aroc
Australasian Rehabilitation Outcomes Centre

australian health services research institute

AROC Impairment Specific Report

Inpatient – Pathway 3

ORTHOPAEDIC FRACTURES

Anywhere Hospital

July 2015 — June 2016

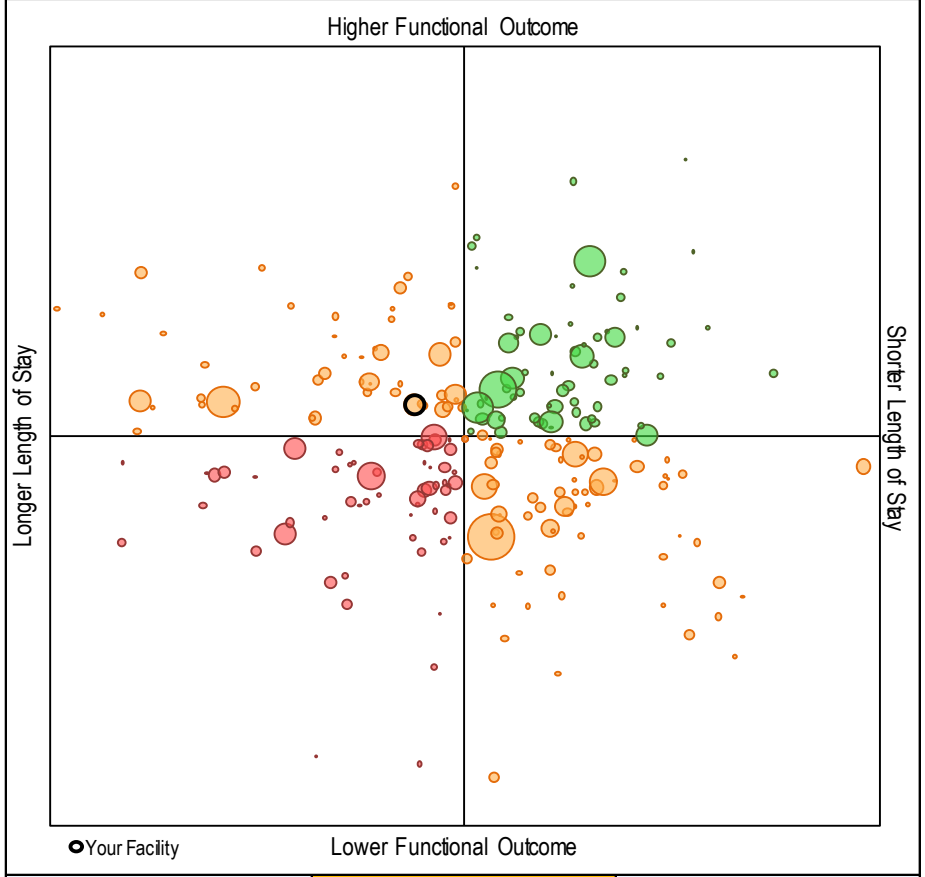
Australasian Faculty of Rehabilitation Medicine

UNIVERSITY OF WOLLONGONG

Table of contents

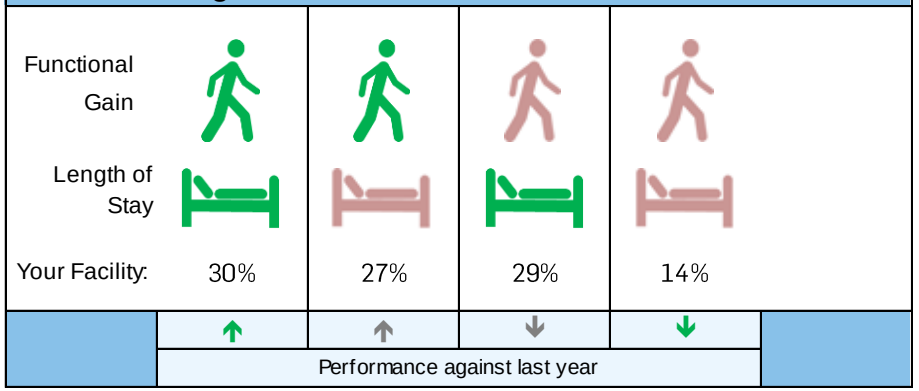
Orthopaedic Fractures Dashboard (FY 2016)

Rehabilitation Outcomes by Facility

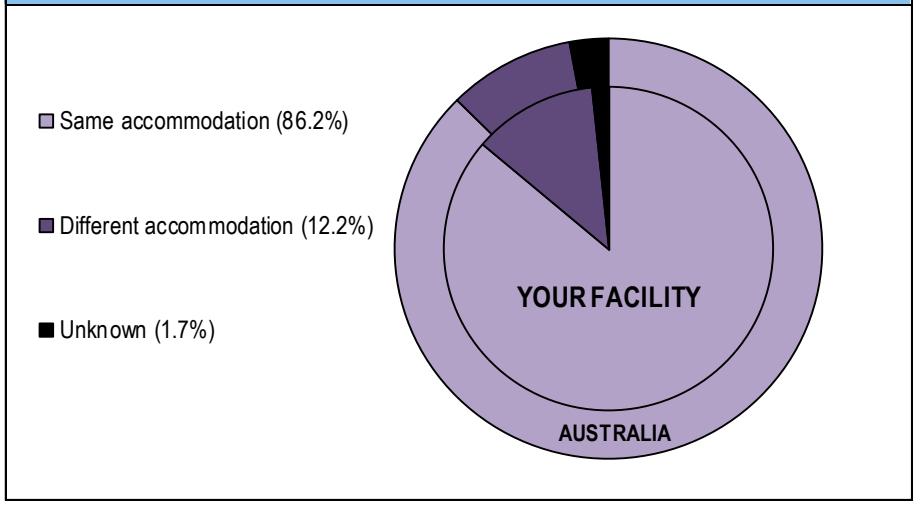


Outlier facilities are not shown on graph	Amber	↑
	Status	Trend

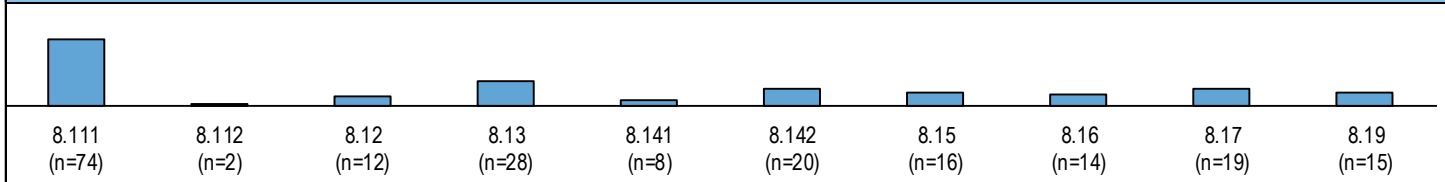
Performance Against Benchmark



Change in Accommodation



Number of Episodes by Impairment



59 Facility Beds (All wards)

208 All Ortho Fracture Episodes (Total)

Orthopaedic Fractures Dashboard (FY 2016)

Key Indicators*

YOUR FACILITY		AUSTRALIA	
Average Age:	78.8	Average Age:	78.0
Mortality Rate:	1.0%	Mortality Rate:	0.3%
% with at least one comorbidity:	48%	% with at least one comorbidity:	54%
% with at least one complication:	29%	% with at least one complication:	29%
% episodes with start delays:	11%	% episodes with start delays:	10%
Days between onset and rehab episode:	12.5	Days between onset and rehab episode:	12.2
Days between clinically rehab ready & start date:	0.3	Days between clinically rehab ready & start date:	0.4

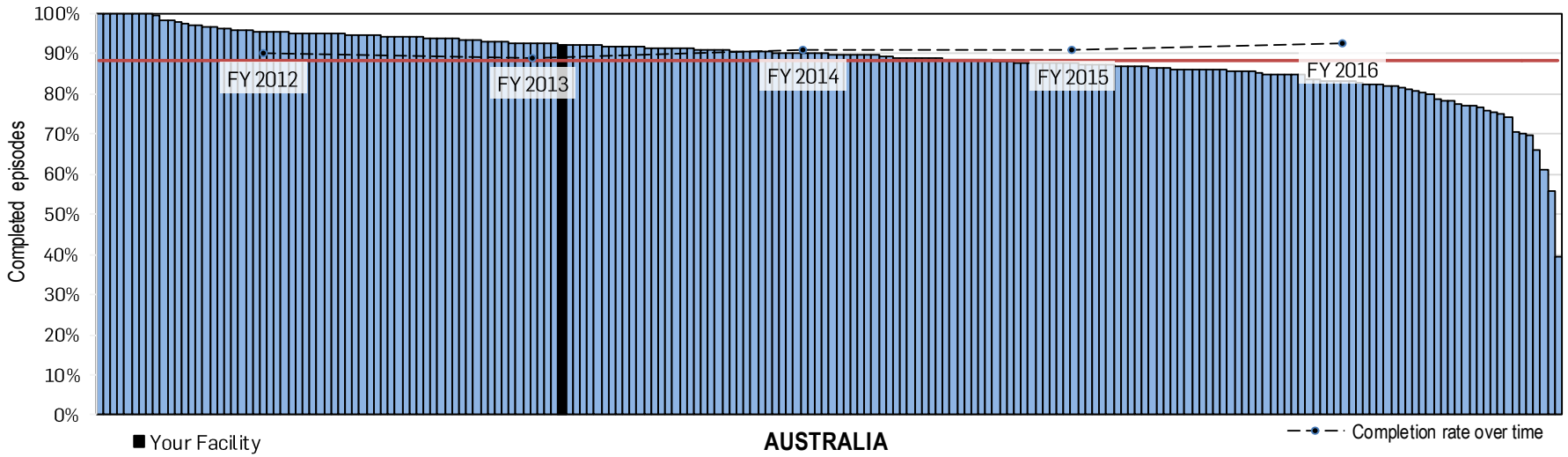
* Mean value provided unless otherwise specified

