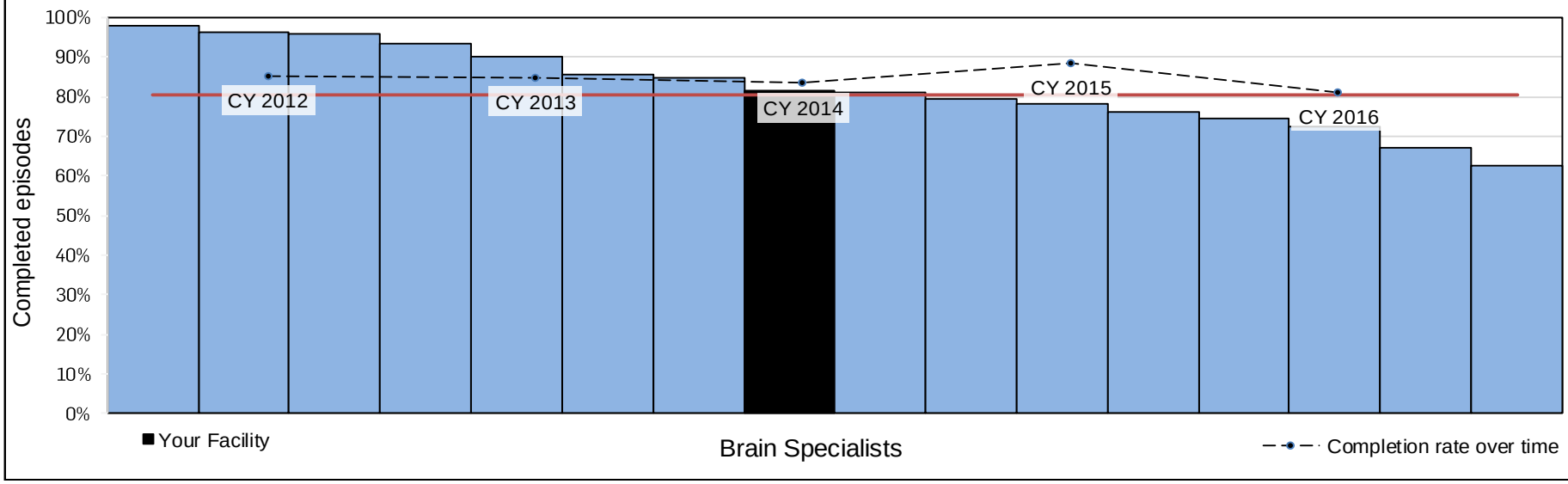
* Mean value provided unless otherwise specified

Facility FIM Training*

FIM Credentialed Staff per 100 Episodes	FIM Credentialed Facility Trainers
10.0 Your Facility	2 Your Facility
10.7 Brain Specialists (Mean)	2 AROC Suggested Minimum

* This includes all impairments from all wards

Completed Episodes by Facility



Introducing the Impairment Specific Reports

This is the fourth 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 calendar year 2016 (1 January 2016 to 31 December 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 calendar 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 understading 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

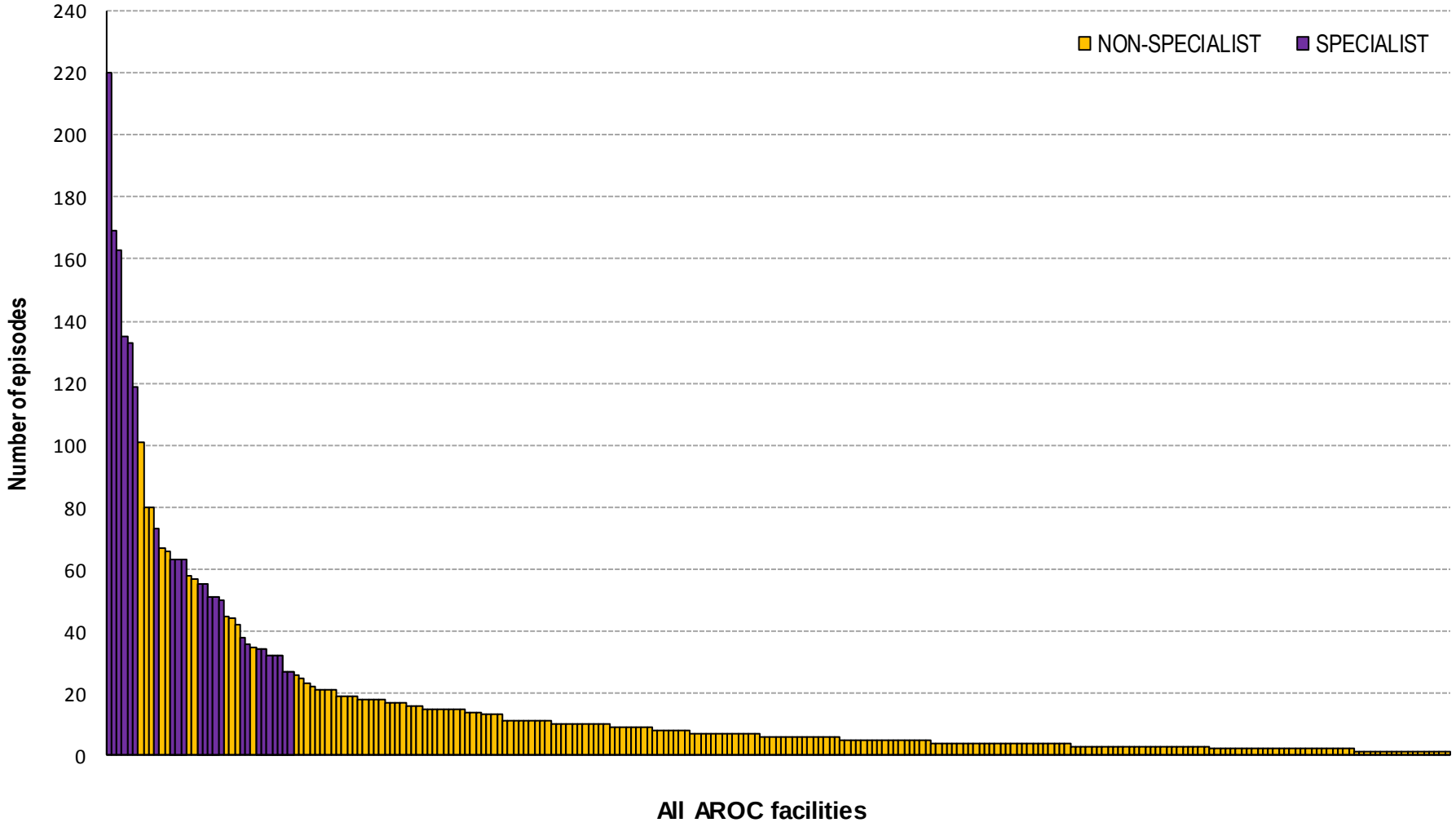
Levels of functioning for spinal cord dysfunction are categorised by the following version 4 AN-SNAP classes:

- 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 ≥ 49
- 4AZ2 Weighted FIM motor score 13-18, Brain, MMT, Age ≤ 48

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

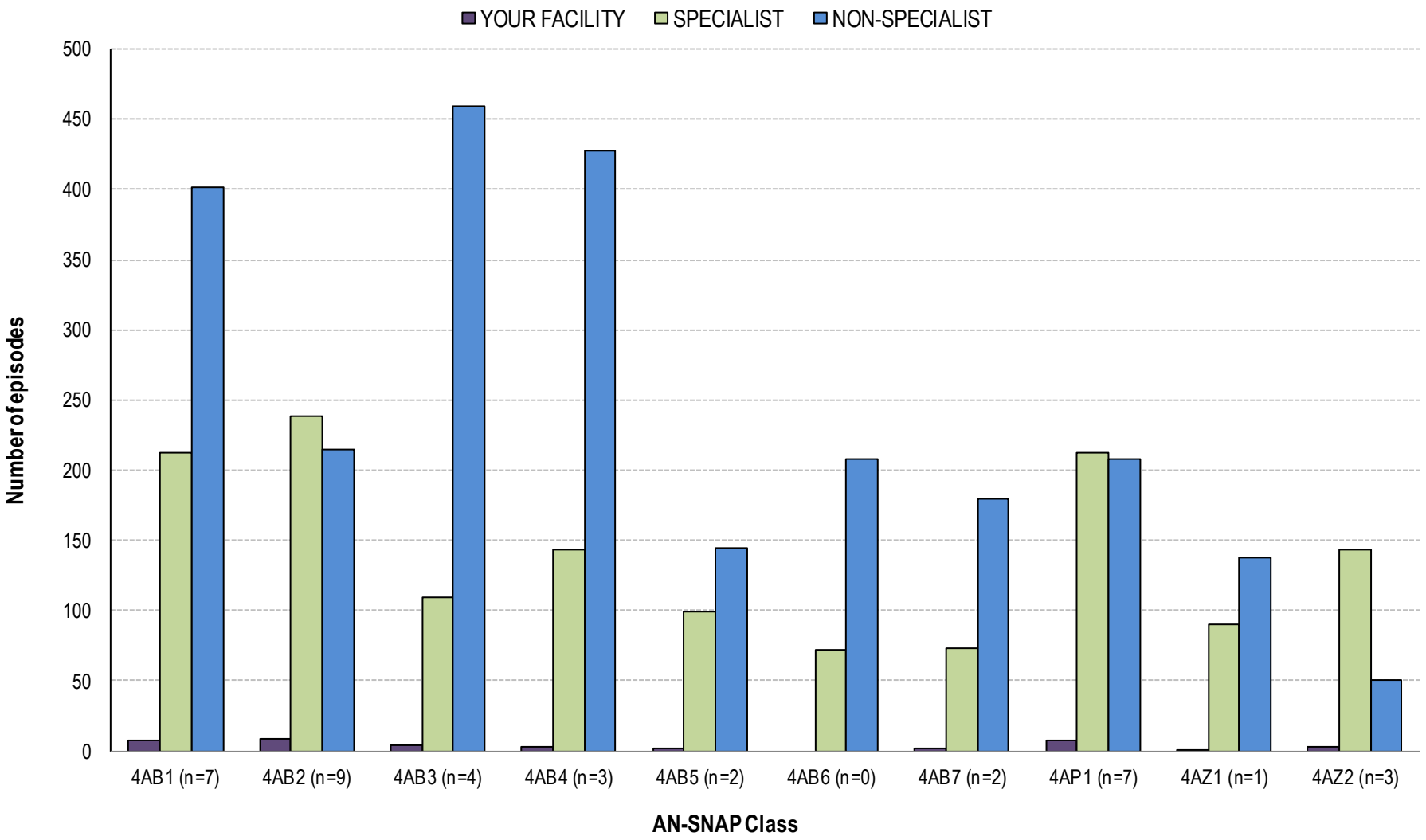
The BIG picture

Volume of episodes by facilities treating brain injury



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

Number of episodes by AN-SNAP class

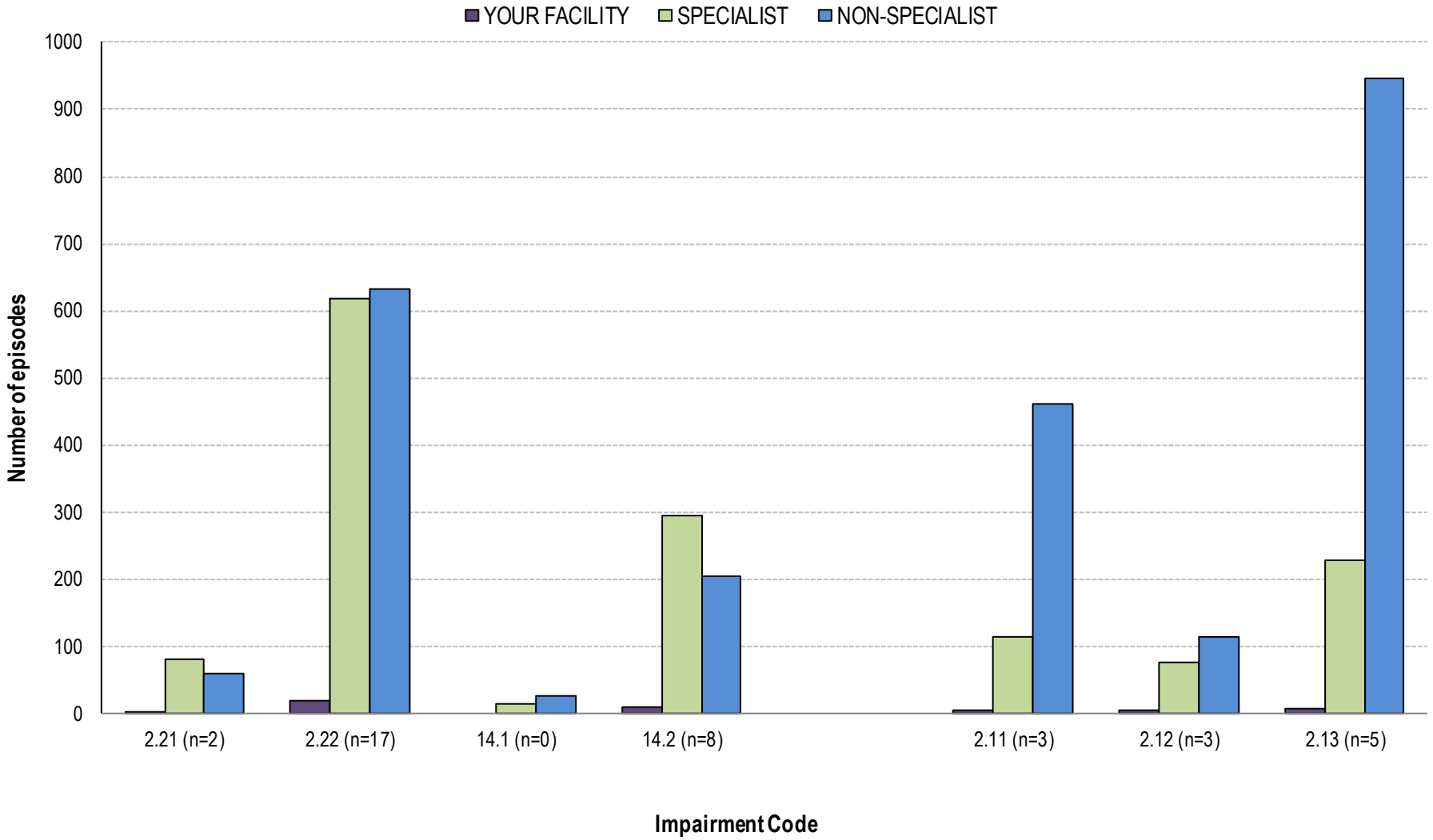


Number of episodes by AN-SNAP class

	YOUR FACILITY		SPECIALIST		NON-SPECIALIST	
AN-SNAP class	**No.**	**%**	**No.**	**%**	**No.**	**%**
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	7	18.4	213	15.3	402	16.5
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	9	23.7	238	17.1	215	8.8
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	4	10.5	109	7.8	459	18.9
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	3	7.9	143	10.3	428	17.6
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	2	5.3	99	7.1	144	5.9
4AB6 (BI, weighted FIM motor 29-40)	0	0.0	72	5.2	208	8.6
4AB7 (BI, weighted FIM motor 19-28)	2	5.3	73	5.2	180	7.4
4AP1 (MMT, weighted FIM motor 19-91)	7	18.4	212	15.2	208	8.6
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	1	2.6	90	6.5	138	5.7
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	3	7.9	143	10.3	50	2.1
All Brain AN-SNAP classes	**38**	**100.0**	**1,392**	**100.0**	**2,432**	**100.0**

Note: 0 episode(s) at YOUR FACILITY, 31 episode(s) at SPECIALIST facilities and 8 episode(s) at NON-SPECIALIST facilities had an AN-SNAP class of 499A.

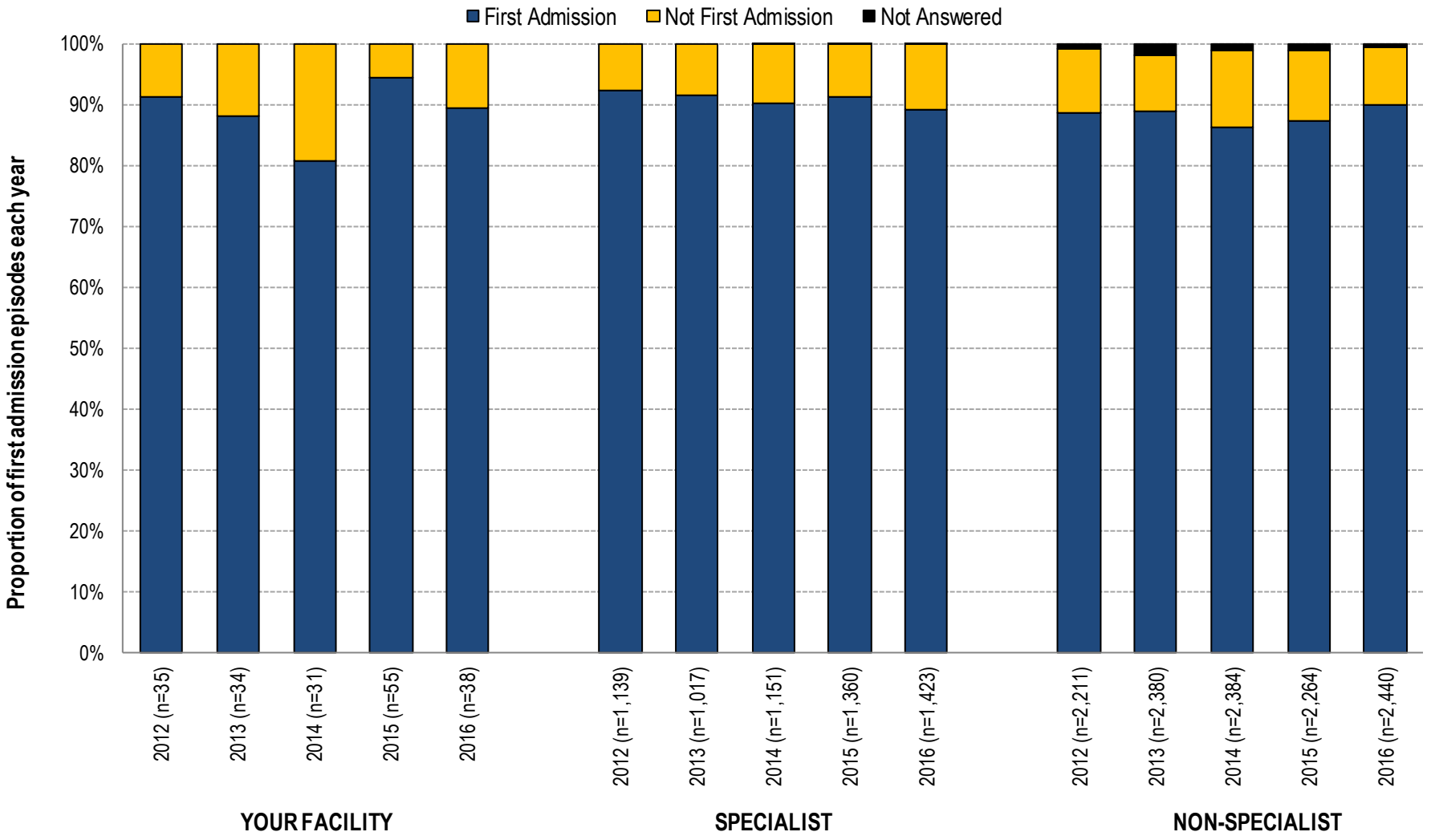
Number of traumatic and non-traumatic episodes by impairment



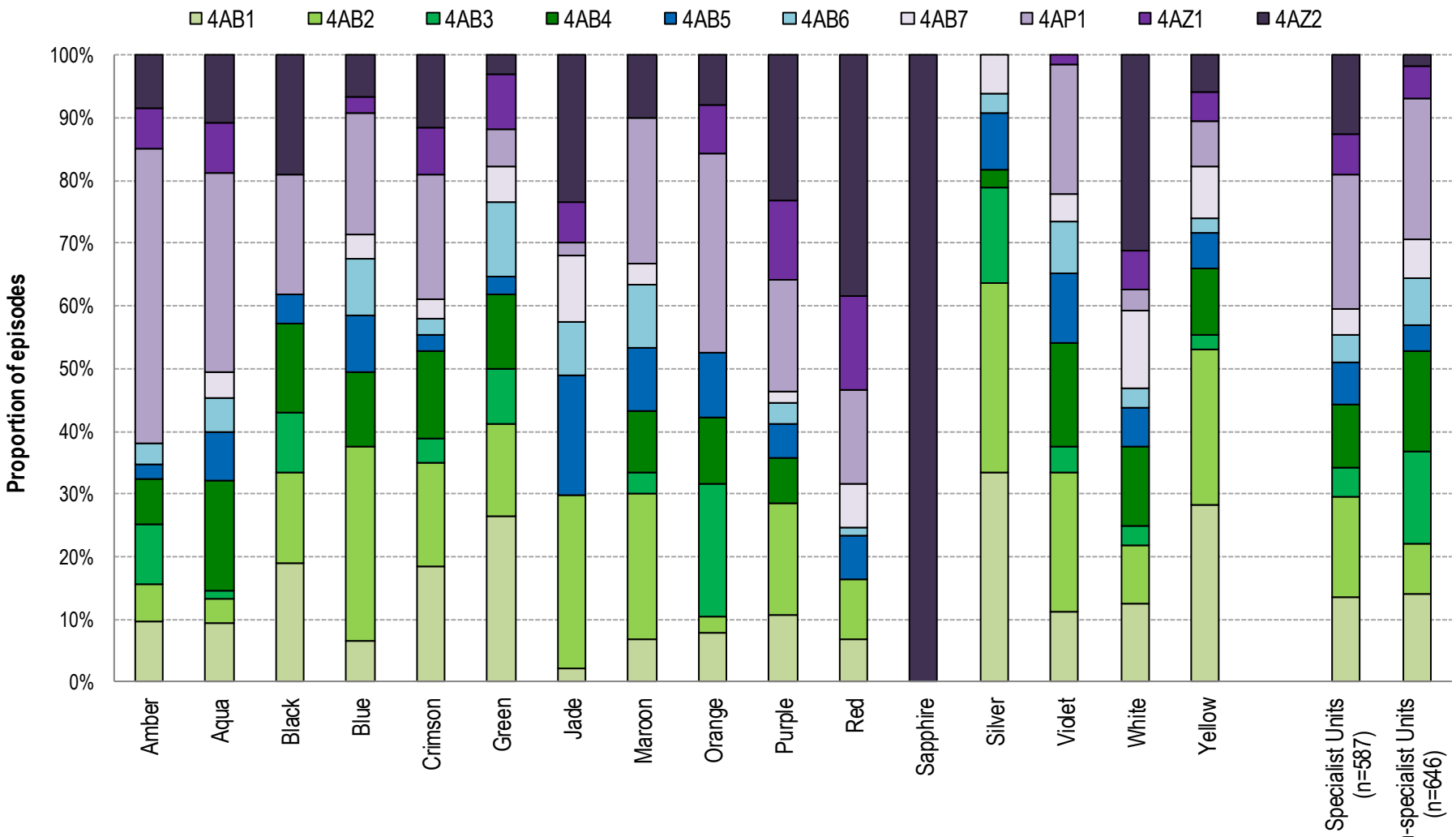
Traumatic and non-traumatic episodes by impairment

	YOUR FACILITY		SPECIALIST		NON-SPECIALIST	
Impairment	**No.**	**%**	**No.**	**%**	**No.**	**%**
Traumatic impairments						
2.21 Open injury	2	7.4	81	8.1	58	6.3
2.22 Closed injury	17	63.0	617	61.3	633	68.8
14.1 MMT: brain+spine	0	0.0	13	1.3	26	2.8
14.2 MMT: brain+other	8	29.6	295	29.3	203	22.1
Total TBI	**27**	**100.0**	**1,006**	**100.0**	**920**	**100.0**
Non-traumatic impairments						
2.11 Sub-arachnoid haemorrhage	3	27.3	113	27.1	461	30.3
2.12 Anoxic brain damage	3	27.3	76	18.2	113	7.4
2.13 Other NTBI	5	45.5	228	54.7	946	62.2
Total NTBI	**11**	**100.0**	**417**	**100.0**	**1,520**	**100.0**
TOTAL BI	**38**		**1,423**		**2,440**	

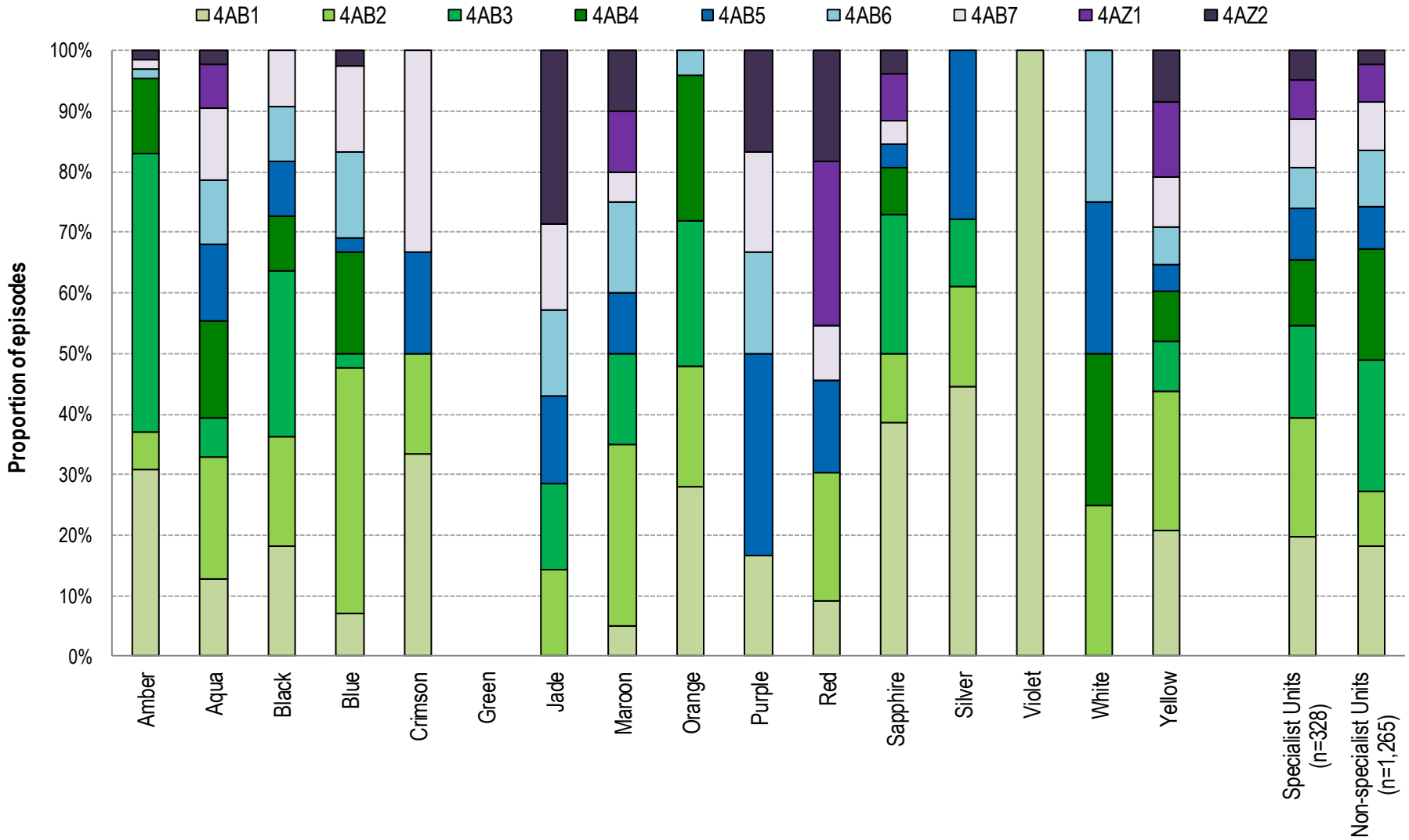
Proportion of first admission episodes over time



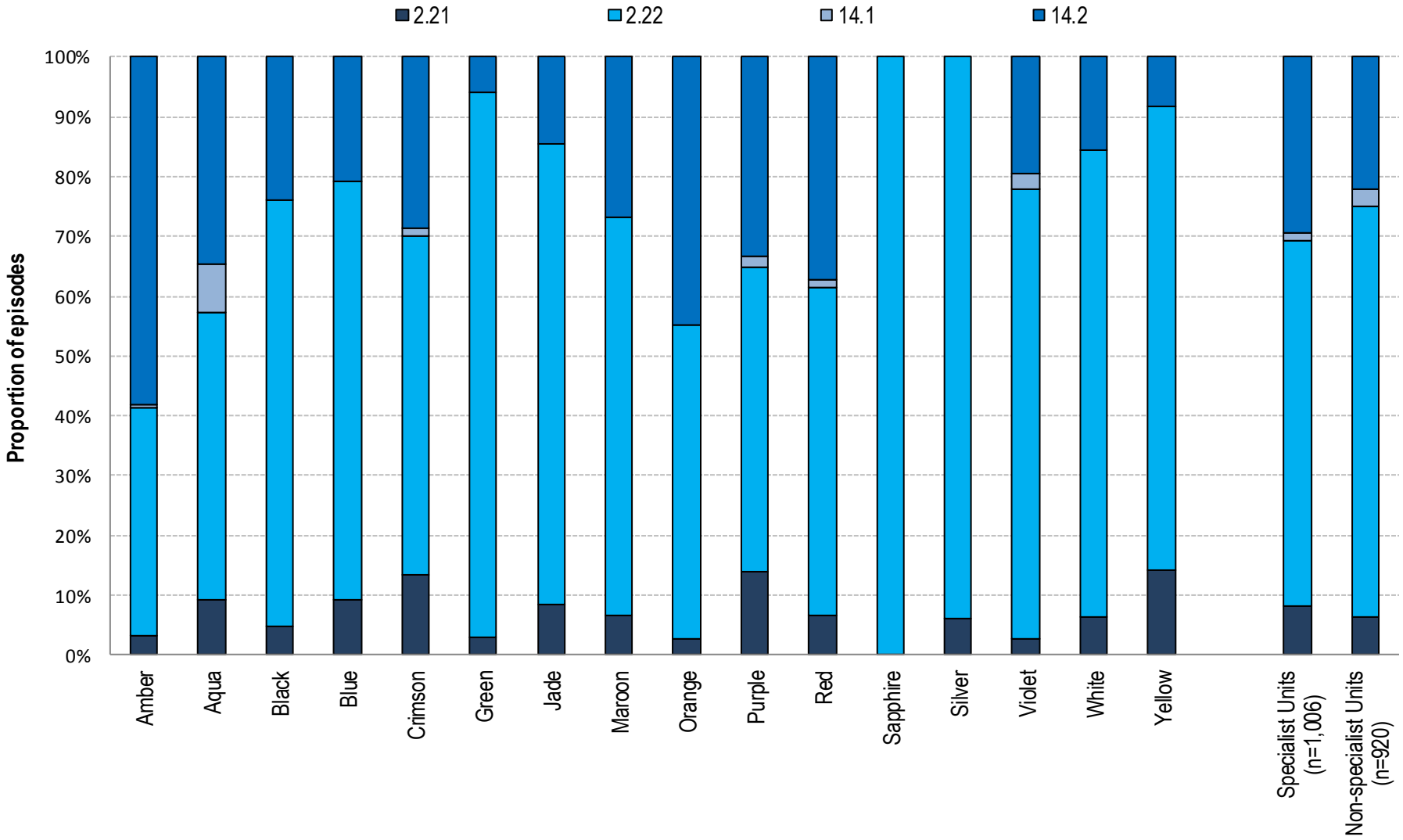
Proportion of traumatic episodes by facility by AN-SNAP class



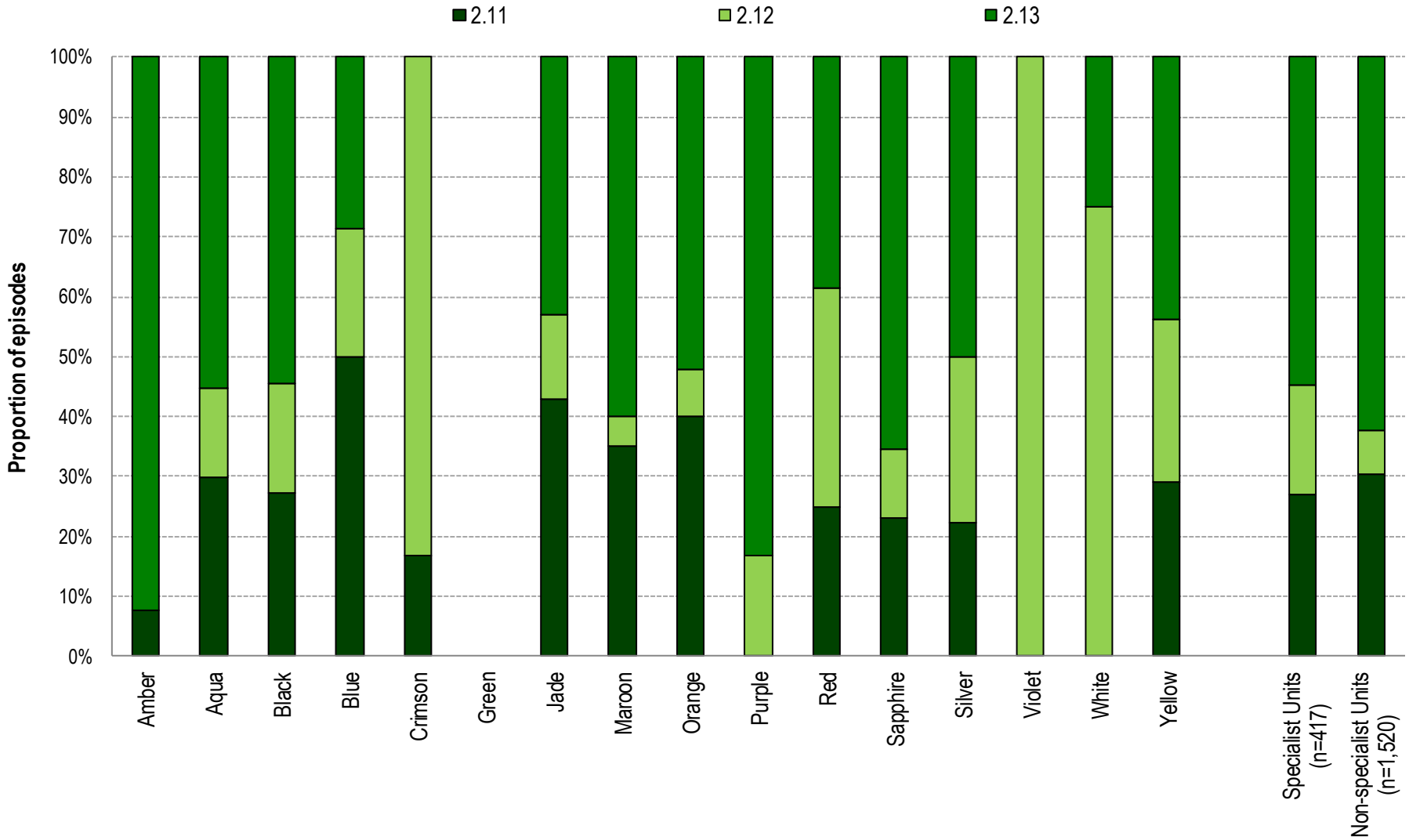
Proportion of non-traumatic episodes by facility by AN-SNAP class



Proportion of traumatic episodes by impairment by facility



Proportion of non-traumatic episodes by Impairment by facility



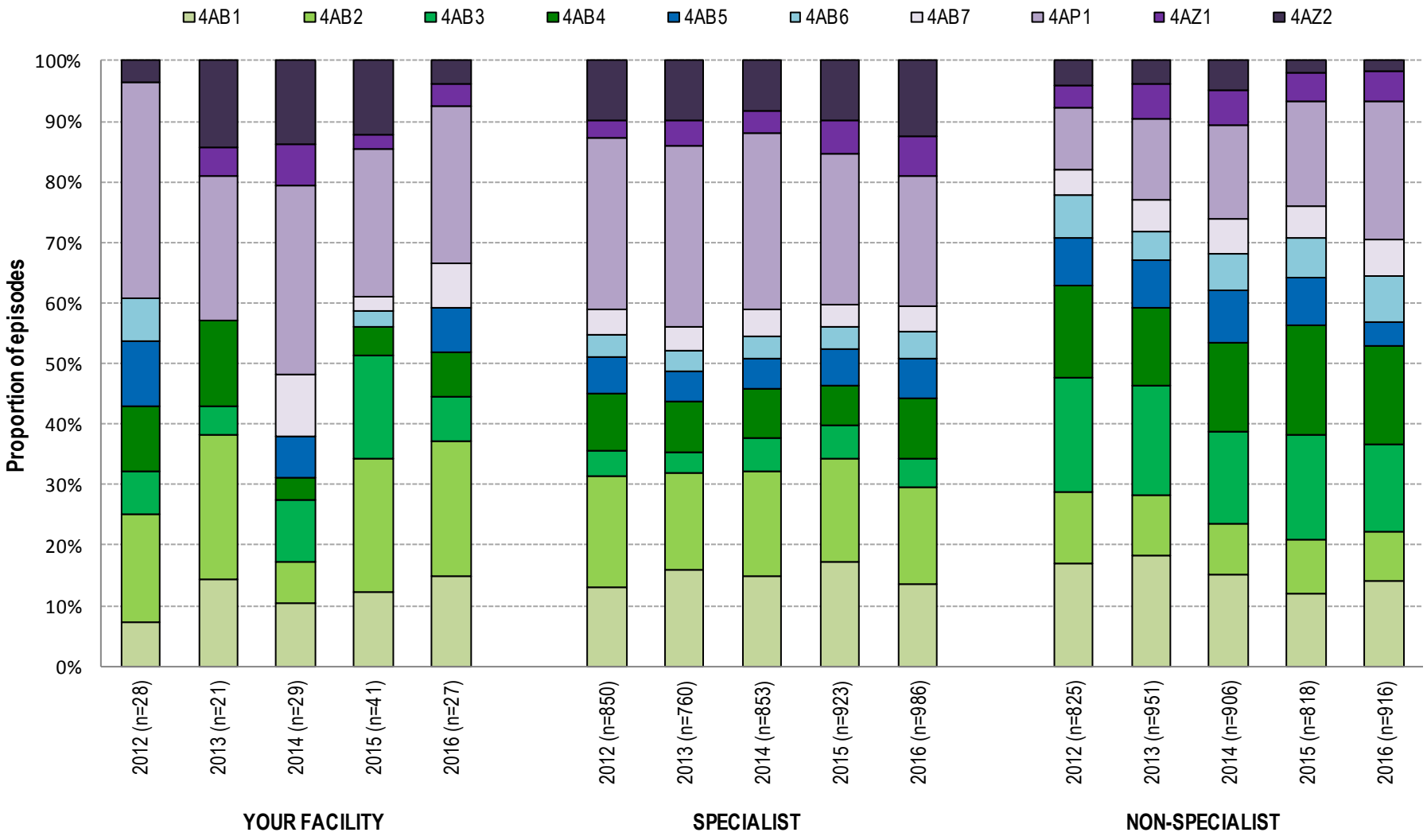
Traumatic and non-traumatic episodes by impairment by AN-SNAP class

Traumatic	YOUR FACILITY										TOTAL	SPECIALIST	NON-SPECIALIST
Impairment	4AB1	4AB2	4AB3	4AB4	4AB5	4AB6	4AB7	4AP1	4AZ1	4AZ2			
2.21 Open injury	0	1	0	1	0	0	0	0	0	0	**2**	**79**	**58**
2.22 Closed injury	4	5	2	1	2	0	2	0	1	0	**17**	**606**	**629**
14.1 MMT: brain+spine	0	0	0	0	0	0	0	0	0	0	**0**	**13**	**26**
14.2 MMT: brain+other	0	0	0	0	0	0	0	7	0	1	**8**	**288**	**203**
Total	**4**	**6**	**2**	**2**	**2**	**0**	**2**	**7**	**1**	**1**	**27**	**986**	**916**
SPECIALIST	**133**	**158**	**47**	**99**	**65**	**44**	**41**	**212**	**64**	**123**	**986**		
NON-SPECIALIST	**128**	**75**	**133**	**148**	**37**	**70**	**55**	**208**	**46**	**16**	**916**		

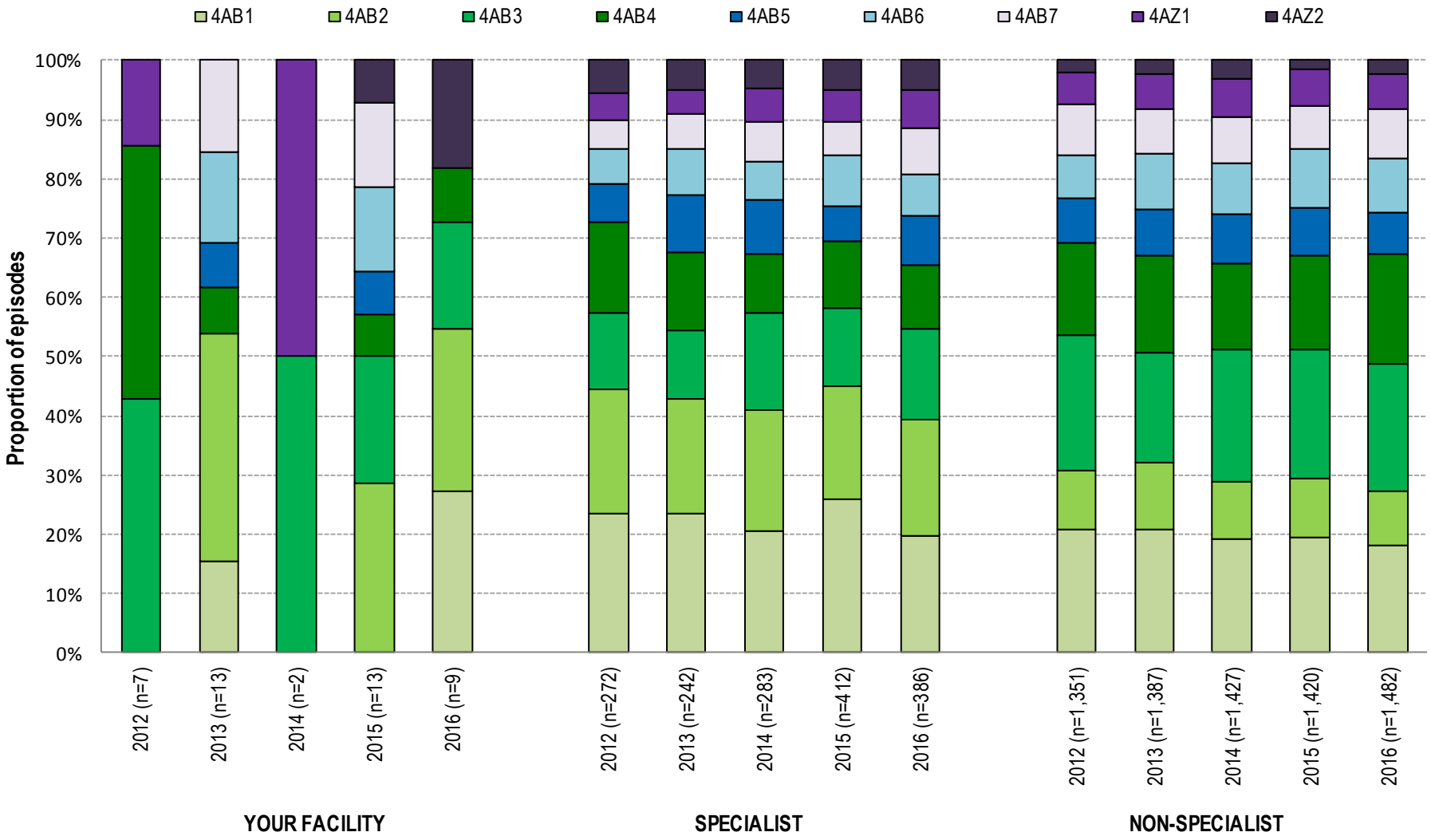
Non-traumatic	YOUR FACILITY									TOTAL	SPECIALIST	NON-SPECIALIST
Impairment	4AB1	4AB2	4AB3	4AB4	4AB5	4AB6	4AB7	4AZ1	4AZ2			
2.11 Sub-arachnoid haemorr	0	3	0	0	0	0	0	0	0	**3**	**109**	**459**
2.12 Anoxic brain damage	2	0	0	0	0	0	0	0	0	**2**	**72**	**113**
2.13 Other NTBI	1	0	2	1	0	0	0	0	0	**4**	**225**	**944**
Total	**3**	**3**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**9**	**406**	**1,516**
SPECIALIST	**80**	**80**	**62**	**44**	**34**	**28**	**32**	**26**	**20**	**406**		
NON-SPECIALIST	**274**	**140**	**326**	**280**	**107**	**138**	**125**	**92**	**34**	**1,516**		

Note: 0 episode(s) at YOUR FACILITY, 31 episode(s) at SPECIALIST facilities and 8 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