Facility FIM Training*

FIM Credentialed Staff per 100 Episodes	FIM Credentialed Facility Trainers
3.9 Your Facility	2 Your Facility
6.9 AUSTRALIA (Mean)	2 AROC Suggested Minimum

*This includes all impairments from all wards

Completed Episodes by Facility



Introducing the Impairment Specific Reports

This is the fifth AROC impairment specific report for orthopaedic fractures. This report compares YOUR FACILITY's data to YOUR NATIONAL data. 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 as compared to YOUR NATIONAL data by AN-SNAP class. An outcomes analysis chapter follows with an explanatory data chapter at the end.

Some facilities only have a small number of episodes. While YOUR NATIONAL data includes all facilities with data on this impairment, facilities will only receive this report where they have a minimum of 20 completed episodes within this impairment. An ANYWHERE HOSPITAL report is available for those facilities with too few episodes on the AROC website.

AROC welcomes your feedback on this report.

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

Data used in this report

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

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

Case-mix analysis uses version 4 AN-SNAP classes (Appendix 3), introduced July 2016. Casemix adjustment is against YOUR NATIONAL data.

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

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

Orthopaedic fractures impairment codes

Orthopaedic fracture episodes were identified as those with the following AROC impairment codes:

- 8.111 — Fracture of hip, unilateral
- 8.112 — Fracture of hip, bilateral
- 8.12 — Fracture of shaft of femur
- 8.13 — Fracture of pelvis
- 8.141 — Fracture of knee
- 8.142 — Fracture of 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

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

Orthopaedic fractures AN-SNAP classes

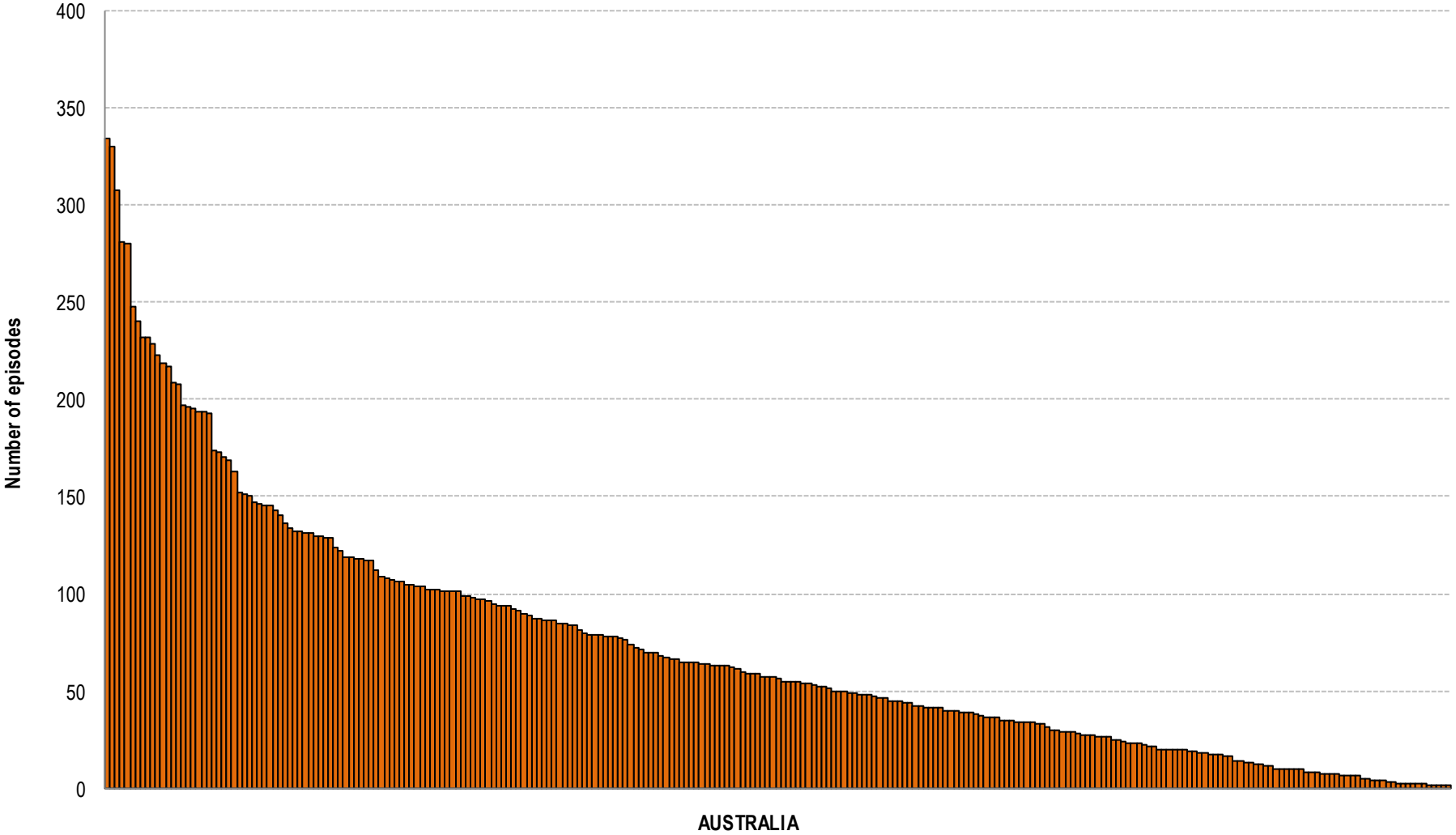
Levels of functioning for orthopaedic fractures are categorised by the following version 4 AN-SNAP classes:

- 4AH1 Orthopaedic fractures, weighted FIM motor 49-91, FIM cognition 33-35
- 4AH2 Orthopaedic fractures, weighted FIM motor 49-91, FIM cognition 5-32
- 4AH3 Orthopaedic fractures, weighted FIM motor 38-48
- 4AH4 Orthopaedic fractures, weighted FIM motor 19-37
- 4AZ3 Weighted FIM motor score 13-18, All other impairments, Age ≥ 65
- 4AZ4 Weighted FIM motor score 13-18, All other impairments, Age ≤ 64