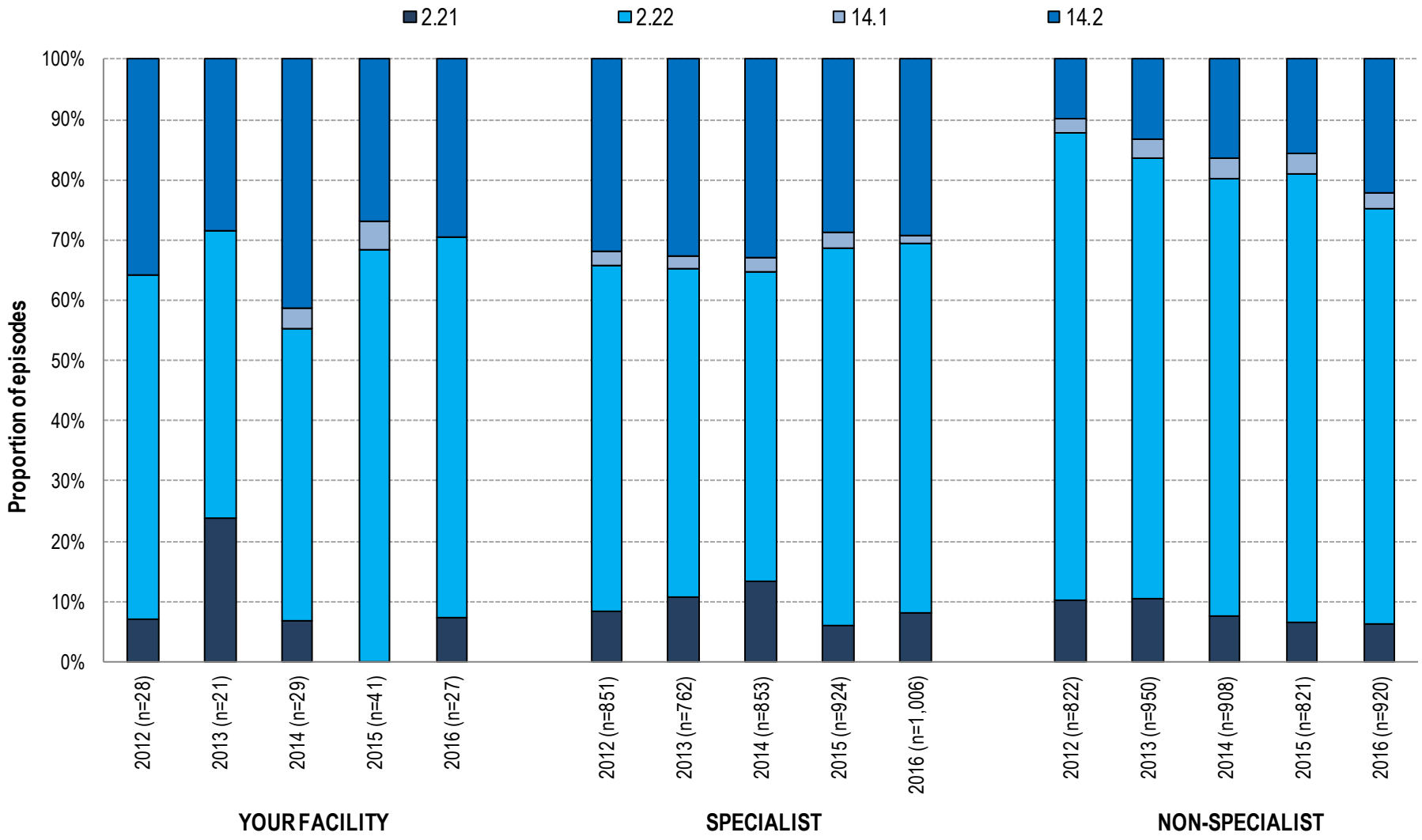


Traumatic and non-traumatic episodes by AN-SNAP class over time

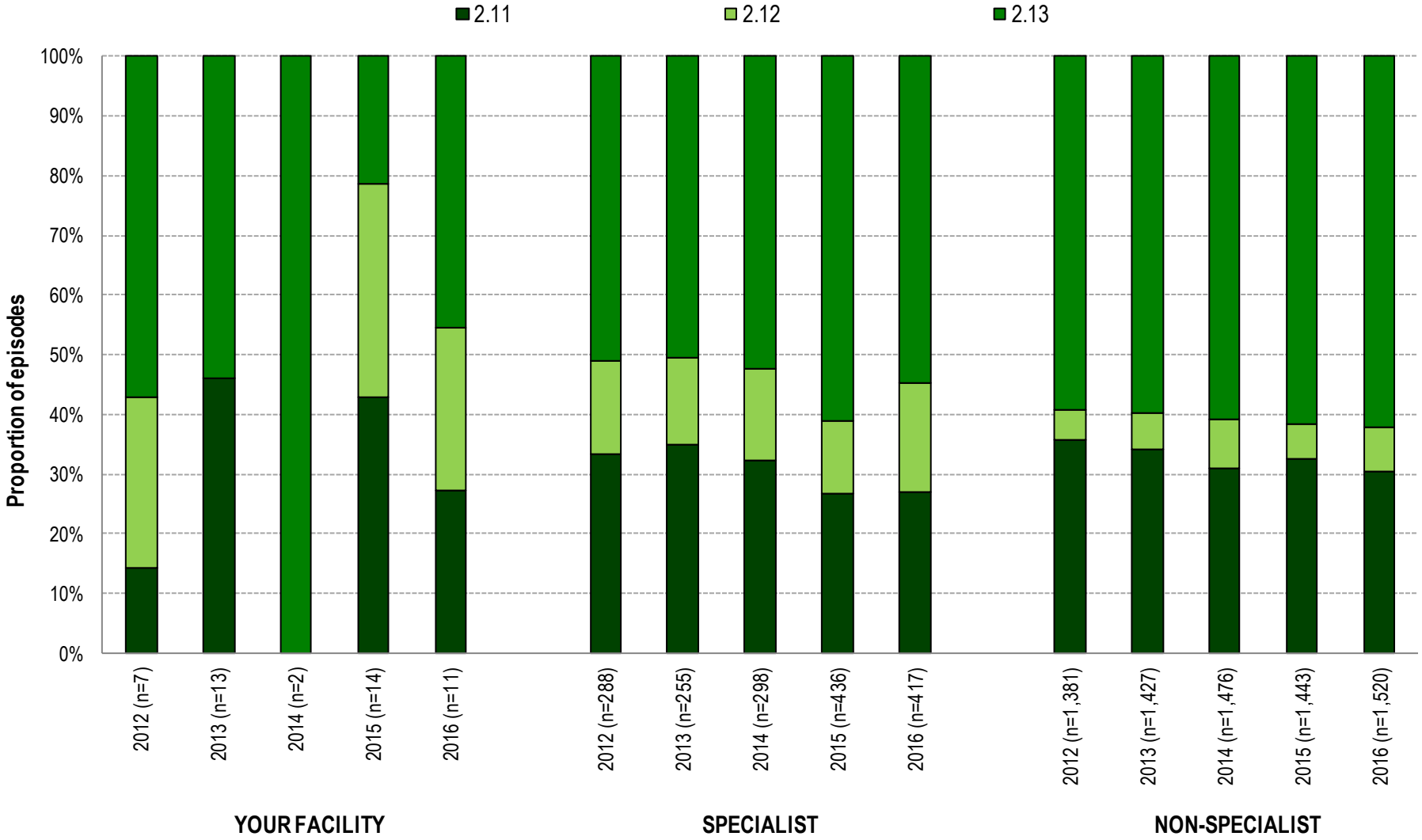
Traumatic	YOUR FACILITY					SPECIALIST					NON-SPECIALIST				
AN-SNAP class	**2012**	**2013**	**2014**	**2015**	**2016**	**2012**	**2013**	**2014**	**2015**	**2016**	**2012**	**2013**	**2014**	**2015**	**2016**
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	2	3	3	5	4	110	121	126	159	133	139	174	136	99	128
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	5	5	2	9	6	157	122	149	157	158	99	94	78	73	75
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	2	1	3	7	2	35	25	46	52	47	155	172	137	140	133
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	3	3	1	2	2	81	64	69	59	99	126	122	133	149	148
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	3	0	2	0	2	52	39	44	57	65	64	76	78	64	37
4AB6 (BI, weighted FIM motor 29-40)	2	0	0	1	0	31	26	31	33	44	59	44	56	53	70
4AB7 (BI, weighted FIM motor 19-28)	0	0	3	1	2	35	28	38	33	41	35	50	51	43	55
4AP1 (MMT, weighted FIM motor 19-91)	10	5	9	10	7	240	228	247	232	212	83	127	141	142	208
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	0	1	2	1	1	25	32	33	50	64	31	55	53	38	46
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	1	3	4	5	1	84	75	70	91	123	34	37	43	17	16
All Brain AN-SNAP classes	**28**	**21**	**29**	**41**	**27**	**850**	**760**	**853**	**923**	**986**	**825**	**951**	**906**	**818**	**916**

Non-traumatic	YOUR FACILITY					SPECIALIST					NON-SPECIALIST				
AN-SNAP class	**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	2	0	0	3	68	60	61	112	80	288	295	282	281	274
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	0	5	0	4	3	60	49	61	83	80	137	159	144	144	140
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	3	0	1	3	2	37	30	48	58	62	314	264	326	312	326
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	3	1	0	1	1	44	33	30	49	44	216	235	216	230	280
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	0	1	0	1	0	19	25	27	25	34	102	110	121	115	107
4AB6 (BI, weighted FIM motor 29-40)	0	2	0	2	0	17	20	19	37	28	101	134	127	142	138
4AB7 (BI, weighted FIM motor 19-28)	0	2	0	2	0	14	15	20	25	32	117	104	114	108	125
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	1	0	1	0	0	13	10	17	23	26	76	86	97	88	92
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	0	0	0	1	2	16	13	14	22	20	28	32	45	21	34
All Brain AN-SNAP classes	**7**	**13**	**2**	**14**	**11**	**288**	**255**	**297**	**434**	**406**	**1,379**	**1,419**	**1,472**	**1,441**	**1,516**

Proportion of traumatic episodes by impairment over time



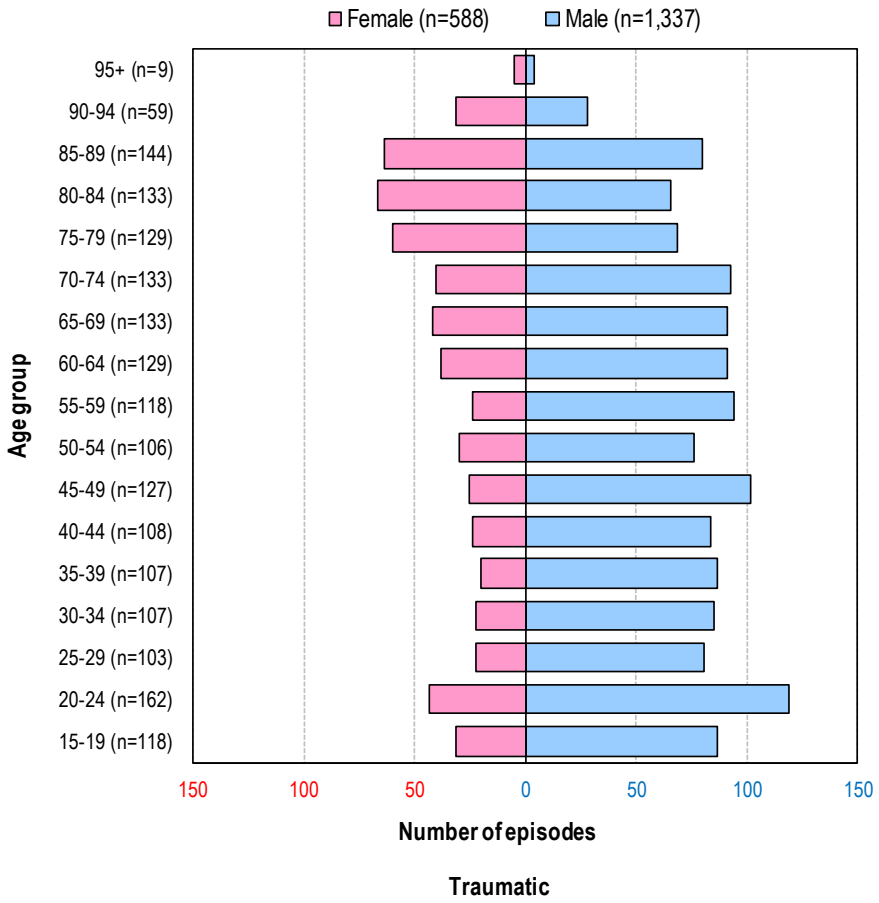
Proportion of non-traumatic episodes by impairment over time

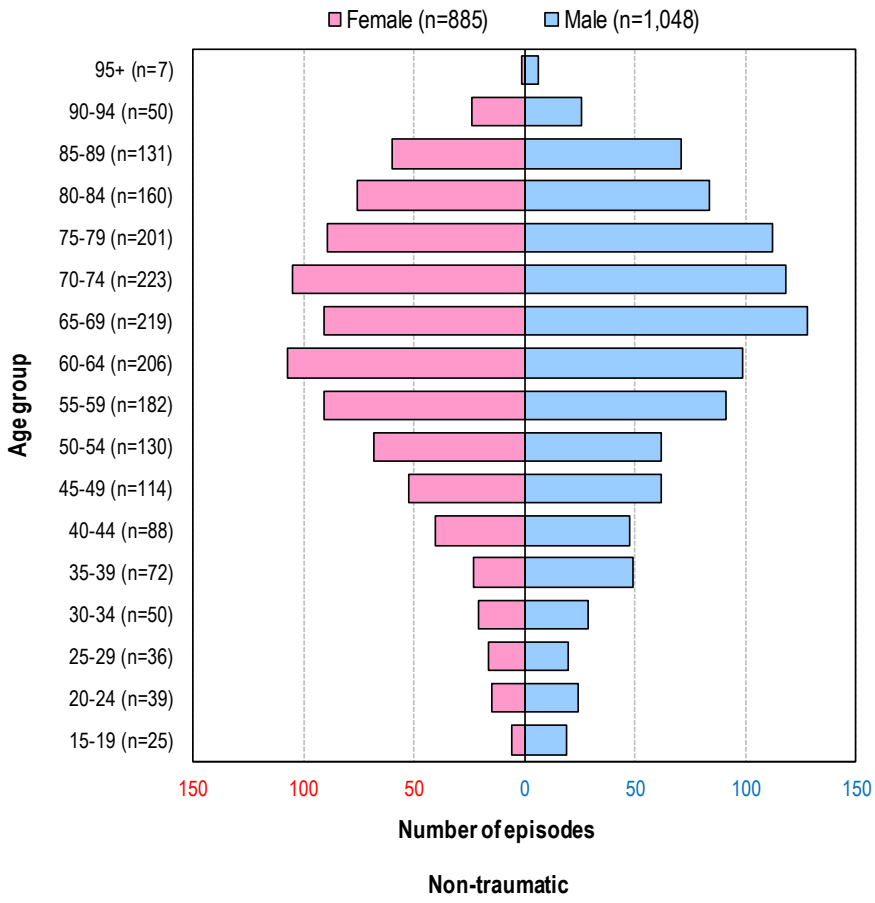


Traumatic and non-traumatic episodes by impairment over time

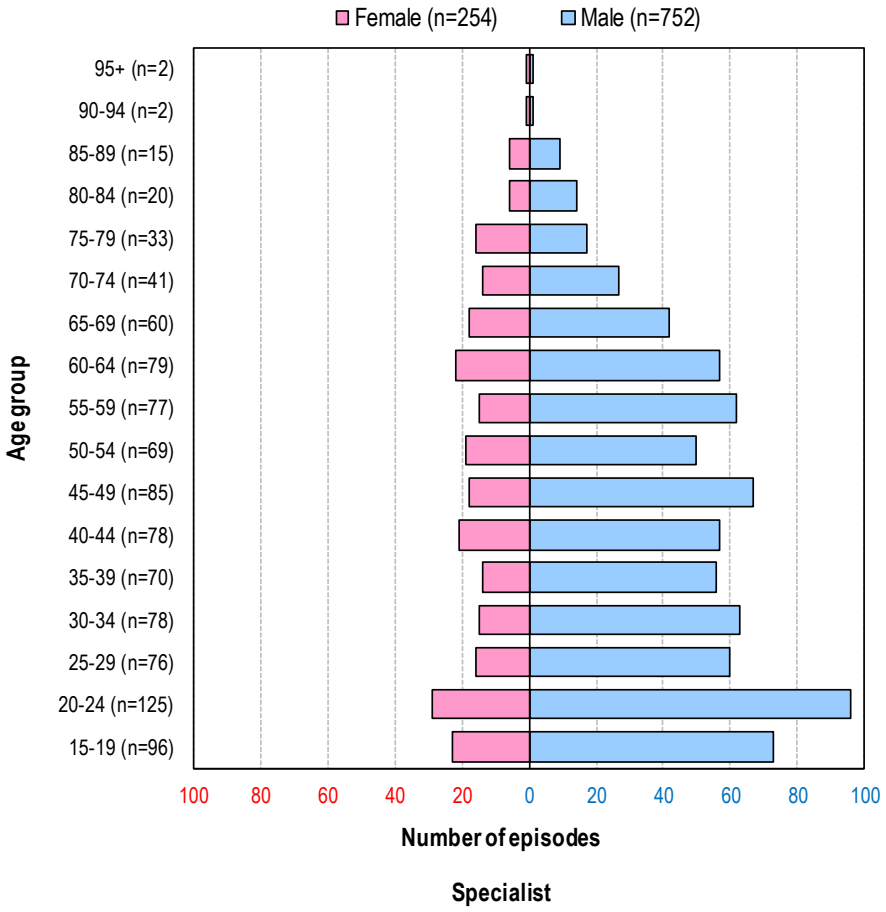
	YOUR FACILITY					SPECIALIST					NON-SPECIALIST				
Impairment	**2012**	**2013**	**2014**	**2015**	**2016**	**2012**	**2013**	**2014**	**2015**	**2016**	**2012**	**2013**	**2014**	**2015**	**2016**
Traumatic impairments															
2.21 Open injury	2	5	2	0	2	71	82	113	56	81	83	100	70	53	58
2.22 Closed injury	16	10	14	28	17	488	415	439	579	617	638	694	659	612	633
14.1 MMT: brain+spine	0	0	1	2	0	20	16	20	23	13	21	30	29	28	26
14.2 MMT: brain+other	10	6	12	11	8	272	249	281	266	295	80	126	150	128	203
Total TBI	**28**	**21**	**29**	**41**	**27**	**851**	**762**	**853**	**924**	**1,006**	**822**	**950**	**908**	**821**	**920**
Non-traumatic impairments															
2.11 Sub-arachnoid haemorrhage	1	6	0	6	3	96	89	96	117	113	495	488	458	471	461
2.12 Anoxic brain damage	2	0	0	5	3	45	37	46	53	76	67	86	122	83	113
2.13 Other NTBI	4	7	2	3	5	147	129	156	266	228	819	853	896	889	946
Total NTBI	**7**	**13**	**2**	**14**	**11**	**288**	**255**	**298**	**436**	**417**	**1,381**	**1,427**	**1,476**	**1,443**	**1,520**
TOTAL BI	**35**	**34**	**31**	**55**	**38**	**1,139**	**1,017**	**1,151**	**1,360**	**1,423**	**2,203**	**2,377**	**2,384**	**2,264**	**2,440**

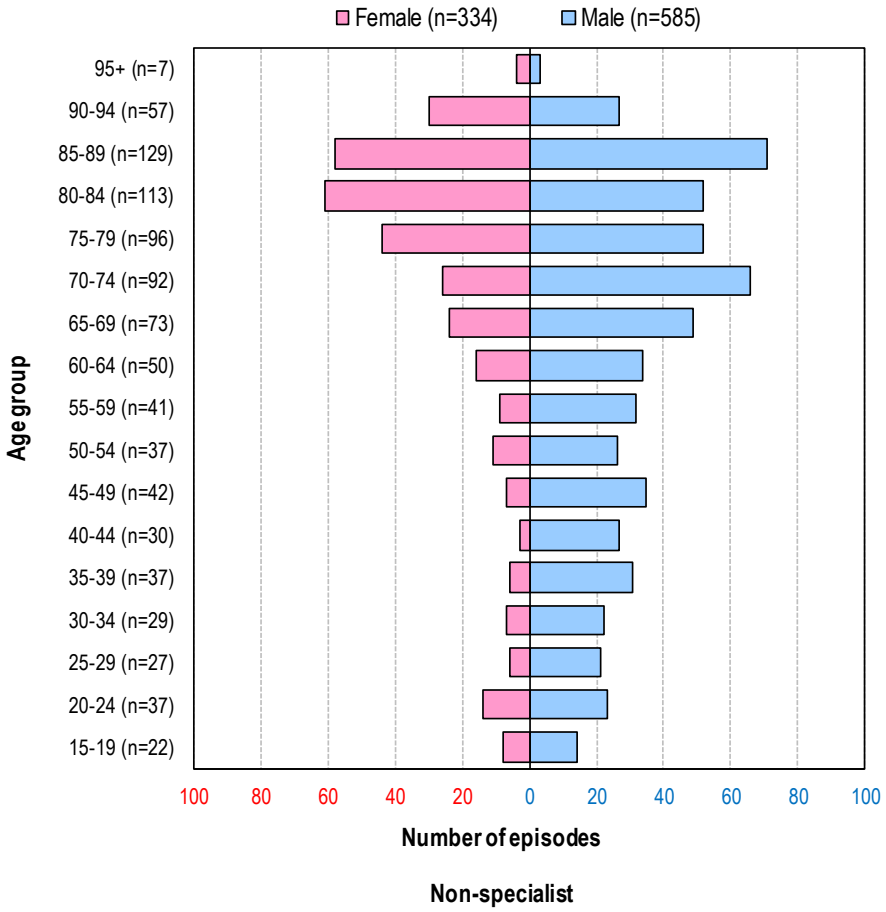
Number of traumatic and non-traumatic episodes by age group and sex



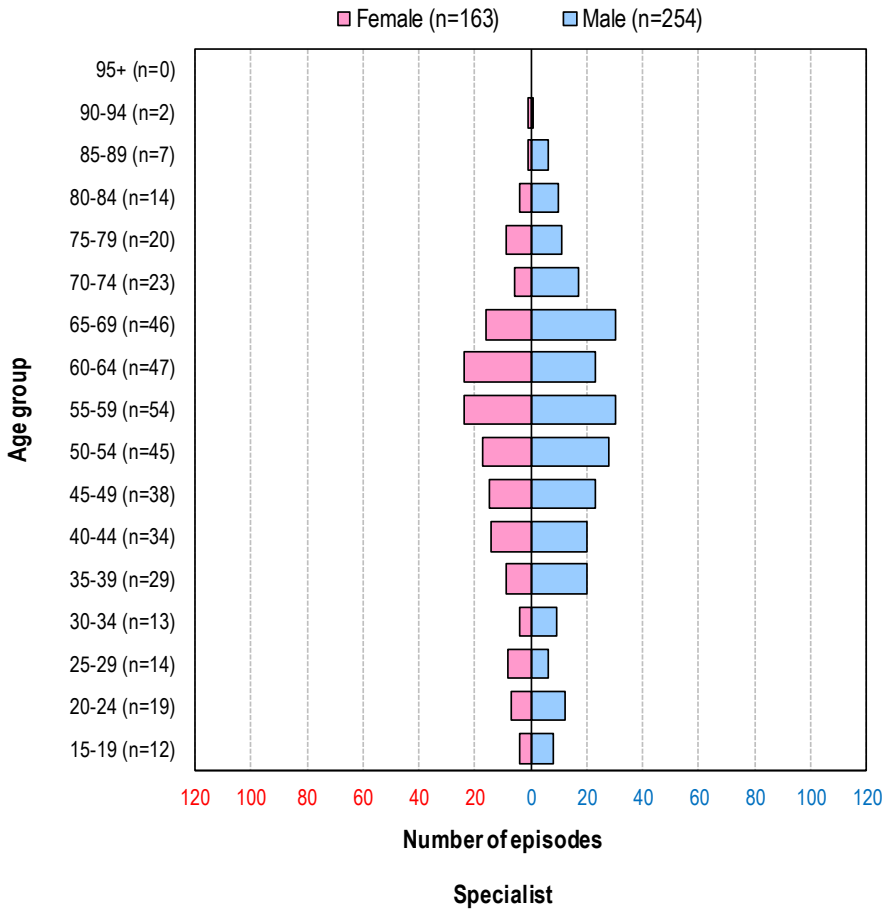


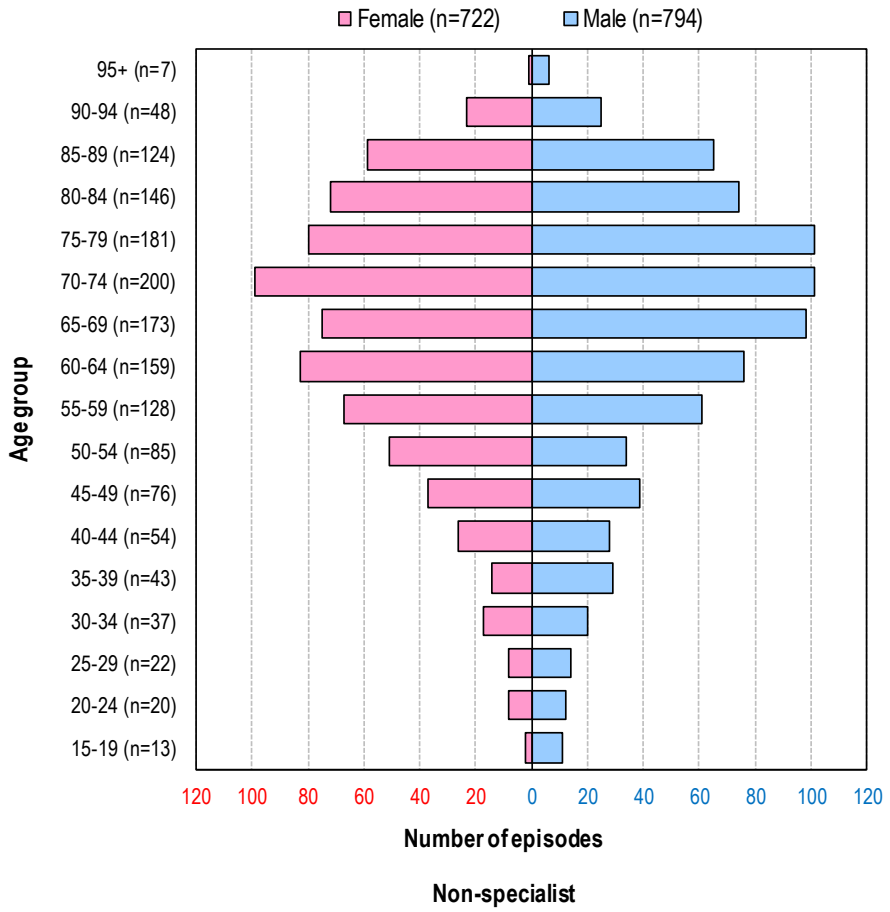
Number of traumatic specialist and non specialist episodes by age group and sex



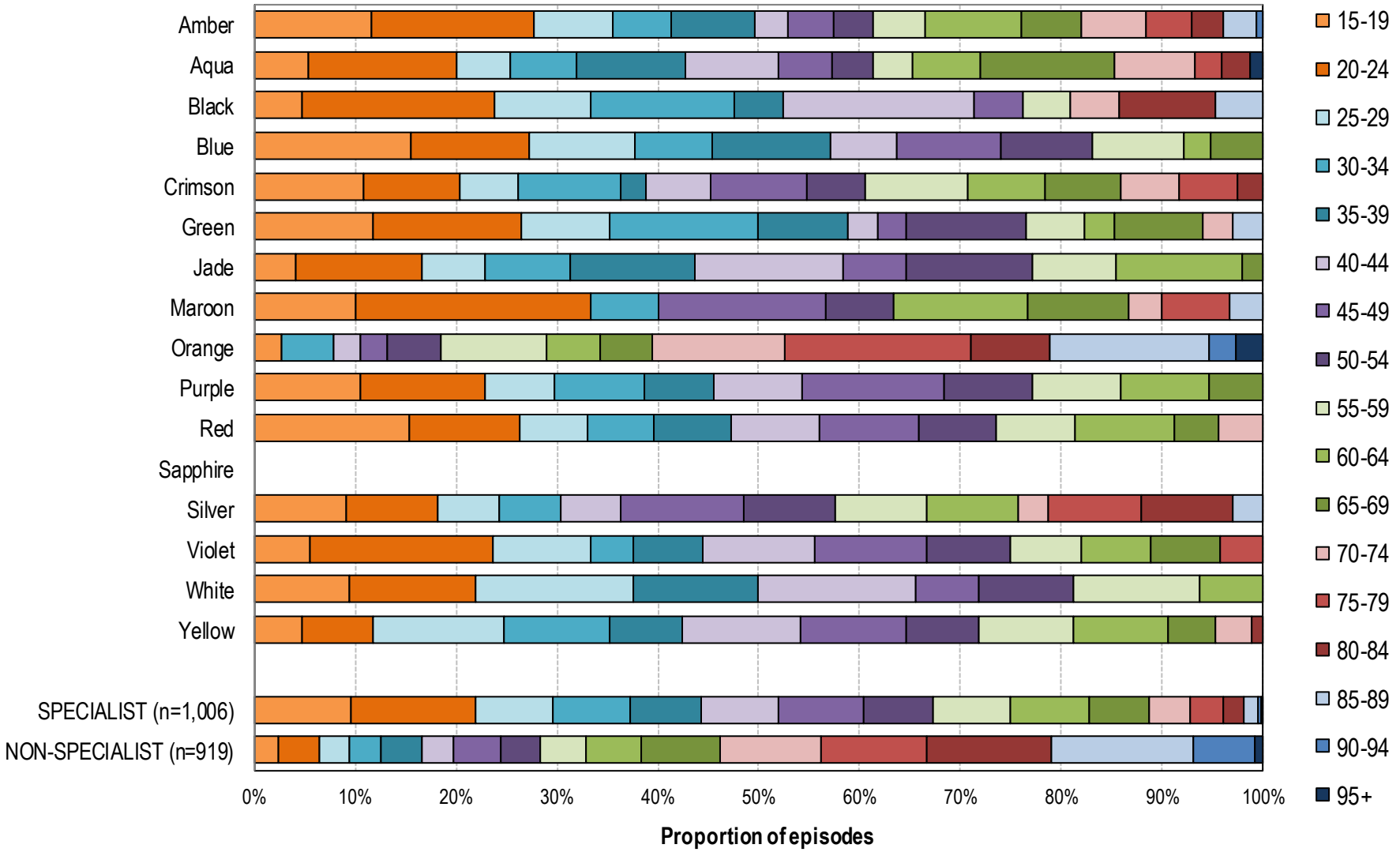


Number of non-traumatic specialist and non specialist episodes by age group and sex

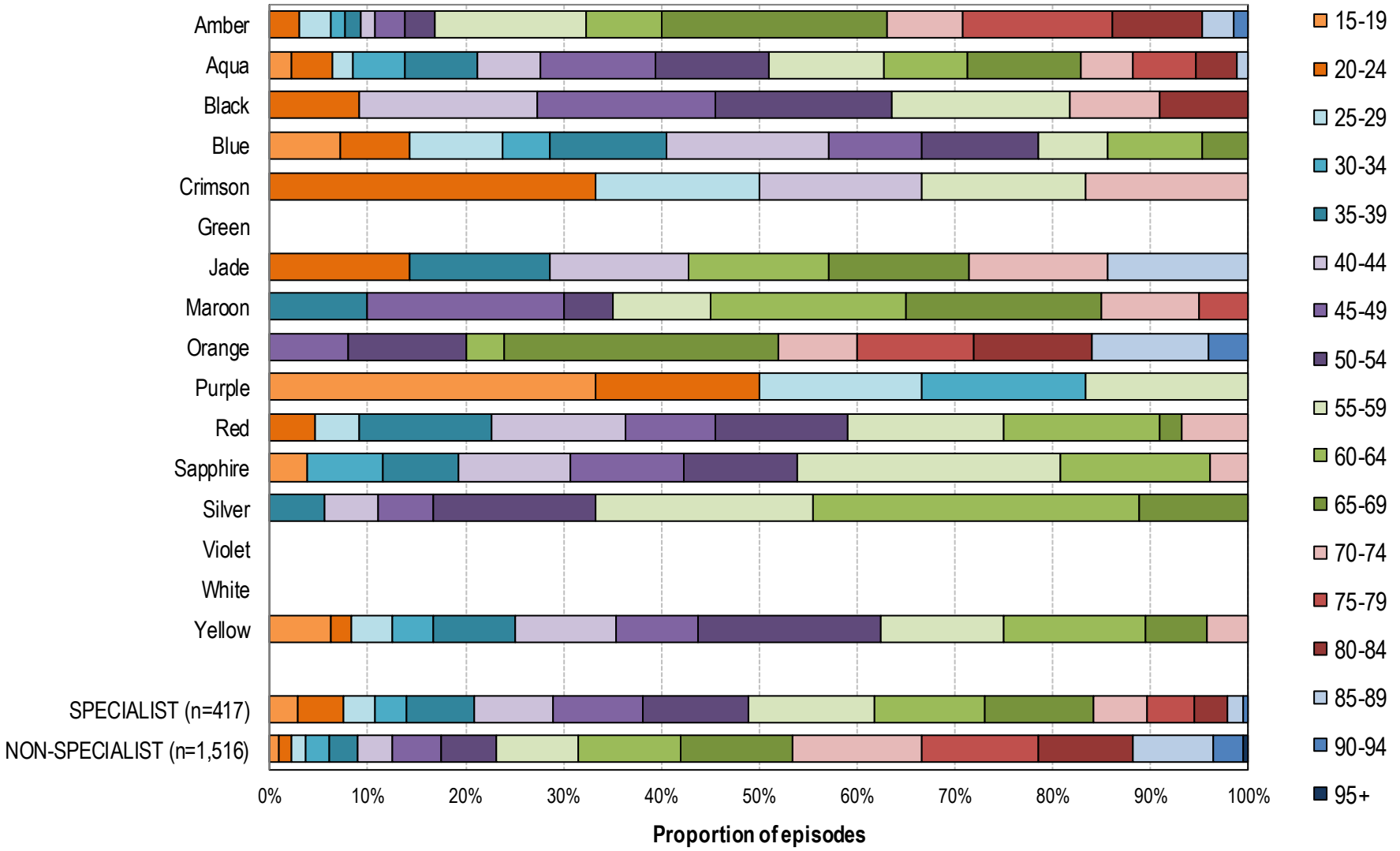




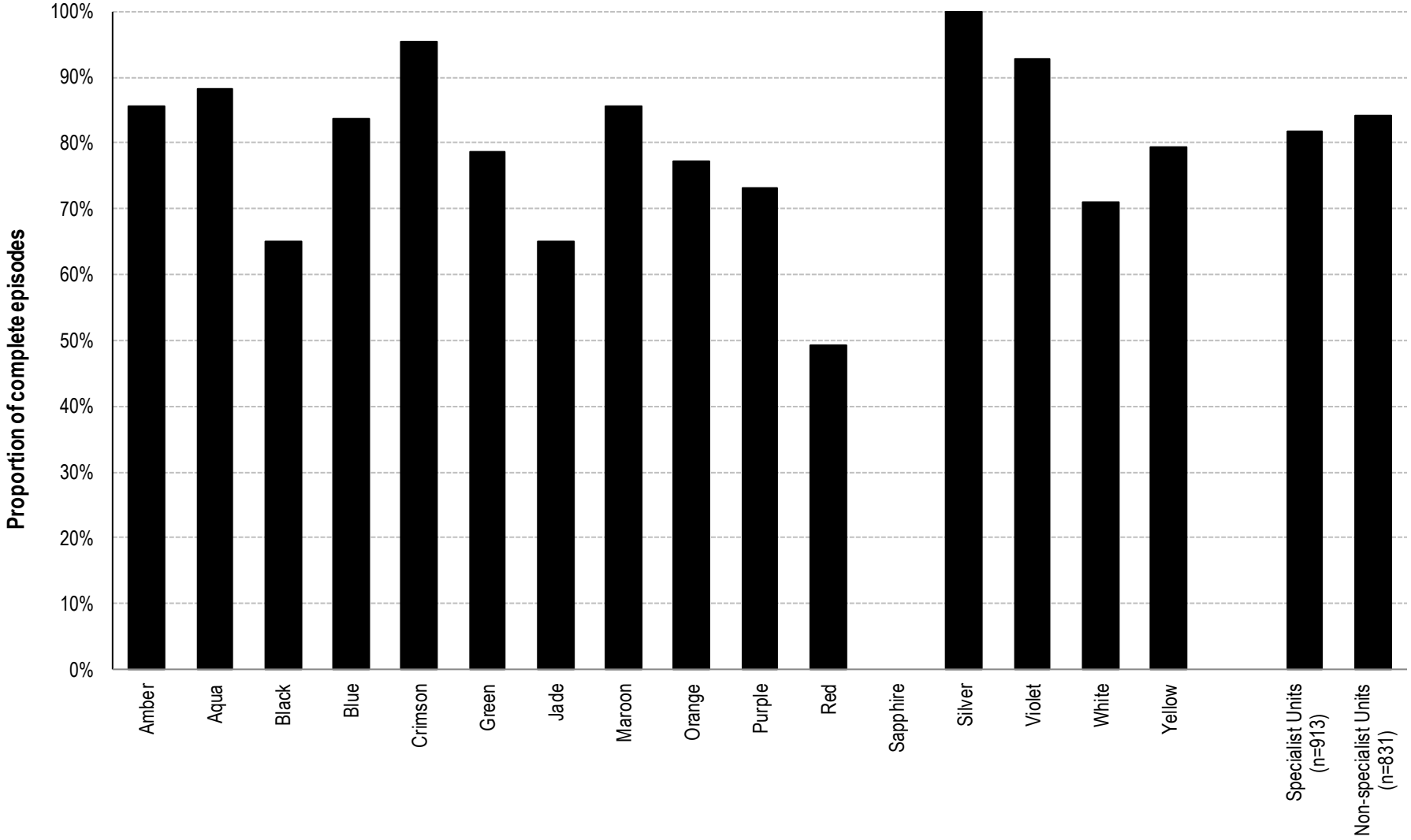
Traumatic episodes by facility and age group



Non-traumatic episodes by facility and age group

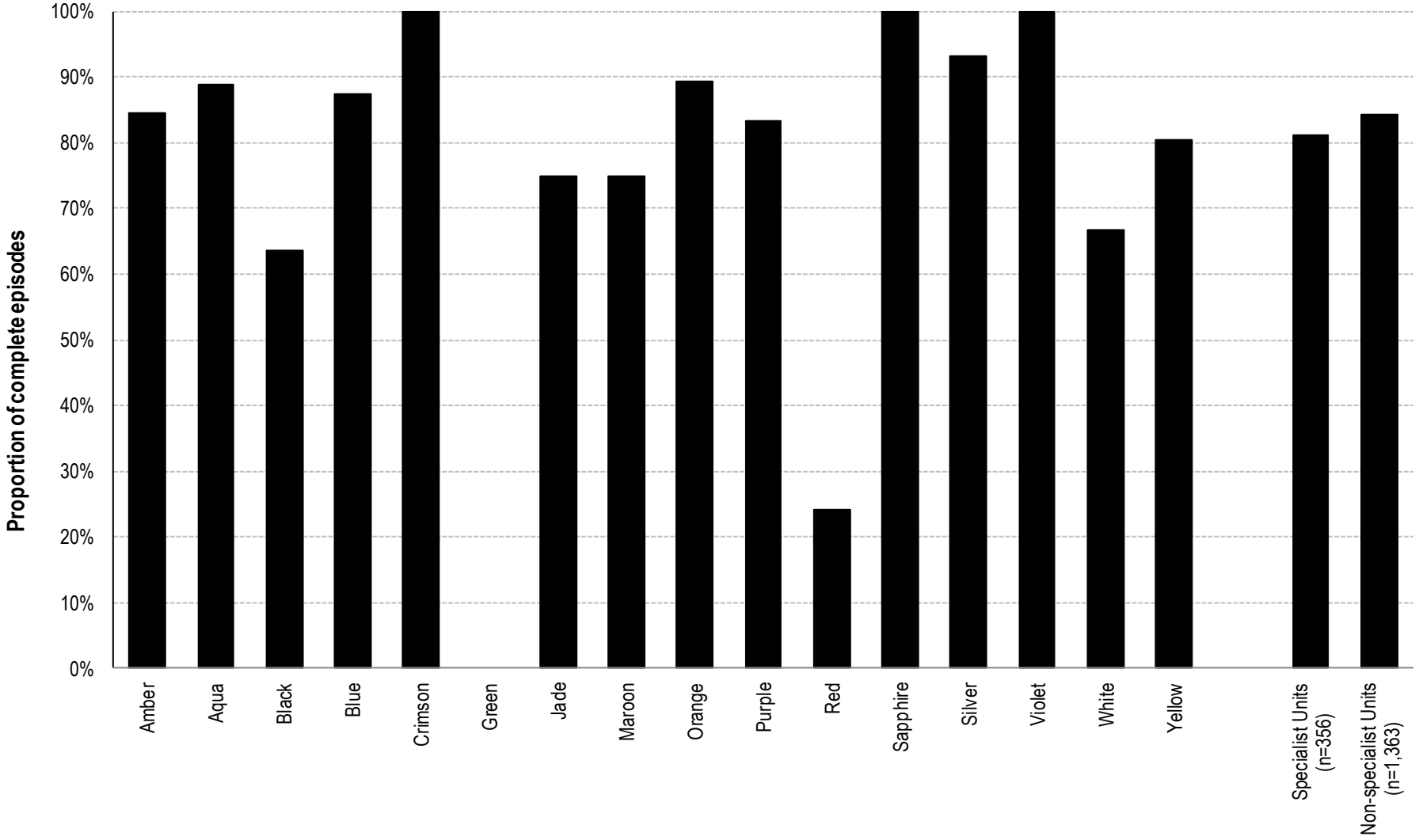


Proportion of complete* first admission traumatic episodes by facility



*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

	YOUR FACILITY			SPECIALIST			NON-SPECIALIST		
AN-SNAP class	**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)	7	6	85.7%	192	182	94.8%	361	343	95.0%
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	9	7	77.8%	214	197	92.1%	190	172	90.5%
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	4	4	100.0%	103	92	89.3%	418	361	86.4%
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	2	1	50.0%	132	116	87.9%	390	344	88.2%
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	2	2	100.0%	89	69	77.5%	129	109	84.5%
4AB6 (BI, weighted FIM motor 29-40)	0	0	—	63	52	82.5%	189	140	74.1%
4AB7 (BI, weighted FIM motor 19-28)	2	2	100.0%	64	47	73.4%	155	113	72.9%
4AP1 (MMT, weighted FIM motor 19-91)	4	4	100.0%	184	164	89.1%	191	159	83.2%
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	1	0	0.0%	73	43	58.9%	122	82	67.2%
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	3	1	33.3%	132	74	56.1%	43	22	51.2%
All Brain AN-SNAP classes	**34**	**27**	**79.4%**	**1,246**	**1,036**	**83.1%**	**2,188**	**1,845**	**84.3%**

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

	YOUR FACILITY			SPECIALIST			NON-SPECIALIST		
Impairment	**All episodes**	**Completed episodes**	**%Complete**	**All episodes**	**Completed episodes**	**%Complete**	**All episodes**	**Completed episodes**	**%Complete**
Traumatic impairments									
2.21 Open injury	2	0	0.0%	74	56	75.7%	53	43	81.1%
2.22 Closed injury	16	14	87.5%	565	470	83.2%	567	477	84.1%
14.1 MMT: brain+spine	0	0	—	11	9	81.8%	24	23	95.8%
14.2 MMT: brain+other	5	4	80.0%	263	212	80.6%	187	156	83.4%
Total TBI	**23**	**18**	**78.3%**	**913**	**747**	**81.8%**	**831**	**699**	**84.1%**
Non-traumatic impairments									
2.11 Sub-arachnoid haemorrhage	3	3	100.0%	96	79	82.3%	411	351	85.4%
2.12 Anoxic brain damage	3	2	66.7%	66	53	80.3%	100	74	74.0%
2.13 Other NTBI	4	4	100.0%	194	157	80.9%	852	724	85.0%
Total NTBI	**10**	**9**	**90.0%**	**356**	**289**	**81.2%**	**1,363**	**1,149**	**84.3%**
TOTAL BI	**33**	**27**	**81.8%**	**1,269**	**1,036**	**81.6%**	**2,194**	**1,848**	**84.2%**

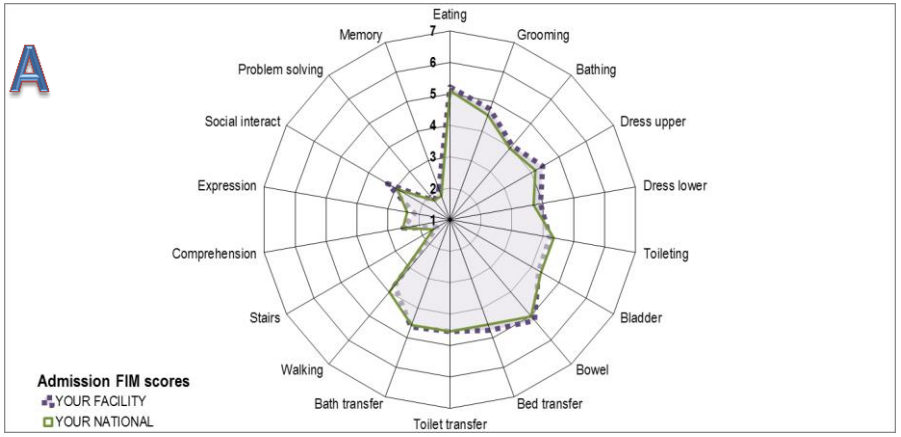
Summary of your incomplete episodes

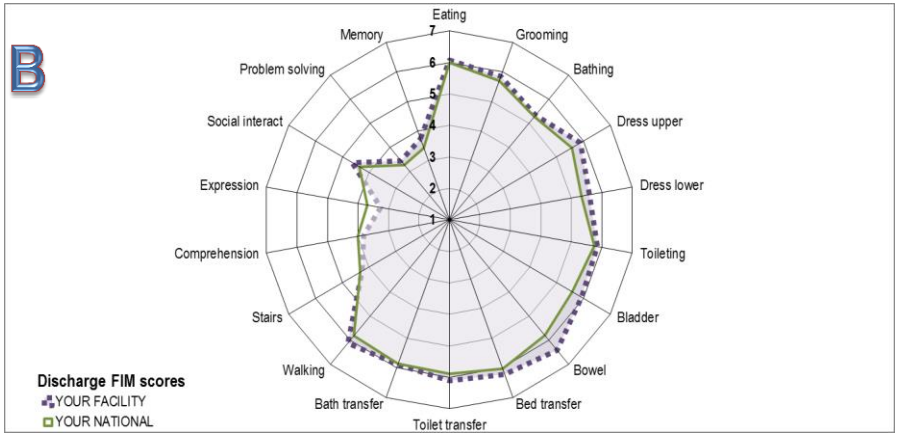
	YOUR FACILITY	SPECIALIST	NON-SPECIALIST	ALL BRAIN
Total reporting episodes	38	1,423	2,440	3,863
Incomplete episodes	7	279	399	678
% incomplete	18.4%	19.6%	16.4%	17.6%
Reason for incomplete:				
Discharged home with end FIM=18	0	10	8	18
Discharged home with no end FIM	0	22	8	30
Discharged to another hospital	4	109	211	320
Discharged back to acute	1	96	105	201
Discharged at own risk	1	27	35	62
Change of care type (LOS<1 week)	0	0	4	4
Died	0	2	7	9
Other/Unknown Discharge	1	13	21	34

	YOUR FACILITY	
	Incomplete Episodes	Complete episodes
Impairment Code:		
2.11 Sub-arachnoid haemorrhage	0 (0.0%)	3 (9.7%)
2.12 Anoxic brain damage	1 (14.3%)	2 (6.5%)
2.13 Other NTBI	1 (14.3%)	4 (12.9%)
2.21 Open injury	2 (28.6%)	0 (0.0%)
2.22 Closed injury	2 (28.6%)	15 (48.4%)
14.1 MMT: brain+spine	0 (0.0%)	0 (0.0%)
14.2 MMT: brain+other	1 (14.3%)	7 (22.6%)
AN-SNAP Class:		
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	1 (14.3%)	6 (19.4%)
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	2 (28.6%)	7 (22.6%)
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	0 (0.0%)	4 (12.9%)
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	1 (14.3%)	2 (6.5%)
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	0 (0.0%)	2 (6.5%)
4AB6 (BI, weighted FIM motor 29-40)	0 (0.0%)	0 (0.0%)
4AB7 (BI, weighted FIM motor 19-28)	0 (0.0%)	2 (6.5%)
4AP1 (MMT, weighted FIM motor 19-91)	0 (0.0%)	7 (22.6%)
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	1 (14.3%)	0 (0.0%)
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	2 (28.6%)	1 (3.2%)

Review of FIM item scoring by AN-SNAP class

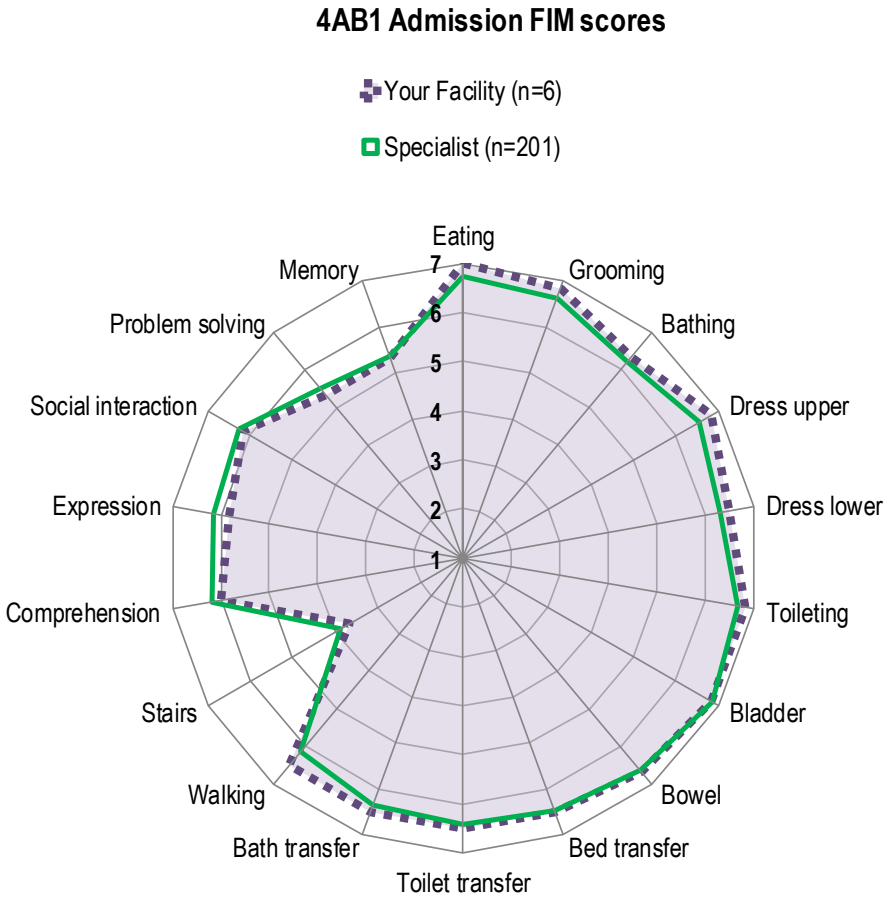
Interpreting your comparative FIM scoring charts

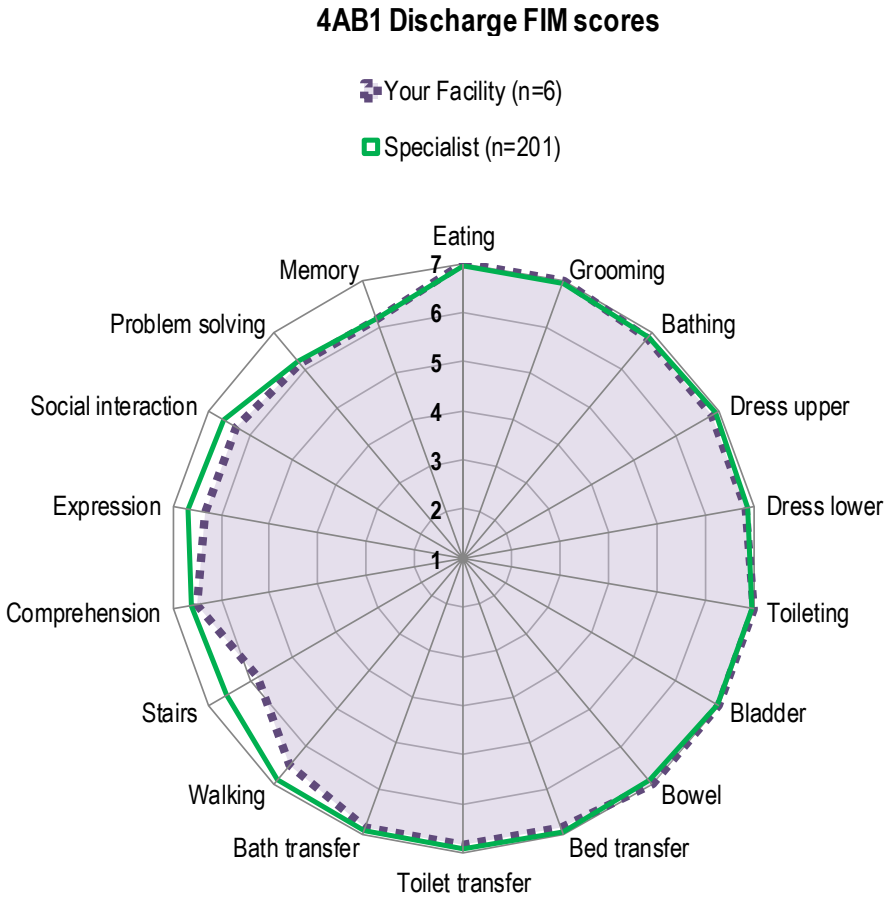




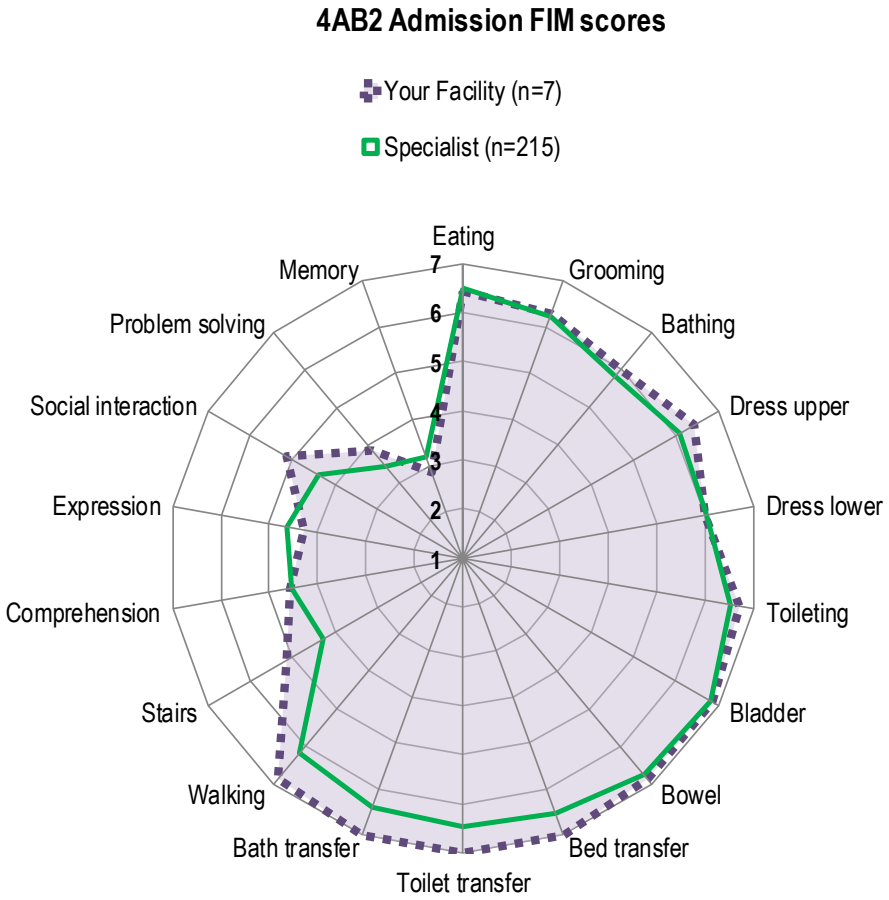
The FIM splat provides a graphic presentation of functional status in a radar chart. The 18 FIM items are arranged in order as 'spokes' of a wheel and the scoring levels from 1 (total dependence) to 7 (total independence) run from the centre outwards. The mean FIM item score for each item is indicated — 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.

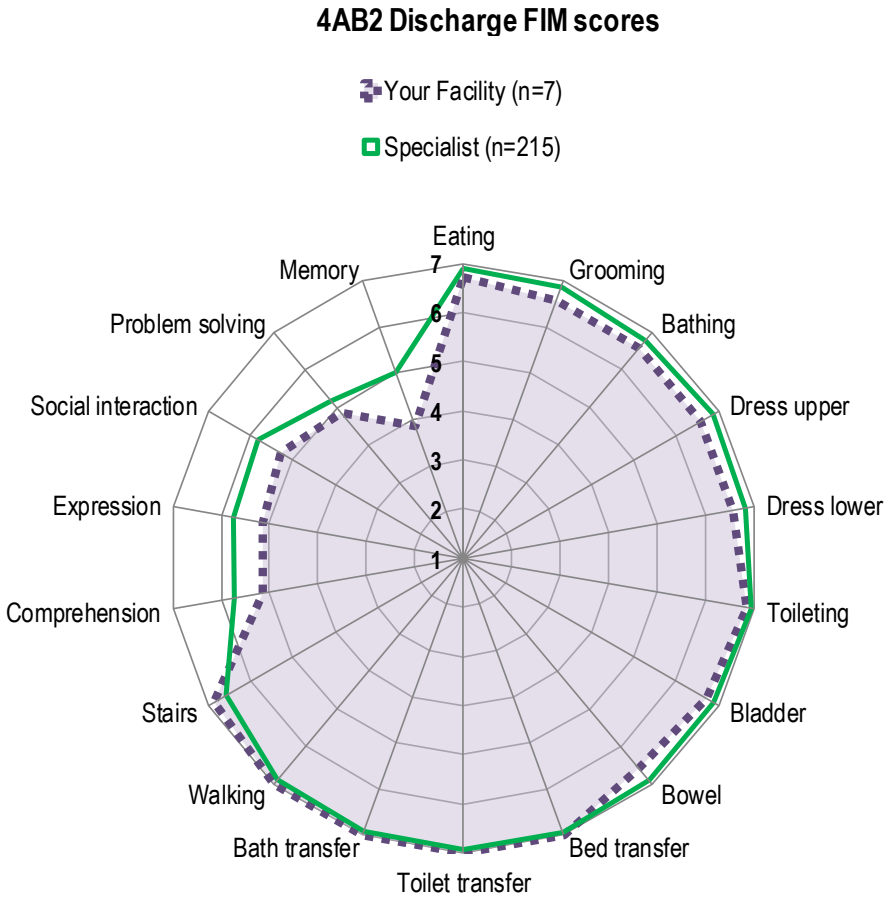
Comparative FIM item scoring
AN-SNAP class 4AB1



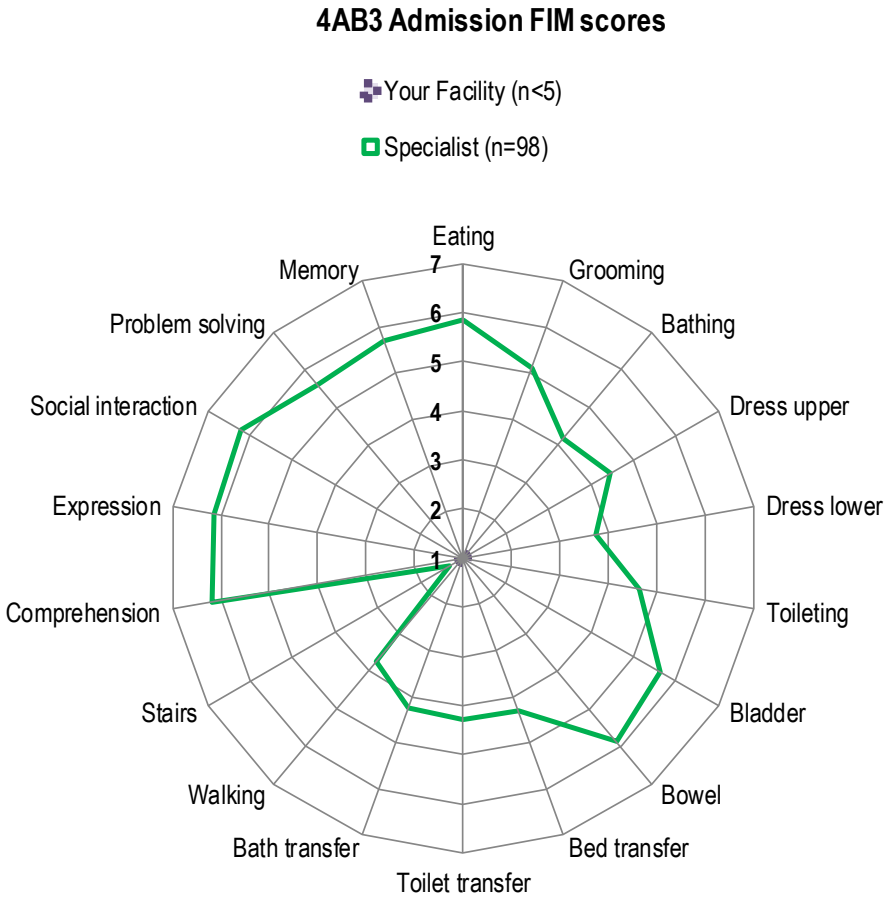


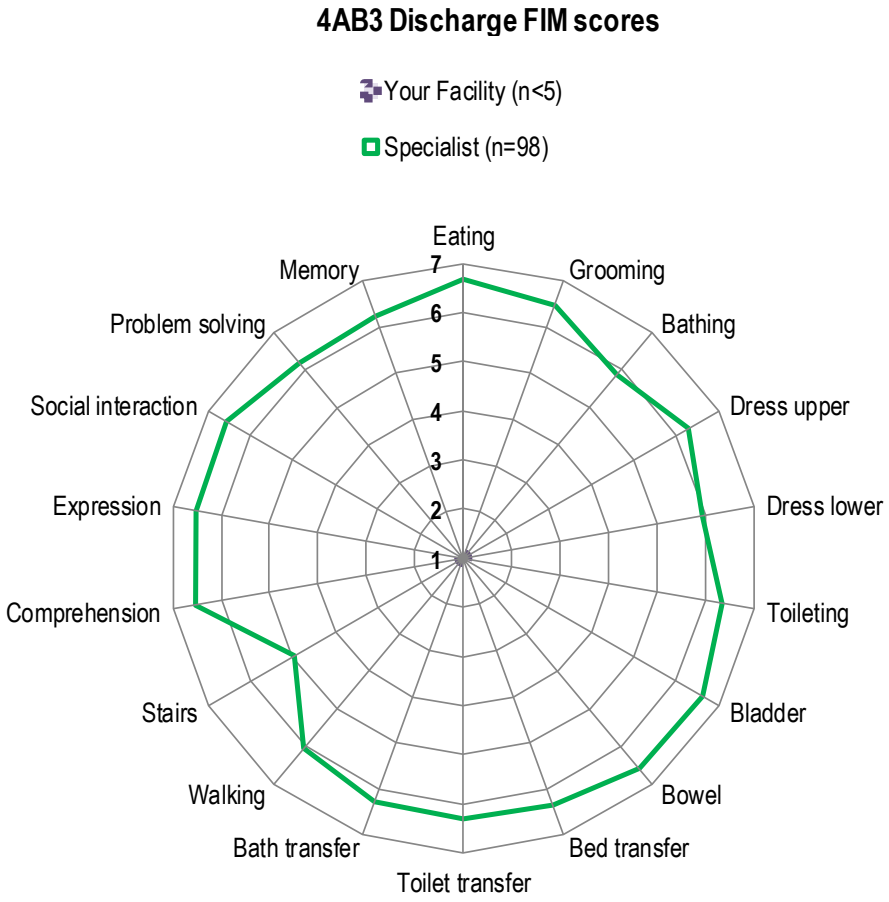
Comparative FIM item scoring
AN-SNAP class 4AB2



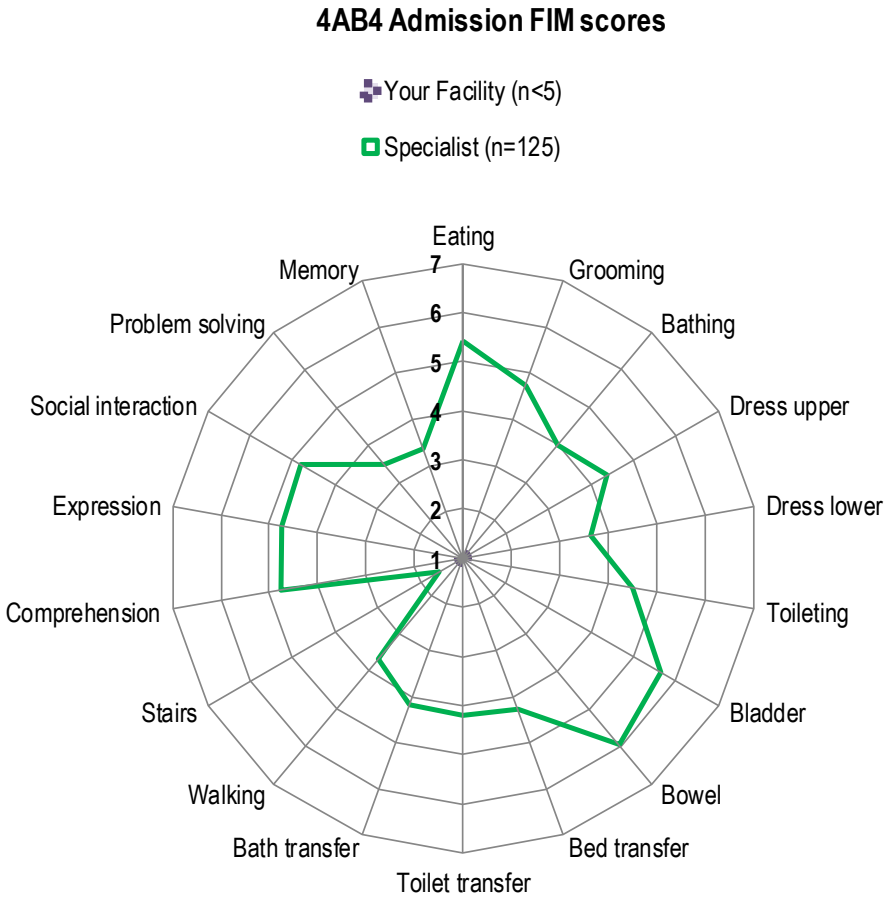


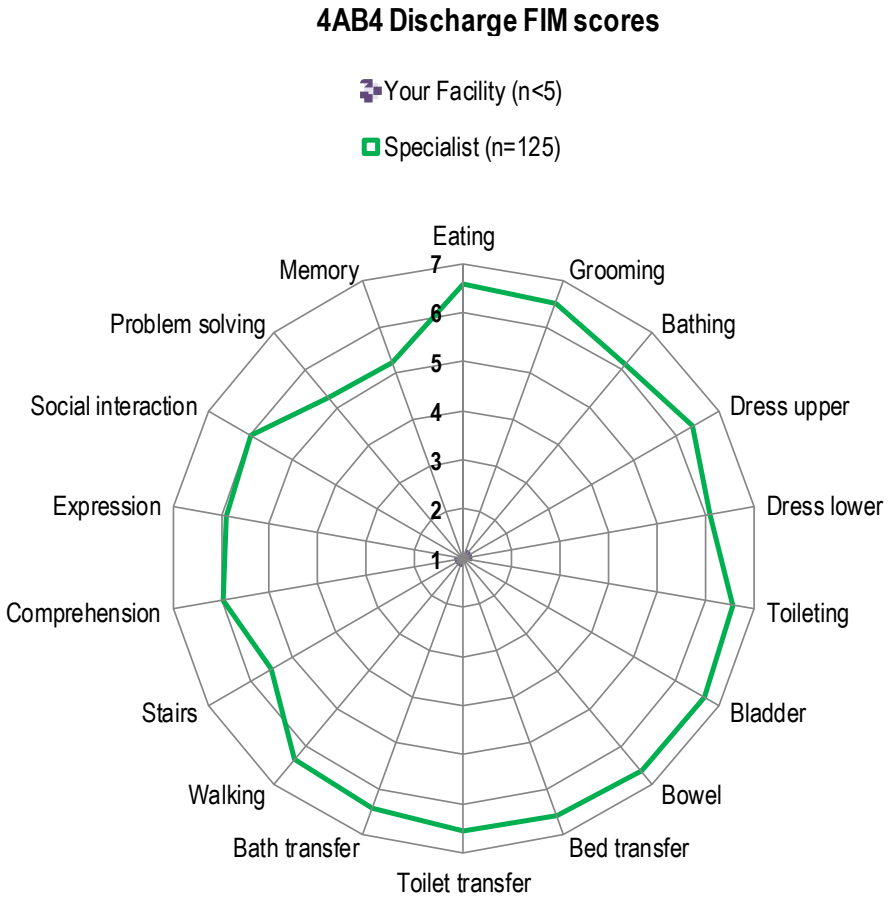
Comparative FIM item scoring
AN-SNAP class 4AB3



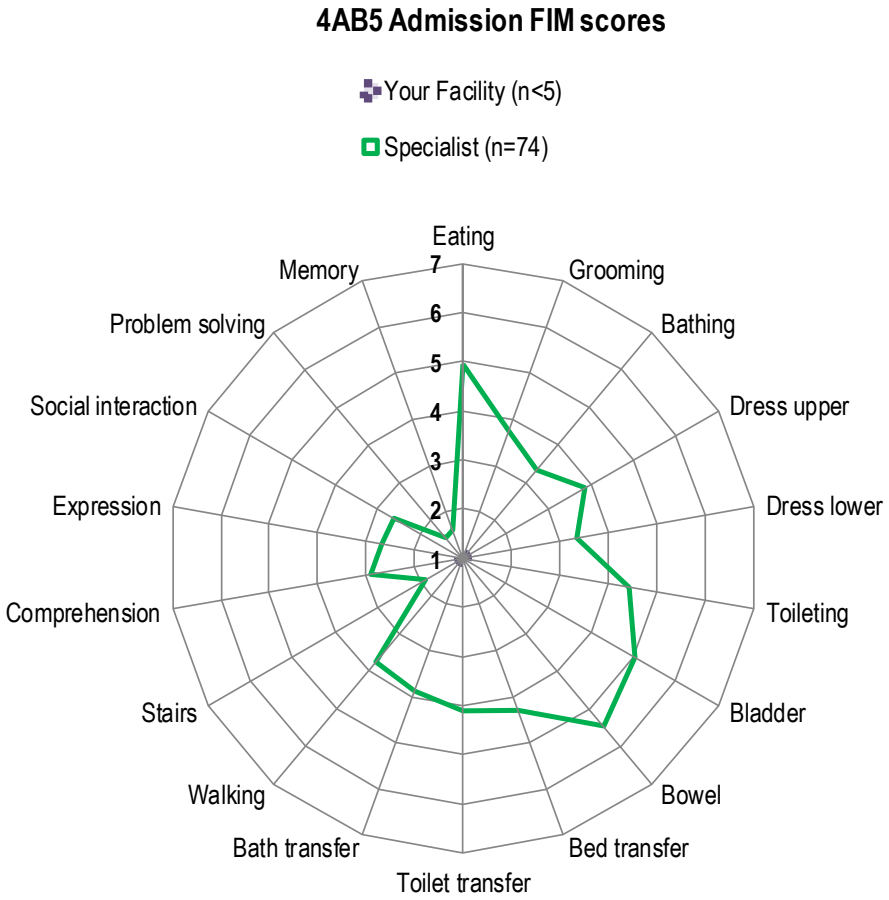


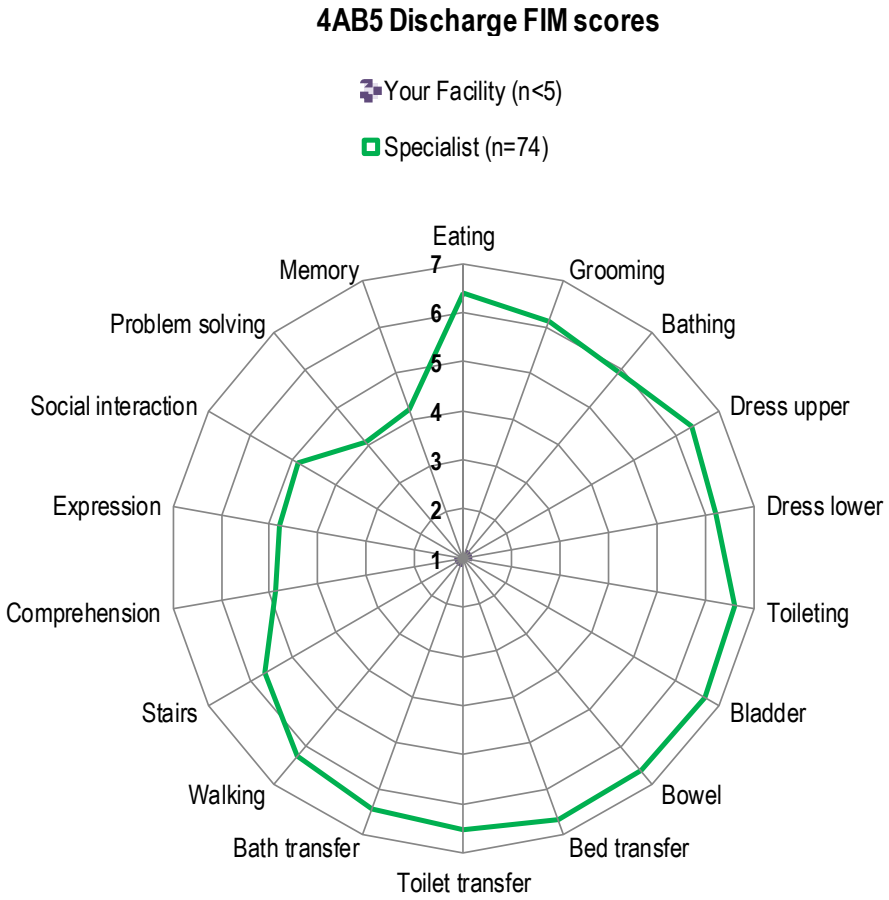
Comparative FIM item scoring
AN-SNAP class 4AB4





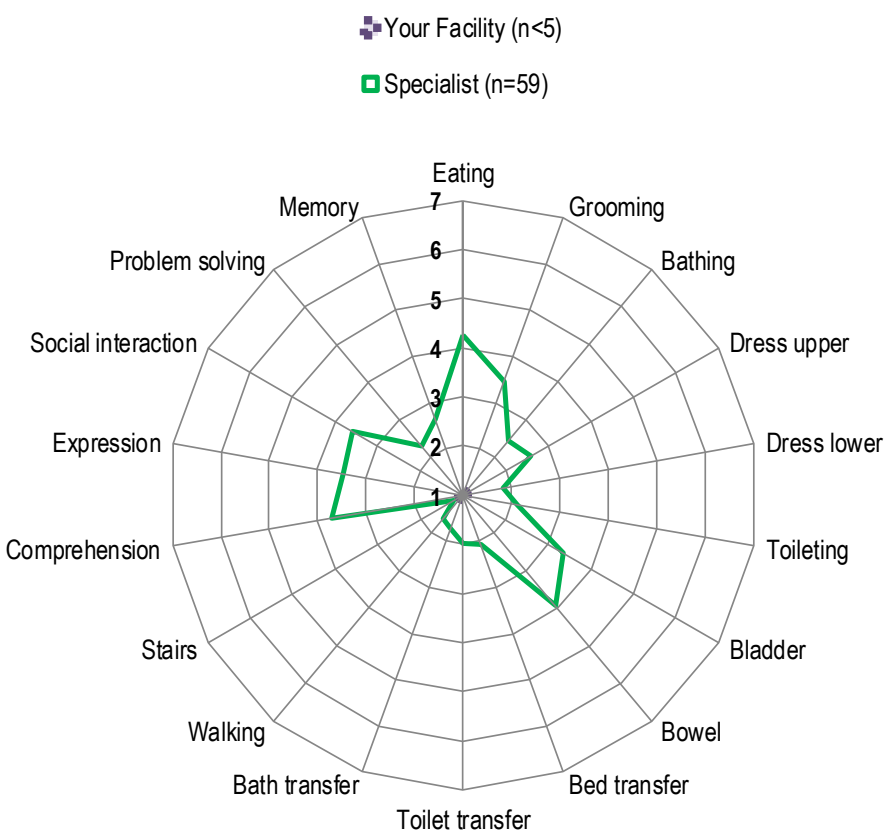
Comparative FIM item scoring
AN-SNAP class 4AB5



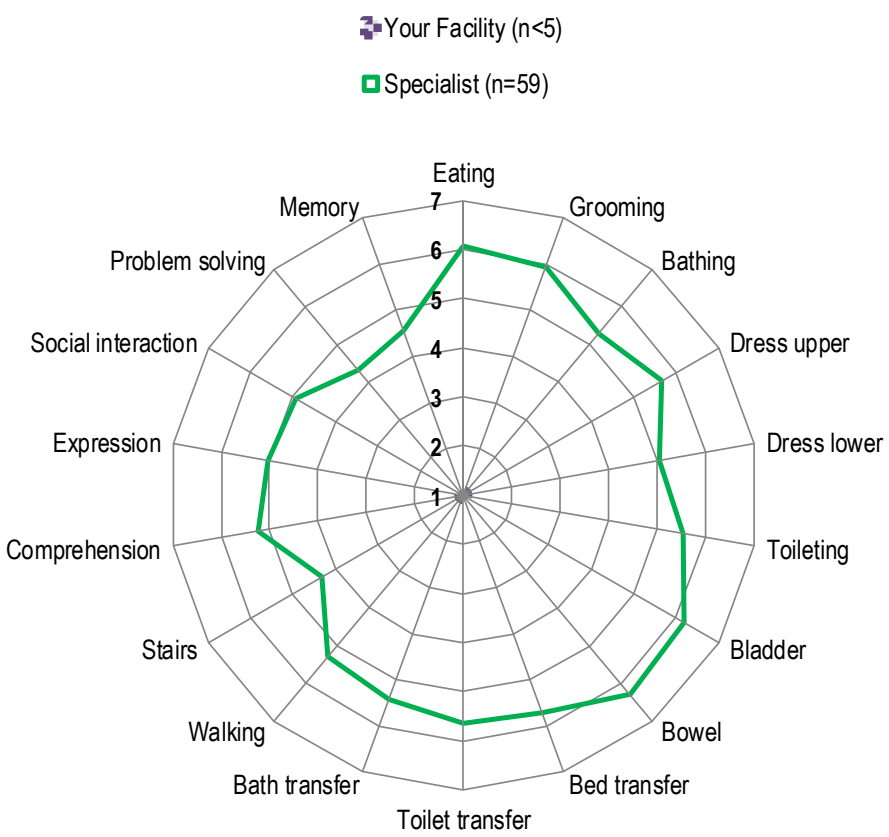


Comparative FIM item scoring
AN-SNAP class 4AB6

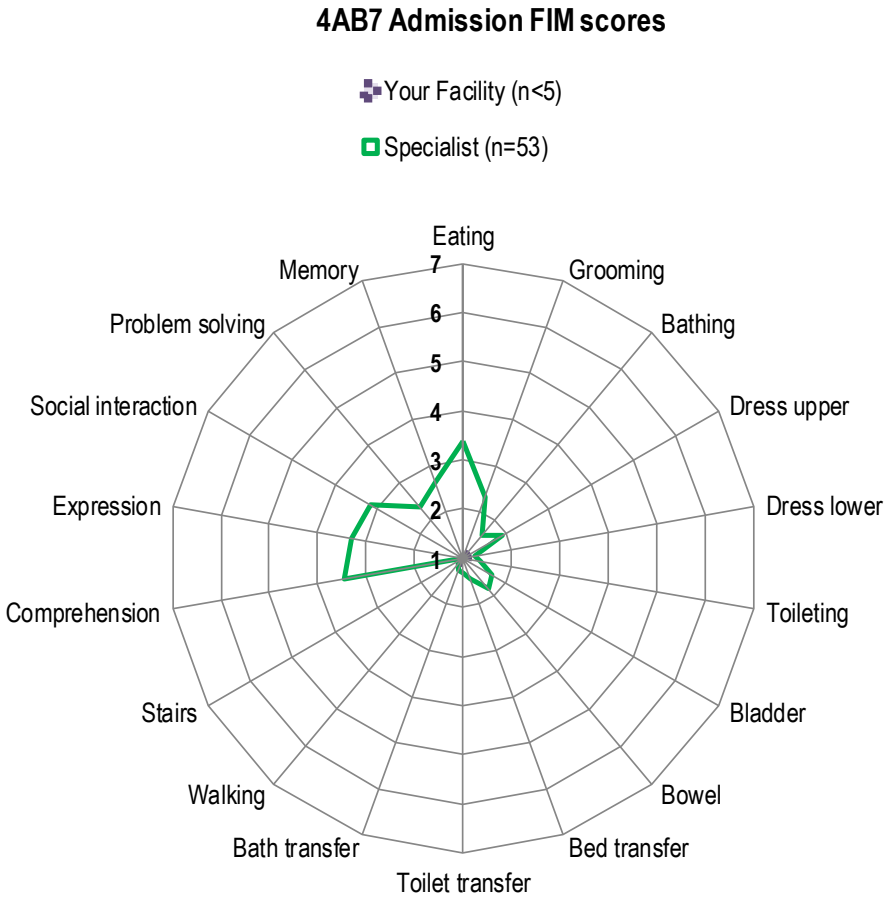
4AB6 Admission FIM scores

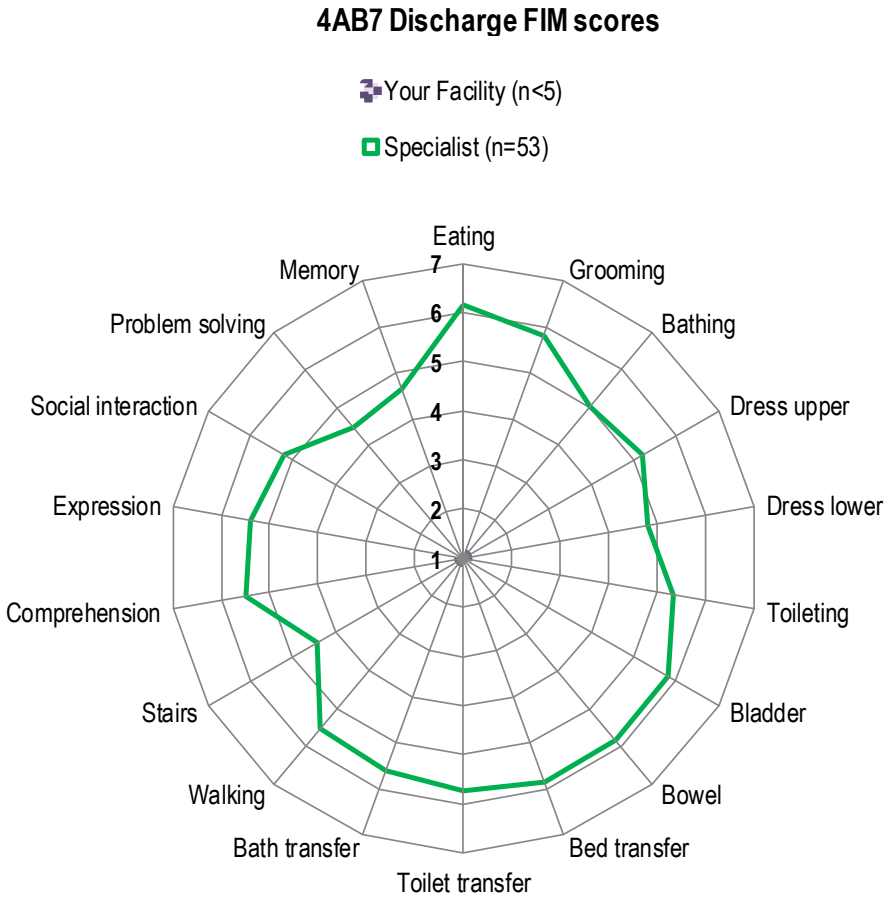


4AB6 Discharge FIM scores

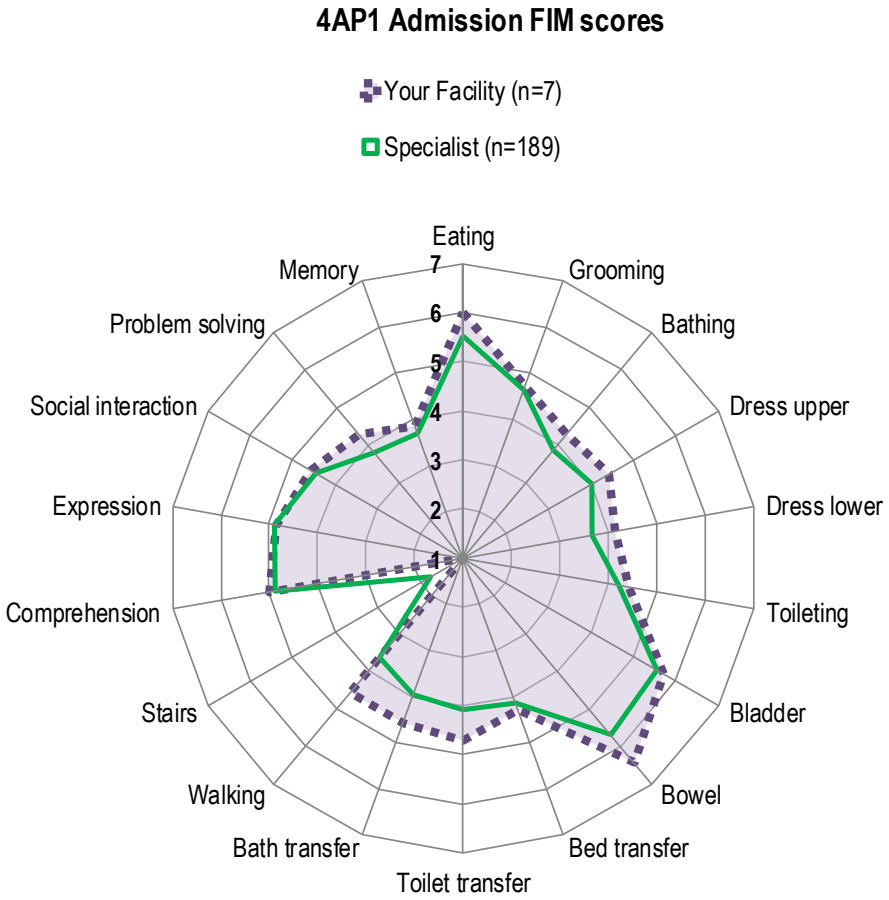


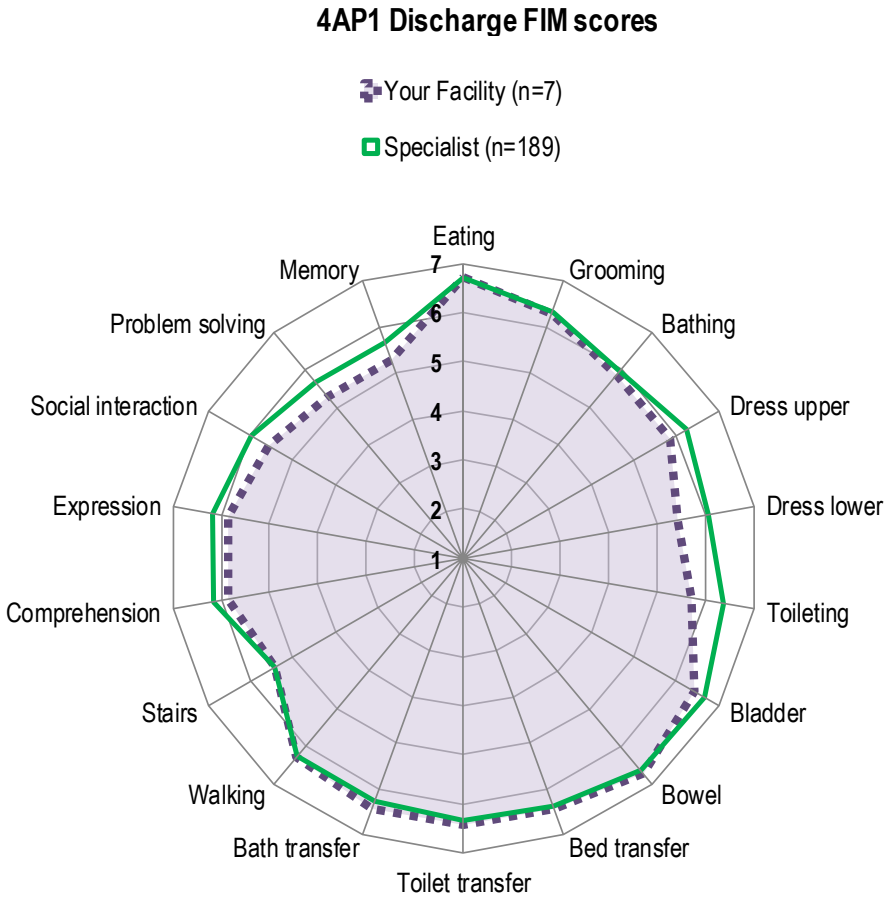
Comparative FIM item scoring
AN-SNAP class 4AB7





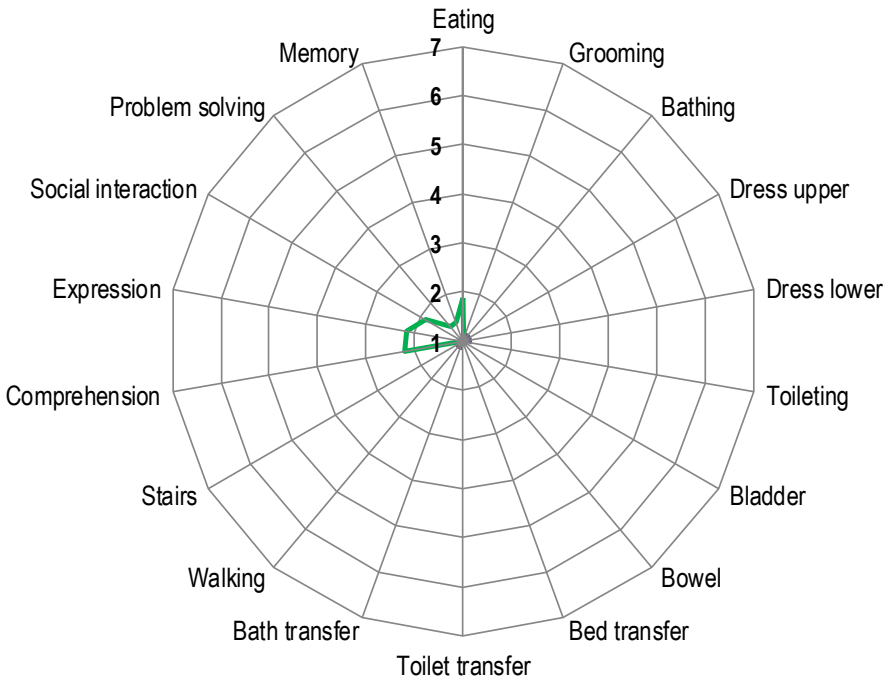
Comparative FIM item scoring
AN-SNAP class 4AP1