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

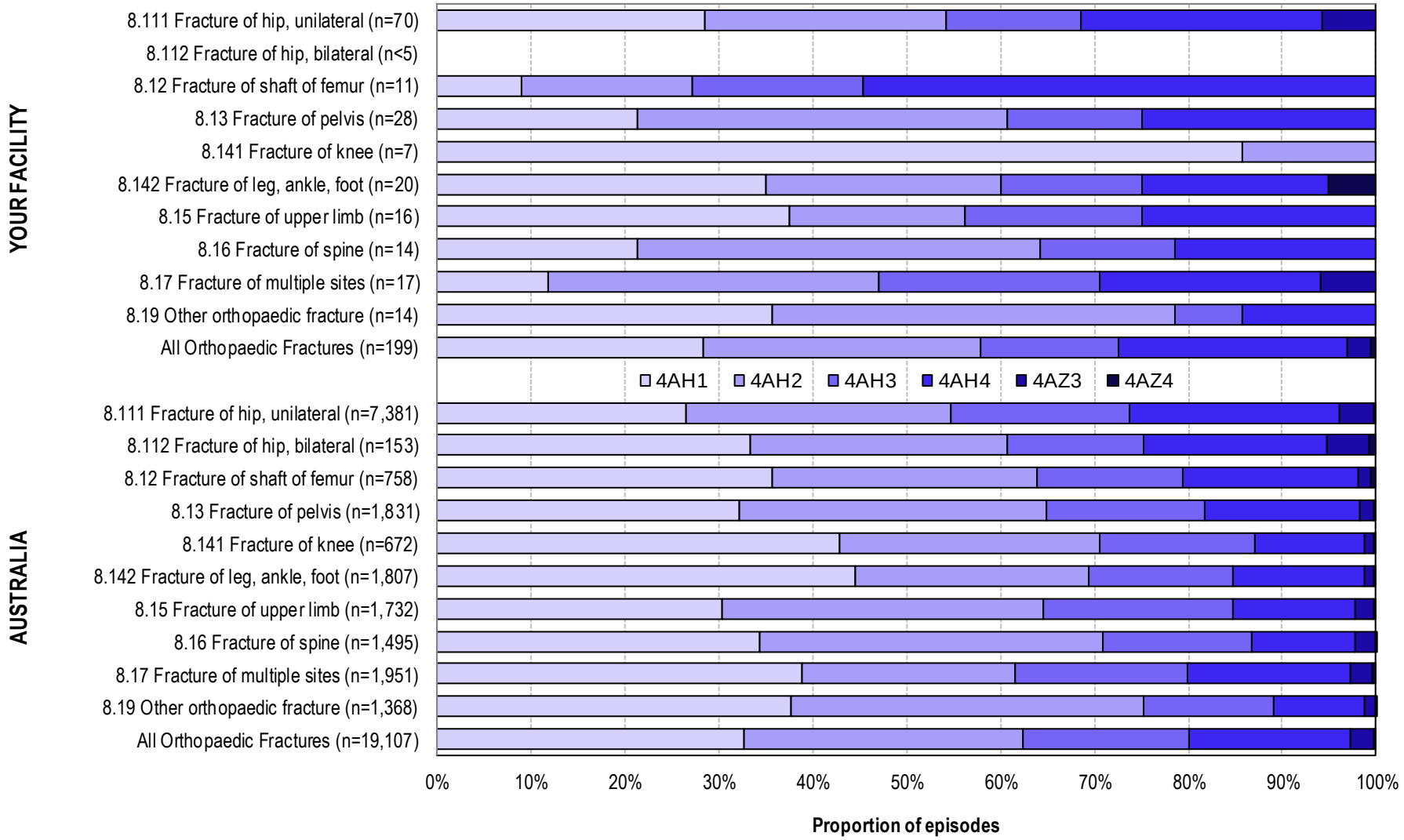
The BIG picture

Volume of episodes by facilities treating orthopaedic fractures



NOTE: 265 facilities reported at least one orthopaedic fracture episode, with 213 facilities reporting between 20 and 334 episodes in this reporting period

Proportion of episodes by impairment code and AN-SNAP class

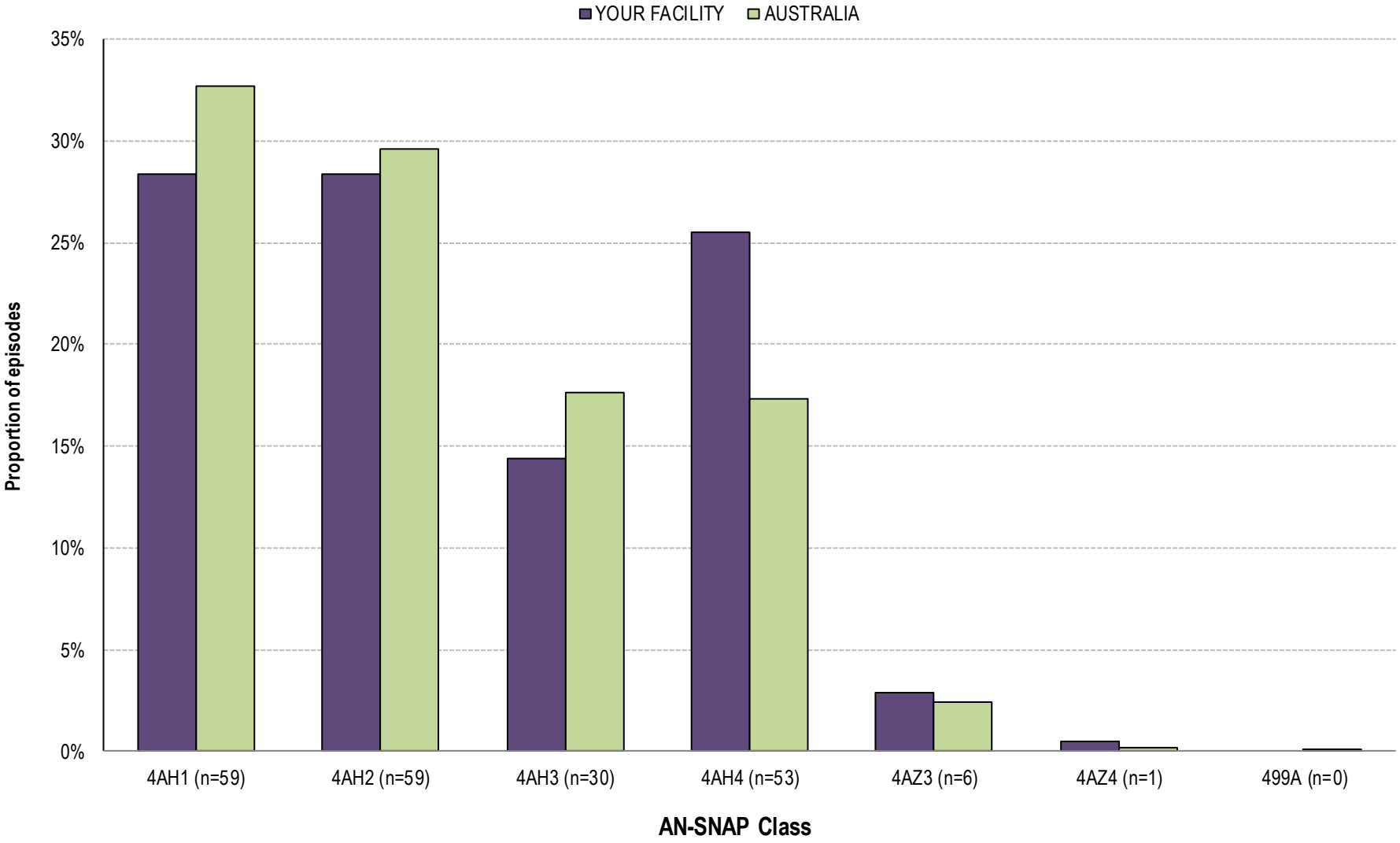


Episodes by impairment code and AN-SNAP class

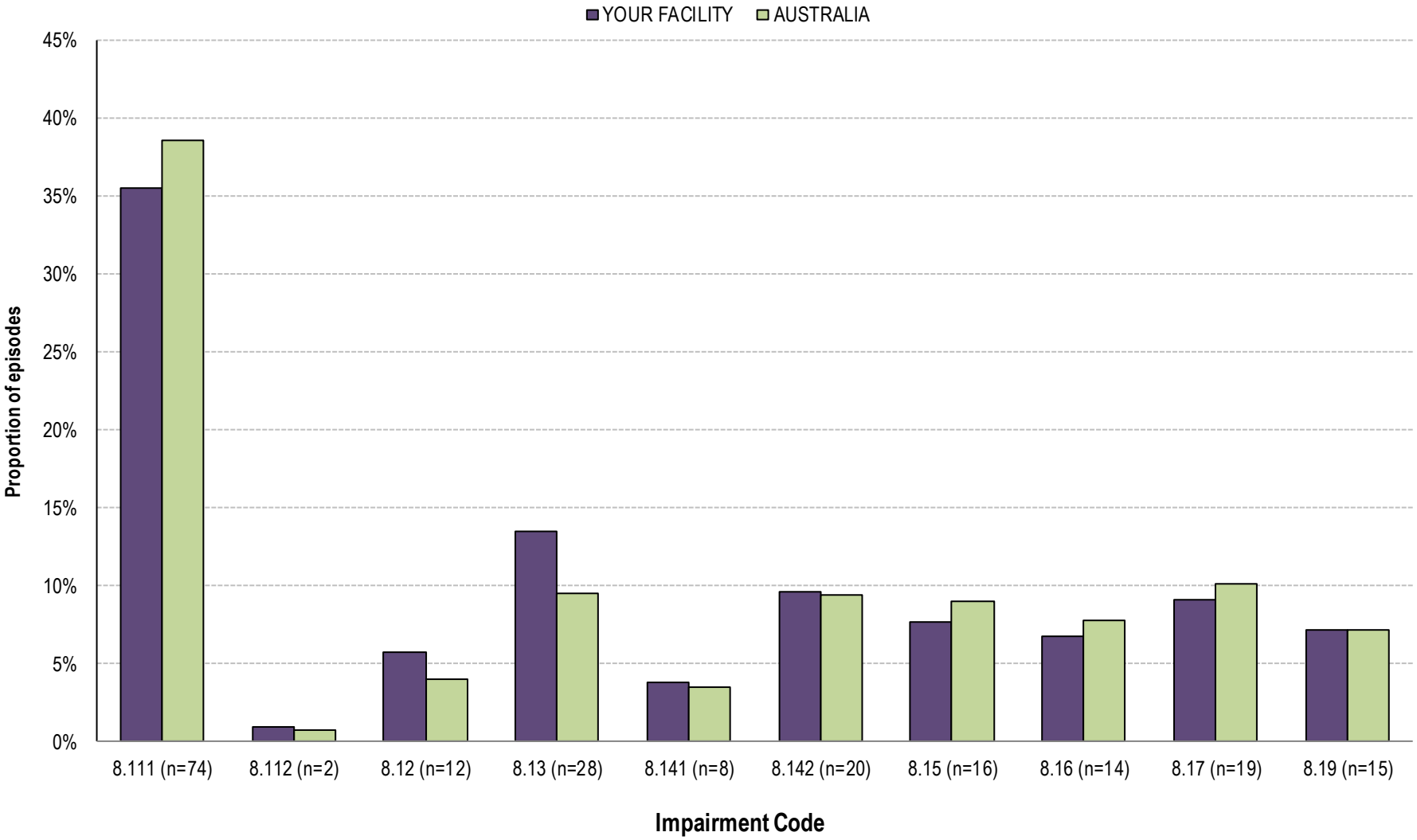
	YOUR FACILITY — N (%)						
Impairment	**4AH1**	**4AH2**	**4AH3**	**4AH4**	**4AZ3**	**4AZ4**	**All Orthopaedic Fractures**
8.111 Fracture of hip, unilateral	20 (28.6%)	18 (25.7%)	10 (14.3%)	18 (25.7%)	4 (5.7%)	0 (0.0%)	**70 (100.0%)**
8.112 Fracture of hip, bilateral	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)	0 (0.0%)	0 (0.0%)	**2 (100.0%)**
8.12 Fracture of shaft of femur	1 (9.1%)	2 (18.2%)	2 (18.2%)	6 (54.5%)	0 (0.0%)	0 (0.0%)	**11 (100.0%)**
8.13 Fracture of pelvis	6 (21.4%)	11 (39.3%)	4 (14.3%)	7 (25.0%)	0 (0.0%)	0 (0.0%)	**28 (100.0%)**
8.141 Fracture of knee	6 (85.7%)	1 (14.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	**7 (100.0%)**
8.142 Fracture of leg, ankle, foot	7 (35.0%)	5 (25.0%)	3 (15.0%)	4 (20.0%)	0 (0.0%)	1 (5.0%)	**20 (100.0%)**
8.15 Fracture of upper limb	6 (37.5%)	3 (18.8%)	3 (18.8%)	4 (25.0%)	0 (0.0%)	0 (0.0%)	**16 (100.0%)**
8.16 Fracture of spine	3 (21.4%)	6 (42.9%)	2 (14.3%)	3 (21.4%)	0 (0.0%)	0 (0.0%)	**14 (100.0%)**
8.17 Fracture of multiple sites	2 (11.8%)	6 (35.3%)	4 (23.5%)	4 (23.5%)	1 (5.9%)	0 (0.0%)	**17 (100.0%)**
8.19 Other orthopaedic fracture	5 (35.7%)	6 (42.9%)	1 (7.1%)	2 (14.3%)	0 (0.0%)	0 (0.0%)	**14 (100.0%)**
All Orthopaedic Fractures	**56 (28.1%)**	**58 (29.1%)**	**29 (14.6%)**	**50 (25.1%)**	**5 (2.5%)**	**1 (0.5%)**	**199 (100.0%)**