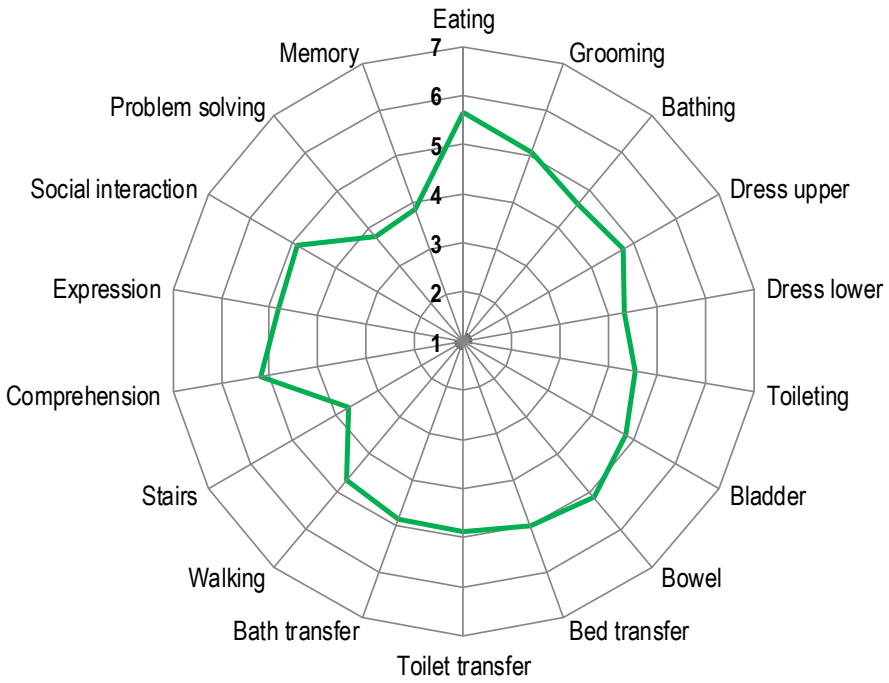


Comparative FIM item scoring
AN-SNAP class 4AZ1

4AZ1 Admission FIM scores

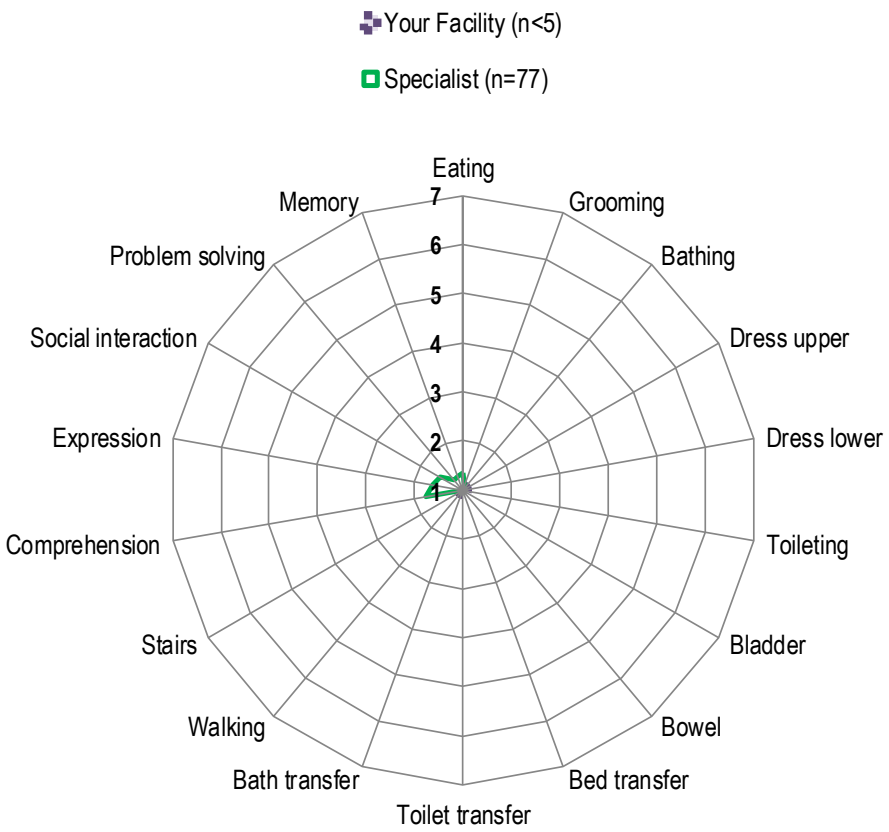


4AZ1 Discharge FIM scores

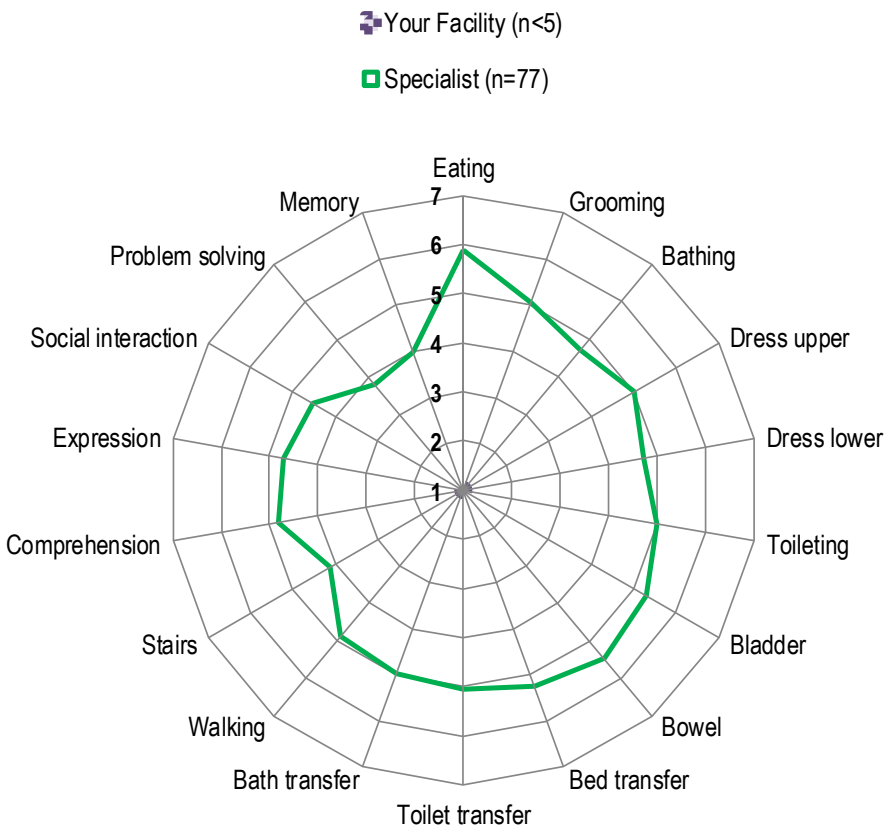


Comparative FIM item scoring
AN-SNAP class 4AZ2

4AZ2 Admission FIM scores

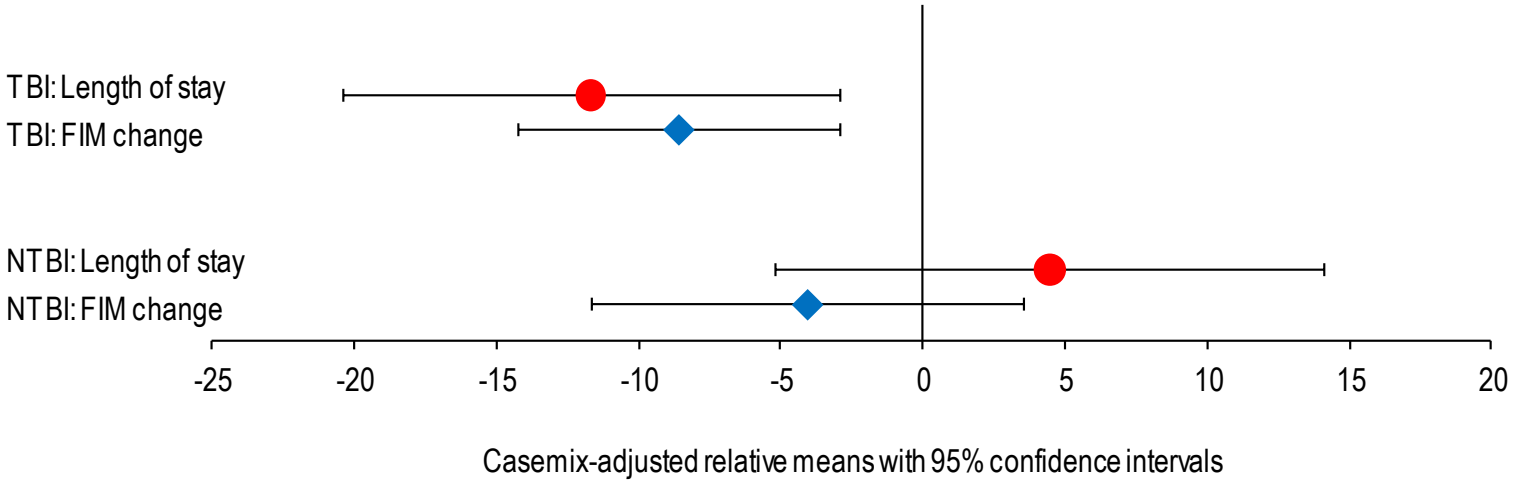


4AZ2 Discharge FIM scores



Outcomes Analysis

Casemix-adjusted* relative means

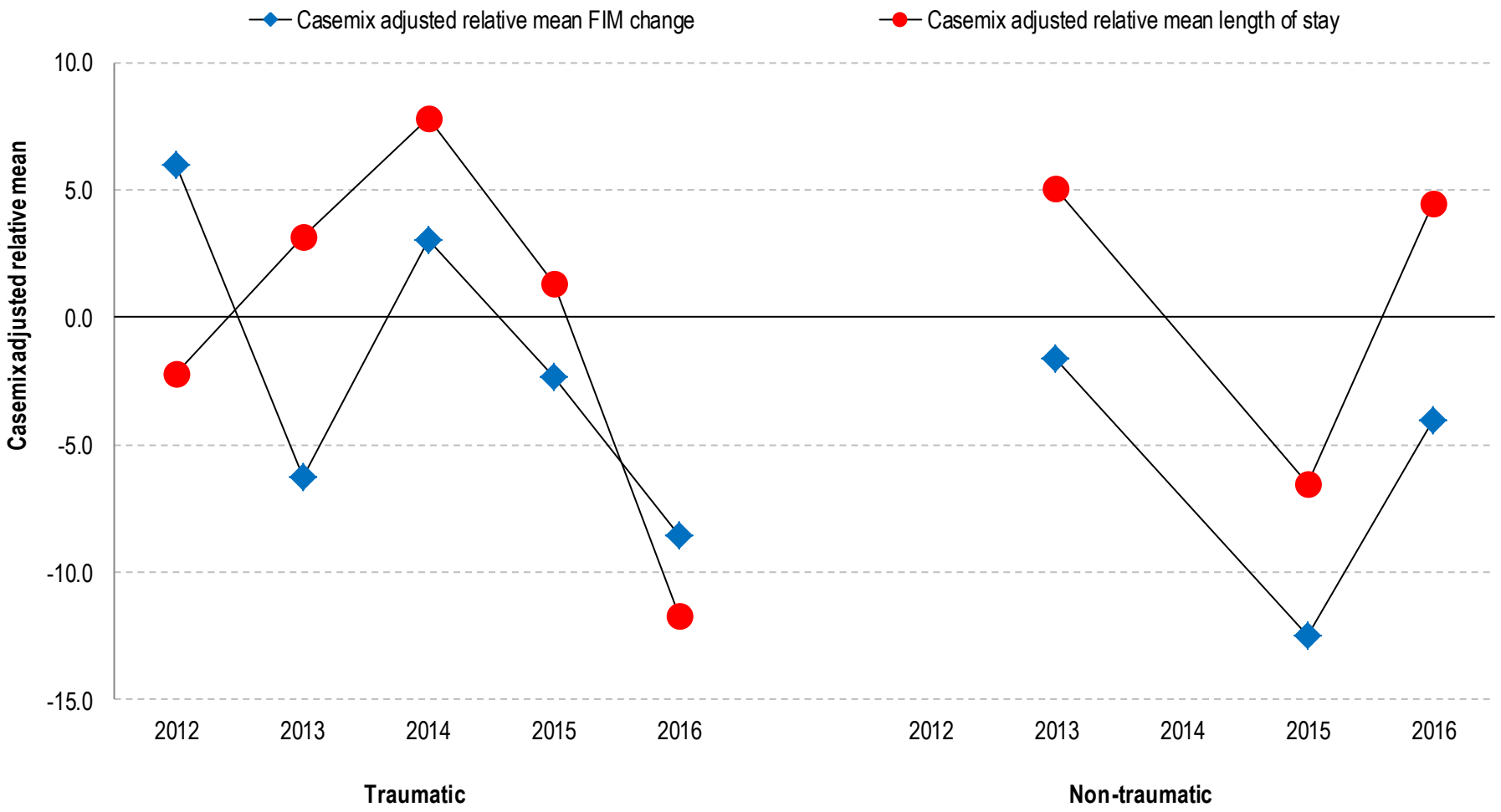


	Traumatic		YOUR FACILITY Non-traumatic	
Outcome measures	**Casemix adjustment relative mean**	**95% CI**	**Casemix adjustment relative mean**	**95% CI**
Length of stay	-11.7	-20.4 to -2.9	4.5	-5.2 to 14.1
FIM change	-8.6	-14.3 to -2.9	-4.1	-11.6 to 3.5

**Casemix Adjustment is by CY2016 Specialist Units first admissions*

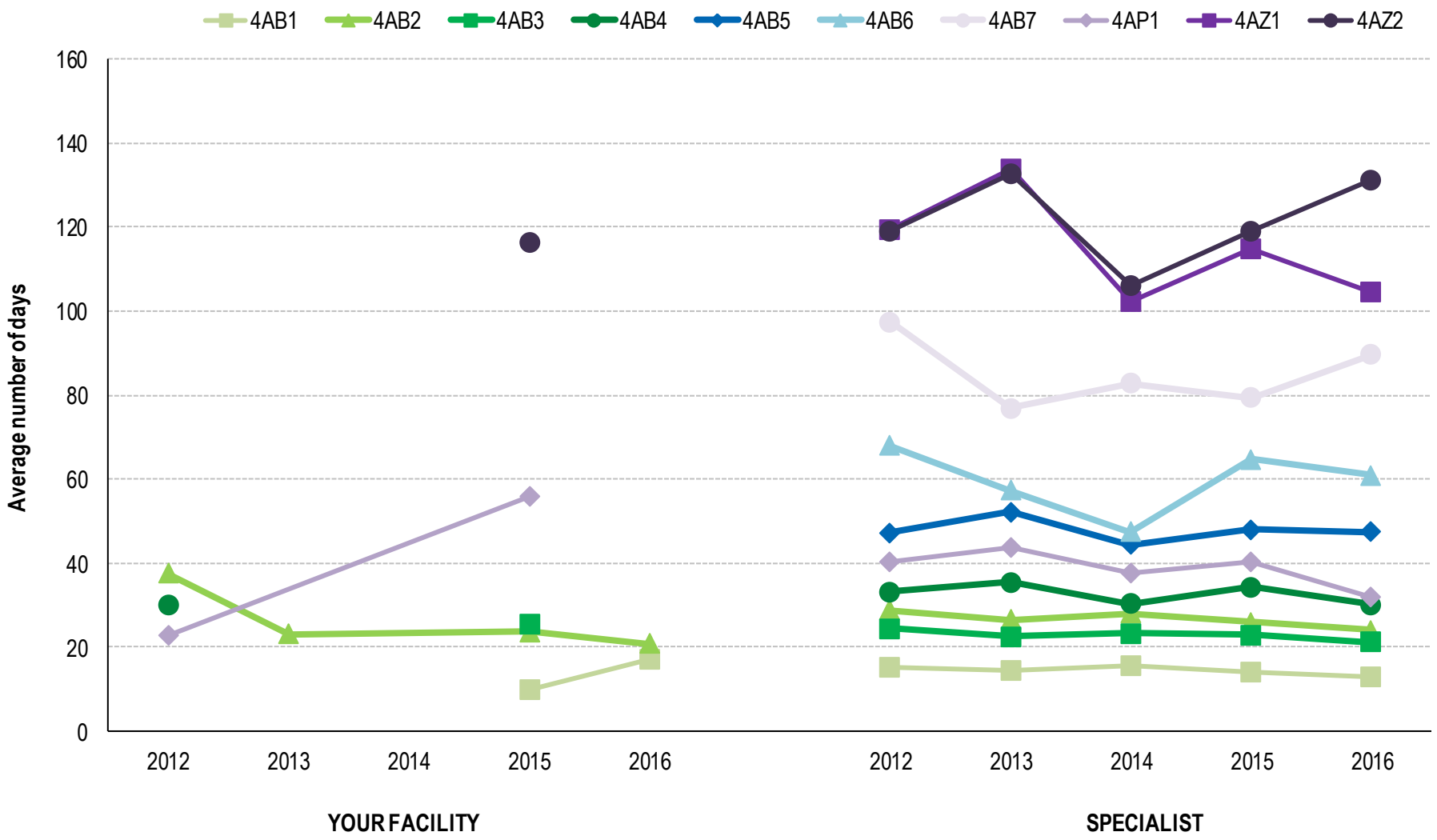
Traumatic and non-traumatic casemix-adjusted* relative means

(base year = 2016)



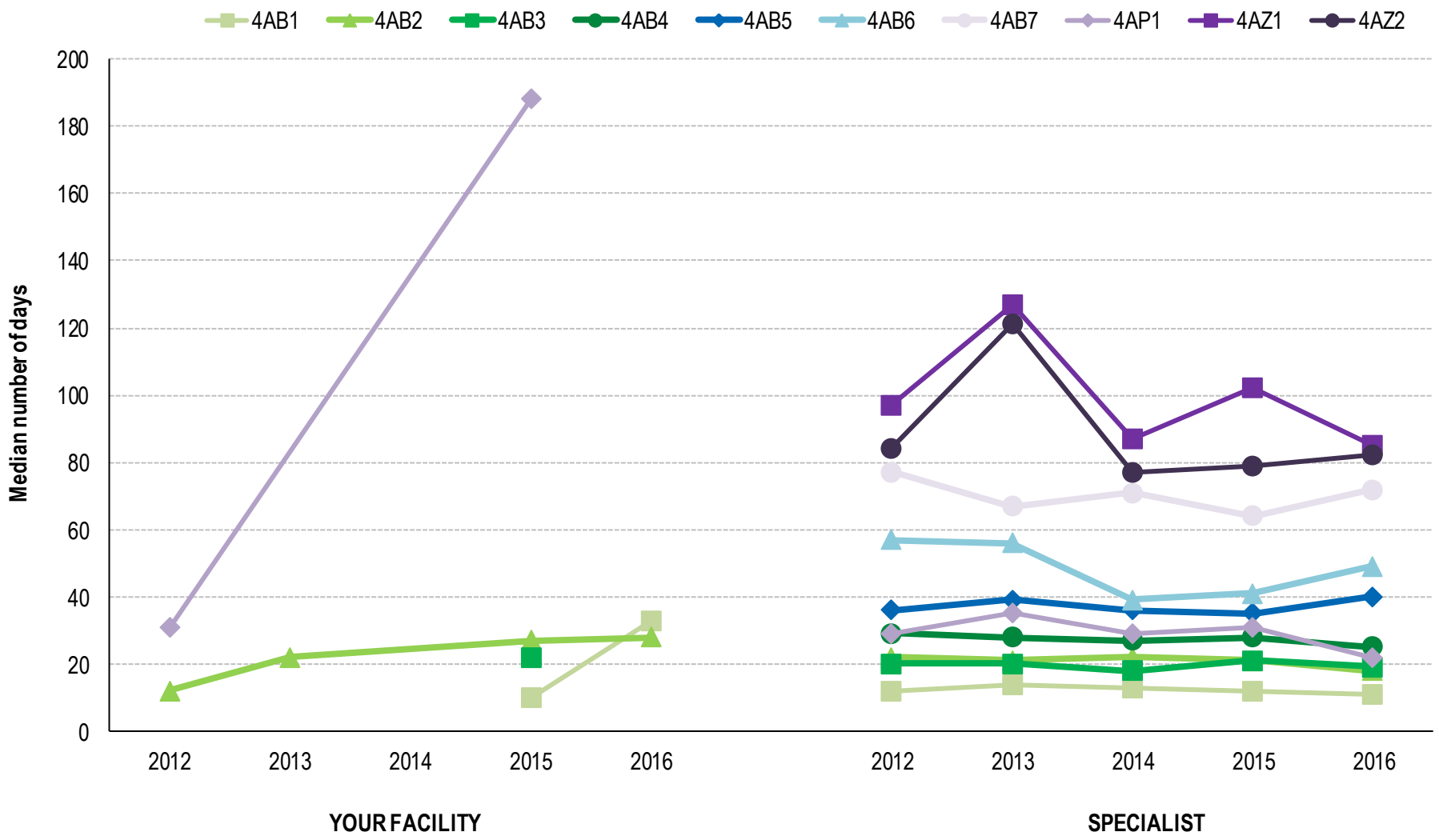
*Casemix Adjustment is by CY2016 Specialist Units first admissions

Average LOS by AN-SNAP class over time



Note: First admission, completed episodes

Median LOS by AN-SNAP class over time



Note: First admission, completed episodes

Average & Median LOS by AN-SNAP class over time

AVERAGE

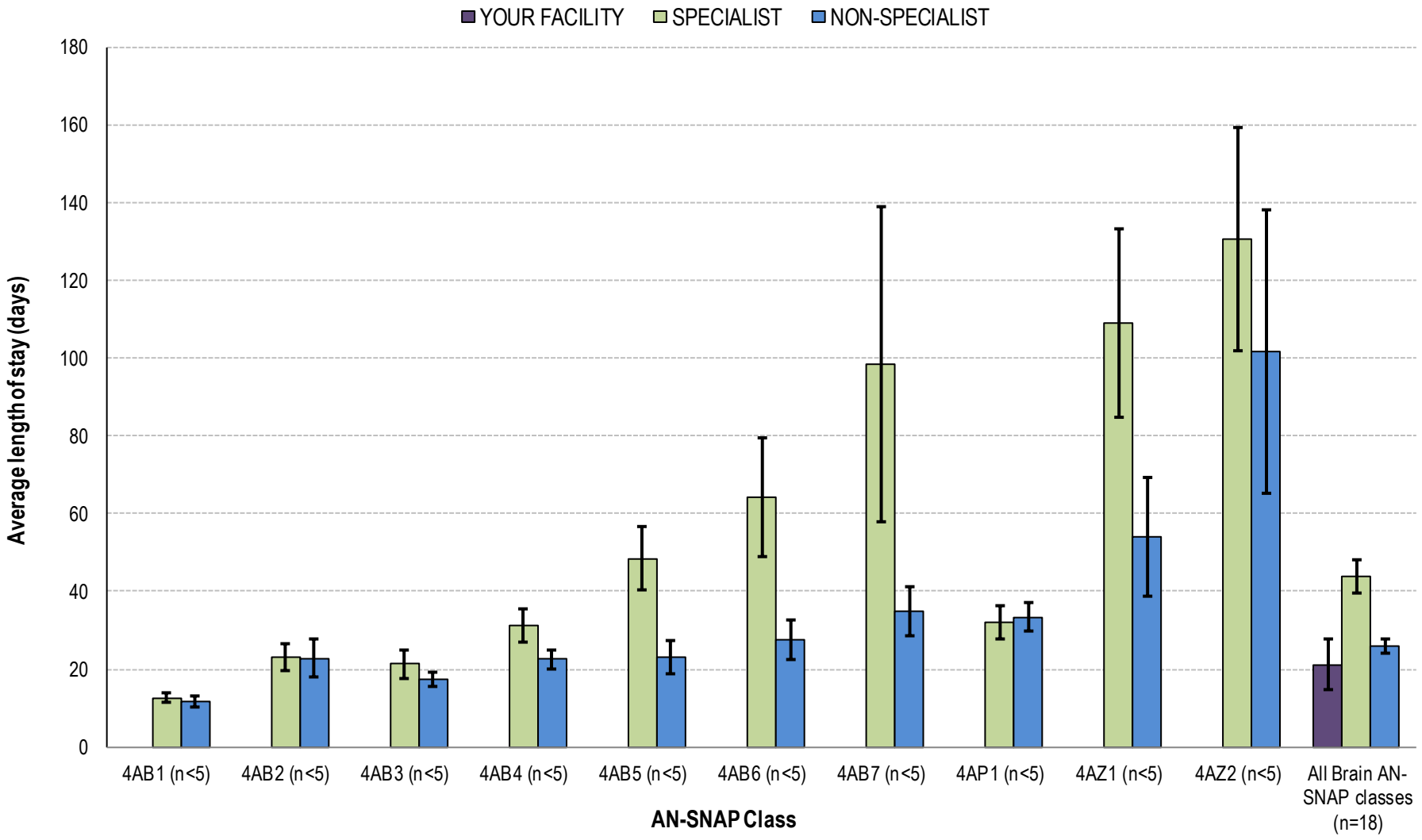
	YOUR FACILITY					SPECIALIST					NON-SPECIALIST				
AN-SNAP class	**2012**	**2013**	**2014**	**2015**	**2016**	**2012**	**2013**	**2014**	**2015**	**2016**	**2012**	**2013**	**2014**	**2015**	**2016**
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	—	—	—	10.0	17.2	15.1	14.3	15.4	14.0	13.0	13.8	13.7	12.7	12.3	11.9
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	37.6	23.1	—	23.6	20.7	28.7	26.5	28.1	25.9	24.0	21.5	21.6	20.7	23.4	19.6
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	—	—	—	25.5	—	24.4	22.4	23.3	22.9	21.3	20.7	19.5	21.1	18.9	17.4
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	30.2	—	—	—	—	33.1	35.4	30.3	34.4	30.2	23.5	23.9	23.1	22.1	21.1
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	—	—	—	—	—	47.2	52.2	44.3	47.9	47.4	33.3	30.4	31.0	26.6	28.6
4AB6 (BI, weighted FIM motor 29-40)	—	—	—	—	—	67.9	57.4	47.4	64.8	61.0	41.6	34.3	36.2	30.7	32.2
4AB7 (BI, weighted FIM motor 19-28)	—	—	—	—	—	97.4	76.9	82.8	79.4	89.7	57.2	52.4	39.1	42.7	36.6
4AP1 (MMT, weighted FIM motor 19-91)	22.8	—	—	55.8	—	40.2	43.8	37.8	40.1	31.9	32.7	34.6	31.8	37.8	33.3
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	—	119.4	133.7	102.1	114.9	104.7	69.9	67.3	72.1	65.7	51.7
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	116.2	—	119.0	132.7	106.1	118.9	131.2	90.8	115.1	111.1	76.2	85.7
All Brain AN-SNAP classes	**27.7**	**44.2**	**67.6**	**43.1**	**26.8**	**41.5**	**43.6**	**38.3**	**40.6**	**40.9**	**27.4**	**27.1**	**27.7**	**25.1**	**24.0**

MEDIAN

	YOUR FACILITY					SPECIALIST					NON-SPECIALIST				
AN-SNAP class	**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)	—	—	—	10	33	12	14	13	12	11	11	12	11	10	10
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	12	22	—	27	28	22	21	22	21	18	16	16	16	15	13
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	—	—	—	22	—	20	20	18	21	19	18	16	17	15	15
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	—	—	—	—	—	29	28	27	28	25	19	21	19	20	19
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	—	—	—	—	—	36	39	36	35	40	28	26	22	22	25
4AB6 (BI, weighted FIM motor 29-40)	—	—	—	—	—	57	56	39	41	49	32	29	29	27	29
4AB7 (BI, weighted FIM motor 19-28)	—	—	—	—	—	77	67	71	64	72	43	40	34	40	33
4AP1 (MMT, weighted FIM motor 19-91)	31	—	—	188	—	29	35	29	31	22	24	24	23	25	26
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	—	97	127	87	102	85	57	55	52	48	44
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	—	—	84	121	77	79	82	83	92	85	59	75
All Brain AN-SNAP classes	**56**	**74**	**253**	**289**	**63**	**27**	**26**	**26**	**24**	**23**	**19**	**19**	**19**	**18**	**18**

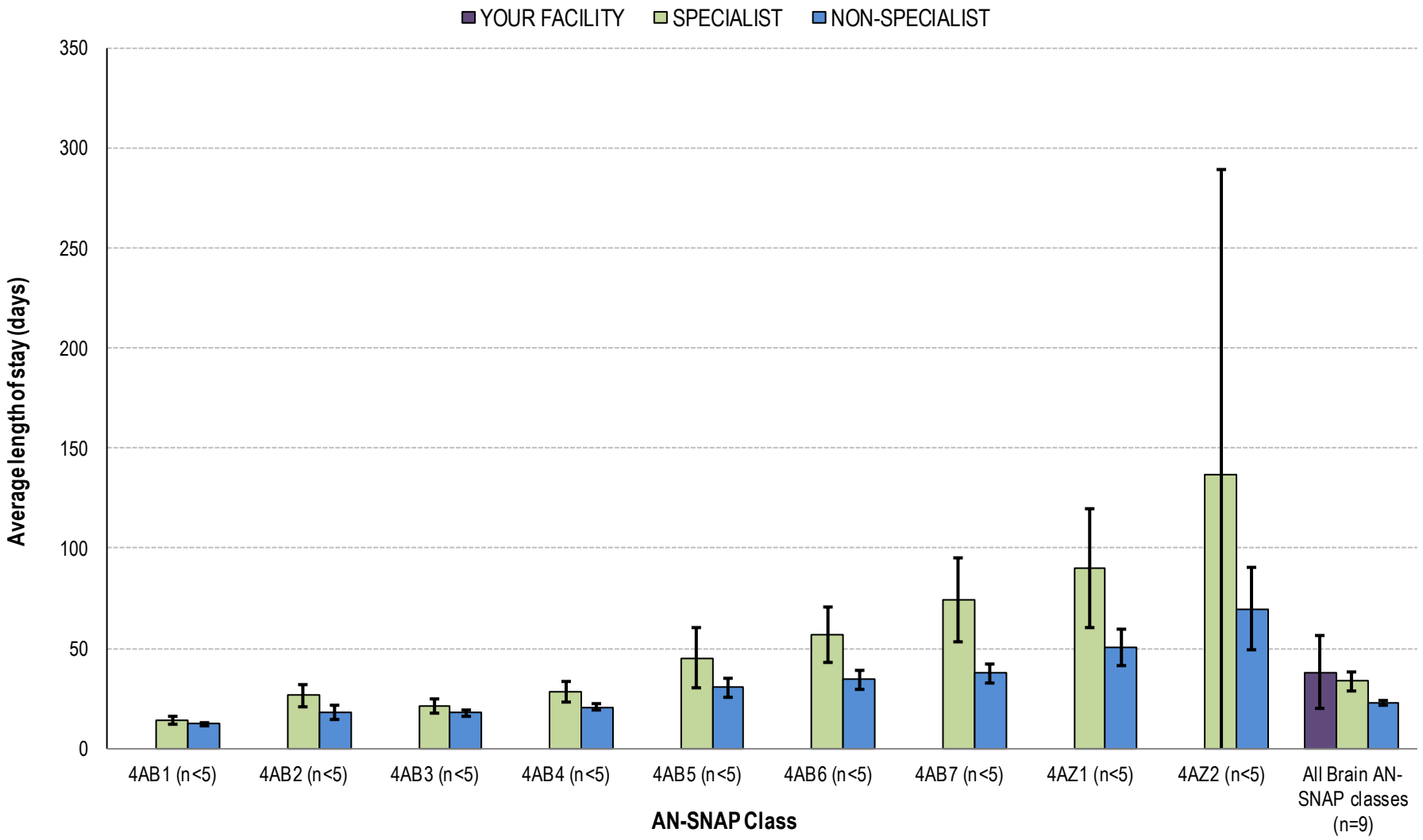
Note: First admission, completed episodes

Traumatic ALOS by AN-SNAP class



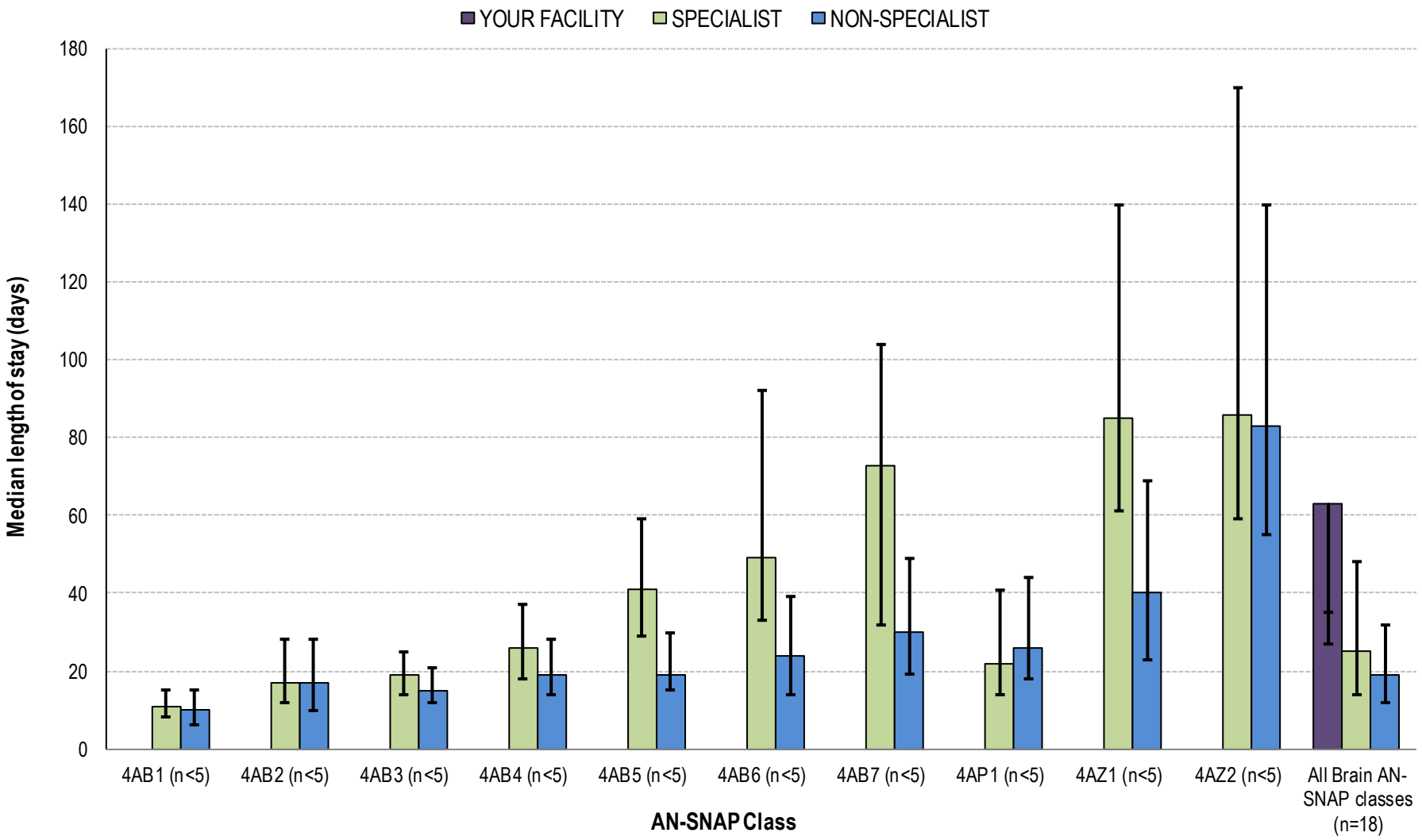
Note: First admission, completed episodes

Non-traumatic ALOS by AN-SNAP class



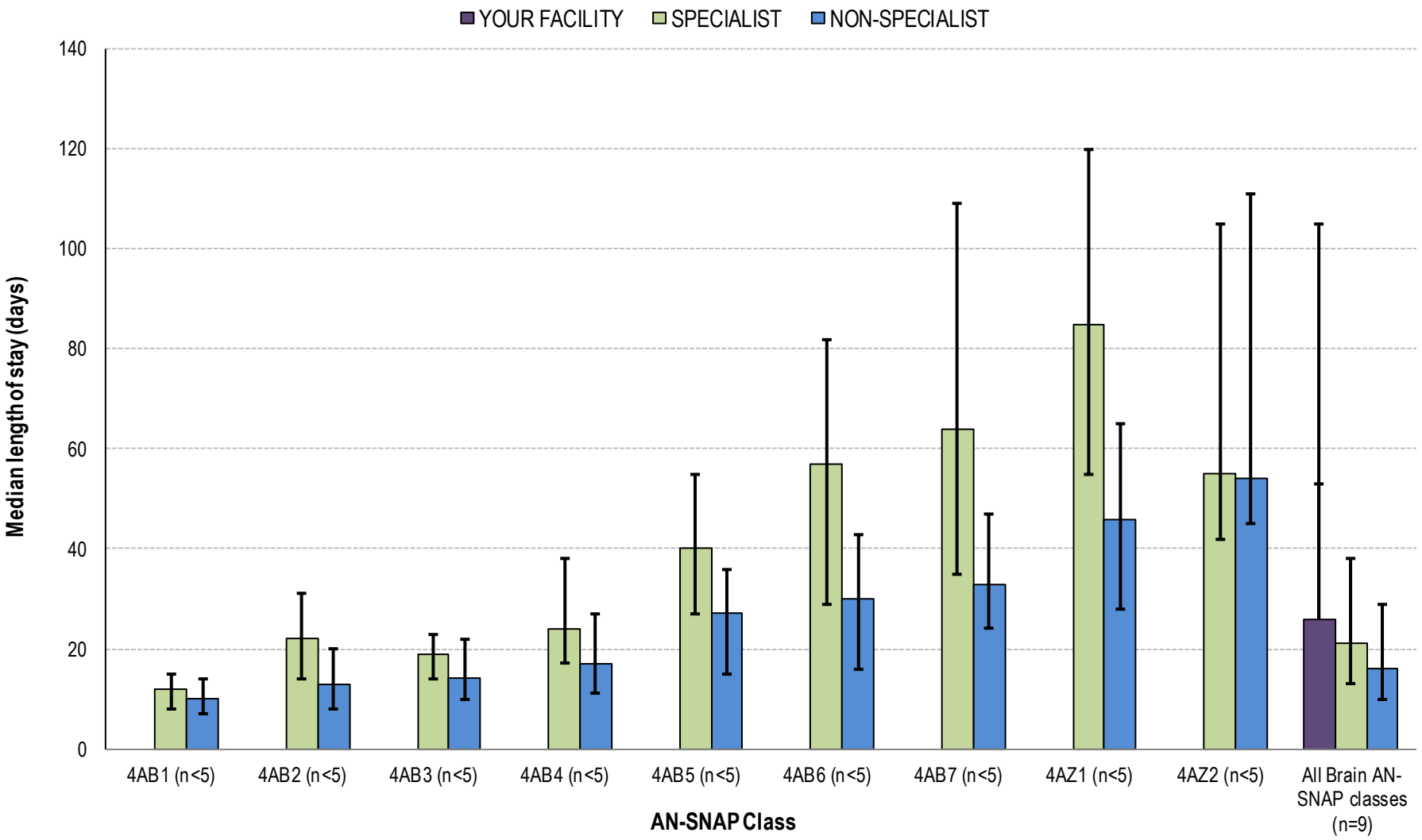
Note: First admission, completed episodes

Traumatic Median LOS by AN-SNAP class



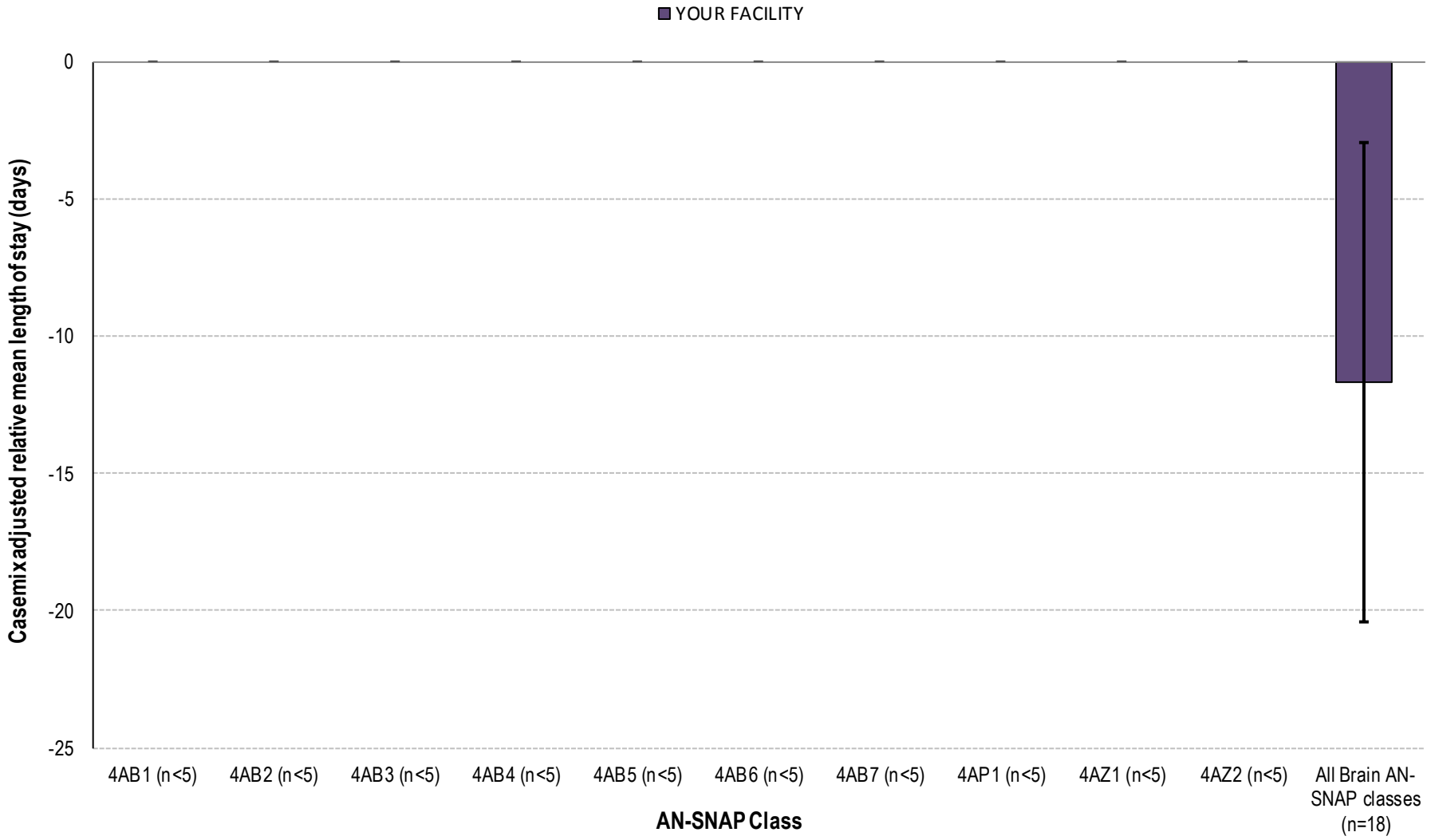
Note: First admission, completed episodes

Non-traumatic Median LOS by AN-SNAP class



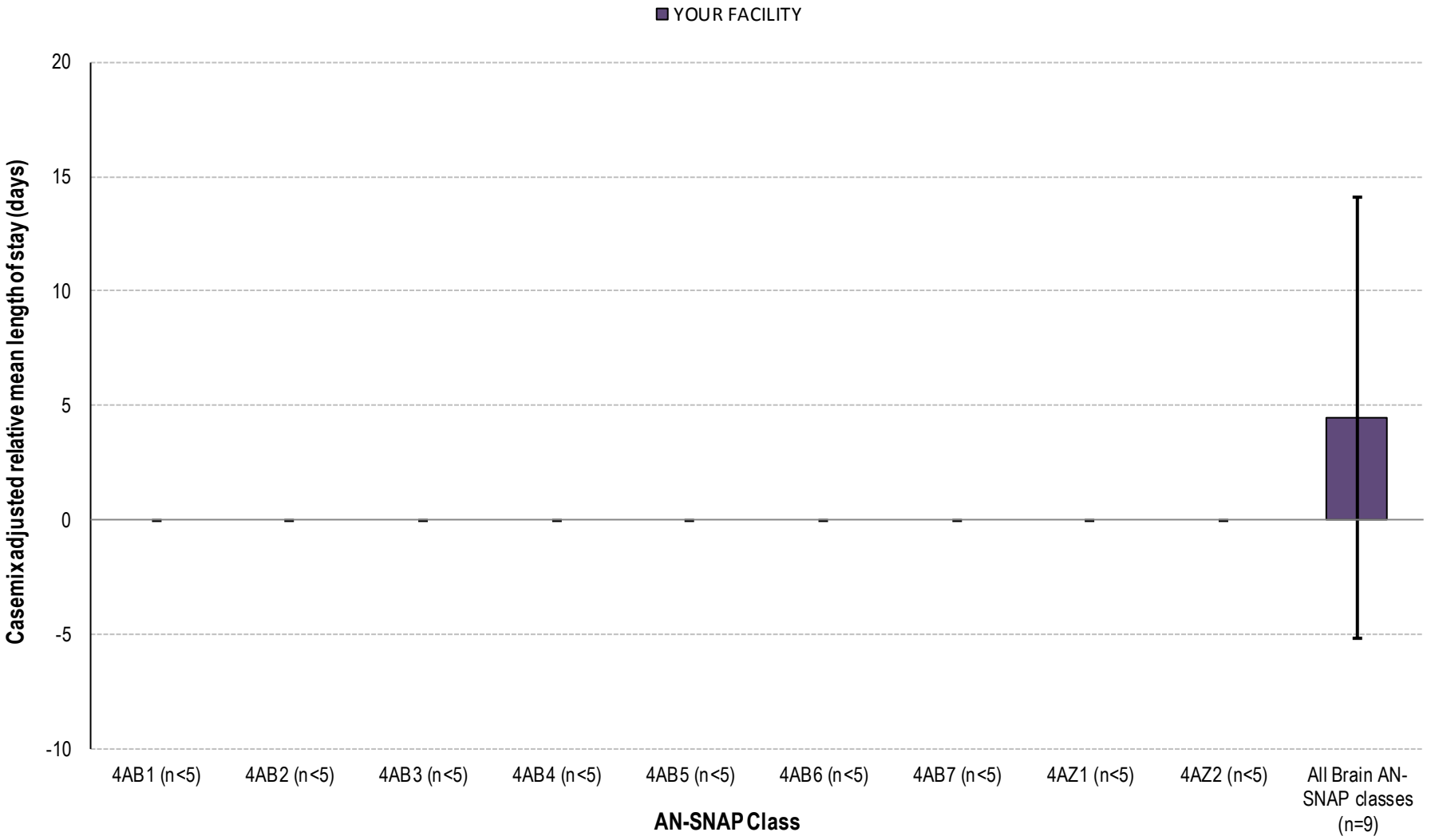
Note: First admission, completed episodes