	AUSTRALIA — N (%)						
Impairment	**4AH1**	**4AH2**	**4AH3**	**4AH4**	**4AZ3**	**4AZ4**	**All Orthopaedic Fractures**
8.111 Fracture of hip, unilateral	1,952 (26.4%)	2,090 (28.3%)	1,403 (19.0%)	1,653 (22.4%)	270 (3.7%)	13 (0.2%)	**7,381 (100.0%)**
8.112 Fracture of hip, bilateral	51 (33.3%)	42 (27.5%)	22 (14.4%)	30 (19.6%)	7 (4.6%)	1 (0.7%)	**153 (100.0%)**
8.12 Fracture of shaft of femur	271 (35.8%)	213 (28.1%)	118 (15.6%)	141 (18.6%)	11 (1.5%)	4 (0.5%)	**758 (100.0%)**
8.13 Fracture of pelvis	590 (32.2%)	599 (32.7%)	307 (16.8%)	304 (16.6%)	28 (1.5%)	3 (0.2%)	**1,831 (100.0%)**
8.141 Fracture of knee	288 (42.9%)	186 (27.7%)	111 (16.5%)	79 (11.8%)	7 (1.0%)	1 (0.1%)	**672 (100.0%)**
8.142 Fracture of leg, ankle, foot	804 (44.5%)	451 (25.0%)	277 (15.3%)	254 (14.1%)	17 (0.9%)	4 (0.2%)	**1,807 (100.0%)**
8.15 Fracture of upper limb	526 (30.4%)	591 (34.1%)	351 (20.3%)	225 (13.0%)	35 (2.0%)	4 (0.2%)	**1,732 (100.0%)**
8.16 Fracture of spine	514 (34.4%)	547 (36.6%)	237 (15.9%)	163 (10.9%)	33 (2.2%)	1 (0.1%)	**1,495 (100.0%)**
8.17 Fracture of multiple sites	758 (38.9%)	444 (22.8%)	357 (18.3%)	340 (17.4%)	43 (2.2%)	9 (0.5%)	**1,951 (100.0%)**
8.19 Other orthopaedic fracture	515 (37.6%)	514 (37.6%)	190 (13.9%)	131 (9.6%)	17 (1.2%)	1 (0.1%)	**1,368 (100.0%)**
All Orthopaedic Fractures	**6,269 (32.7%)**	**5,677 (29.6%)**	**3,373 (17.6%)**	**3,320 (17.3%)**	**468 (2.4%)**	**41 (0.2%)**	**19,148 (100.0%)**

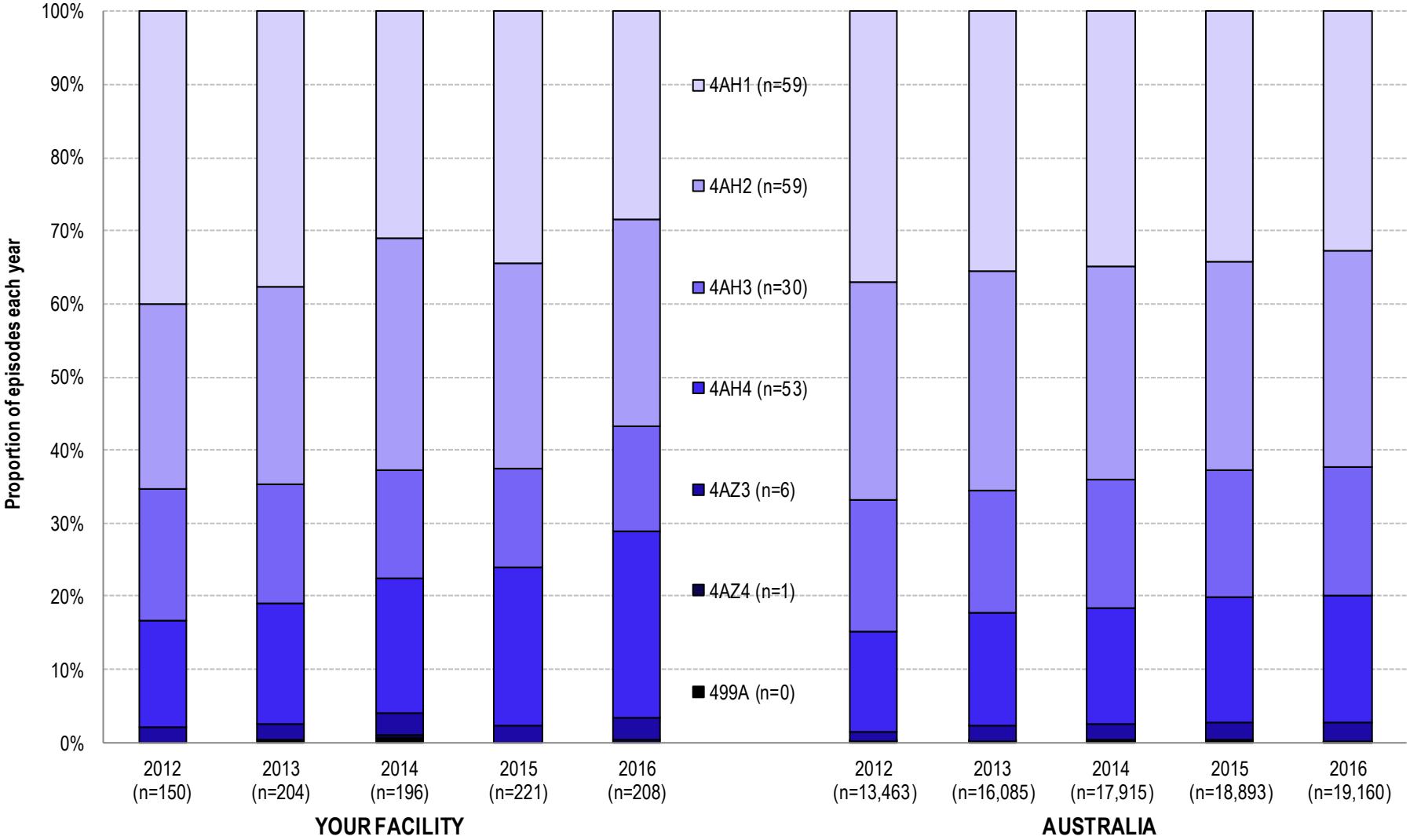
Proportion of episodes by AN-SNAP class



Proportion of episodes by impairment code



Proportion of episodes by AN-SNAP class over time

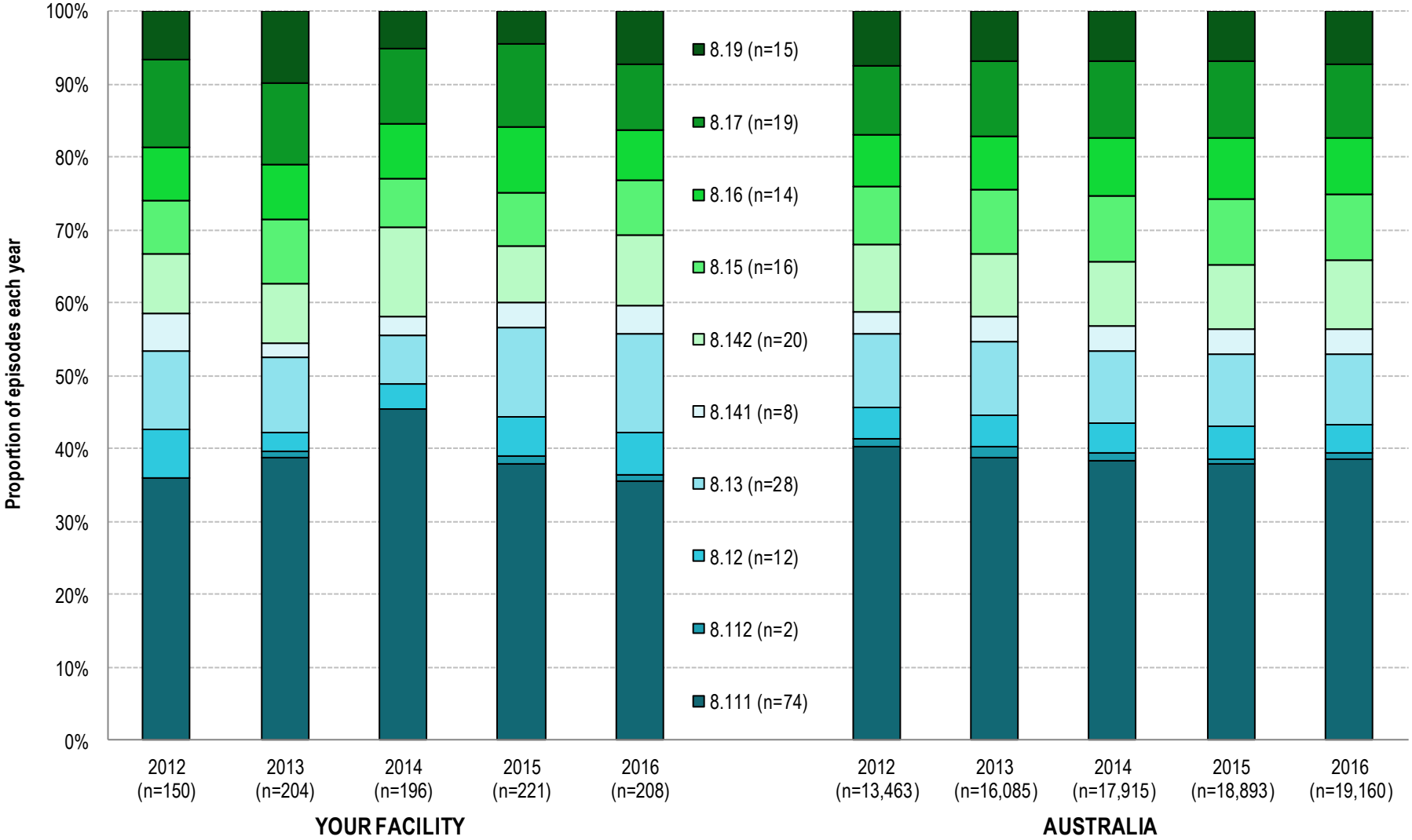


Episodes by AN-SNAP class over time

	YOUR FACILITY — N					AUSTRALIA — N				
AN-SNAP class V4	**2012**	**2013**	**2014**	**2015**	**2016**	**2012**	**2013**	**2014**	**2015**	**2016**
4AH1 (motor 49-91, cognition 33-35)	60	77	61	76	59	4,977	5,704	6,263	6,453	6,269
4AH2 (motor 49-91, cognition 5-32)	38	55	62	62	59	4,013	4,823	5,196	5,405	5,677
4AH3 (motor 38-48)	27	33	29	30	30	2,439	2,715	3,171	3,293	3,373
4AH4 (motor 19-37)	22	34	36	48	53	1,828	2,465	2,824	3,229	3,320
4AZ3 (motor 13-18, Age ≥ 65)	3	4	6	5	6	173	345	411	458	468
4AZ4 (motor 13-18, Age ≤ 64)	0	0	1	0	1	21	13	23	30	41
499A (Data error - ungroupable)	0	1	1	0	0	12	20	27	25	12
All Fracture AN-SNAP classes	**150**	**204**	**196**	**221**	**208**	**13,463**	**16,085**	**17,915**	**18,893**	**19,160**

	YOUR FACILITY — %					AUSTRALIA — %				
AN-SNAP class V4	**2012**	**2013**	**2014**	**2015**	**2016**	**2012**	**2013**	**2014**	**2015**	**2016**
4AH1 (motor 49-91, cognition 33-35)	40.0%	37.7%	31.1%	34.4%	28.4%	37.0%	35.5%	35.0%	34.2%	32.7%
4AH2 (motor 49-91, cognition 5-32)	25.3%	27.0%	31.6%	28.1%	28.4%	29.8%	30.0%	29.0%	28.6%	29.6%
4AH3 (motor 38-48)	18.0%	16.2%	14.8%	13.6%	14.4%	18.1%	16.9%	17.7%	17.4%	17.6%
4AH4 (motor 19-37)	14.7%	16.7%	18.4%	21.7%	25.5%	13.6%	15.3%	15.8%	17.1%	17.3%
4AZ3 (motor 13-18, Age ≥ 65)	2.0%	2.0%	3.1%	2.3%	2.9%	1.3%	2.1%	2.3%	2.4%	2.4%
4AZ4 (motor 13-18, Age ≤ 64)	0.0%	0.0%	0.5%	0.0%	0.5%	0.2%	0.1%	0.1%	0.2%	0.2%
499A (Data error - ungroupable)	0.0%	0.5%	0.5%	0.0%	0.0%	0.1%	0.1%	0.2%	0.1%	0.1%
All Fracture AN-SNAP classes	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Proportion of episodes by impairment code over time