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



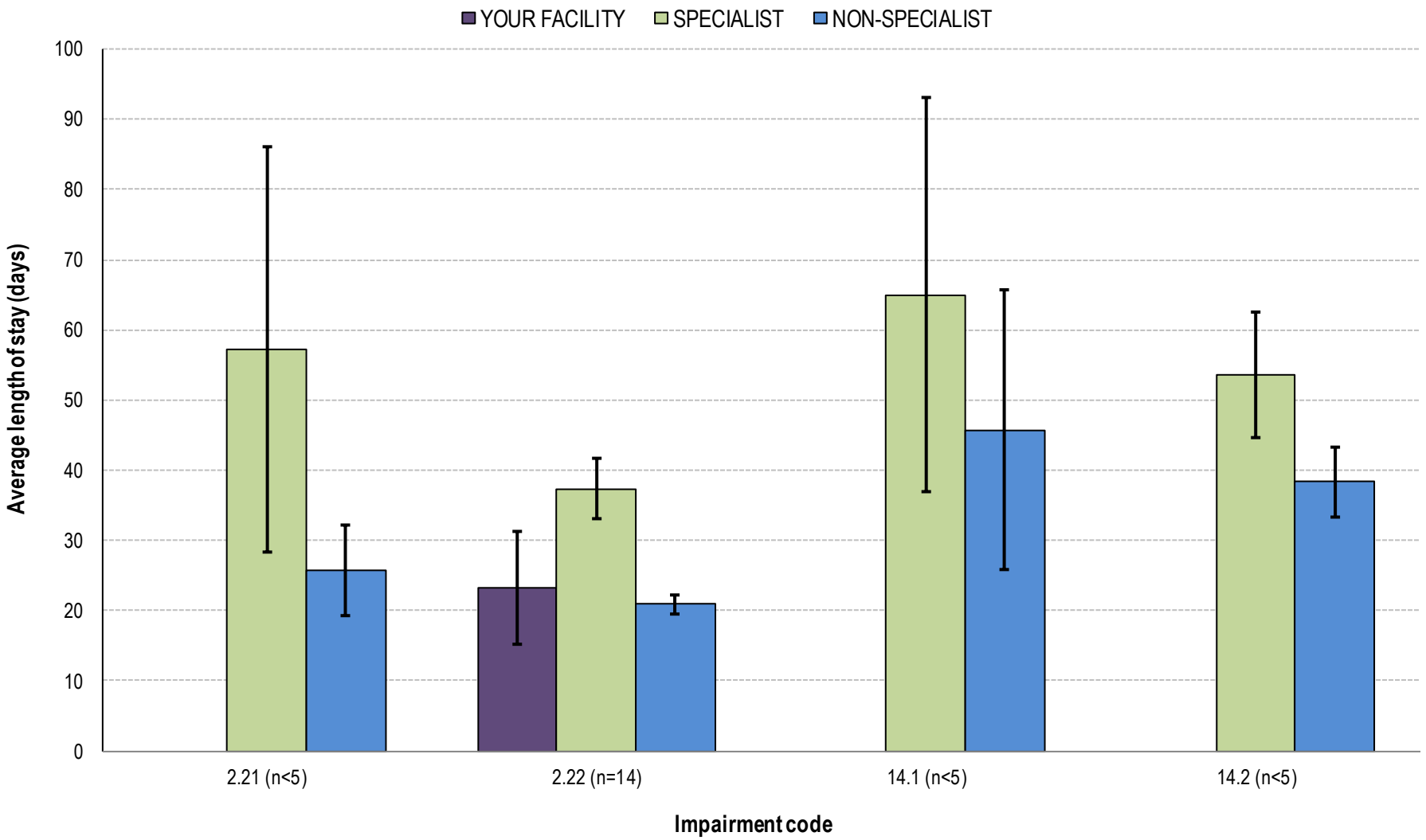
*Casemix Adjustment is by CY2016 Specialist Units first admissions

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



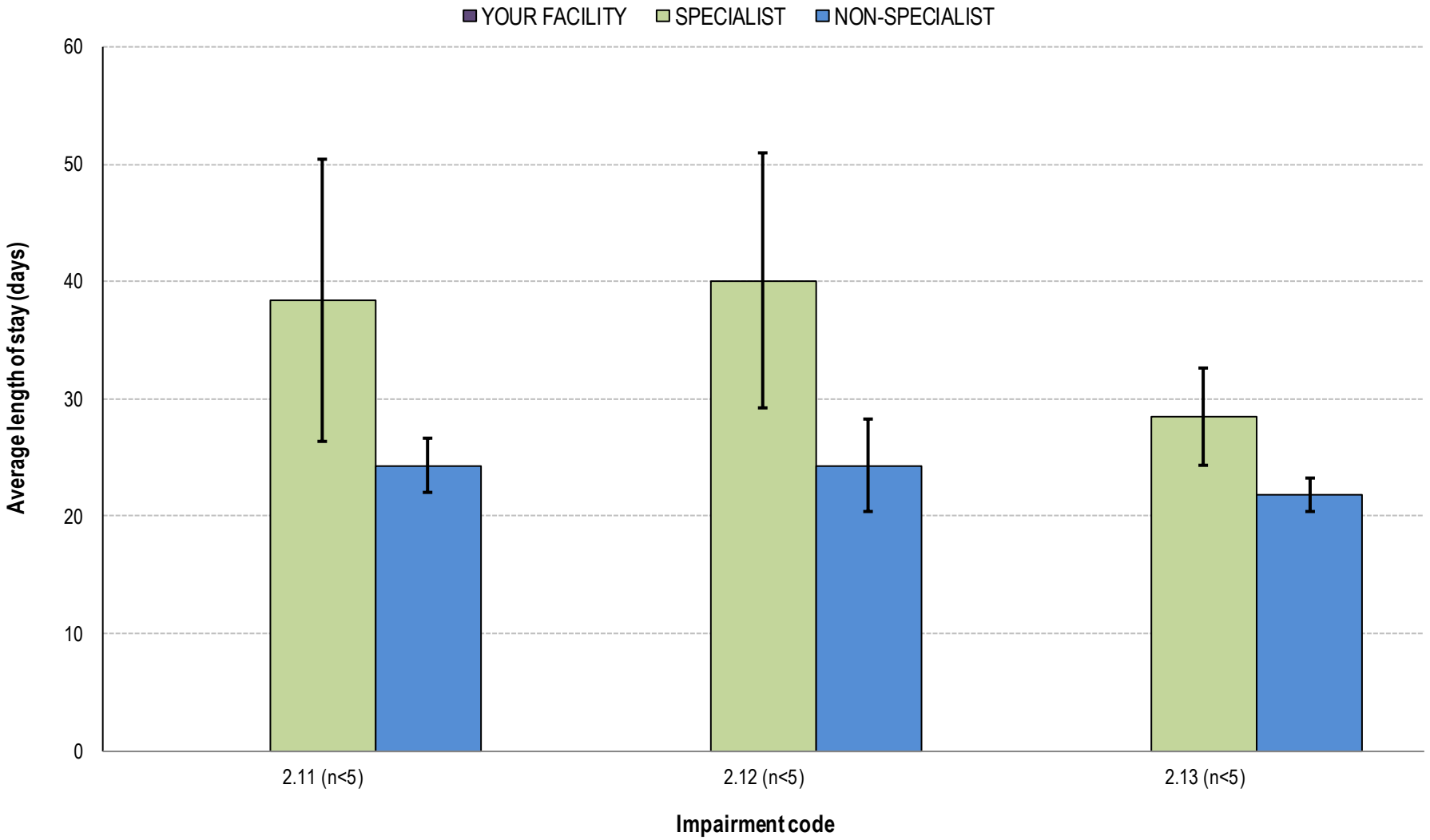
Casemix Adjustment is by CY2016 Specialist Units first admissions

Traumatic ALOS by impairment



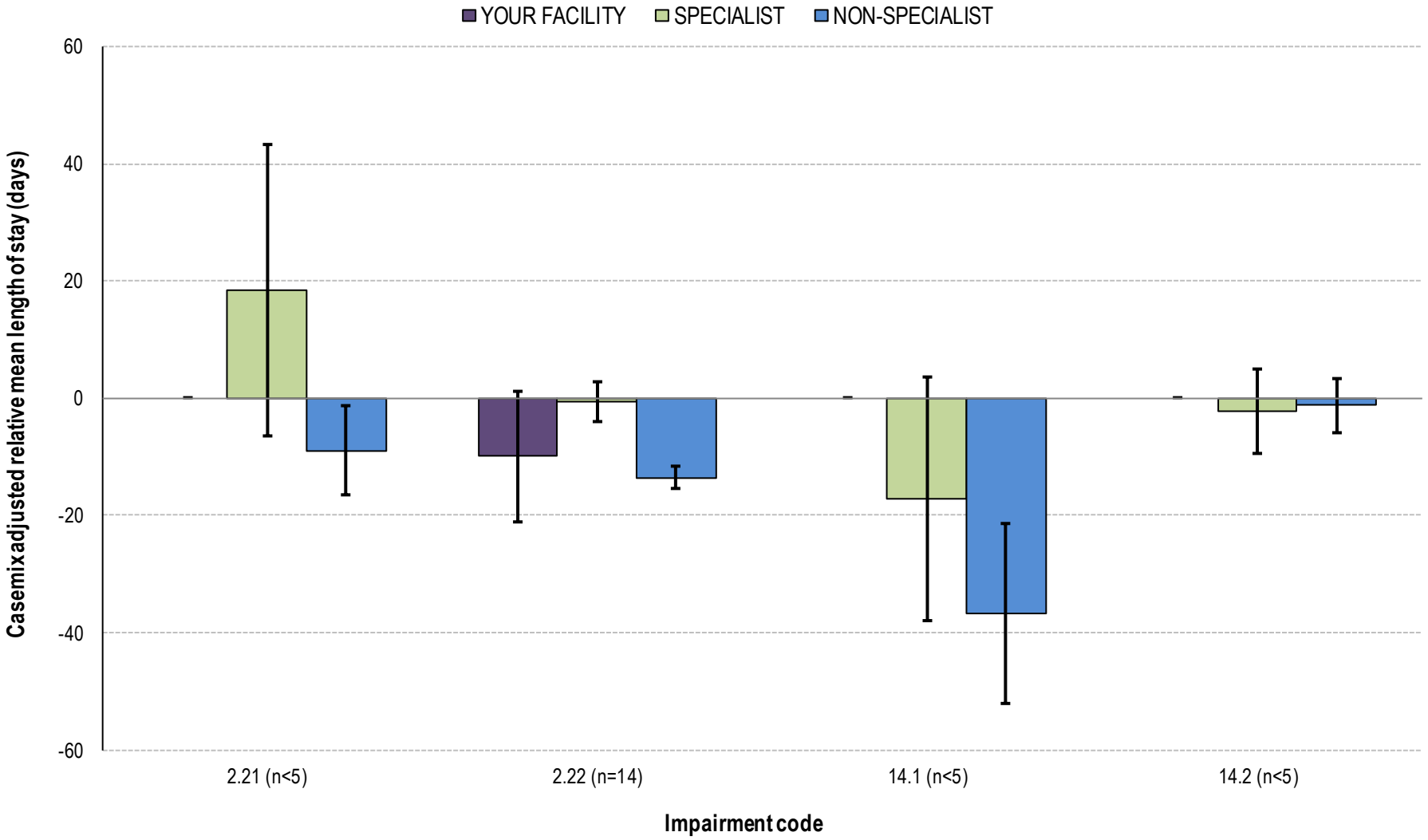
Note: First admission, completed episodes

Non-traumatic ALOS by impairment



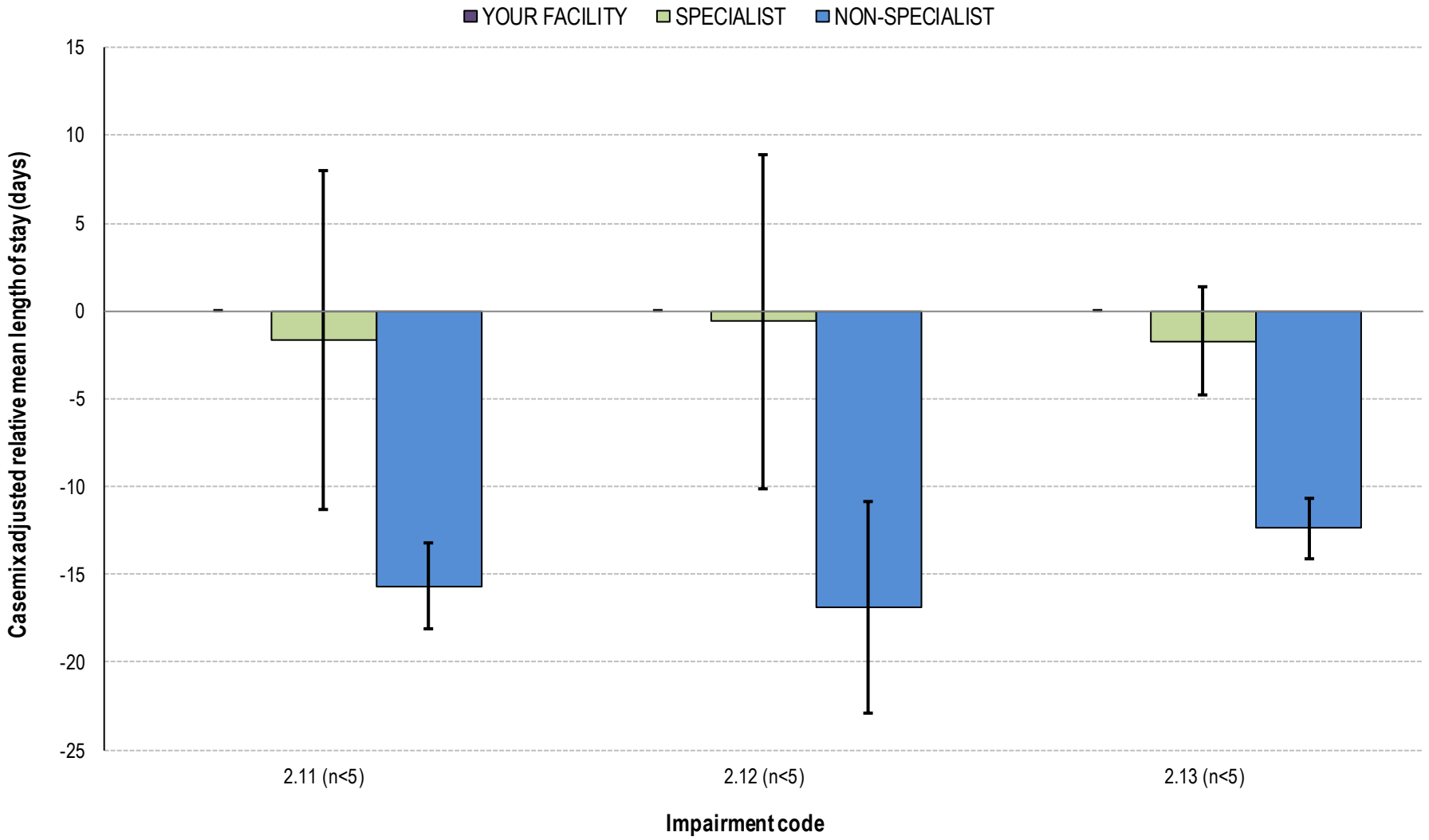
Note: First admission, completed episodes

Traumatic casemix-adjusted* relative mean LOS by impairment



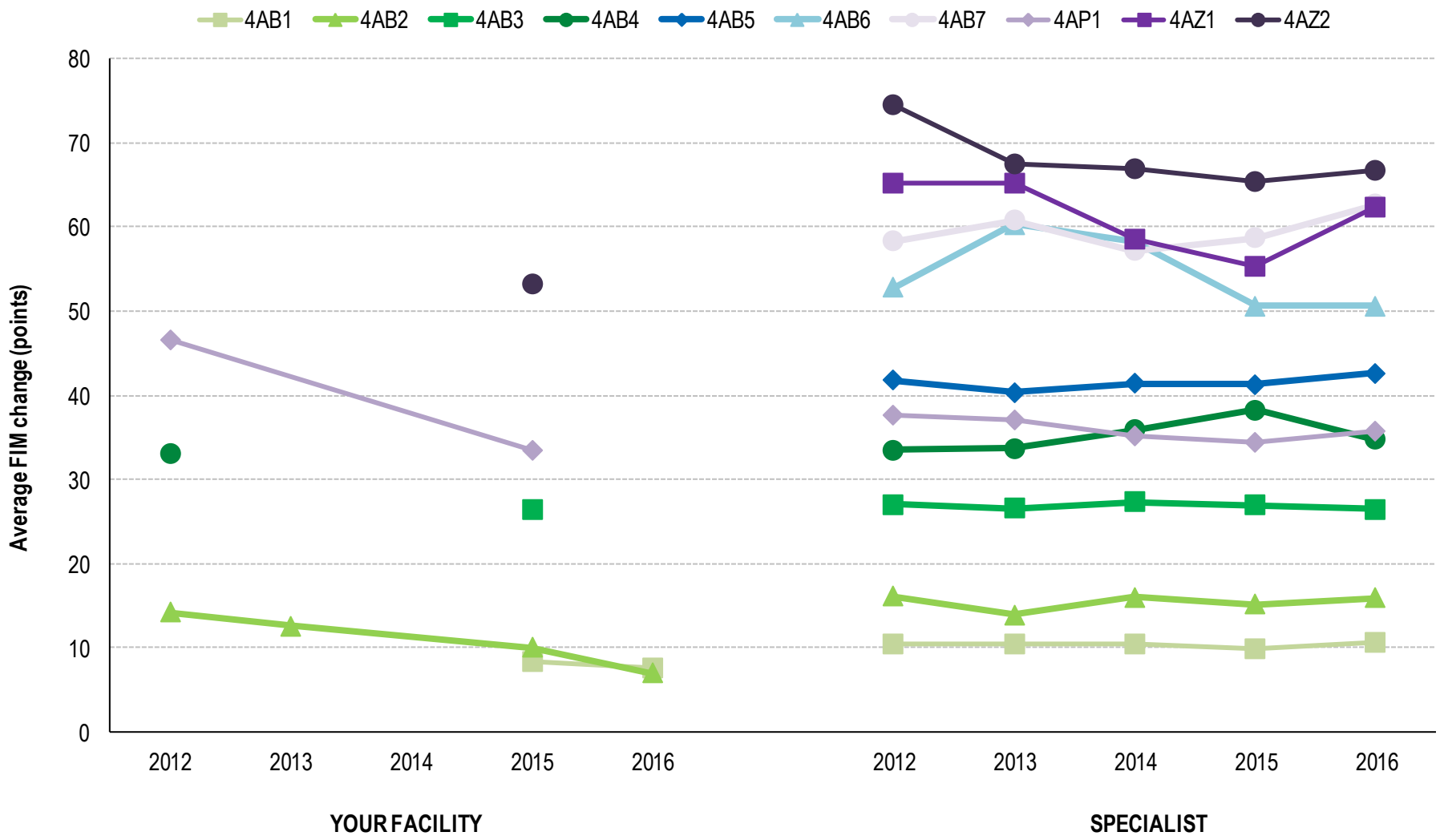
*Casemix Adjustment is by CY2016 Specialist Units first admissions

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



*Casemix Adjustment is by CY2016 Specialist Units first admissions

Average FIM change by AN-SNAP class over time



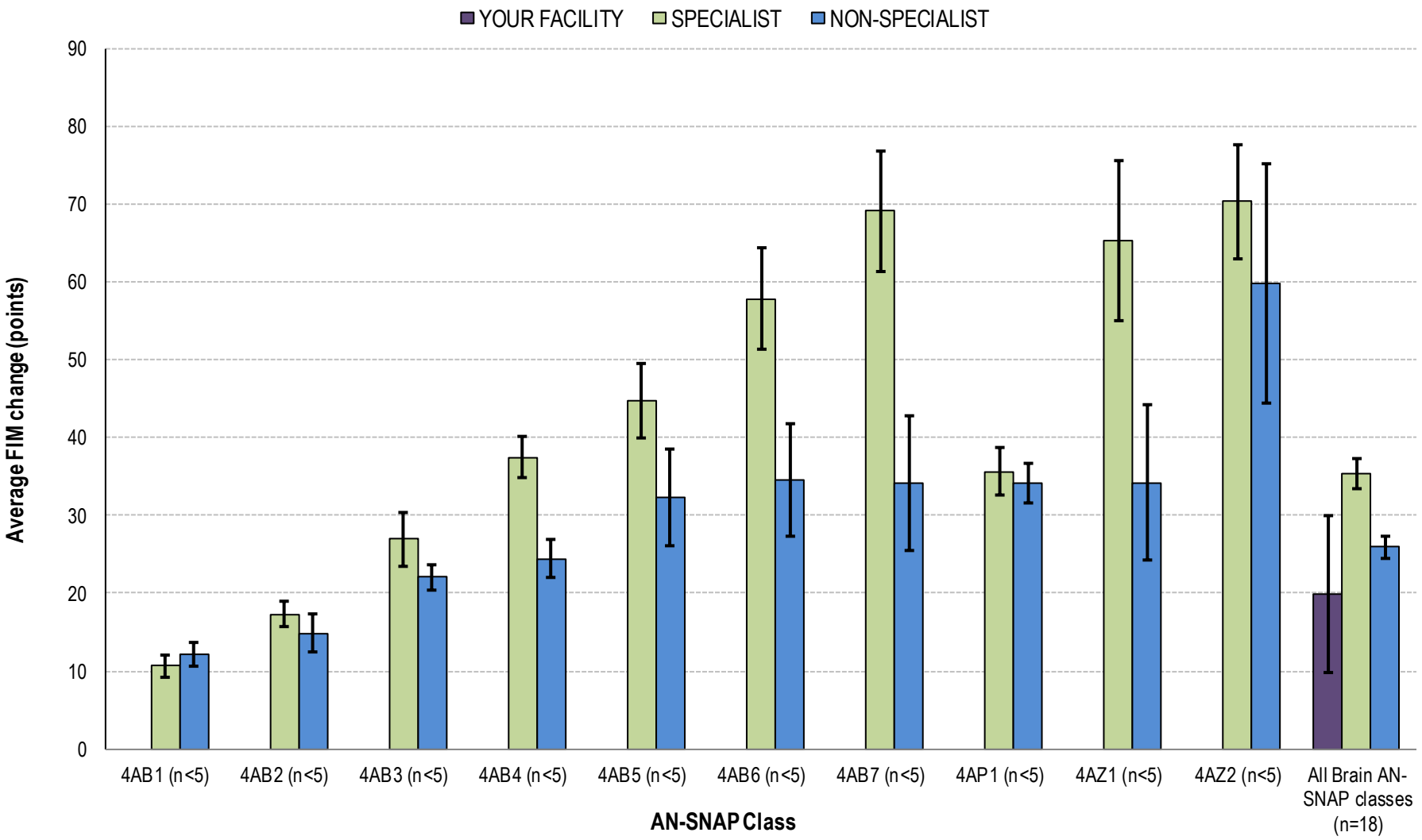
Note: First admission, completed episodes

Average FIM change by AN-SNAP class over time

	YOUR FACILITY					SPECIALIST					NON-SPECIALIST				
AN-SNAP class	**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)	—	—	—	8.4	7.7	10.4	10.4	10.5	9.8	10.6	9.8	10.0	9.4	9.8	11.2
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	14.2	12.6	—	10.0	7.0	16.1	13.9	16.0	15.1	15.9	14.5	14.8	14.4	13.2	13.5
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	—	—	—	26.5	—	27.0	26.5	27.3	27.0	26.5	23.4	22.3	22.3	21.7	22.0
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	33.0	—	—	—	—	33.5	33.7	35.9	38.2	34.7	27.0	25.2	24.3	24.7	25.0
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	—	—	—	—	—	41.8	40.4	41.4	41.3	42.7	32.9	33.5	28.0	28.1	32.1
4AB6 (BI, weighted FIM motor 29-40)	—	—	—	—	—	52.8	60.3	58.3	50.6	50.6	34.7	34.8	33.5	33.3	32.4
4AB7 (BI, weighted FIM motor 19-28)	—	—	—	—	—	58.4	60.8	57.2	58.7	62.7	44.0	36.6	37.1	36.2	36.6
4AP1 (MMT, weighted FIM motor 19-91)	46.6	—	—	33.4	—	37.6	37.2	35.1	34.4	35.7	30.3	30.3	29.9	32.0	34.2
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	—	65.2	65.2	58.6	55.3	62.4	45.4	36.4	36.1	31.5	35.2
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	53.2	—	74.5	67.5	67.0	65.5	66.8	52.1	57.3	57.2	47.3	49.0
All Brain AN-SNAP classes	**36.6**	**25.0**	**42.4**	**28.3**	**20.2**	**31.6**	**31.4**	**30.9**	**29.6**	**32.3**	**24.1**	**23.2**	**23.2**	**22.6**	**24.0**

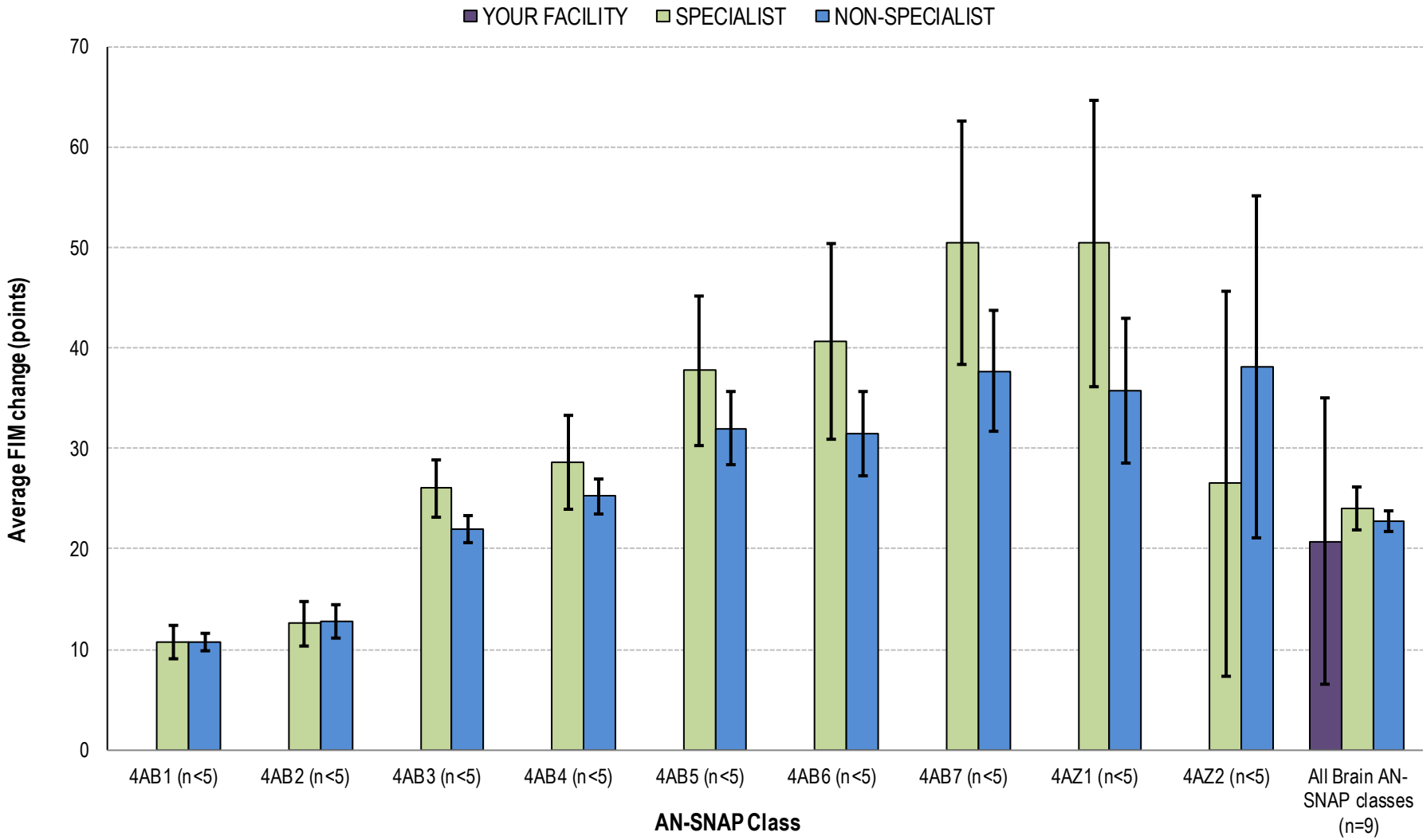
Note: First admission, completed episodes

Traumatic average FIM change by AN-SNAP class



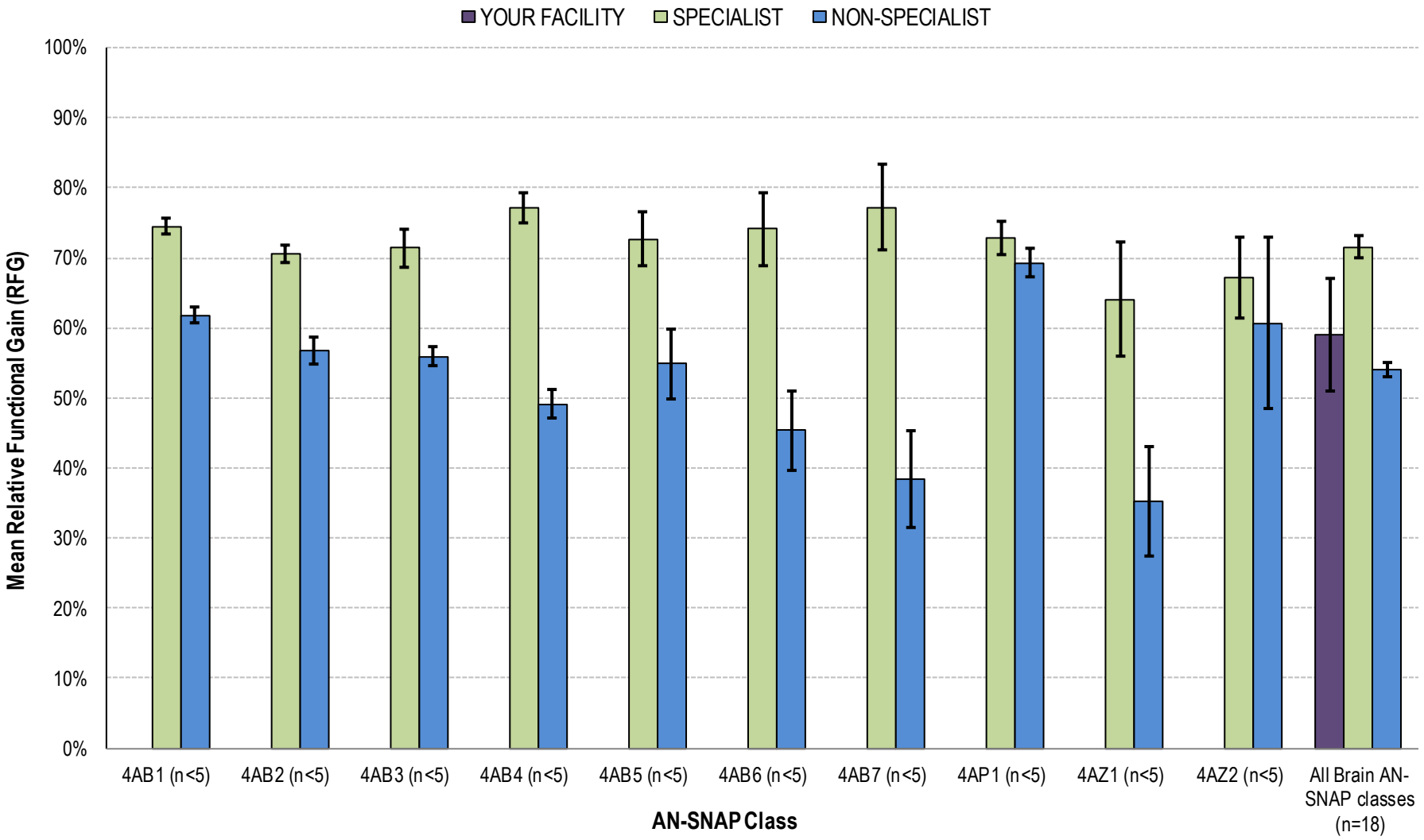
Note: First admission, completed episodes

Non-traumatic average FIM change by AN-SNAP class



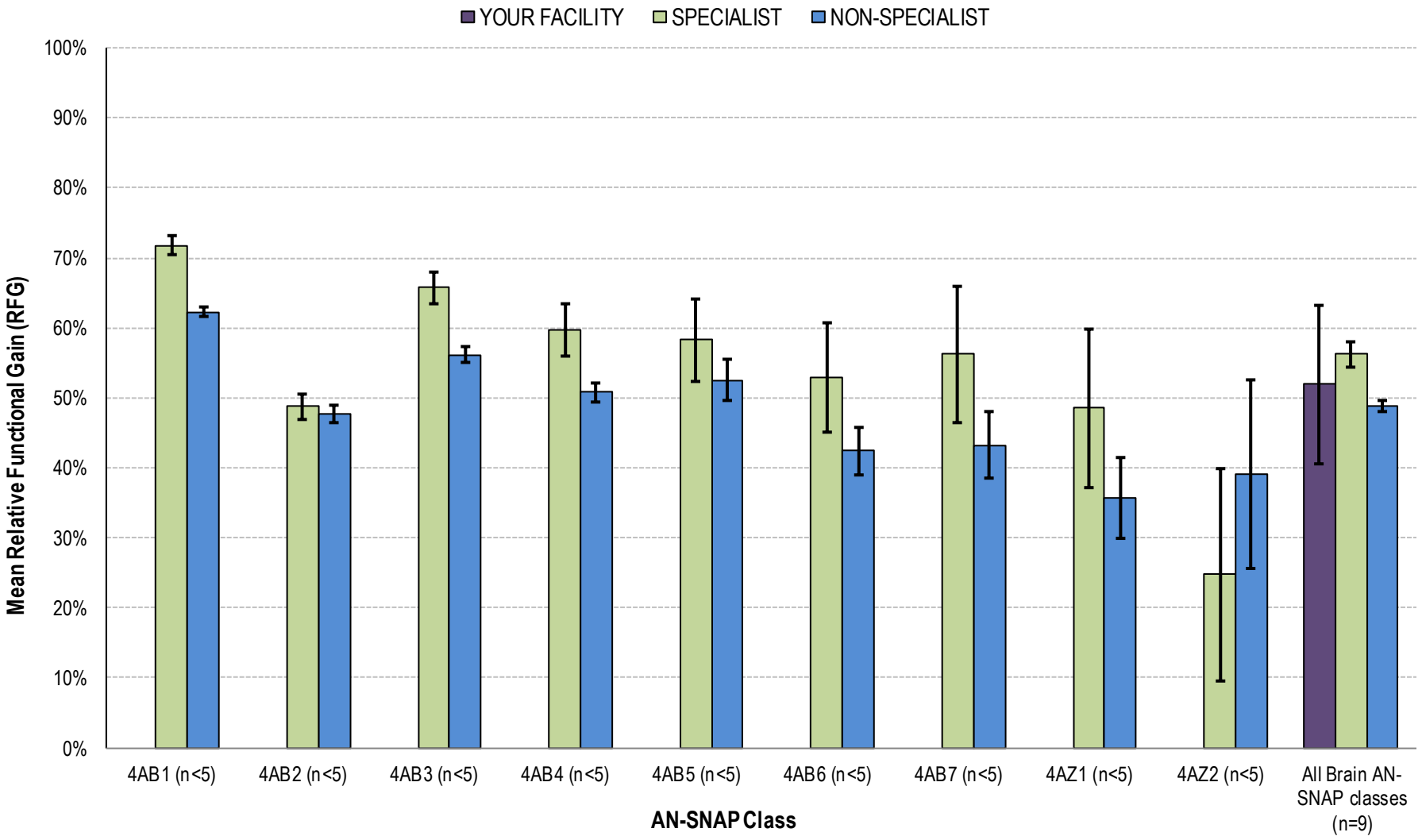
Note: First admission, completed episodes

Traumatic mean RFG by AN-SNAP class



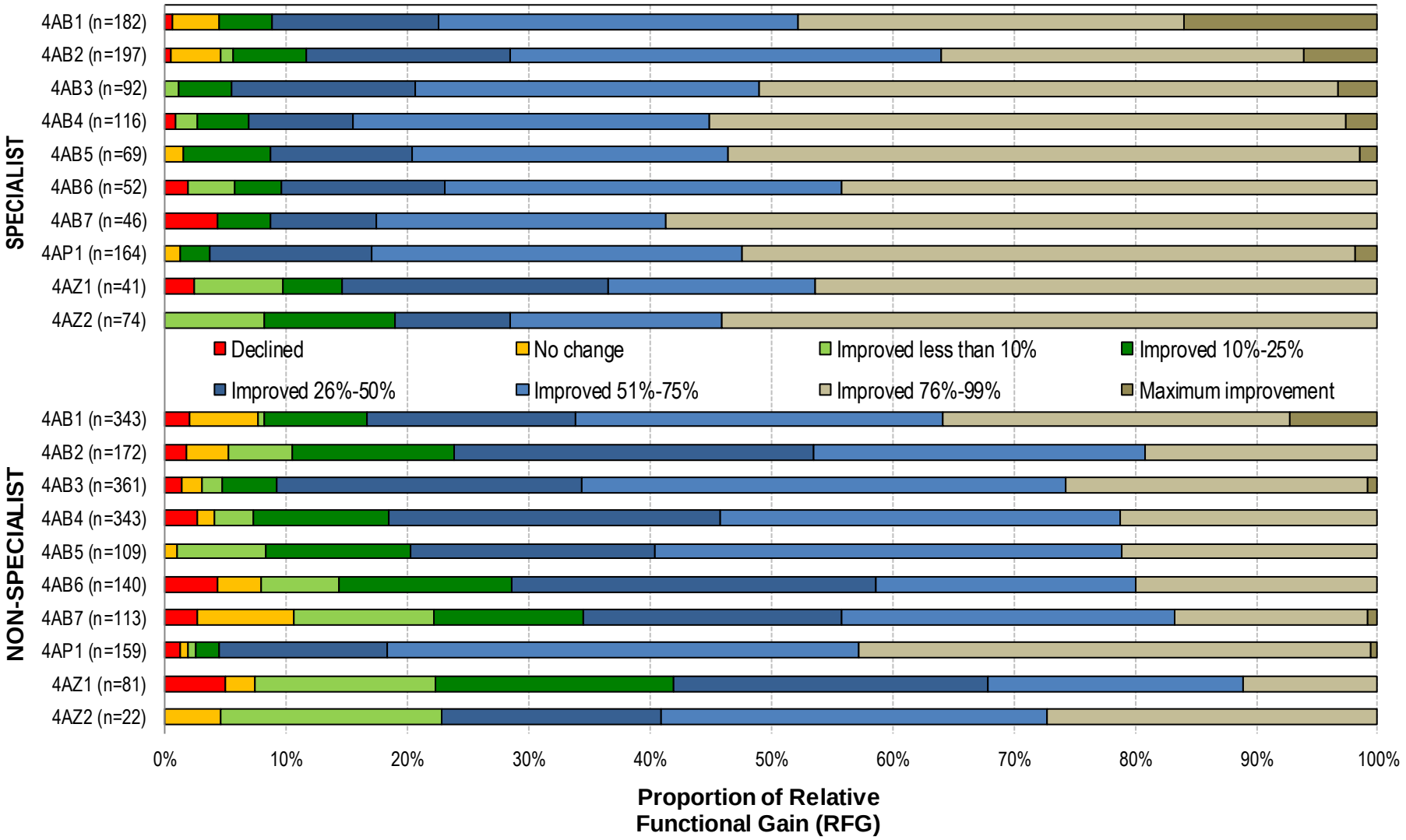
Note: First admission, completed episodes

Non-traumatic mean RFG by AN-SNAP class



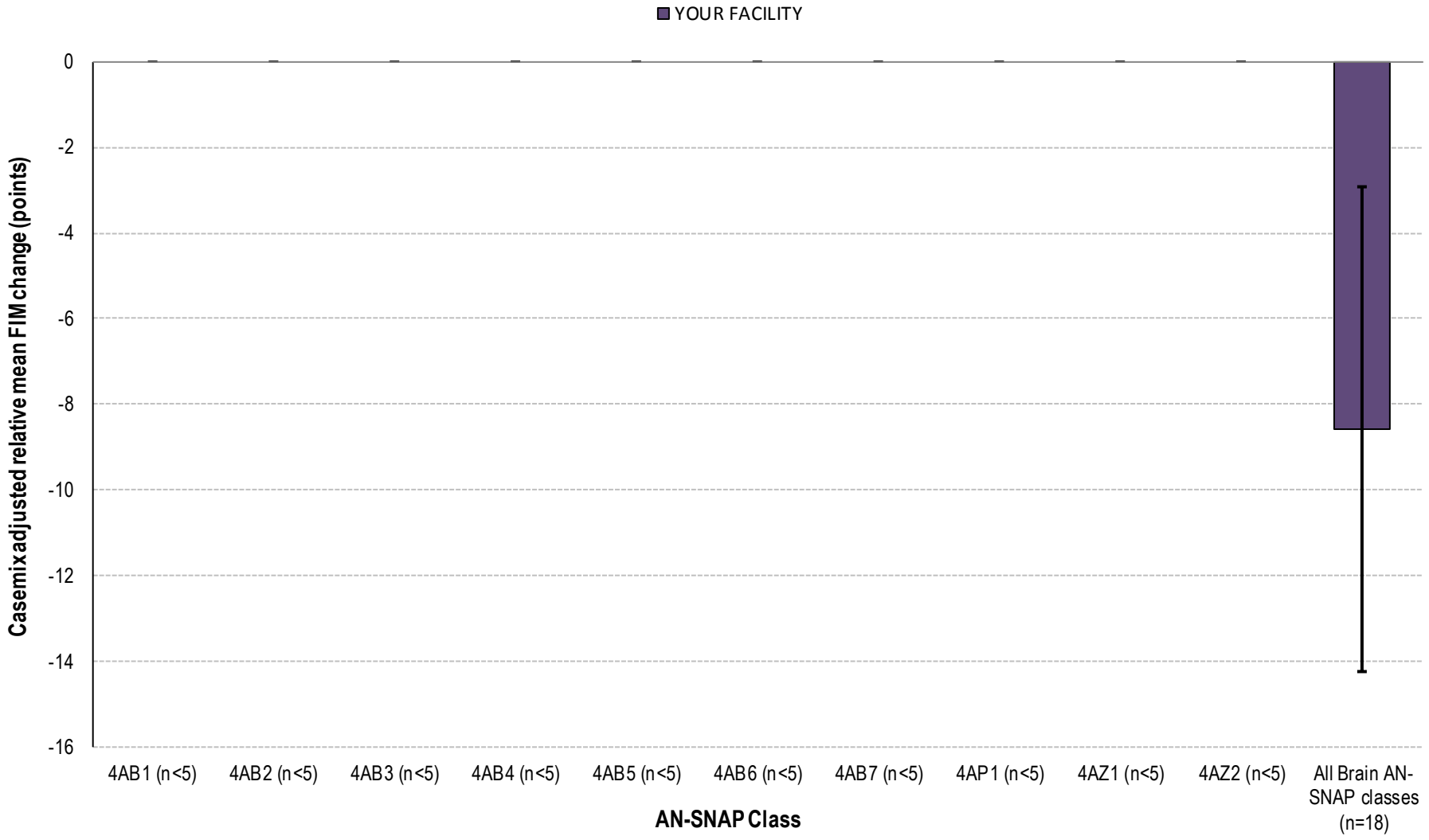
Note: First admission, completed episodes

Relative Functional Gain by AN-SNAP class



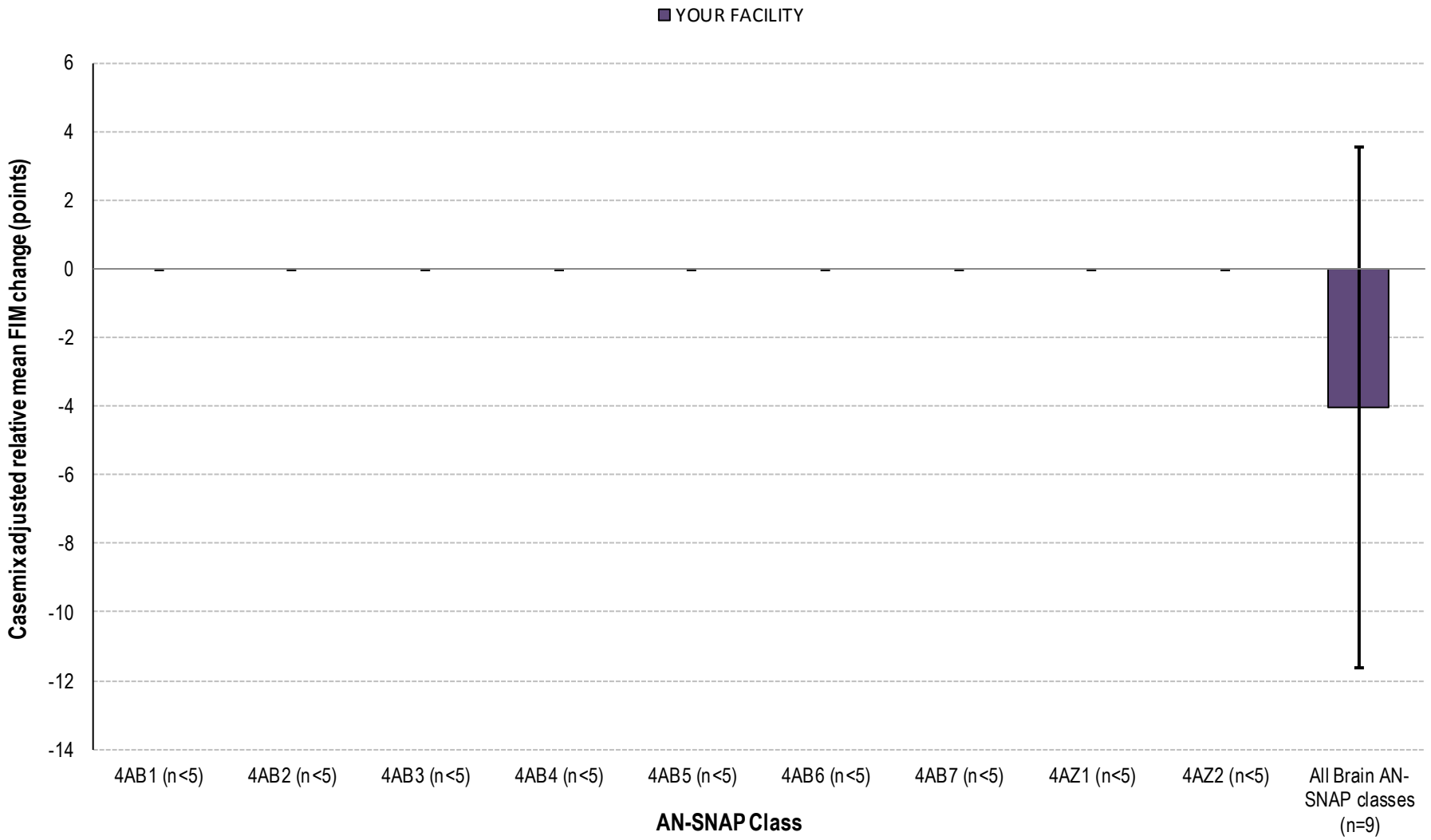
Note: First admission, completed episodes