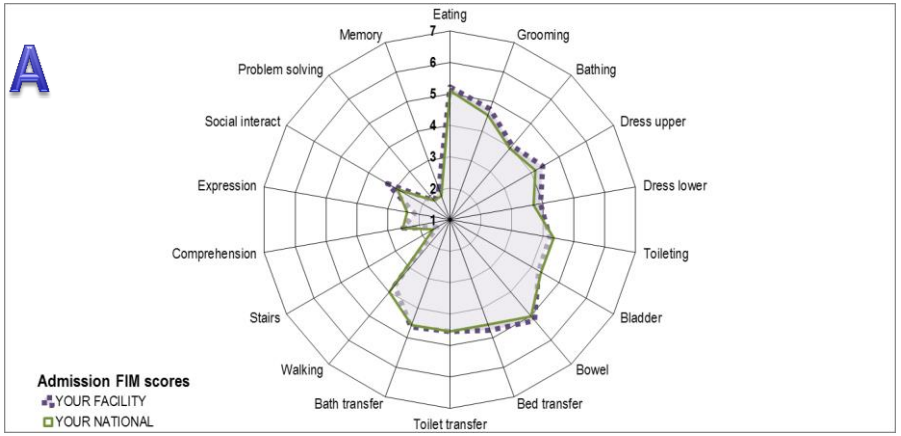
Episodes by impairment code over time

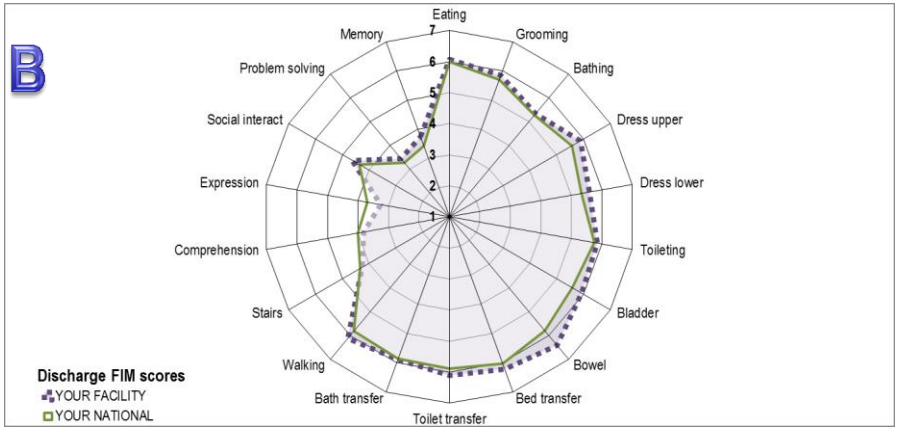
	YOUR FACILITY — N					AUSTRALIA — N				
Impairment	**2012**	**2013**	**2014**	**2015**	**2016**	**2012**	**2013**	**2014**	**2015**	**2016**
8.111 Fracture of hip, unilateral	54	79	89	84	74	5,426	6,252	6,887	7,176	7,389
8.112 Fracture of hip, bilateral	0	2	0	2	2	131	226	169	129	153
8.12 Fracture of shaft of femur	10	5	7	12	12	581	690	746	817	759
8.13 Fracture of pelvis	16	21	13	27	28	1,361	1,643	1,784	1,908	1,832
8.141 Fracture of knee	8	4	5	8	8	417	532	598	624	672
8.142 Fracture of leg, ankle, foot	12	17	24	17	20	1,246	1,398	1,584	1,687	1,807
8.15 Fracture of upper limb	11	18	13	16	16	1,056	1,420	1,613	1,705	1,734
8.16 Fracture of spine	11	15	15	20	14	962	1,173	1,434	1,586	1,495
8.17 Fracture of multiple sites	18	23	20	25	19	1,277	1,659	1,891	1,989	1,951
8.19 Other orthopaedic fracture	10	20	10	10	15	1,006	1,092	1,209	1,272	1,368
All Orthopaedic Fractures	**150**	**204**	**196**	**221**	**208**	**13,463**	**16,085**	**17,915**	**18,893**	**19,160**

	YOUR FACILITY — %					AUSTRALIA — %				
Impairment	**2012**	**2013**	**2014**	**2015**	**2016**	**2012**	**2013**	**2014**	**2015**	**2016**
8.111 Fracture of hip, unilateral	36.0%	38.7%	45.4%	38.0%	35.6%	40.3%	38.9%	38.4%	38.0%	38.6%
8.112 Fracture of hip, bilateral	0.0%	1.0%	0.0%	0.9%	1.0%	1.0%	1.4%	0.9%	0.7%	0.8%
8.12 Fracture of shaft of femur	6.7%	2.5%	3.6%	5.4%	5.8%	4.3%	4.3%	4.2%	4.3%	4.0%
8.13 Fracture of pelvis	10.7%	10.3%	6.6%	12.2%	13.5%	10.1%	10.2%	10.0%	10.1%	9.6%
8.141 Fracture of knee	5.3%	2.0%	2.6%	3.6%	3.8%	3.1%	3.3%	3.3%	3.3%	3.5%
8.142 Fracture of leg, ankle, foot	8.0%	8.3%	12.2%	7.7%	9.6%	9.3%	8.7%	8.8%	8.9%	9.4%
8.15 Fracture of upper limb	7.3%	8.8%	6.6%	7.2%	7.7%	7.8%	8.8%	9.0%	9.0%	9.1%
8.16 Fracture of spine	7.3%	7.4%	7.7%	9.0%	6.7%	7.1%	7.3%	8.0%	8.4%	7.8%
8.17 Fracture of multiple sites	12.0%	11.3%	10.2%	11.3%	9.1%	9.5%	10.3%	10.6%	10.5%	10.2%
8.19 Other orthopaedic fracture	6.7%	9.8%	5.1%	4.5%	7.2%	7.5%	6.8%	6.7%	6.7%	7.1%
All Orthopaedic Fractures	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Review of FIM item scoring by AN-SNAP class

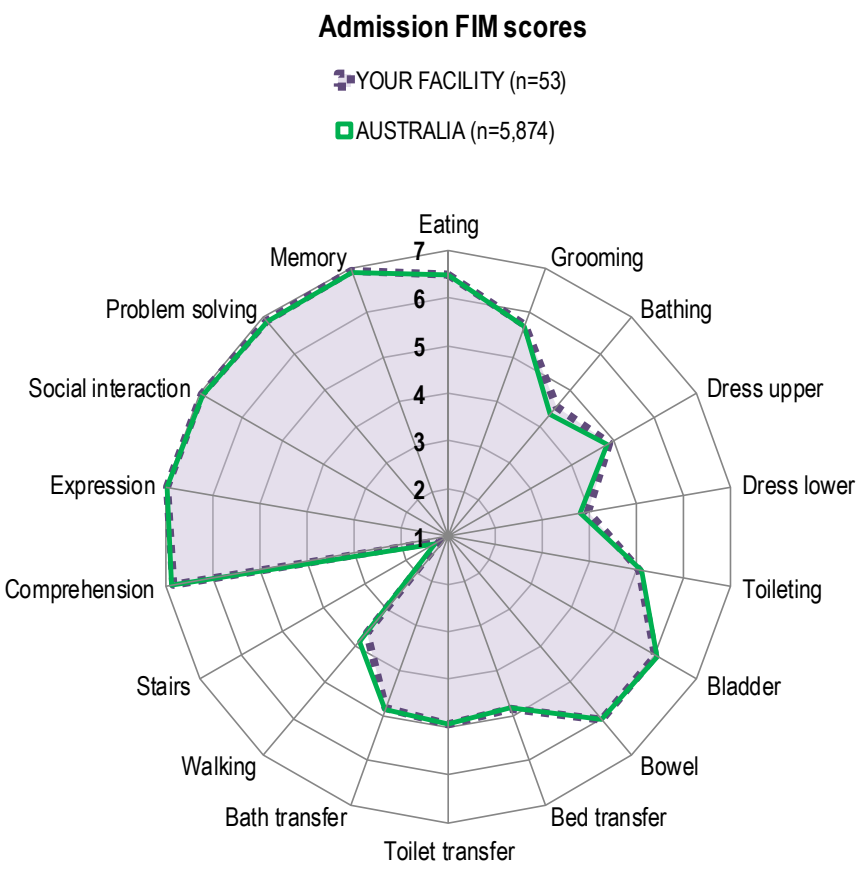
Interpreting your comparative FIM scoring charts