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



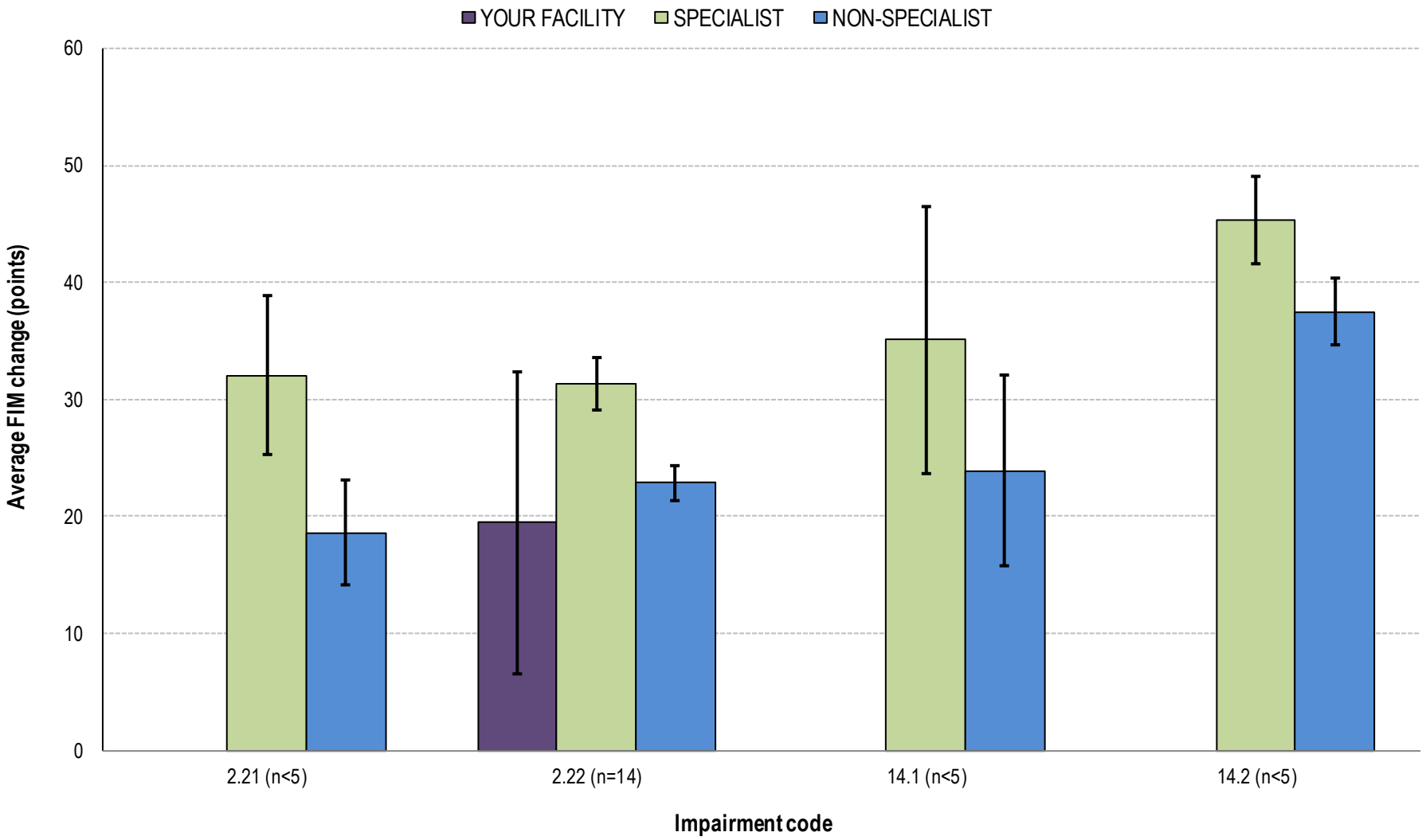
*Casemix Adjustment is by CY2016 Specialist Units first admissions

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



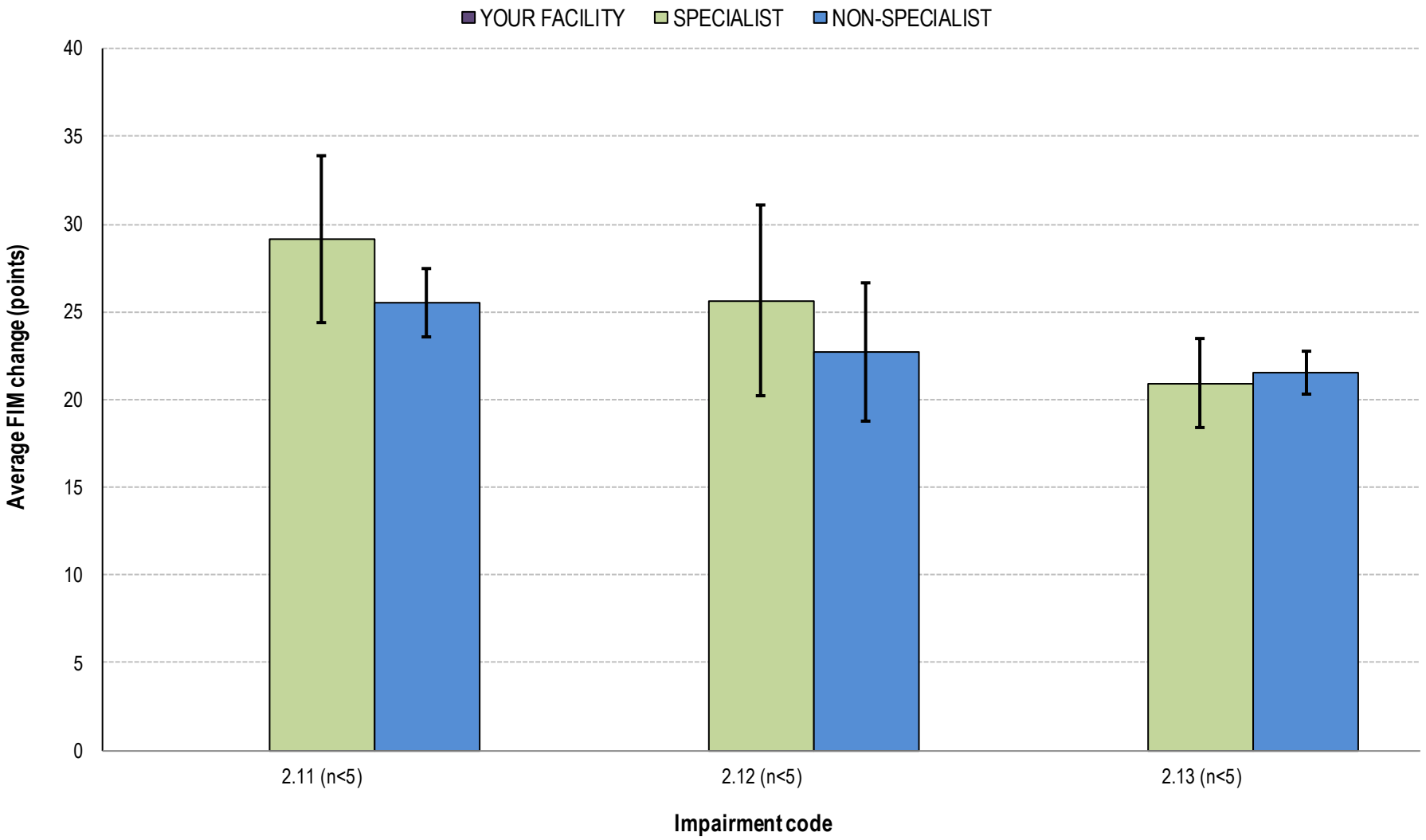
Casemix Adjustment is by CY2016 Specialist Units first admissions

Traumatic average FIM change by impairment



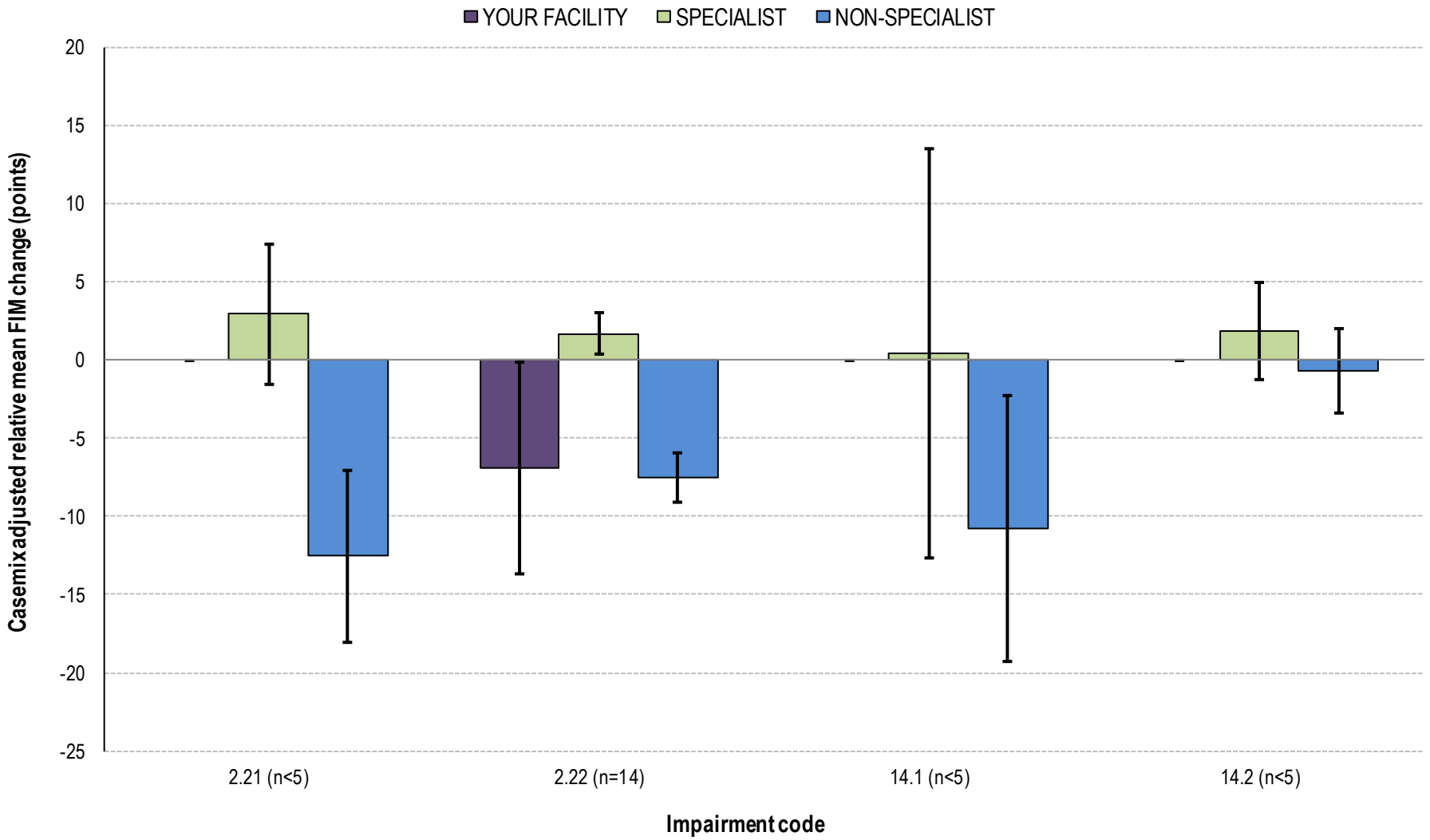
Note: First admission, completed episodes

Non-traumatic average FIM change by impairment



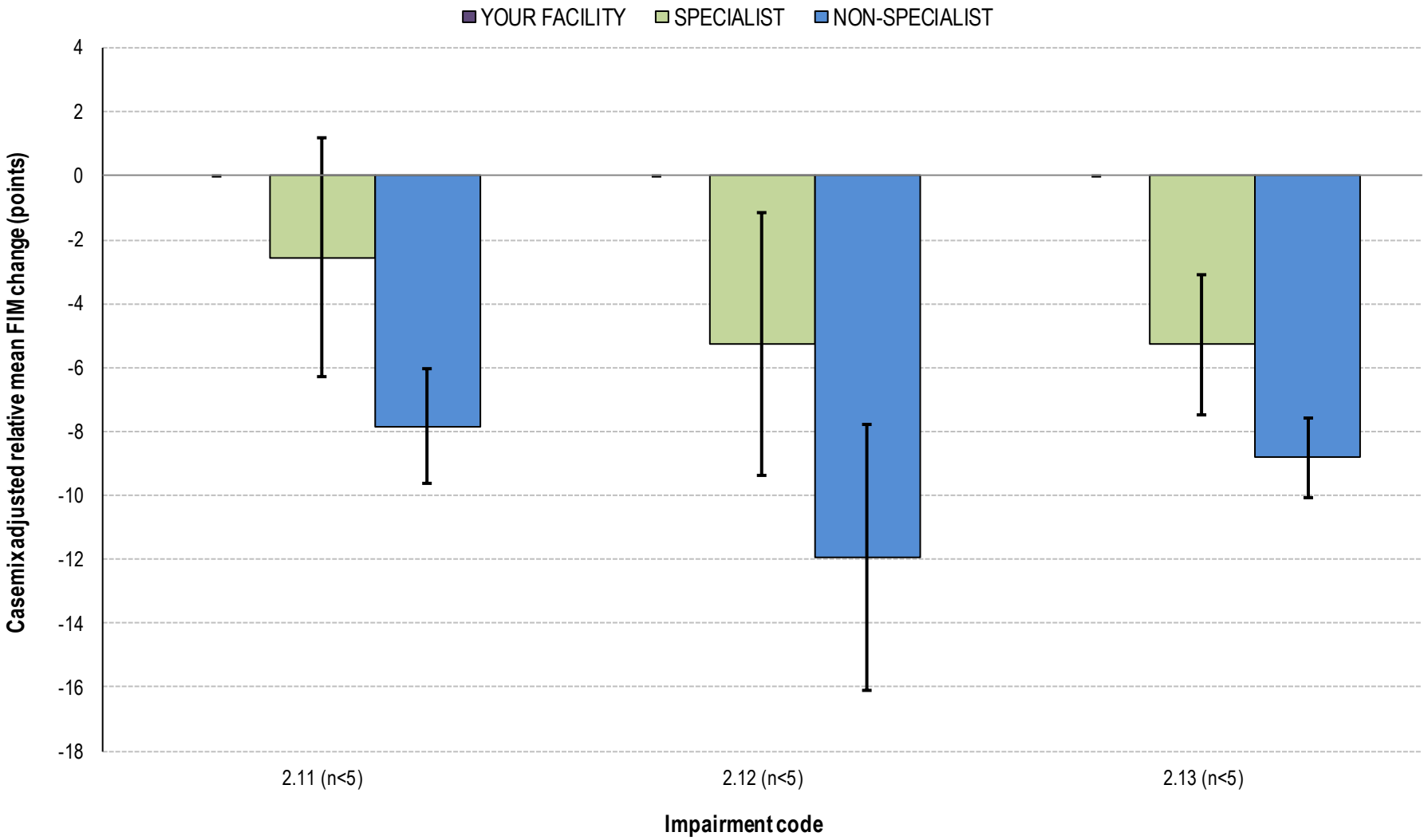
Note: First admission, completed episodes

Traumatic casemix-adjusted* relative mean FIM change by impairment



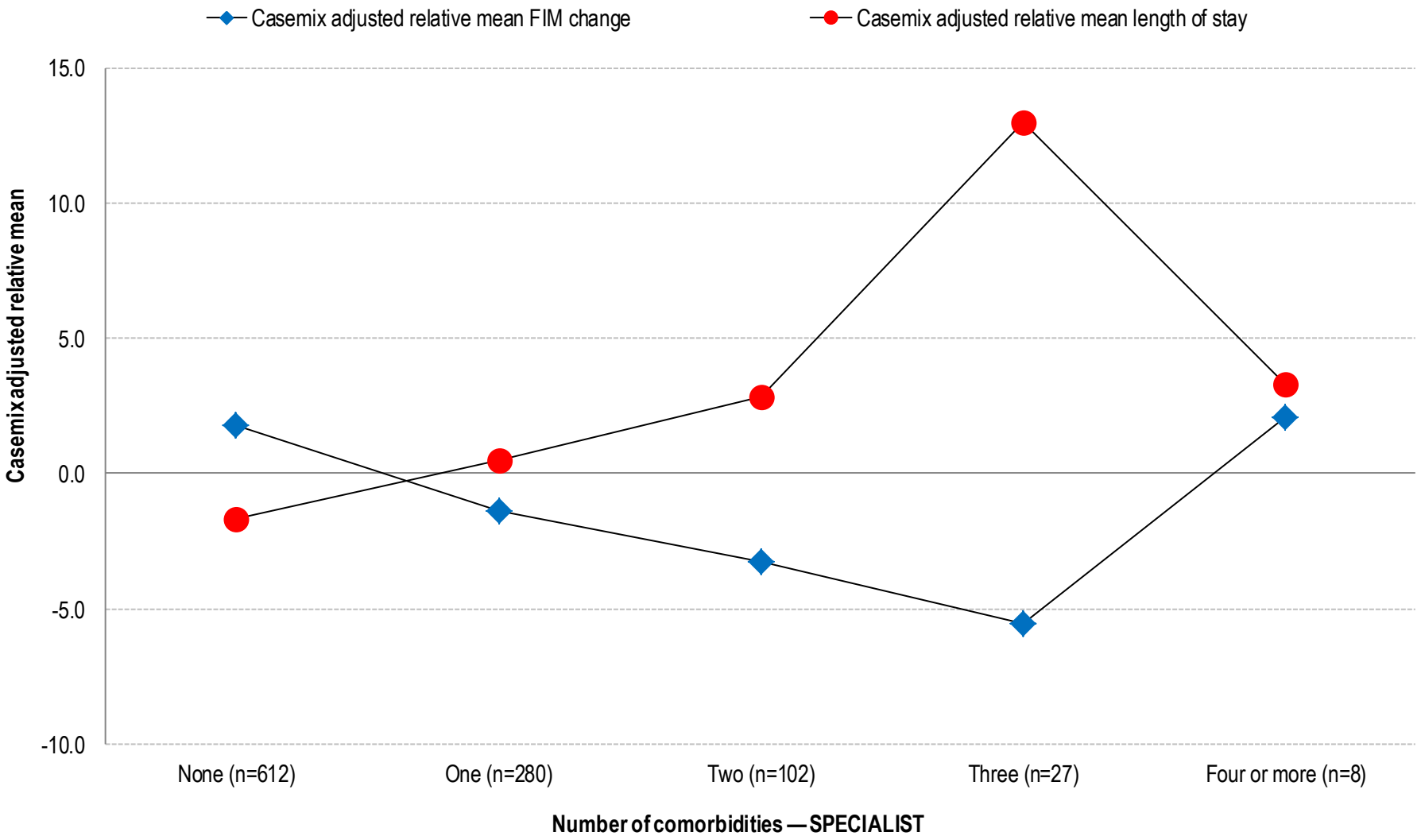
*Casemix Adjustment is by CY2016 Specialist Units first admissions

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



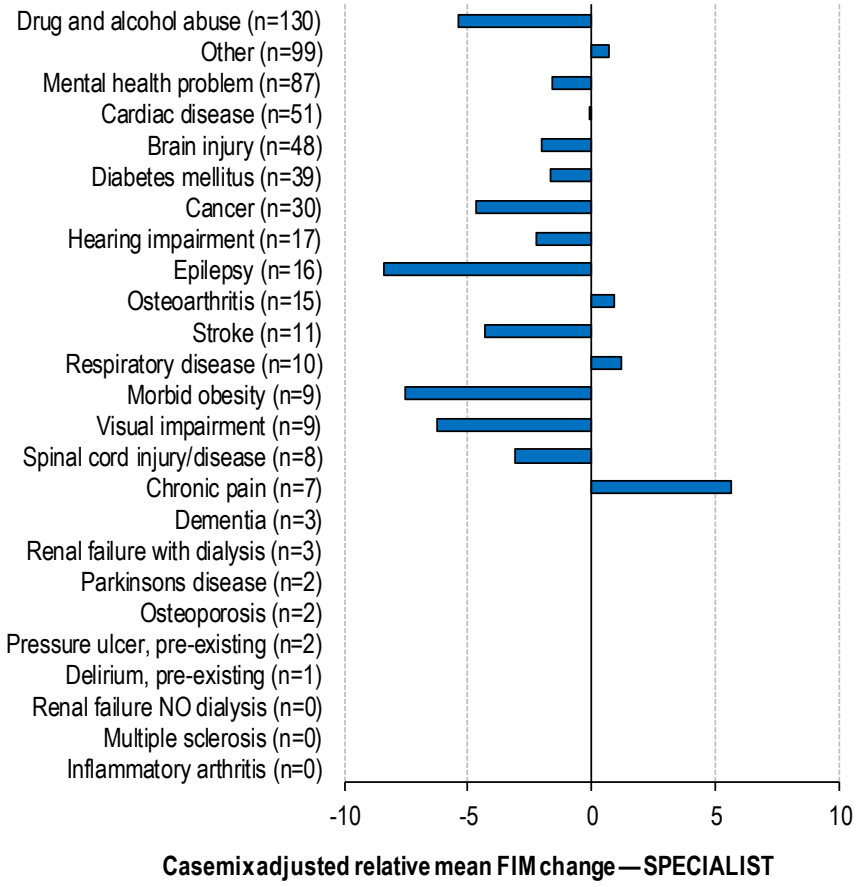
*Casemix Adjustment is by CY2016 Specialist Units first admissions

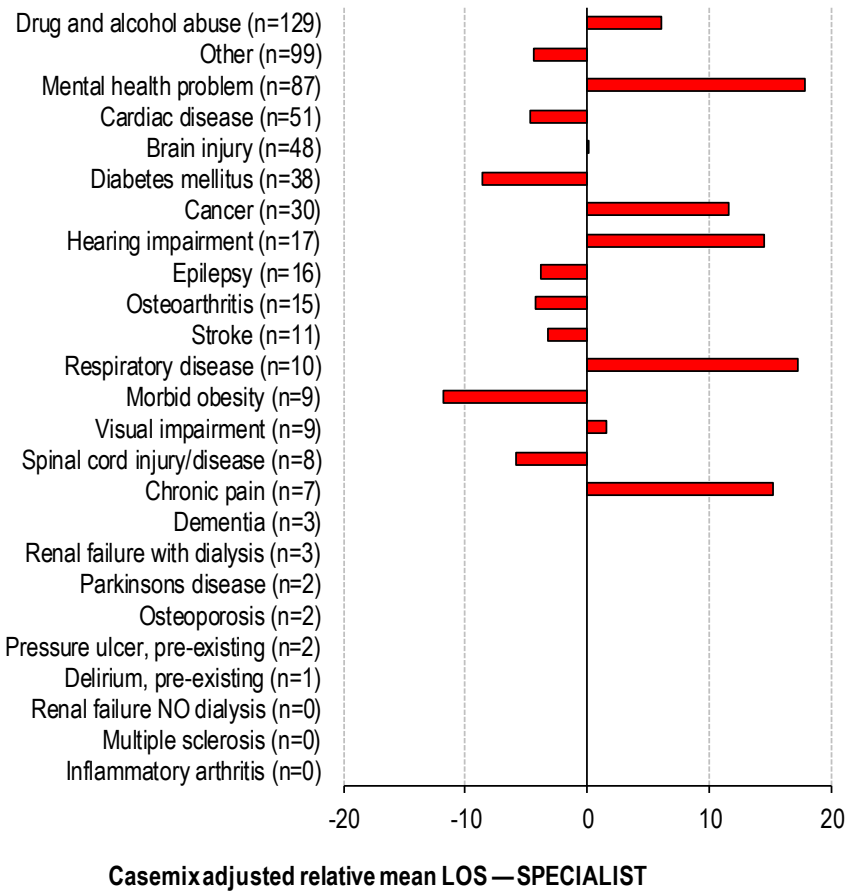
Casemix-adjusted* relative mean LOS and FIM change by number of comorbidities



*Casemix Adjustment is by CY2016 Specialist Units first admissions

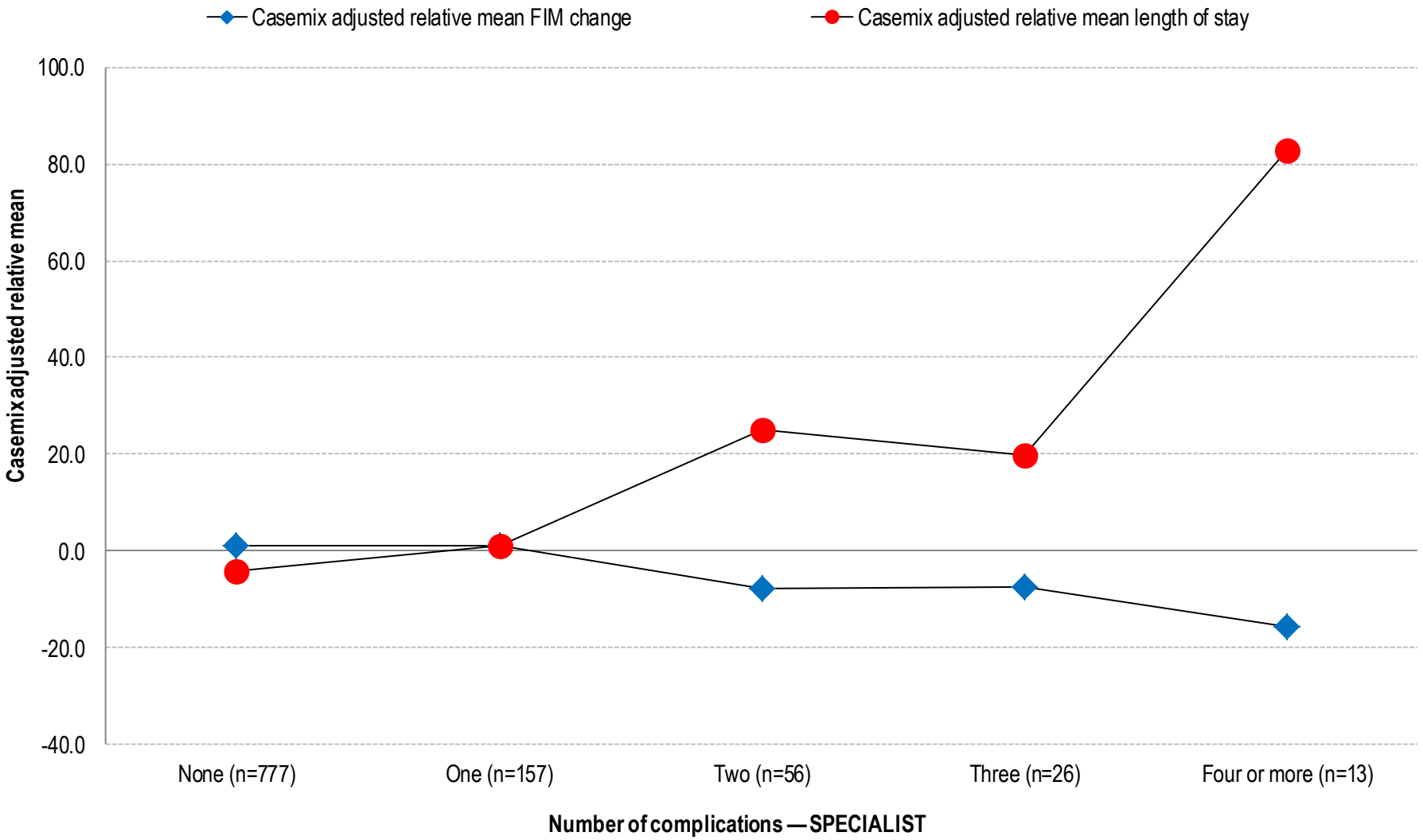
Casemix-adjusted* relative mean LOS and FIM change by type of comorbidity





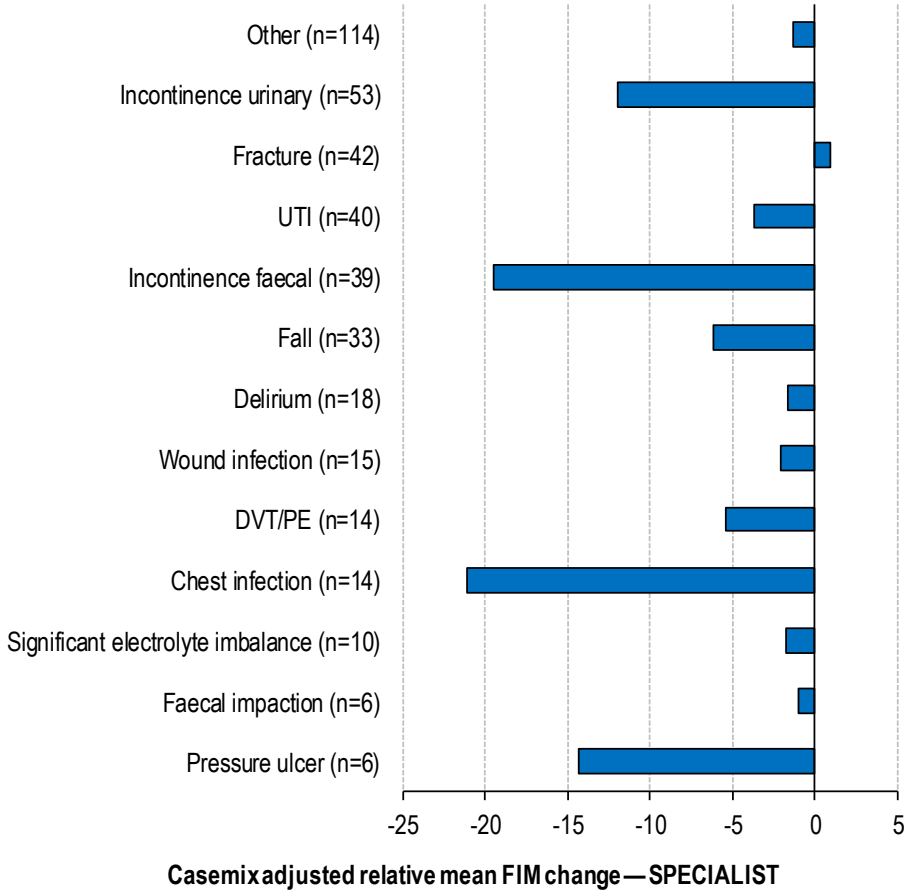
Casemix Adjustment is by CY2016 Specialist Units first admissions

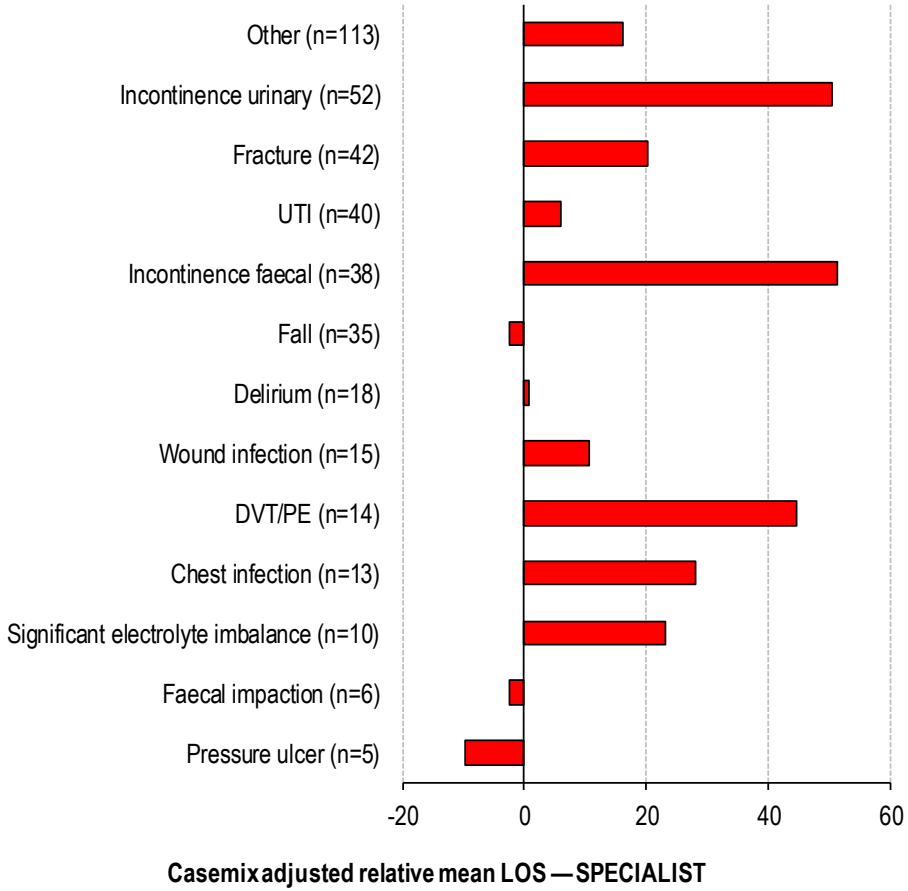
Casemix-adjusted* relative mean LOS and FIM change by number of complications



*Casemix Adjustment is by CY2016 Specialist Units first admissions

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

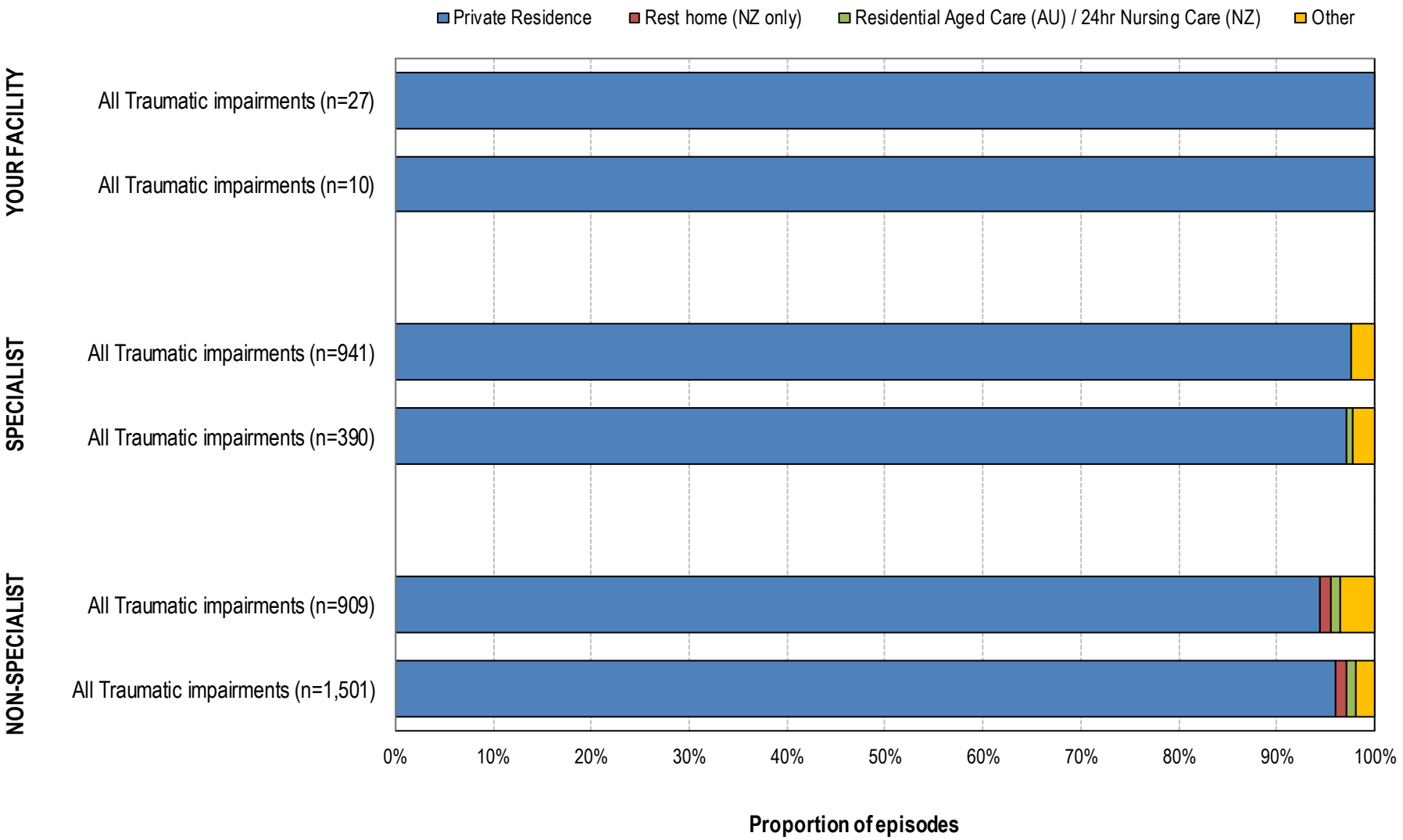




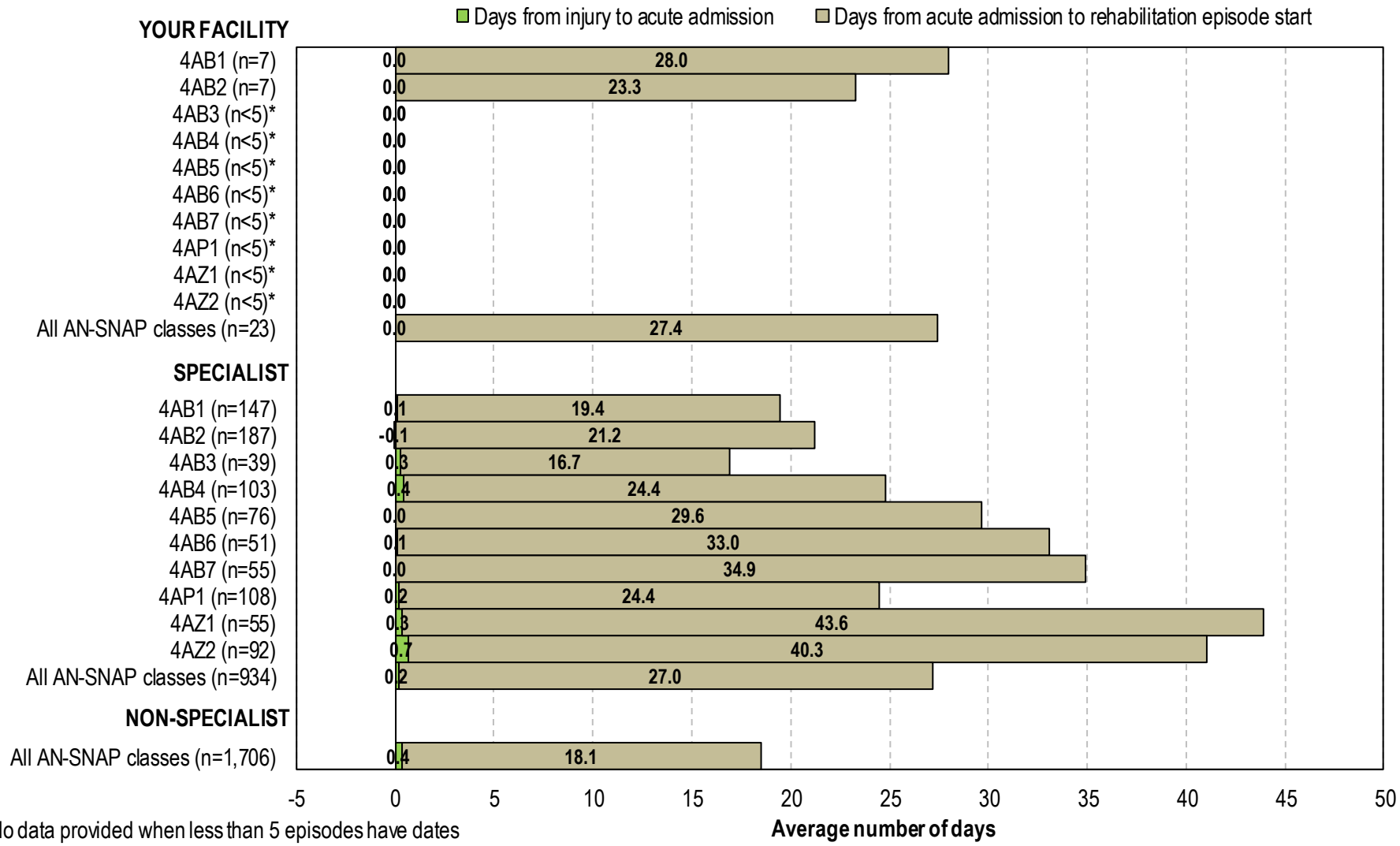
Casemix Adjustment is by CY2016 Specialist Units first admissions

Explanatory Data

Type of accommodation prior to impairment



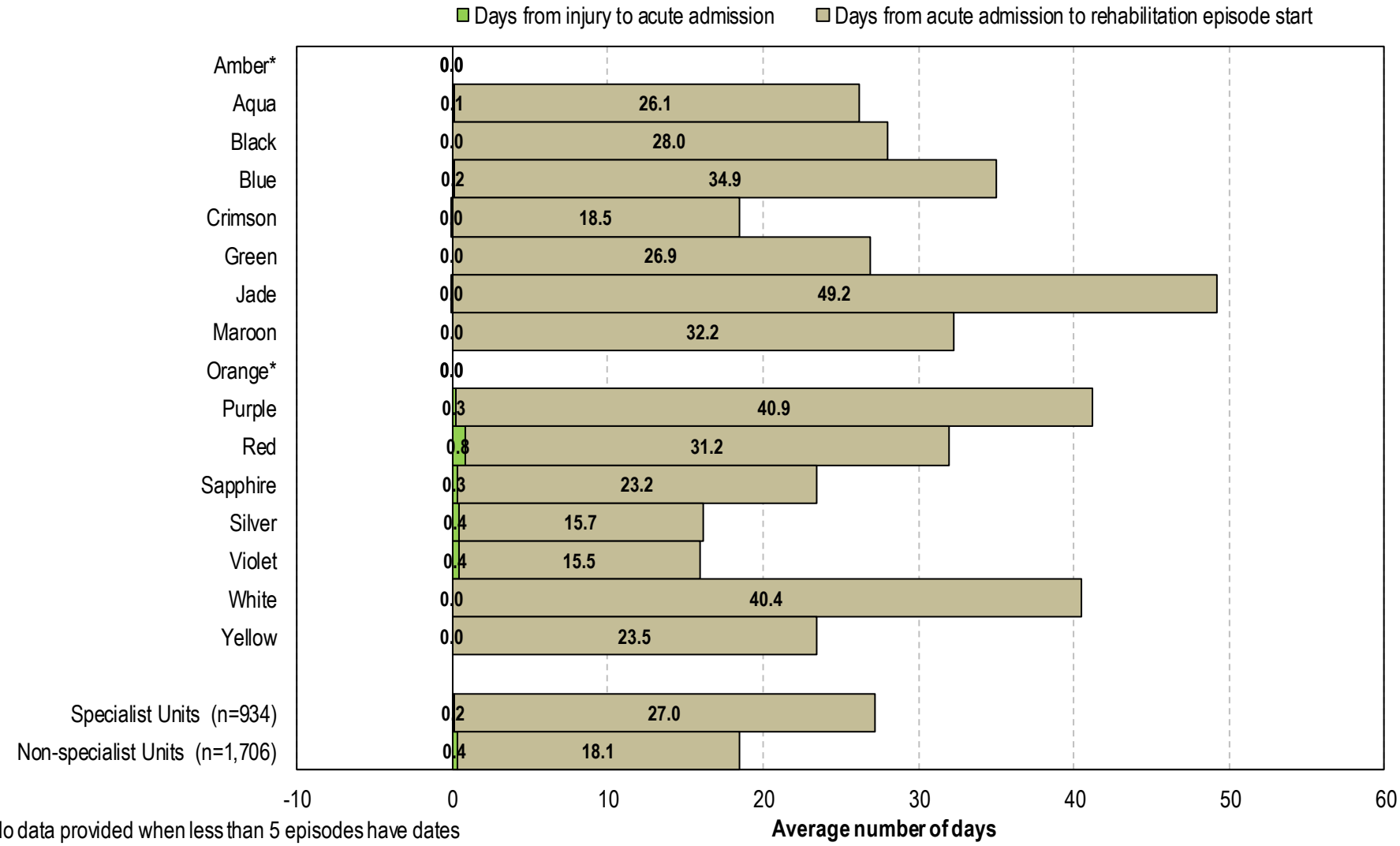
Days from injury to episode start with an acute admission by AN-SNAP class