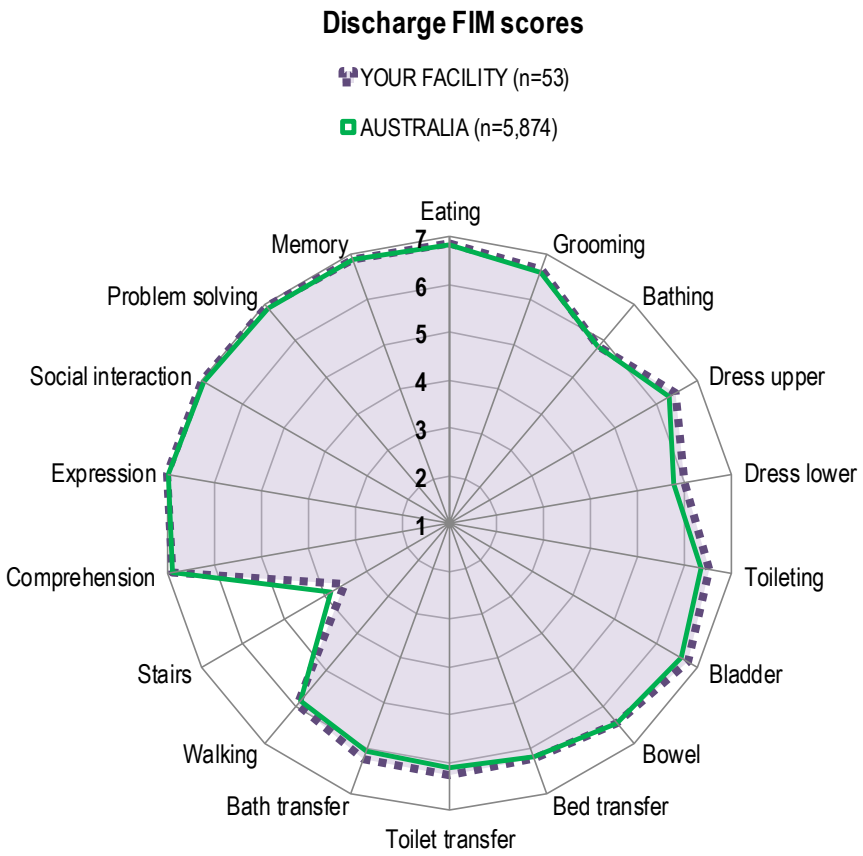




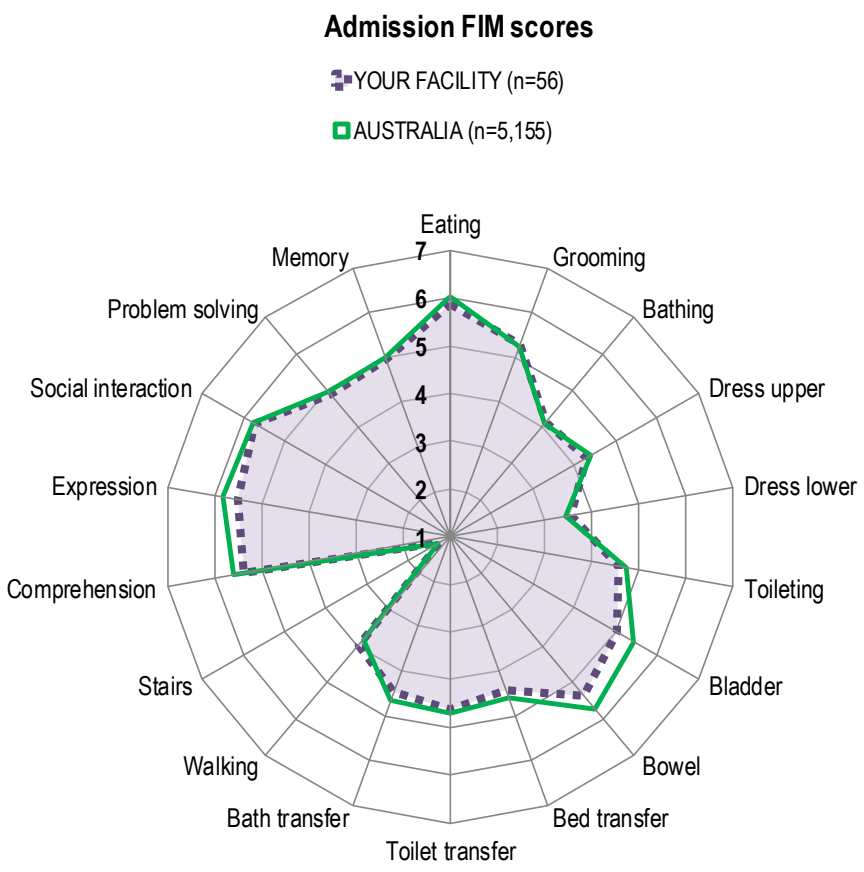
The FIM splat provides a graphic presentation of functional status in a radar chart. The 18 FIM items are arranged in order as 'spokes' of a wheel and the scoring levels from 1 (total dependence) to 7 (total independence) run from the centre outwards. The mean FIM item score for each item is indicated — 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 NATIONAL data — differences in the two shaded areas indicate differences in mean admission/discharge scoring. Graphs include completed episodes with valid FIM scoring.

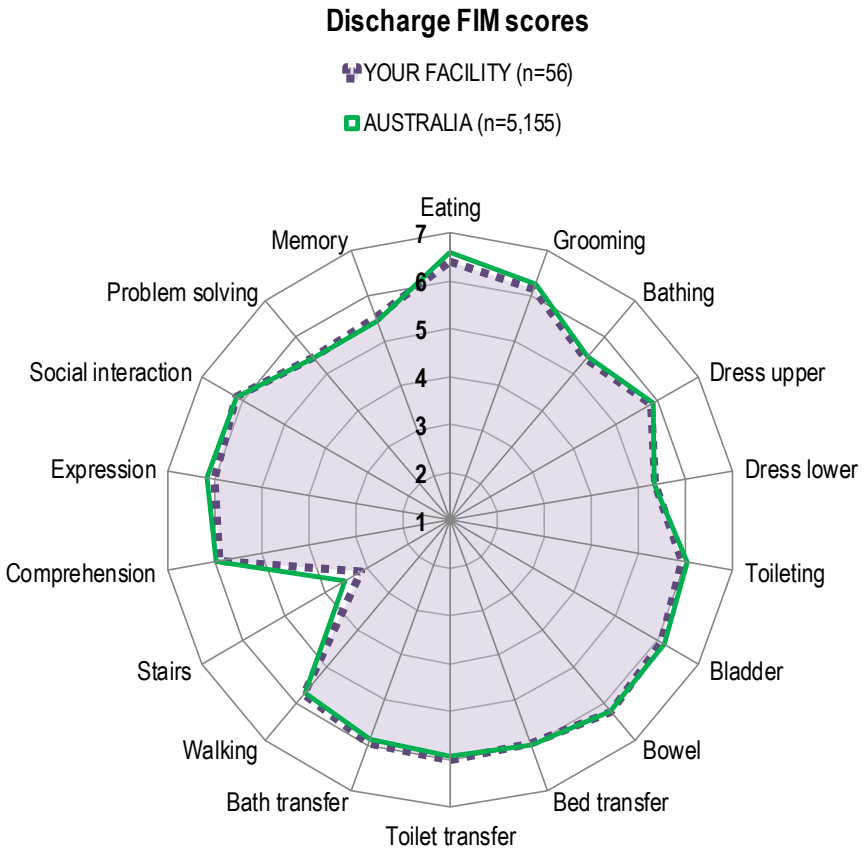
Comparative FIM item scoring
AN-SNAP class 4AH1



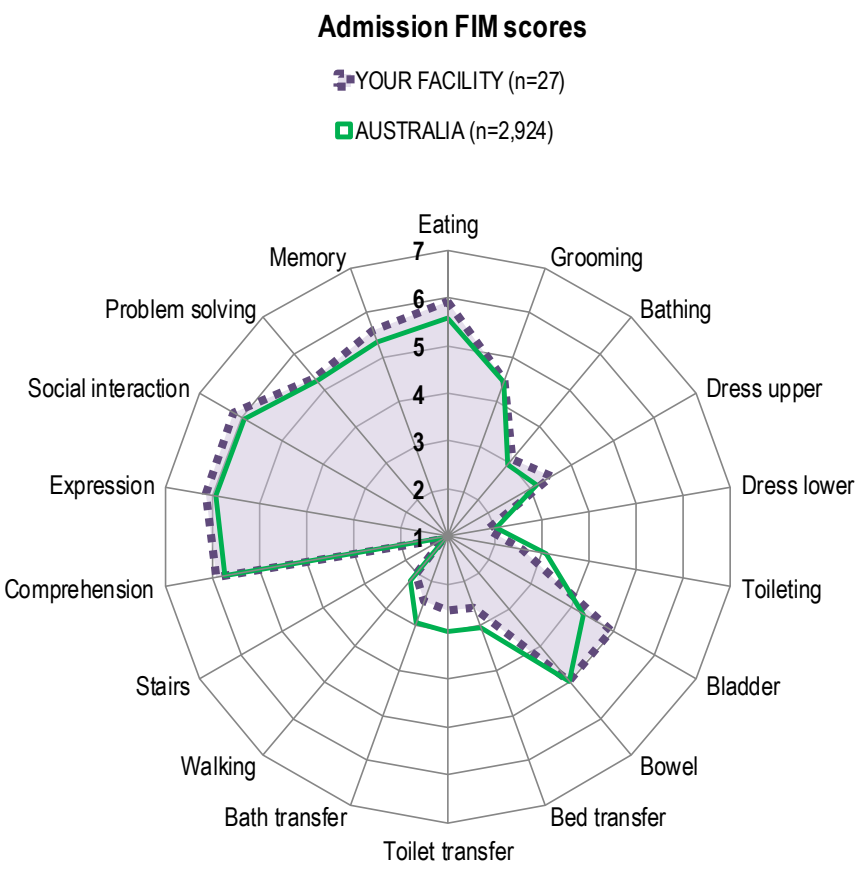


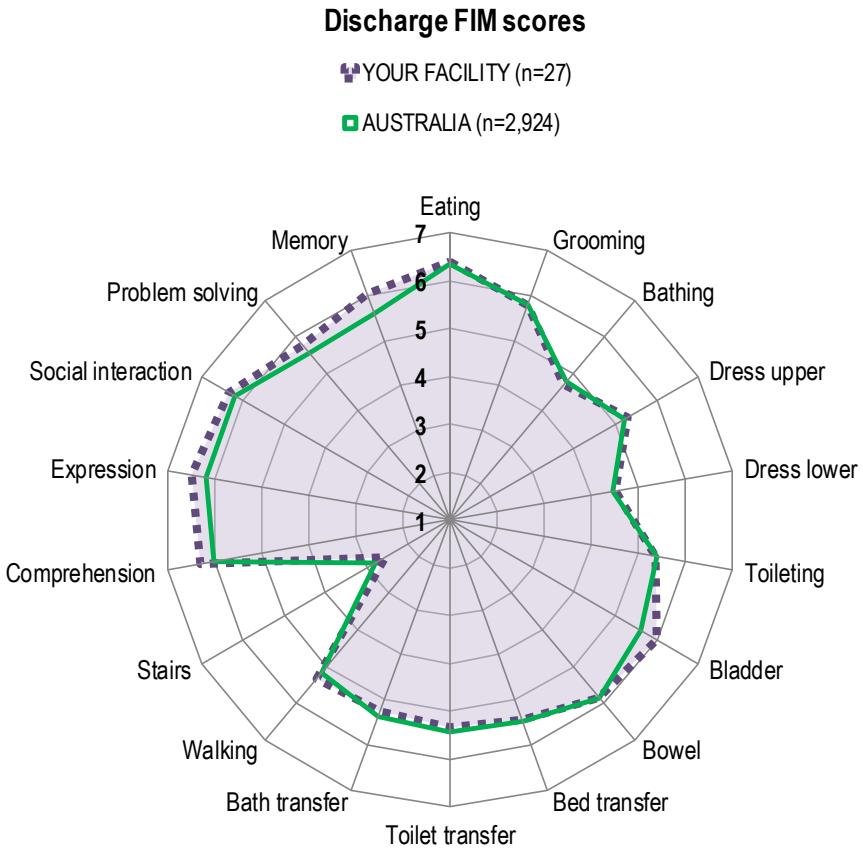
Comparative FIM item scoring
AN-SNAP class 4AH2