*No data provided when less than 5 episodes have dates

Note: First admission episodes

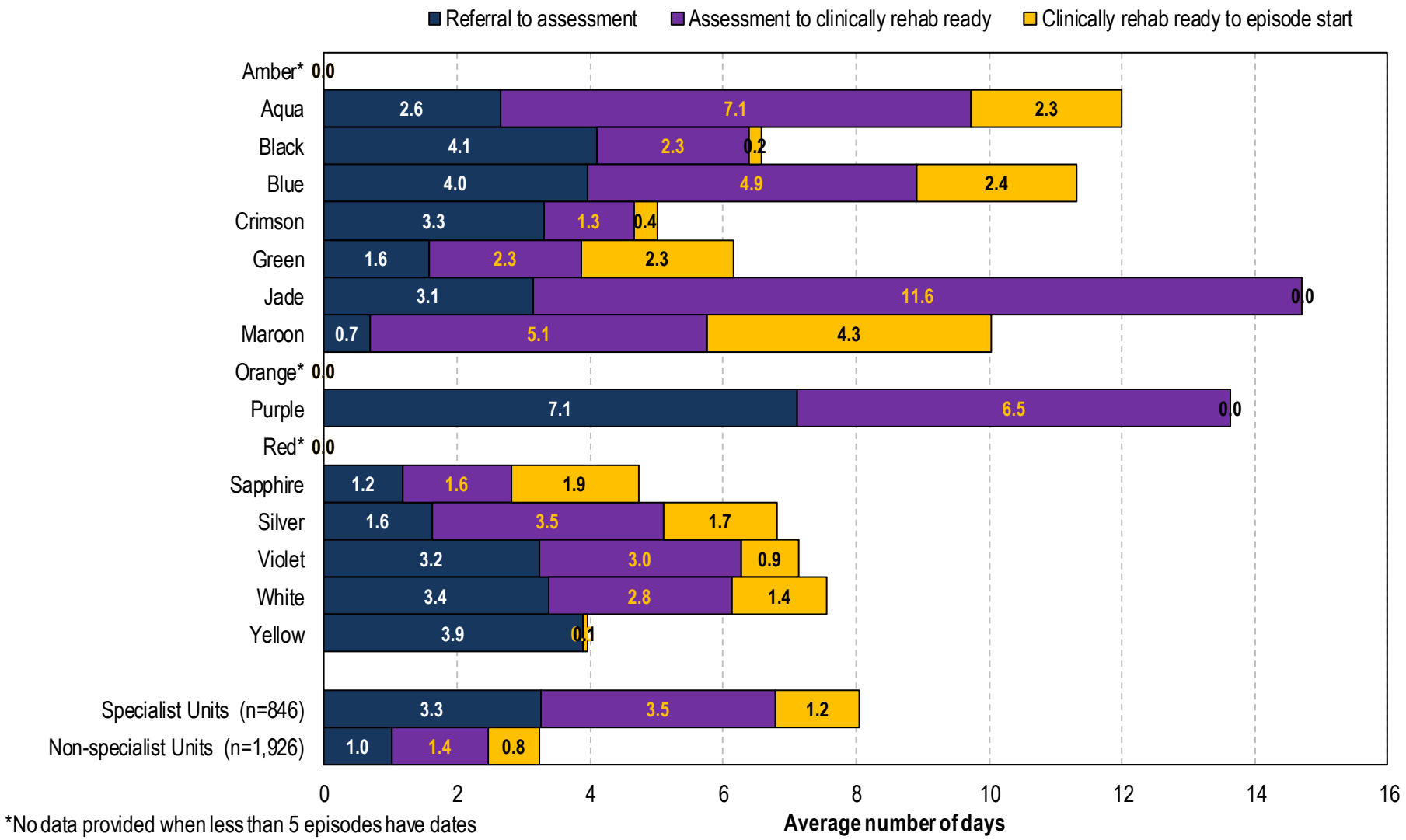
Days from injury to episode start with an acute admission by facility



*No data provided when less than 5 episodes have dates

Note: First admission episodes

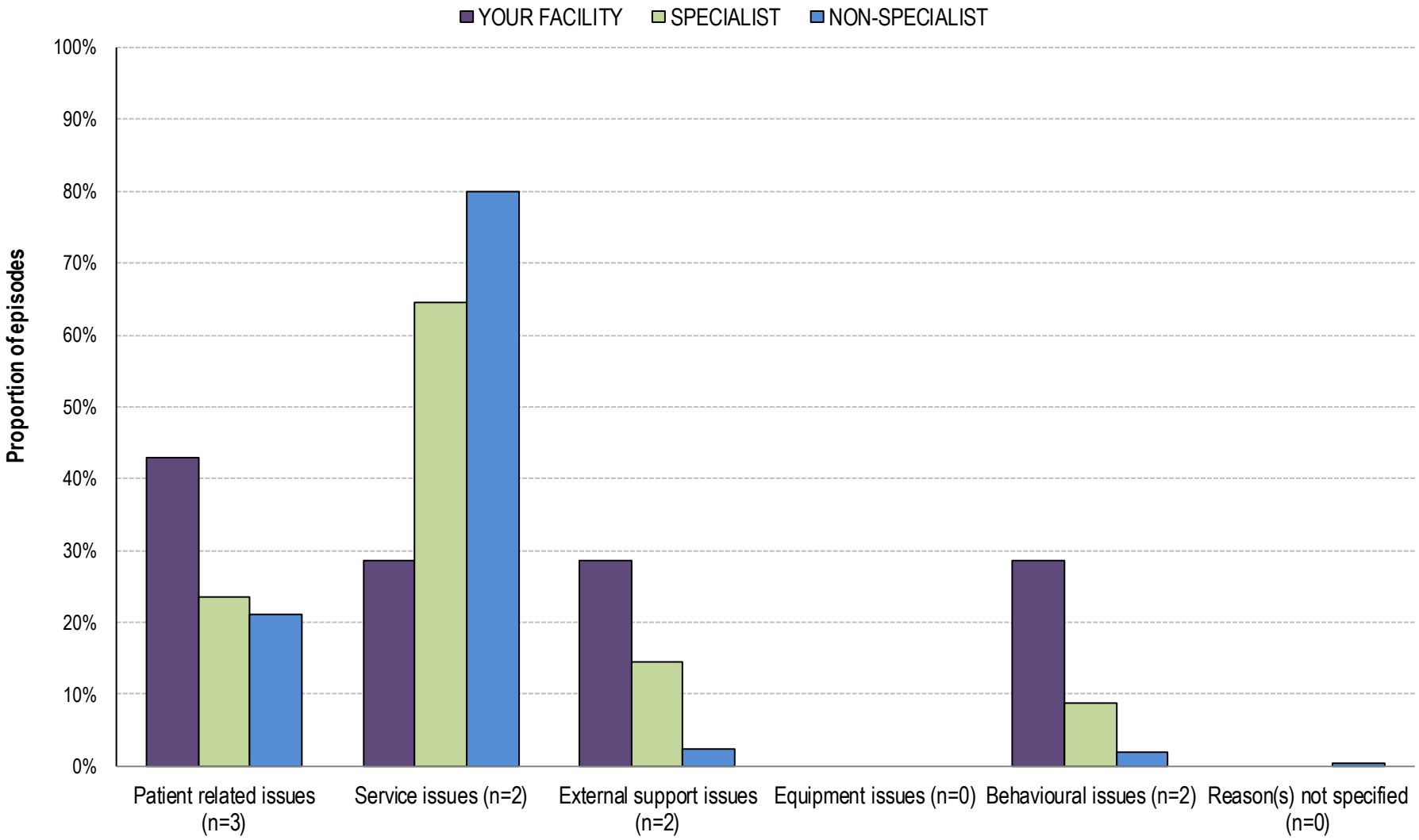
Days from referral to episode start by facility



*No data provided when less than 5 episodes have dates

Note: First admission episodes

Reason for delay in episode start

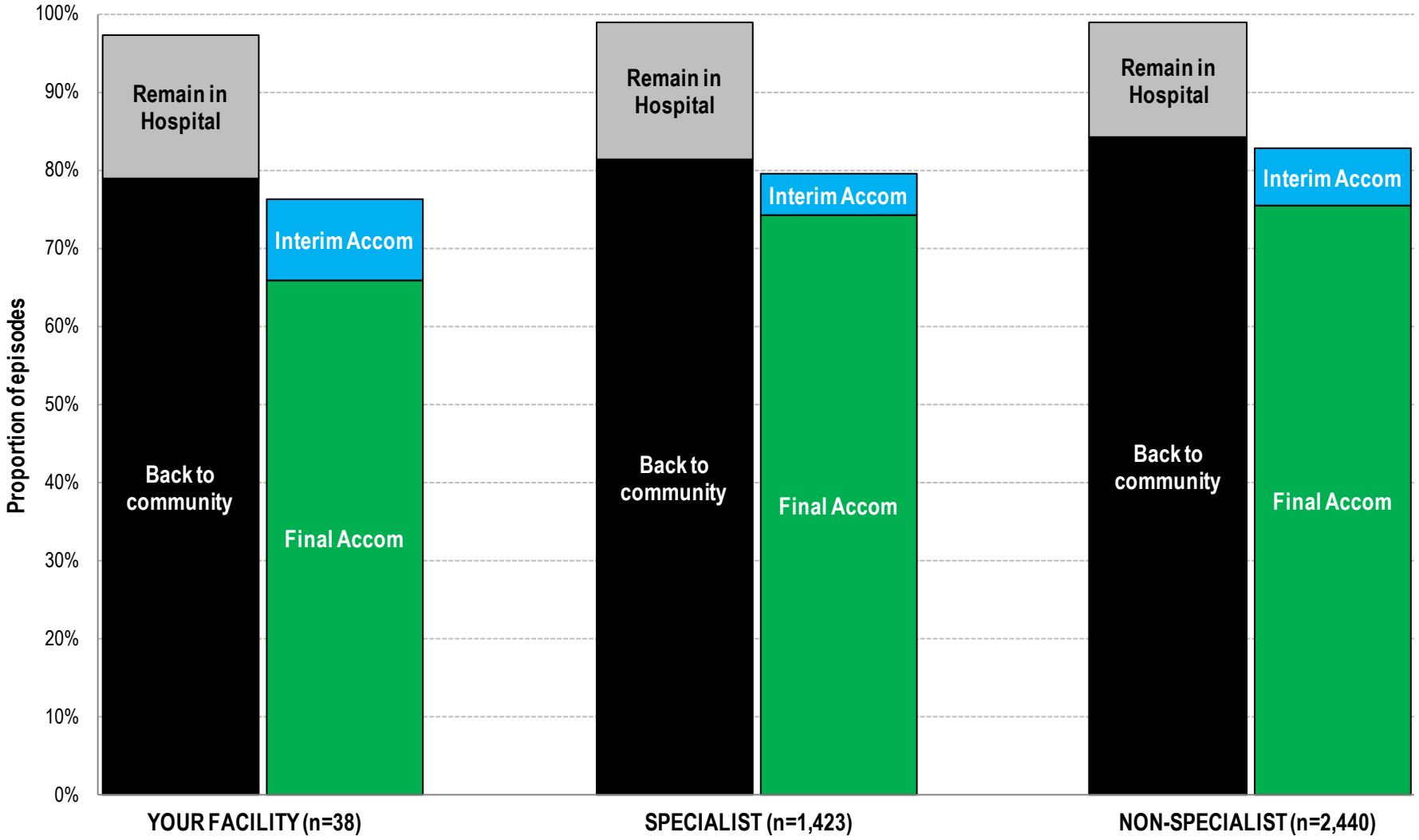


Delays in episode start

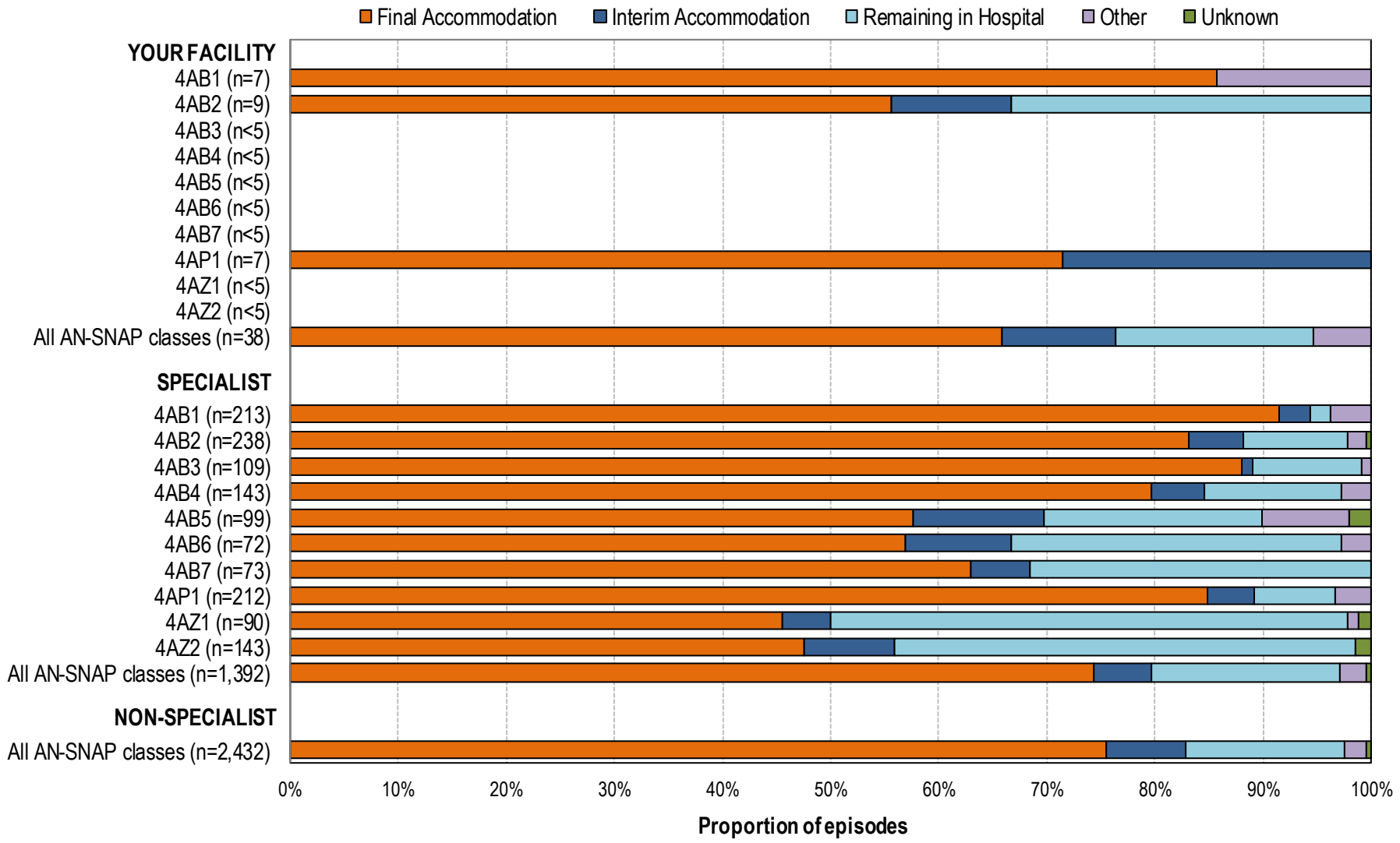
	YOUR FACILITY		SPECIALIST	
Delay in episode start	**No.**	**%**	**No.**	**%**
No delay	19	50.0	796	55.9
Delay in episode start	7	18.4	208	14.6
Missing	12		419	
All episodes in private residence	**38**	**100.0**	**1,423**	**100.0**

	YOUR FACILITY		SPECIALIST	
Delay in episode start	**No.**	**%**	**No.**	**%**
Patient related issues	3	42.9	49	23.6
Service issues	2	28.6	134	64.4
External support issues	2	28.6	30	14.4
Equipment issues	0	0.0	0	0.0
Behavioural issues	2	28.6	18	8.7
Reason(s) not specified	0	0.0	0	0.0

Discharge destination



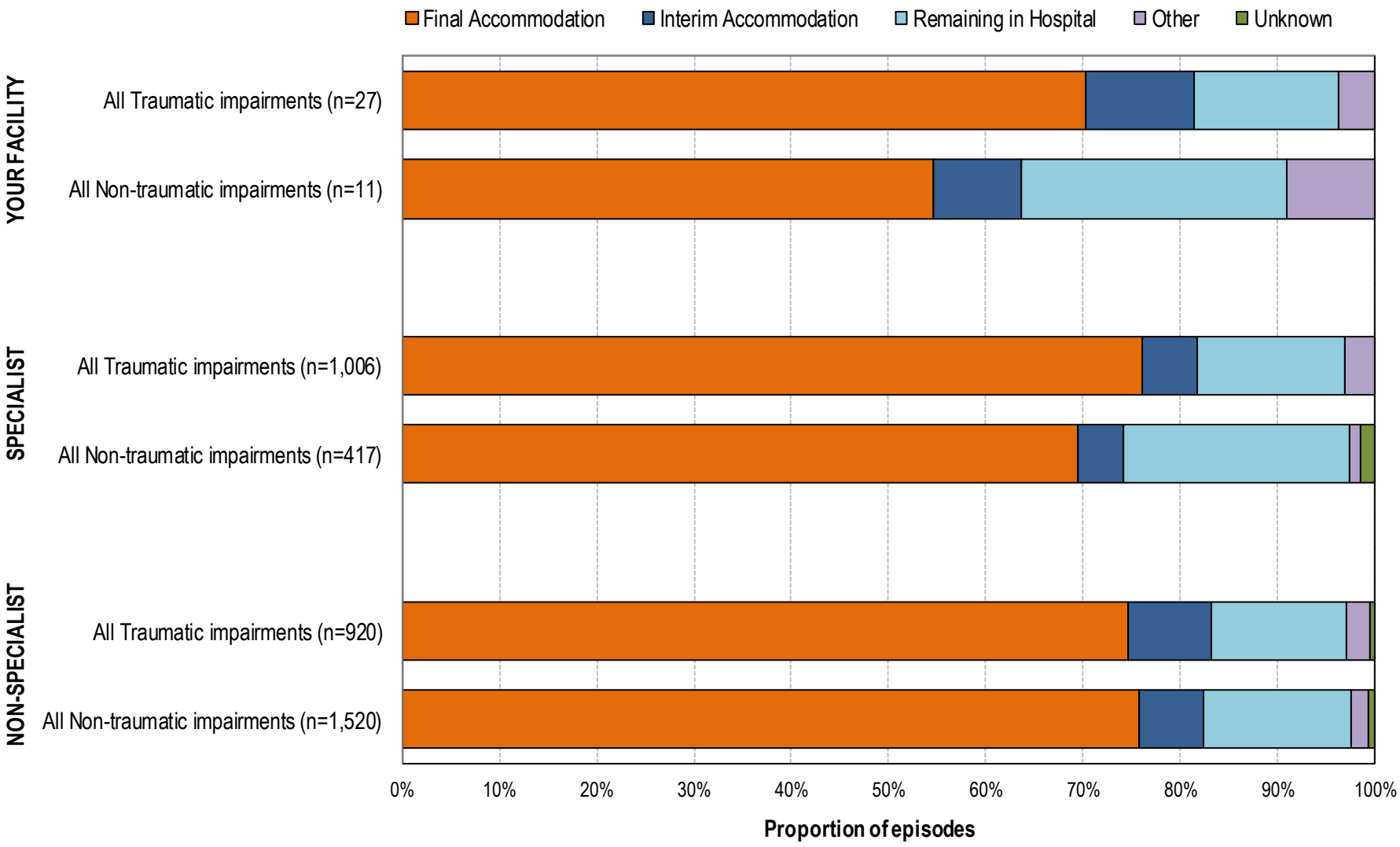
Mode of episode end by AN-SNAP class



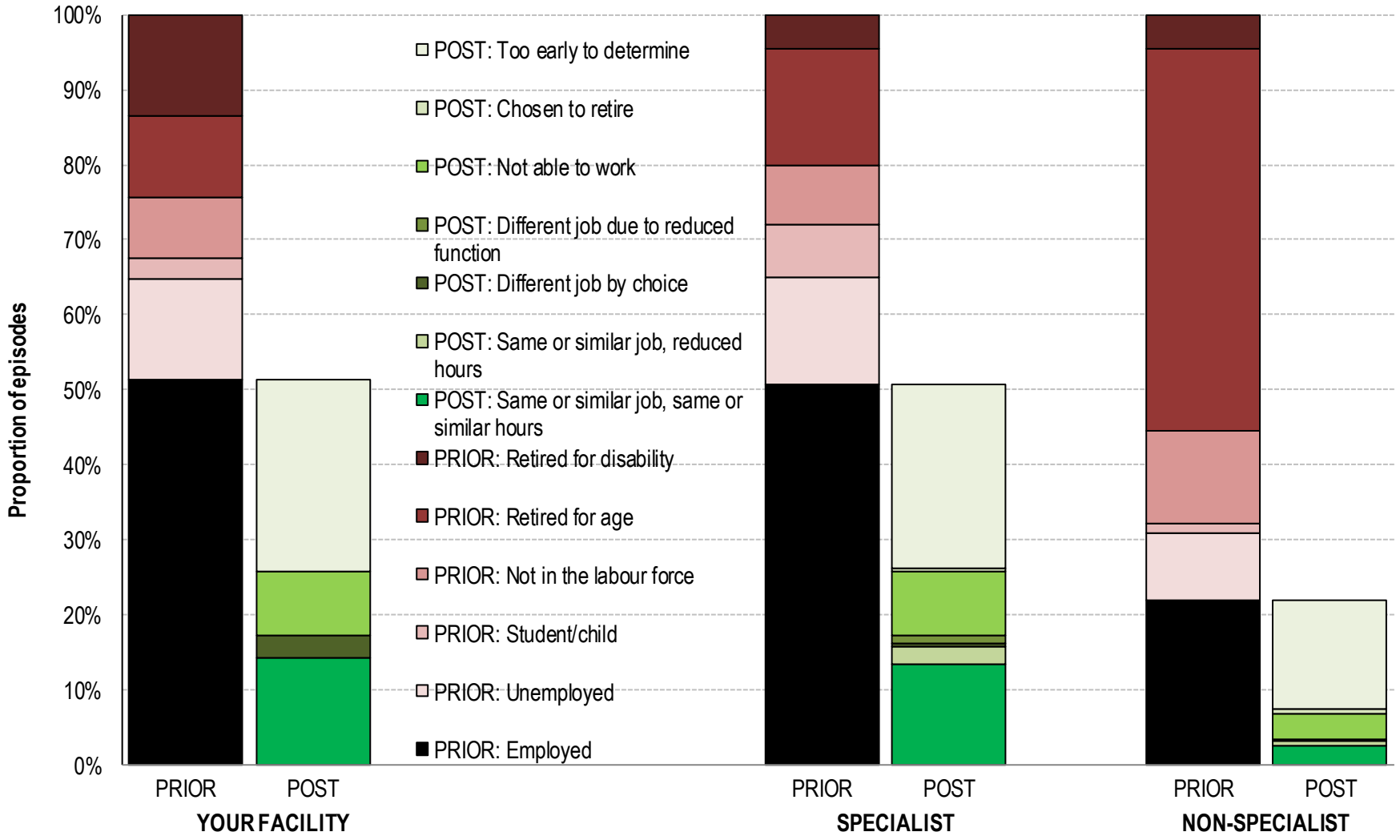
Discharge destination by AN-SNAP class

		Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown
AN-SNAP class				**No.**					**%**		
Your Facility	4AB1	6	0	0	1	0	85.7	0.0	0.0	14.3	0.0
	4AB2	5	1	3	0	0	55.6	11.1	33.3	0.0	0.0
	4AB3	4	0	0	0	0	100.0	0.0	0.0	0.0	0.0
	4AB4	2	0	0	1	0	66.7	0.0	0.0	33.3	0.0
	4AB5	1	1	0	0	0	50.0	50.0	0.0	0.0	0.0
	4AB6	0	0	0	0	0	—	—	—	—	—
	4AB7	2	0	0	0	0	100.0	0.0	0.0	0.0	0.0
	4AP1	5	2	0	0	0	71.4	28.6	0.0	0.0	0.0
	4AZ1	0	0	1	0	0	0.0	0.0	100.0	0.0	0.0
	4AZ2	0	0	3	0	0	0.0	0.0	100.0	0.0	0.0
All AN-SNAP classes		**25**	**4**	**7**	**2**	**0**	**65.8**	**10.5**	**18.4**	**5.3**	**0.0**
SPECIALIST Units		**1,036**	**74**	**241**	**35**	**6**	**74.4**	**5.3**	**17.3**	**2.5**	**0.4**
NON-SPECIALIST Units		**1,836**	**179**	**357**	**49**	**11**	**75.5**	**7.4**	**14.7**	**2.0**	**0.5**

Traumatic and non-traumatic mode of episodes end



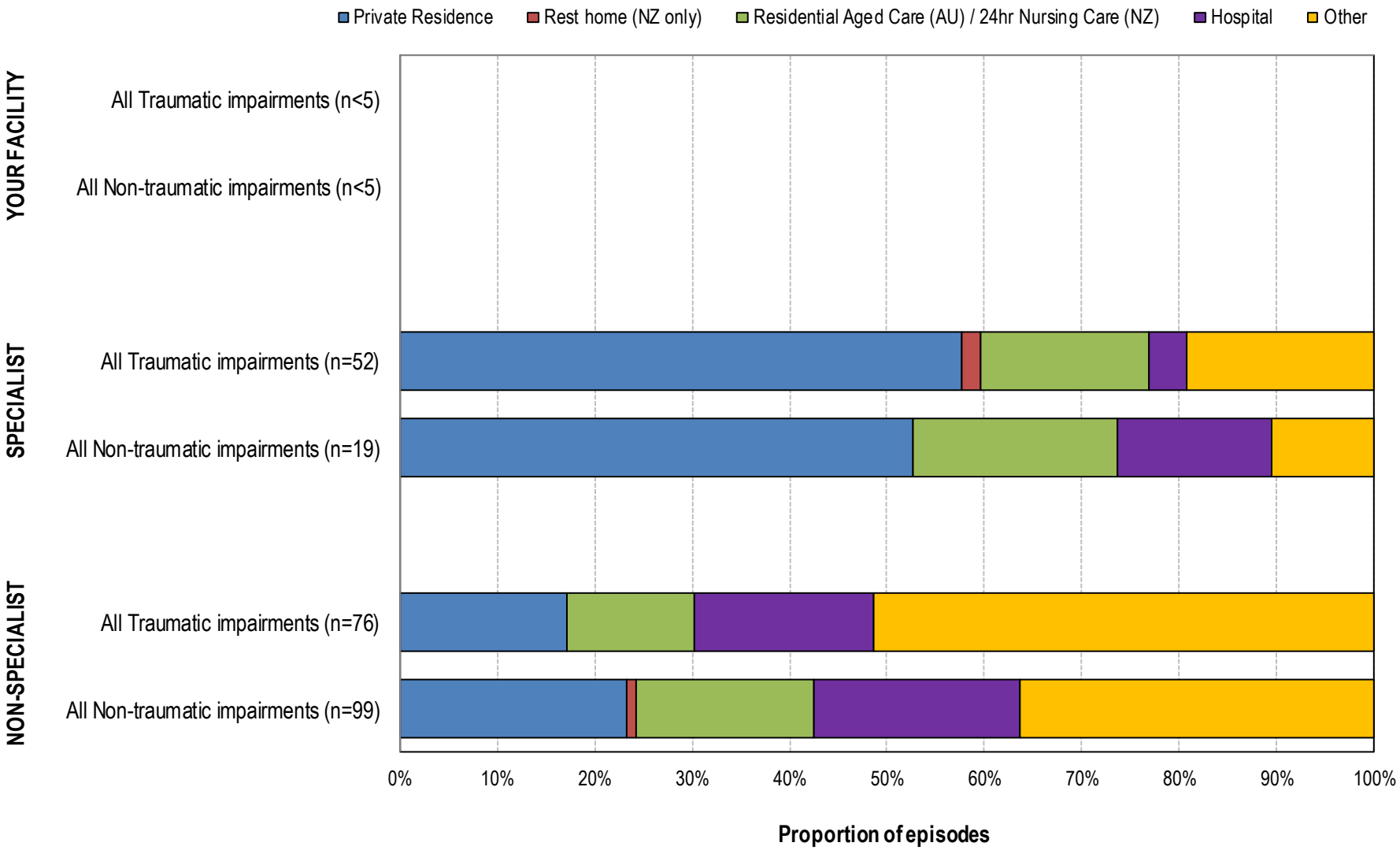
Employment status prior and post impairment



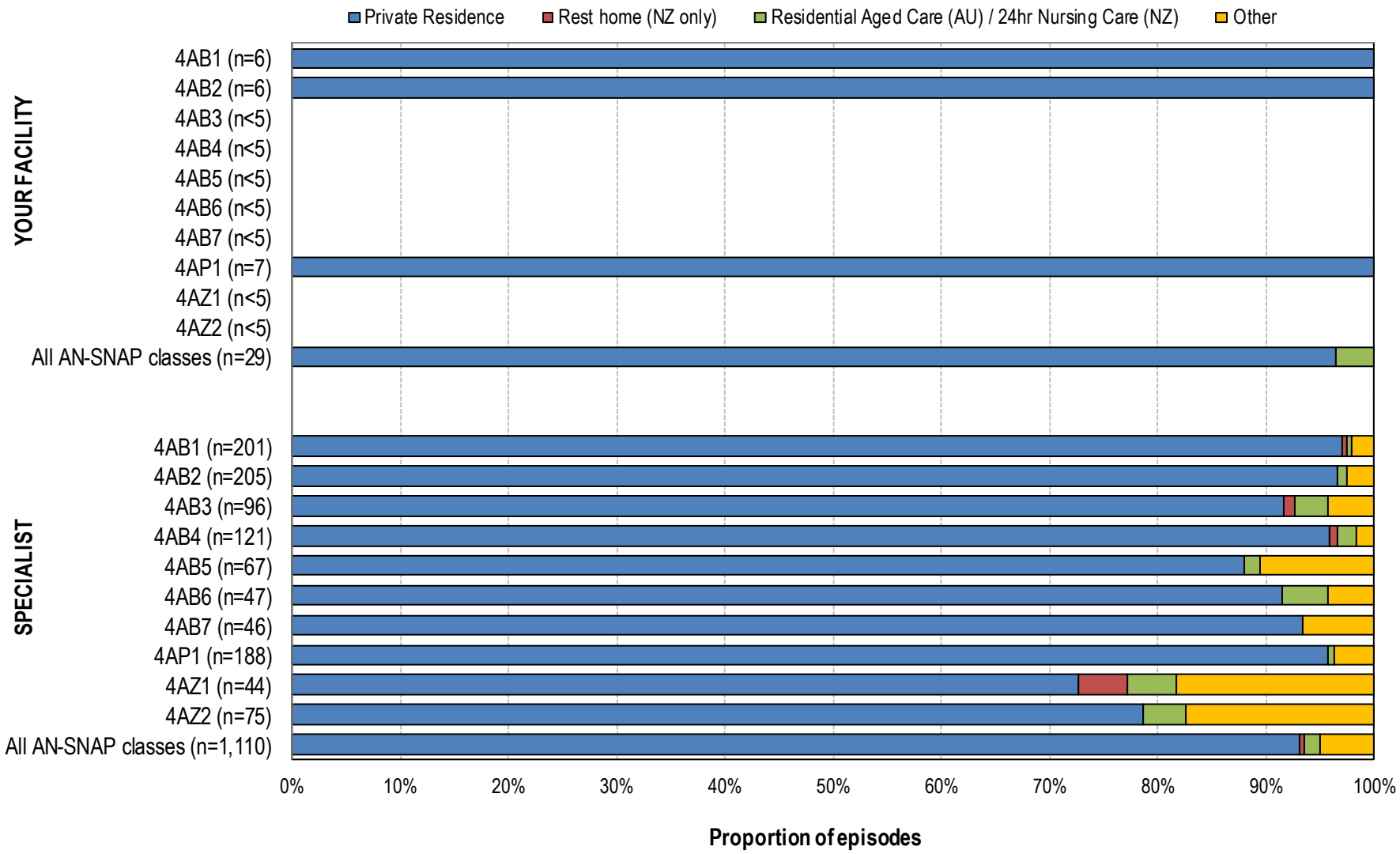
Employment status prior and post impairment

	YOUR FACILITY		SPECIALIST		NON-SPECIALIST	
Employment status	**No.**	**%**	**No.**	**%**	**No.**	**%**
Prior to this impairment:						
Employed	19	51.4	672	50.6	524	21.9
Unemployed	5	13.5	191	14.4	215	9.0
Student/child	1	2.7	93	7.0	28	1.2
Not in the labour force	3	8.1	105	7.9	297	12.4
Retired for age	4	10.8	206	15.5	1217	50.9
Retired for disability	5	13.5	61	4.6	110	4.6
Not answered	1		95		49	
Total	**38**	**100.0**	**1,423**	**100.0**	**2,440**	**100.0**
After discharge (if previously employed):						
Same or similar job, same or similar hours	*5*	*27.8*	*142*	*26.4*	*46*	*11.3*
Same or similar job, reduced hours	*0*	*0.0*	*25*	*4.6*	*13*	*3.2*
Different job by choice	*1*	*5.6*	*5*	*0.9*	*0*	*0.0*
Different job due to reduced function	*0*	*0.0*	*11*	*2.0*	*2*	*0.5*
Not able to work	*3*	*16.7*	*91*	*16.9*	*64*	*15.8*
Chosen to retire	*0*	*0.0*	*5*	*0.9*	*13*	*3.2*
Too early to determine	*9*	*50.0*	*259*	*48.1*	*268*	*66.0*
Not answered	*1*		*134*		*118*	
Total employed prior	***19***	***100.0***	***672***	***100.0***	***524***	***100.0***

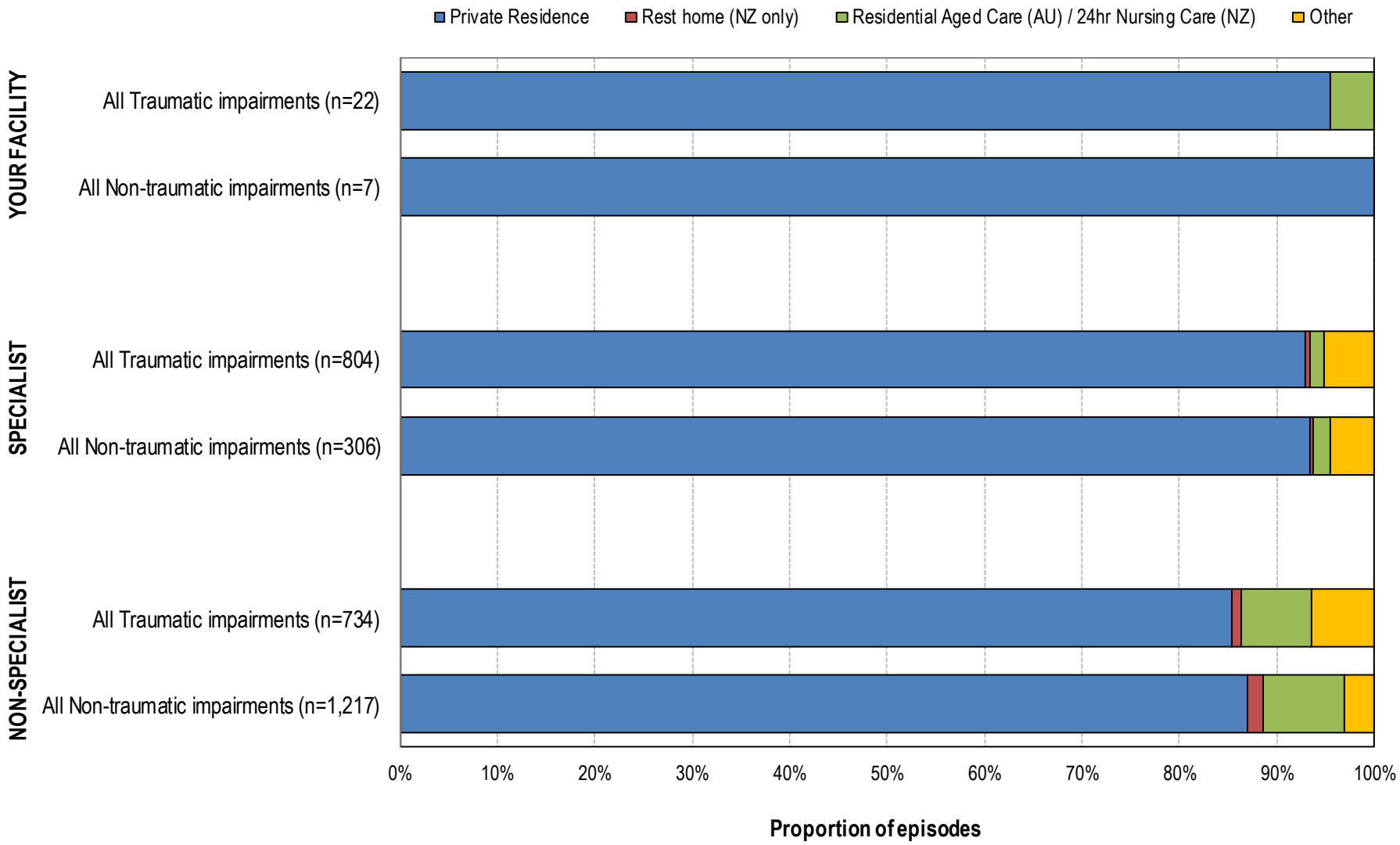
Traumatic and non-traumatic Interim accommodation post discharge



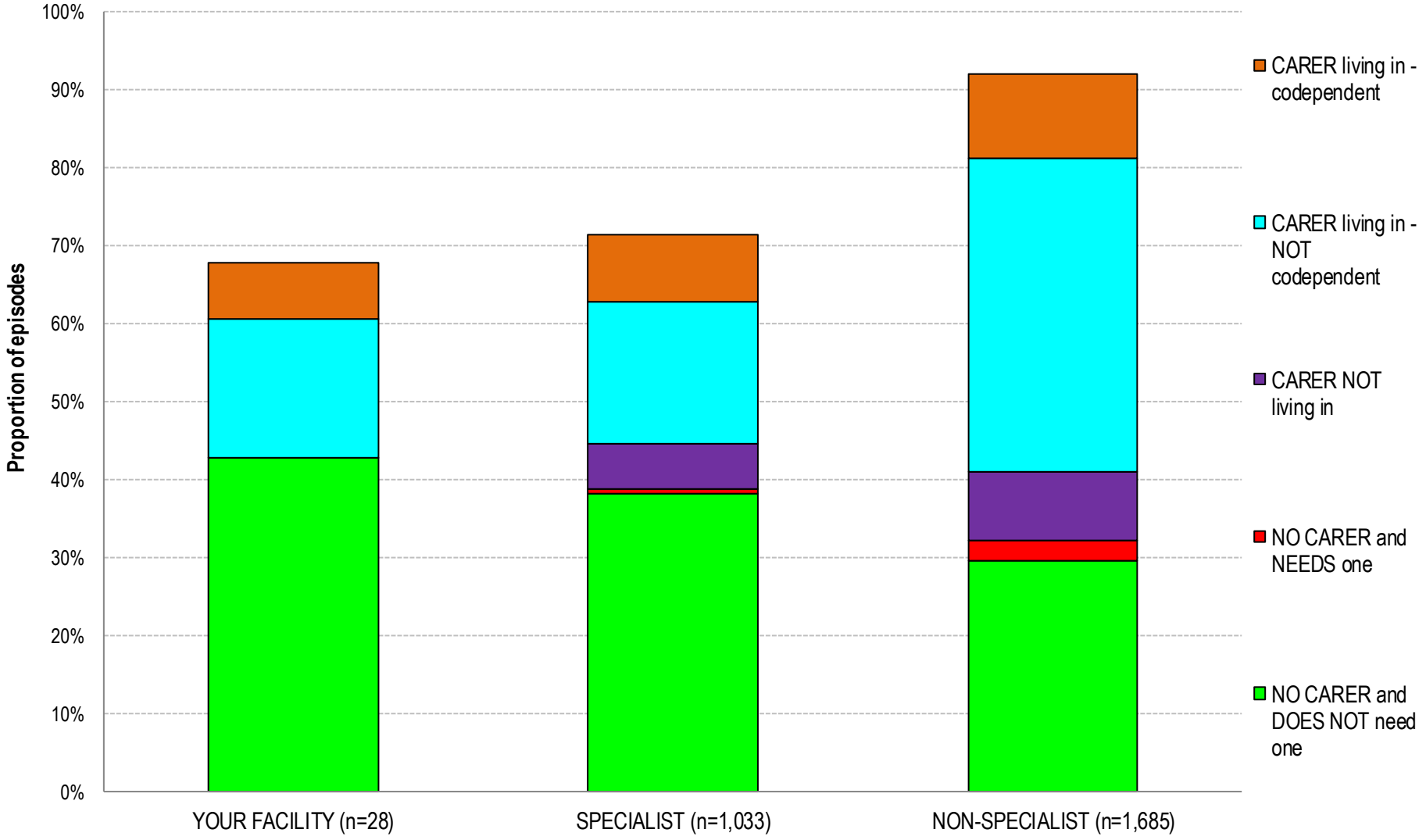
Final accommodation post discharge by AN-SNAP class



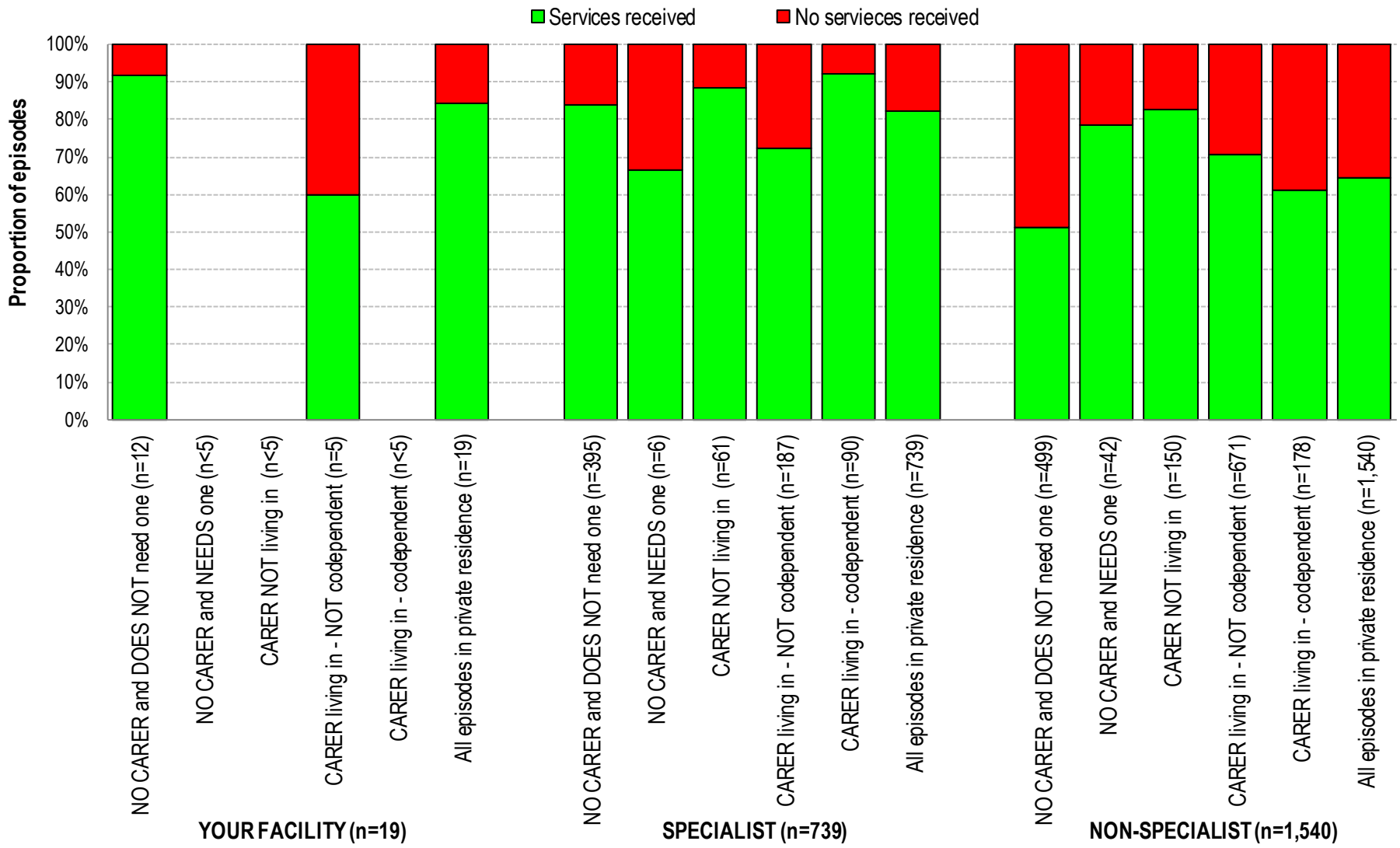
Traumatic and non-traumatic final accommodation post discharge



Carer status post discharge



Any services received post discharge by carer status

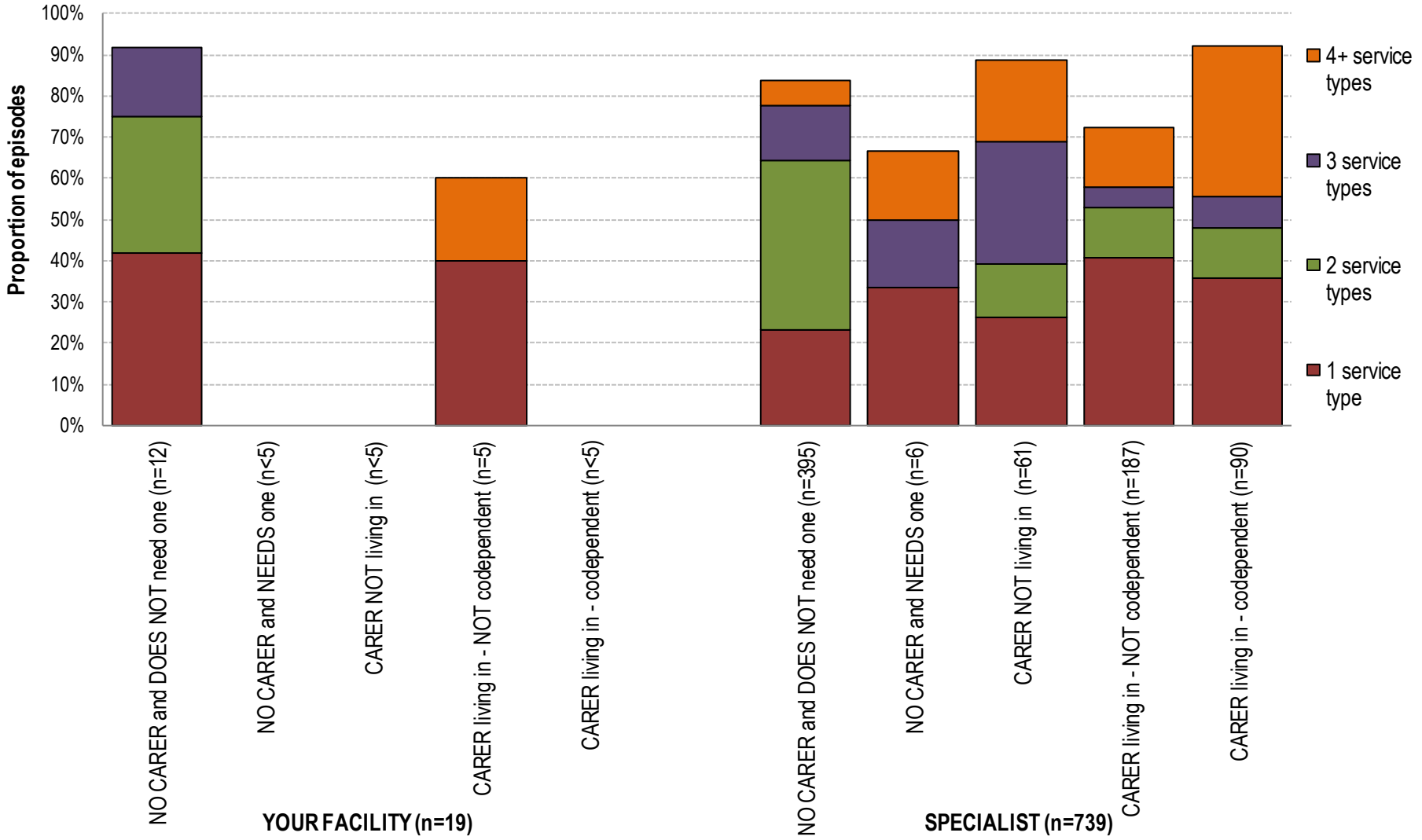


Carer status and any services received post discharge

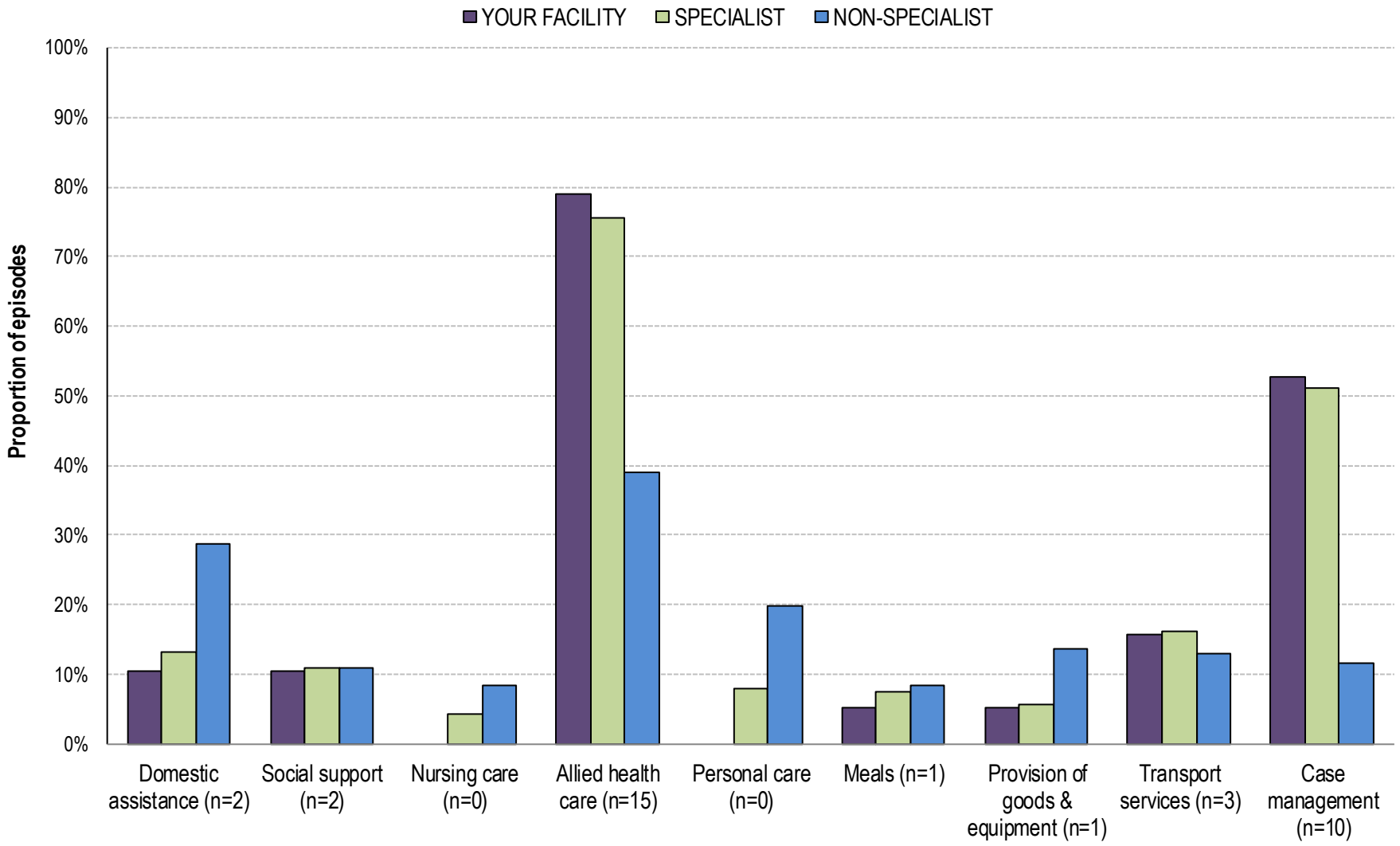
Carer status post discharge	YOUR FACILITY No.	YOUR FACILITY %	SPECIALIST No.	SPECIALIST %	NON-SPECIALIST No.	NON-SPECIALIST %
NO CARER and DOES NOT need one	12	63.2	395	53.5	501	32.3
NO CARER and NEEDS one	0	0.0	6	0.8	42	2.7
CARER NOT living in	0	0.0	61	8.3	150	9.7
CARER living in - NOT codependent	5	26.3	187	25.3	677	43.7
CARER living in - codependent	2	10.5	90	12.2	180	11.6
Missing	9		294		135	
All episodes in private residence	**28**	**100.0**	**1,033**	**100.0**	**1,685**	**100.0**

Carer status post discharge	Any services received post discharge? YOUR FACILITY Yes (%)	YOUR FACILITY No (%)	SPECIALIST Yes (%)	SPECIALIST No (%)	NON-SPECIALIST Yes (%)	NON-SPECIALIST No (%)
NO CARER and DOES NOT need one	91.7	8.3	83.8	16.2	51.1	48.50
NO CARER and NEEDS one	0.0	0.0	66.7	33.3	78.6	21.43
CARER NOT living in	0.0	0.0	88.5	11.5	82.7	17.33
CARER living in - NOT codependent	60.0	40.0	72.2	27.8	69.9	29.25
CARER living in - codependent	100.0	0.0	92.2	7.8	60.6	38.33
All episodes in private residence	**84.2**	**15.8**	**82.1**	**17.9**	**64.2**	**35.2**

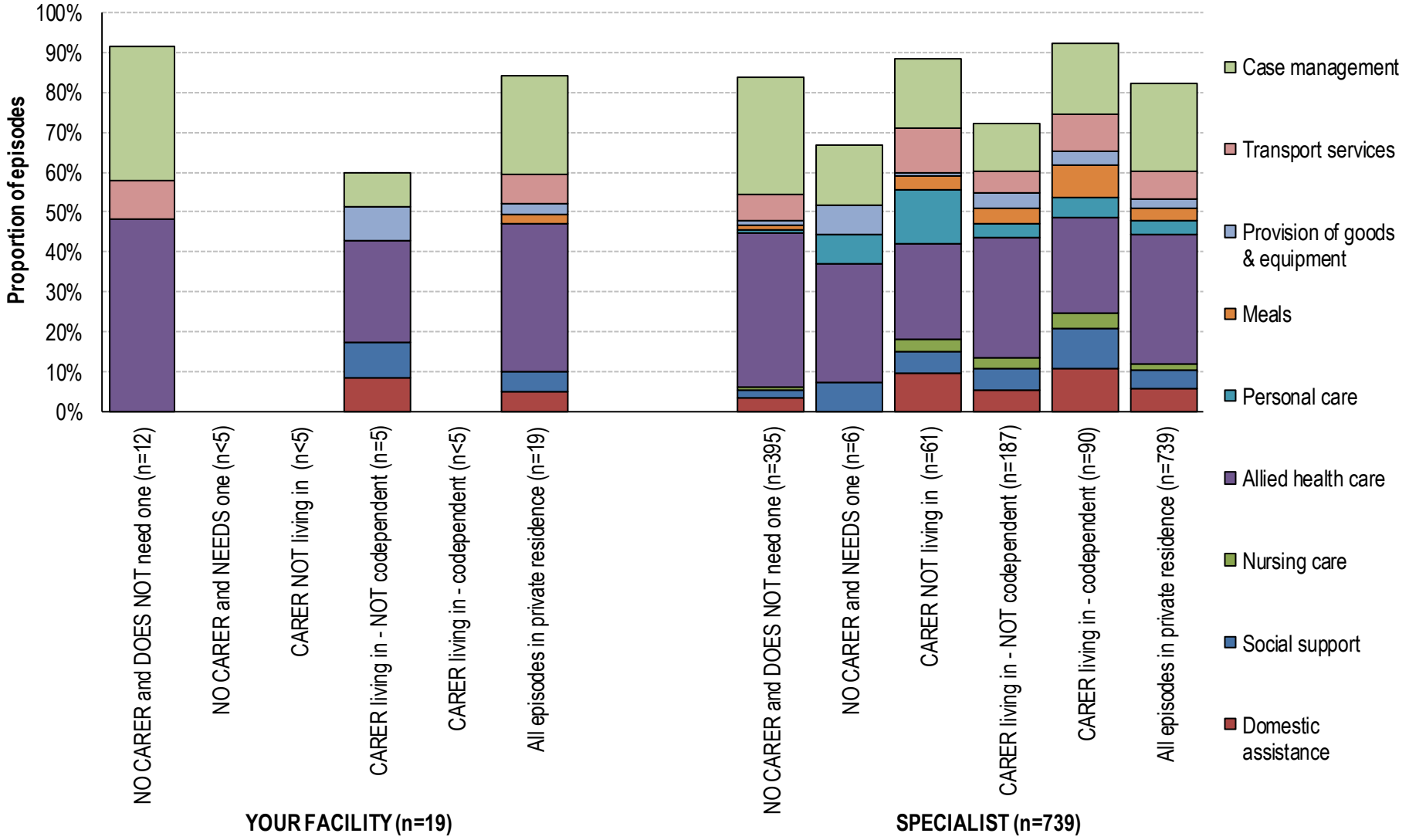
Number of services received post discharge by carer status



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	12	0	0	5	2	
Percent of episodes receiving:						
No services	8.3	—	—	40.0	0.0	**15.8**
1 service type	41.7	—	—	40.0	0.0	**36.8**
2 service types	33.3	—	—	0.0	50.0	**26.3**
3 service types	16.7	—	—	0.0	0.0	**10.5**
4 or more service types	0.0	—	—	20.0	50.0	**10.5**
Service Type received						
Domestic assistance	0.0	—	—	20.0	50.0	**0.1**
Social support	0.0	—	—	20.0	50.0	**0.1**
Nursing care	0.0	—	—	0.0	0.0	**0.0**
Allied health care	83.3	—	—	60.0	100.0	**0.8**
Personal care	0.0	—	—	0.0	0.0	**0.0**
Meals	0.0	—	—	0.0	50.0	**0.1**
Provision of goods & equipment	0.0	—	—	20.0	0.0	**0.1**
Transport services	16.7	—	—	0.0	50.0	**0.2**
Case management	58.3	—	—	20.0	100.0	**0.5**

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

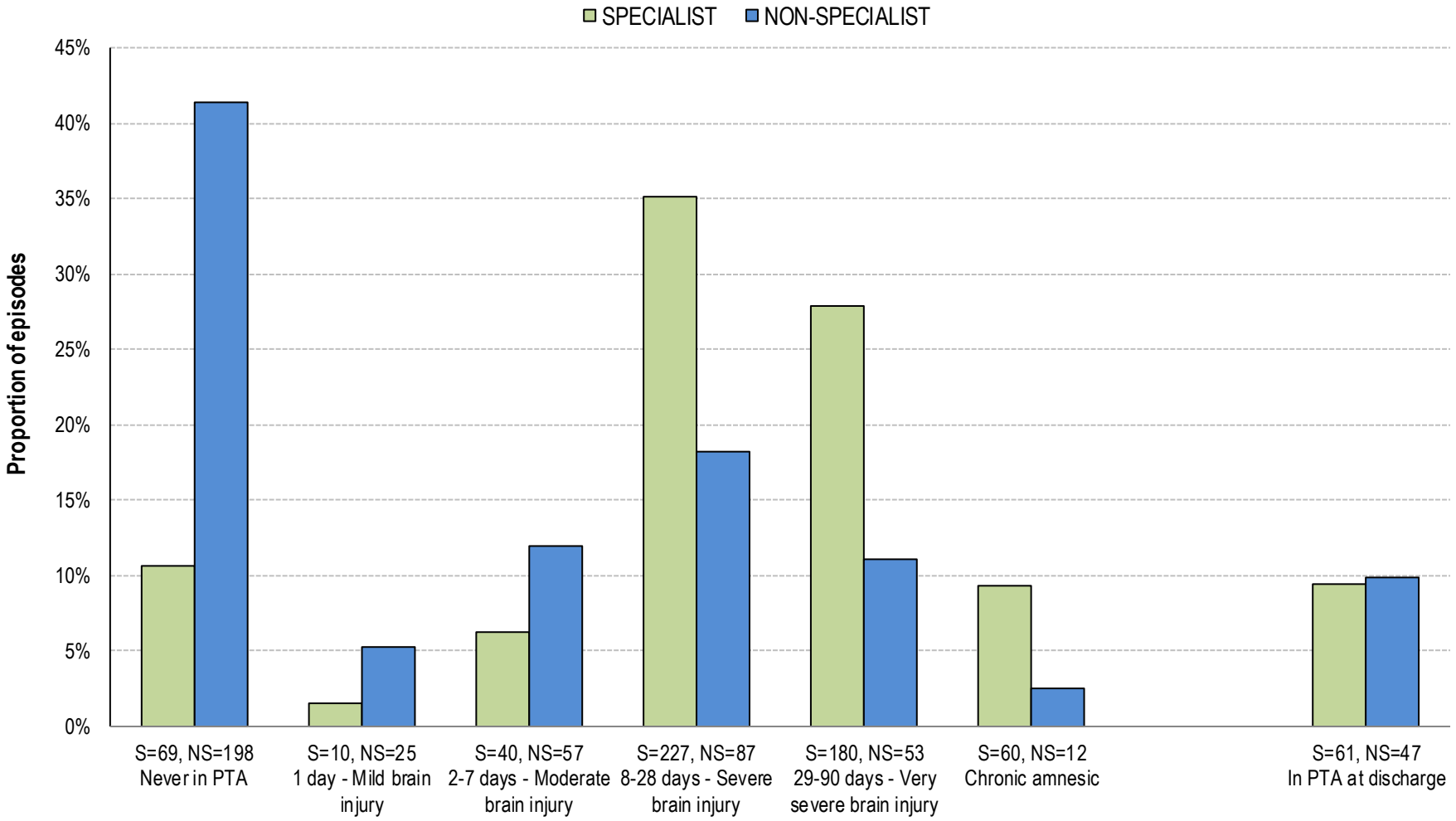
Services received post discharge (NOTE: Discharge to private residence)	Carer status post discharge - SPECIALIST					
	NO CARER and DOES NOT need one	NO CARER and NEEDS one	CARER NOT living in	CARER living in - NOT codependent	CARER living in - codependent	All episodes in private residence
Number of episodes in private residence	395	6	61	187	90	
Percent of episodes receiving:						
No services	16.2	33.3	11.5	27.8	7.8	**17.9**
1 service type	23.3	33.3	26.2	40.6	35.6	**29.5**
2 service types	41.0	0.0	13.1	12.3	12.2	**27.6**
3 service types	13.4	16.7	29.5	4.8	7.8	**11.9**
4 or more service types	6.1	16.7	19.7	14.4	36.7	**13.1**
Service Type received						
Domestic assistance	7.1	0.0	26.2	11.8	35.6	**0.1**
Social support	4.3	16.7	14.8	12.3	33.3	**0.1**
Nursing care	1.3	0.0	8.2	5.3	12.2	**0.0**
Allied health care	80.5	66.7	65.6	66.8	80.0	**0.8**
Personal care	1.8	16.7	37.7	7.5	15.6	**0.1**
Meals	2.3	0.0	9.8	8.6	26.7	**0.1**
Provision of goods & equipment	2.8	16.7	1.6	9.1	12.2	**0.1**
Transport services	13.2	0.0	31.1	11.2	30.0	**0.2**
Case management	61.5	33.3	47.5	26.7	58.9	**0.5**

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	501	42	150	677	180	
Percent of episodes receiving:						
No services	48.5	21.4	17.3	29.2	38.3	**35.2**
1 service type	25.1	21.4	22.0	28.2	23.9	**25.9**
2 service types	13.8	26.2	15.3	16.2	16.1	**15.6**
3 service types	7.0	9.5	14.0	10.0	9.4	**9.4**
4 or more service types	5.2	21.4	31.3	15.4	11.1	**13.3**
Service Type received						
Domestic assistance	23.2	40.5	56.7	27.3	22.8	**0.3**
Social support	5.0	16.7	18.0	14.2	8.3	**0.1**
Nursing care	4.2	11.9	13.3	11.1	5.0	**0.1**
Allied health care	29.1	38.1	38.7	46.1	39.4	**0.4**
Personal care	7.8	42.9	48.0	21.7	17.8	**0.2**
Meals	3.4	7.1	22.7	9.5	6.1	**0.1**
Provision of goods & equipment	9.4	21.4	18.7	14.8	13.9	**0.1**
Transport services	8.0	16.7	22.7	14.3	11.1	**0.1**
Case management	7.6	16.7	16.0	11.8	16.7	**0.1**

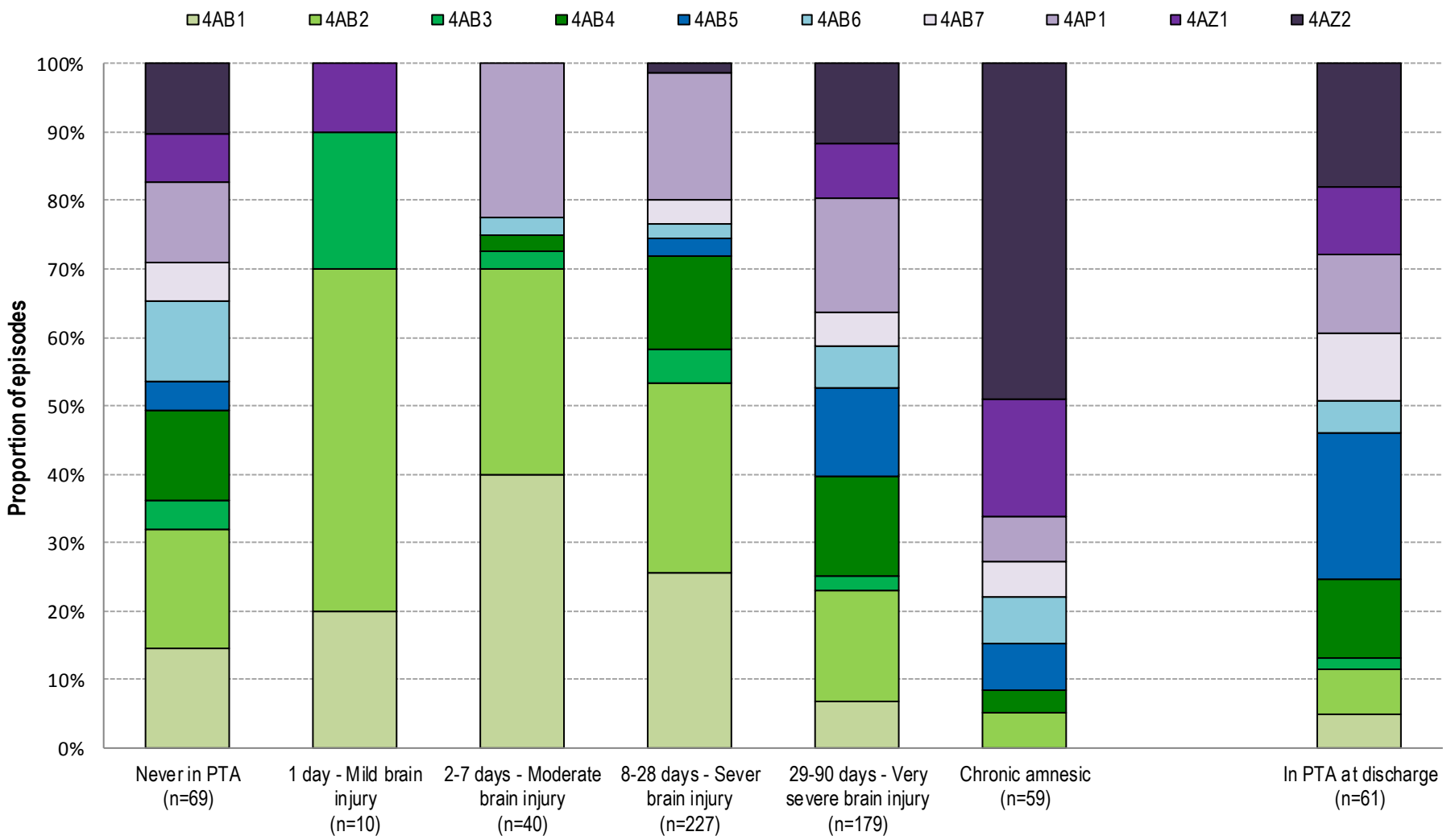
Brain Injury Specific Data

Proportion of episodes by duration of PTA



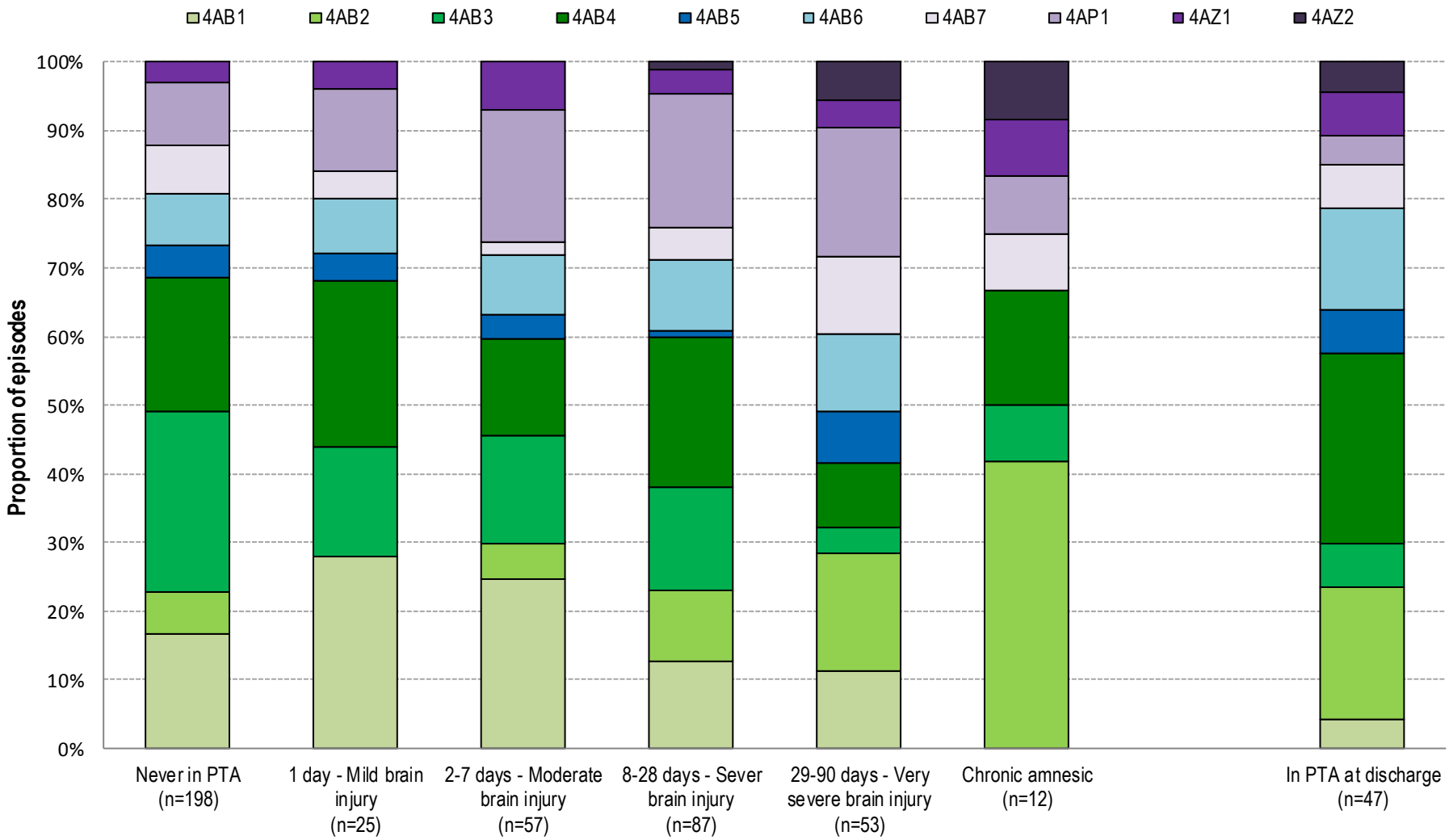
Note: First admission episodes

Specialists — Proportion of episodes by AN-SNAP class & duration of PTA



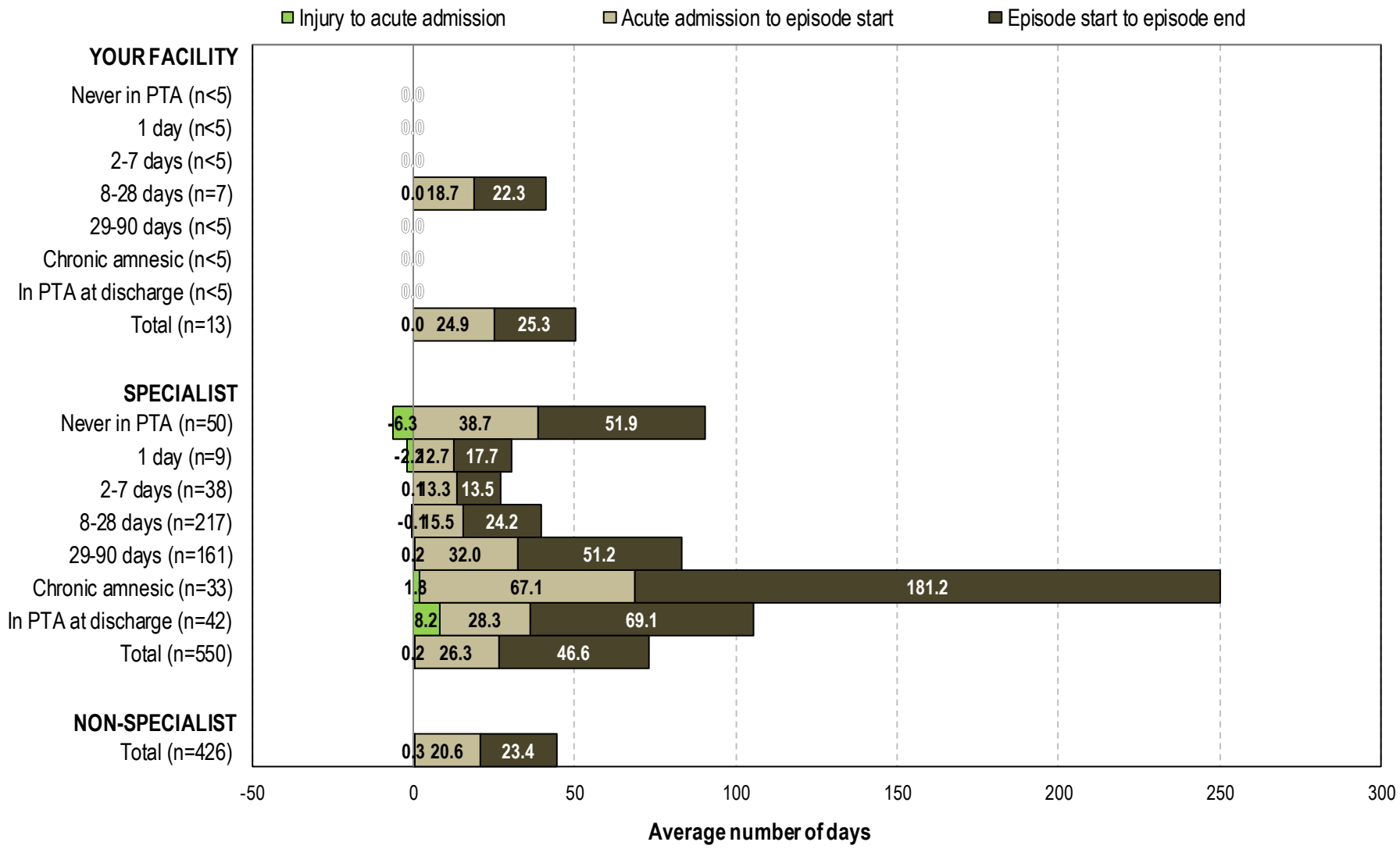
Note: First admission episodes

Non specialists — Proportion of episodes by AN-SNAP class & duration of PTA



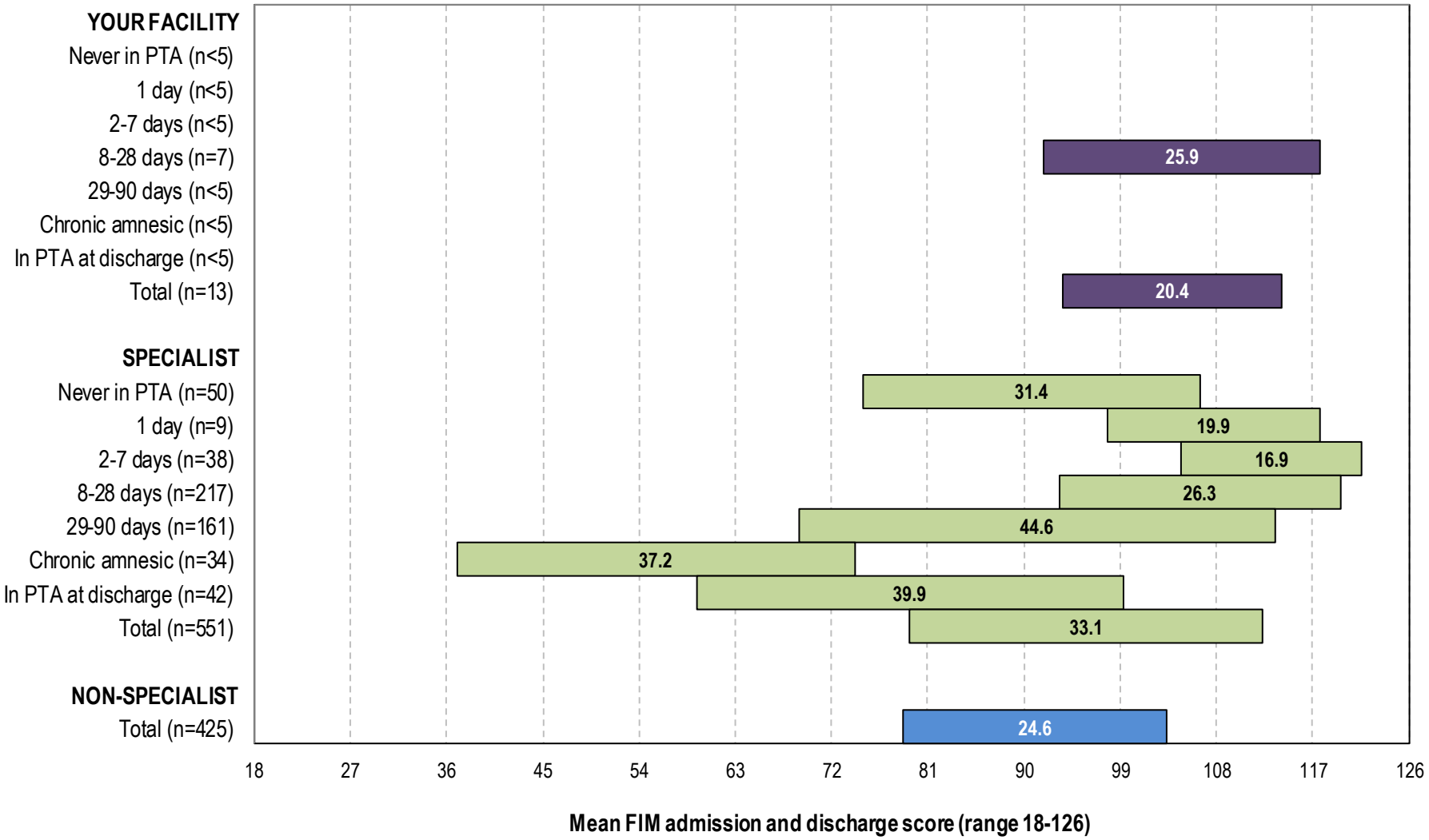
Note: First admission episodes

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



Note: First admission episodes

Admission and discharge FIM scores by duration of PTA



Note: First admission episodes

ALOS by AN-SNAP class and duration of PTA

	YOUR FACILITY						
AN-SNAP class	**Never in PTA**	**1 day**	**2-7 days**	**8-28 days**	**29-90 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)	—	—	—	—	—	—	—
All Brain AN-SNAP classes	**—**	**—**	**—**	**20.9**	**—**	**—**	**—**

	SPECIALIST						
AN-SNAP class	**Never in PTA**	**1 day**	**2-7 days**	**8-28 days**	**29-90 days**	**Chronic amnesic**	**In PTA at discharge**
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	12.0	—	8.8	13.1	15.3	—	—
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	20.8	—	12.9	18.8	34.1	—	—
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	—	—	—	24.2	—	—	—
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	35.6	—	—	24.0	37.5	—	—
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	—	—	—	30.7	57.6	—	50.2
4AB6 (BI, weighted FIM motor 29-40)	92.2	—	—	—	61.4	—	—
4AB7 (BI, weighted FIM motor 19-28)	—	—	—	61.7	56.0	—	121.8
4AP1 (MMT, weighted FIM motor 19-91)	64.2	—	17.0	21.9	37.9	—	34.0
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	62.8	200.8	—
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	—	75.7	263.9	125.0
All Brain AN-SNAP classes	**50.1**	**16.6**	**12.7**	**21.8**	**46.4**	**175.0**	**66.5**

	NON-SPECIALIST						
AN-SNAP class	**Never in PTA**	**1 day**	**2-7 days**	**8-28 days**	**29-90 days**	**Chronic amnesic**	**In PTA at discharge**
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	11.8	13.8	11.3	12.4	8.0	—	—
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	20.6	—	—	12.4	21.4	20.4	38.3
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	15.9	—	15.4	14.9	—	—	—
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	24.9	12.7	15.7	18.1	21.2	—	26.4
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	28.4	—	—	—	—	—	—
4AB6 (BI, weighted FIM motor 29-40)	19.6	—	—	15.6	—	—	39.8
4AB7 (BI, weighted FIM motor 19-28)	29.7	—	—	—	36.7	—	—
4AP1 (MMT, weighted FIM motor 19-91)	29.3	—	36.6	31.1	28.1	—	—
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	38.8	—	—	—	—	—	—
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	—	—	—	—
All Brain AN-SNAP classes	**20.9**	**14.1**	**20.5**	**21.2**	**33.8**	**31.9**	**29.3**

Note: First admission episodes

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

	YOUR FACILITY						
AN-SNAP class	**Never in PTA**	**1 day**	**2-7 days**	**8-28 days**	**29-90 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)	—	—	—	—	—	—	—
All Brain AN-SNAP classes	**—**	**—**	**—**	**91.9**	**—**	**—**	**—**

	SPECIALIST						
AN-SNAP class	**Never in PTA**	**1 day**	**2-7 days**	**8-28 days**	**29-90 days**	**Chronic amnesic**	**In PTA at discharge**
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	111.1	—	114.6	112.1	113.7	—	—
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	102.6	—	103.6	101.4	103.4	—	—
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	—	—	—	91.3	—	—	—
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	71.3	—	—	78.7	77.4	—	—
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	—	—	—	70.2	63.3	—	66.6
4AB6 (BI, weighted FIM motor 29-40)	47.2	—	—	—	48.9	—	—
4AB7 (BI, weighted FIM motor 19-28)	—	—	—	37.7	34.0	—	34.6
4AP1 (MMT, weighted FIM motor 19-91)	78.0	—	95.9	85.8	77.6	—	68.7
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	26.0	19.3	—
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	—	21.1	19.0	18.7
All Brain AN-SNAP classes	**75.0**	**97.8**	**104.7**	**93.3**	**68.9**	**37.0**	**59.4**

	NON-SPECIALIST						
AN-SNAP class	**Never in PTA**	**1 day**	**2-7 days**	**8-28 days**	**29-90 days**	**Chronic amnesic**	**In PTA at discharge**
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	106.4	99.2	106.5	109.5	113.6	—	—
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	98.1	—	—	104.9	97.1	104.4	95.0
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	87.5	—	84.4	86.3	—	—	—
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	76.8	78.5	70.7	79.8	77.0	—	76.5
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	66.5	—	—	—	—	—	—
4AB6 (BI, weighted FIM motor 29-40)	52.6	—	—	53.0	—	—	44.6
4AB7 (BI, weighted FIM motor 19-28)	38.6	—	—	—	31.0	—	—
4AP1 (MMT, weighted FIM motor 19-91)	77.3	—	73.1	75.5	75.0	—	—
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	27.5	—	—	—	—	—	—
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	—	—	—	—
All Brain AN-SNAP classes	**80.9**	**79.5**	**80.4**	**80.6**	**70.9**	**73.3**	**73.5**

Note: First admission episodes

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

	YOUR FACILITY						
AN-SNAP class	**Never in PTA**	**1 day**	**2-7 days**	**8-28 days**	**29-90 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)	—	—	—	—	—	—	—
All Brain AN-SNAP classes	**—**	**—**	**—**	**25.9**	**—**	**—**	**—**

	SPECIALIST						
AN-SNAP class	**Never in PTA**	**1 day**	**2-7 days**	**8-28 days**	**29-90 days**	**Chronic amnesic**	**In PTA at discharge**
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	9.2	—	9.6	10.5	7.9	—	—
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	14.4	—	18.8	18.7	13.5	—	—
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	—	—	—	29.5	—	—	—
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	44.0	—	—	39.8	37.5	—	—
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	—	—	—	46.8	49.9	—	30.4
4AB6 (BI, weighted FIM motor 29-40)	59.5	—	—	—	58.7	—	—
4AB7 (BI, weighted FIM motor 19-28)	—	—	—	77.3	74.3	—	72.4
4AP1 (MMT, weighted FIM motor 19-91)	30.8	—	20.6	30.7	37.1	—	31.7
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	—	—	—	—	82.8	25.5	—
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	—	86.1	38.5	57.3
All Brain AN-SNAP classes	**31.4**	**19.9**	**16.9**	**26.3**	**44.6**	**37.2**	**39.9**

	NON-SPECIALIST						
AN-SNAP class	**Never in PTA**	**1 day**	**2-7 days**	**8-28 days**	**29-90 days**	**Chronic amnesic**	**In PTA at discharge**
4AB1 (BI, weighted FIM motor 71-91, FIM cog 26-35)	11.3	15.3	15.1	10.4	4.8	—	—
4AB2 (BI, weighted FIM motor 71-91, FIM cog 5-25)	14.7	—	—	13.3	19.4	10.4	17.9
4AB3 (BI, weighted FIM motor 41-70, FIM cog 26-35)	20.8	—	21.7	25.4	—	—	—
4AB4 (BI, weighted FIM motor 41-70, FIM cog 17-25)	21.7	15.8	23.0	31.2	34.2	—	18.7
4AB5 (BI, weighted FIM motor 41-70, FIM cog 5-16)	23.6	—	—	—	—	—	—
4AB6 (BI, weighted FIM motor 29-40)	30.4	—	—	45.0	—	—	22.6
4AB7 (BI, weighted FIM motor 19-28)	30.3	—	—	—	58.5	—	—
4AP1 (MMT, weighted FIM motor 19-91)	30.5	—	30.9	35.3	33.5	—	—
4AZ1 (BI or MMT, age ≥ 49, weighted FIM motor 13-18)	37.5	—	—	—	—	—	—
4AZ2 (BI or MMT, age ≤ 48, weighted FIM motor 13-18)	—	—	—	—	—	—	—
All Brain AN-SNAP classes	**21.4**	**21.4**	**23.2**	**28.2**	**34.3**	**25.9**	**21.7**

Note: First admission episodes

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 were 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:

LOSdiff = episode's LOS – mean LOS appropriate AN-SNAP class.

Casemix-adjusted relative mean = Sum of LOSdiff for all episodes divided by 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.

Glossary … continued

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*

Glossary … continued

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.

Glossary … continued

Relative Functional Gain (RFG) and Relative Functional Efficiency (RFE)

FIM change measures the absolute difference between admission FIM and discharge FIM scores, i.e. client 1 had a 10 point improvement (admission 46 - discharge 56) and client 2 also had a ten point improvement (admission 116 - discharge 126). FIM change does not take into account the proportion of FIM change possible, i.e. client 1 improved 10 points out of possible 80 (126-46) and client 2 improved 10 points out of a possible 10 (126-116). So not all patients that improve 10 FIM points are the same. This proportion of FIM change possible is known as the Relative Functional Gain (RFG) and tries to take into account the amount of FIM gain possible. RFG is calculated as follows:

- If actual FIM change > 0 [improved]
  - **(Discharge FIM - Admission FIM)/(126 - Admission FIM)**
    - e.g. 90 – 50/(126-50) = 40/76 = 52.6%
- If actual FIM change < 0 [declined]
  - **(Discharge FIM - Admission FIM)/ (Admission FIM)**
    - e.g. 90 – 100/100 = -10/100 = -10%
- If actual FIM change = 0 [no change]
  - 0%

FIM efficiency measures the absolute difference between admission FIM and discharge FIM scores per day, without taking into account the proportion of FIM change possible. The Relative Functional Gain per day is known as the Relative Functional Efficiency (RFE), and is calculated as the RFG divided by the length of stay (LOS).

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
4AZ1	Weighted FIM motor score 13-18, Brain, Spine, MMT, Age ≥ 49
4AZ2	Weighted FIM motor score 13-18, Brain, Spine, MMT, Age ≤ 48
4AZ3	Weighted FIM motor score 13-18, All other impairments, Age ≥ 65
4AZ4	Weighted FIM motor score 13-18, All other impairments, Age ≤ 64
4AA1	Stroke, weighted FIM motor 51-91, FIM cognition 29-35
4AA2	Stroke, weighted FIM motor 51-91, FIM cognition 19-28
4AA3	Stroke, weighted FIM motor 51-91, FIM cognition 5-18
4AA4	Stroke, weighted FIM motor 36-50, Age ≥ 68
4AA5	Stroke, weighted FIM motor 36-50, Age ≤ 67
4AA6	Stroke, weighted FIM motor 19-35, Age ≥ 68
4AA7	Stroke, weighted FIM motor 19-35, Age ≤ 67
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
4AC1	Neurological conditions, weighted FIM motor 62-91
4AC2	Neurological conditions, weighted FIM motor 43-61
4AC3	Neurological conditions, weighted FIM motor 19-42
4AD1	Spinal cord dysfunction, Age ≥ 50, weighted FIM motor 42-91
4AD2	Spinal cord dysfunction, Age ≥ 50, weighted FIM motor 19-41
4AD3	Spinal cord dysfunction, Age ≤ 49, weighted FIM motor 34-91
4AD4	Spinal cord dysfunction, Age ≤ 49, weighted FIM motor 19-33

Class	Description of AN-SNAP class
4AE1	Amputation of limb, Age ≥ 54, weighted FIM motor 68-91
4AE2	Amputation of limb, Age ≥ 54, weighted FIM motor 31-67
4AE3	Amputation of limb, Age ≥ 54, weighted FIM motor 19-30
4AE4	Amputation of limb, Age ≤ 53, weighted FIM motor 19-91
4AH1	Orthopaedic conditions, fractures, weighted FIM motor 49-91, FIM cognition 33-35
4AH2	Orthopaedic conditions, fractures, weighted FIM motor 49-91, FIM cognition 5-32
4AH3	Orthopaedic conditions, fractures, weighted FIM motor 38-48
4AH4	Orthopaedic conditions, fractures, weighted FIM motor 19-37
4A21	Orthopaedic conditions, all other, weighted FIM motor 68-91
4A22	Orthopaedic conditions, all other, weighted FIM motor 50-67
4A23	Orthopaedic conditions, all other, weighted FIM motor 19-49
4A31	Cardiac, Pain syndromes, Pulmonary, weighted FIM motor 72-91
4A32	Cardiac, Pain syndromes, Pulmonary, weighted FIM motor 55-71
4A33	Cardiac, Pain syndromes, Pulmonary, weighted FIM motor 34-54
4A34	Cardiac, Pain syndromes, Pulmonary, weighted FIM motor 19-33
4AP1	Major Multiple Trauma, weighted FIM motor 19-91
4AR1	Reconditioning, weighted FIM motor 67-91
4AR2	Reconditioning, weighted FIM motor 50-66, FIM cognition 26-35
4AR3	Reconditioning, weighted FIM motor 50-66, FIM cognition 5-25
4AR4	Reconditioning, weighted FIM motor 34-49, FIM cognition 31-35
4AR5	Reconditioning, weighted FIM motor 34-49, FIM cognition 5-30
4AR6	Reconditioning, weighted FIM motor 19-33
4A91	All other impairments, weighted FIM motor 55-91
4A92	All other impairments, weighted FIM motor 33-54
4A93	All other impairments, weighted FIM motor 19-32
499A	Adult Overnight Rehabilitation - Ungroupable

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- **Disclaimer**

  AROC has made every effort to ensure that the data used in these reports are accurate. Data submitted to AROC are checked for anomalies and facilities are asked to re-submit data prior to the production of AROC reports. We have provided general guidelines on the interpretation of the information reported but would advise readers to use their professional judgement in considering all information contained in this report.

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