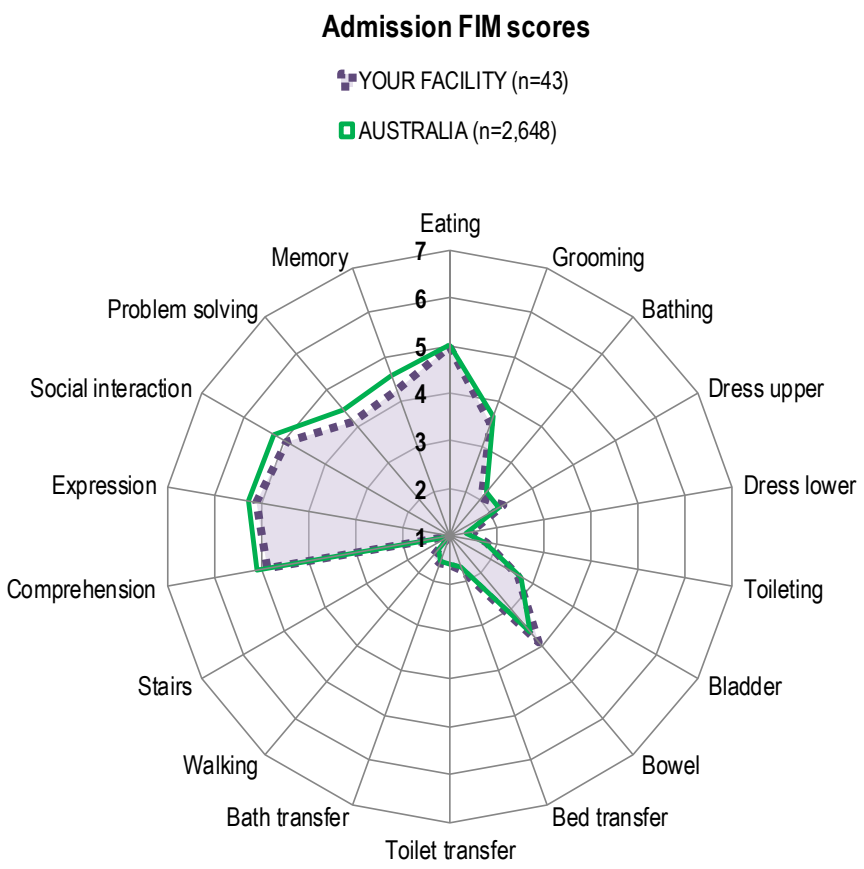


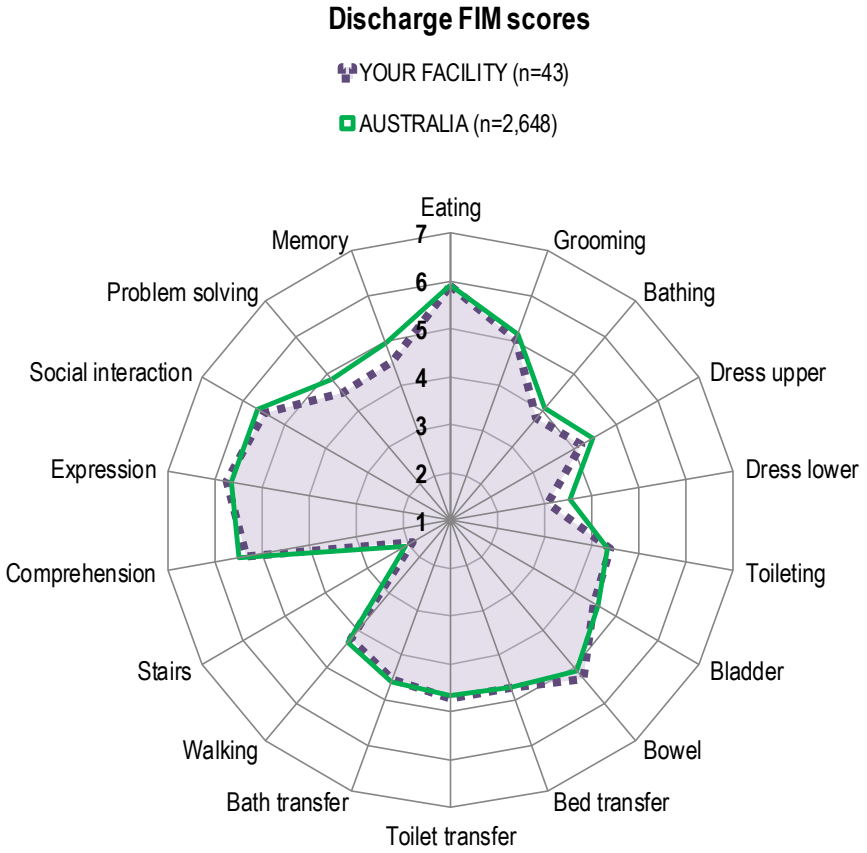
Comparative FIM item scoring
AN-SNAP class 4AH3





Comparative FIM item scoring
AN-SNAP class 4AH4





Outcomes Analysis

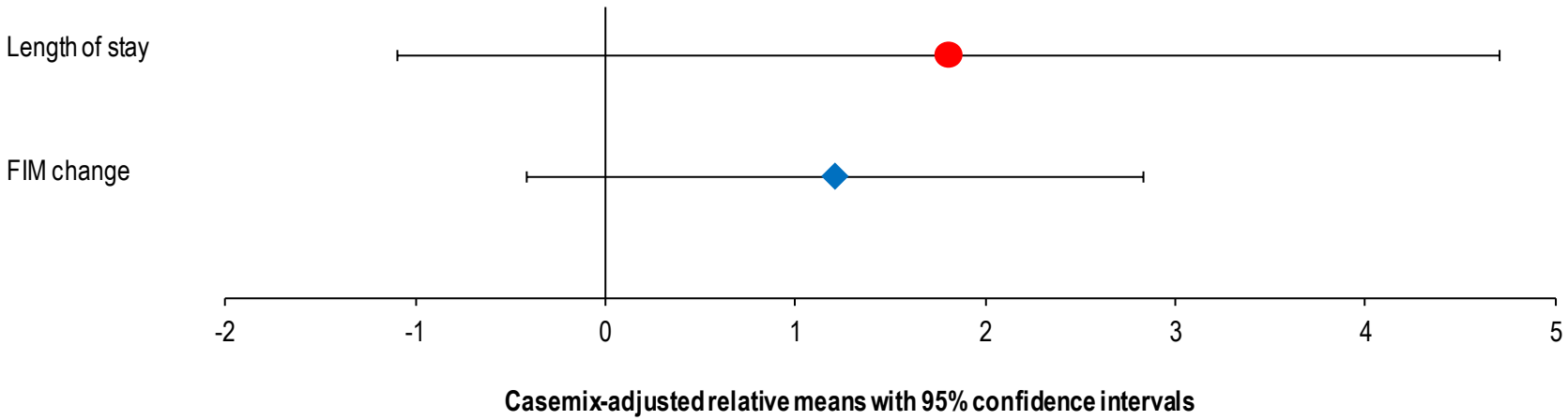
Completed episodes by AN-SNAP class and Impairment

AN-SNAP class V4	YOUR FACILITY			AUSTRALIA		
	All episodes	Completed episodes	%Complete	All episodes	Completed episodes	%Complete
4AH1 (motor 49-91, cognition 33-35)	59	53	89.8%	6,269	5,874	93.7%
4AH2 (motor 49-91, cognition 5-32)	59	56	94.9%	5,677	5,157	90.8%
4AH3 (motor 38-48)	30	27	90.0%	3,373	2,924	86.7%
4AH4 (motor 19-37)	53	43	81.1%	3,320	2,650	79.8%
4AZ3 (motor 13-18, Age ≥ 65)	6	5	83.3%	468	303	64.7%
4AZ4 (motor 13-18, Age ≤ 64)	1	0	0.0%	41	30	73.2%
499A (Data error - ungroupable)	0	0	—	12	4	33.3%
All Fracture AN-SNAP classes	**208**	**184**	**88.5%**	**19,160**	**16,942**	**88.4%**

Impairment	YOUR FACILITY			AUSTRALIA		
	All episodes	Completed episodes	%Complete	All episodes	Completed episodes	%Complete
8.111 Fracture of hip, unilateral	74	66	89.2%	7,389	6,401	86.6%
8.112 Fracture of hip, bilateral	2	2	100.0%	153	130	85.0%
8.12 Fracture of shaft of femur	12	9	75.0%	759	670	88.3%
8.13 Fracture of pelvis	28	26	92.9%	1,832	1,657	90.4%
8.141 Fracture of knee	8	7	87.5%	672	606	90.2%
8.142 Fracture of leg, ankle, foot	20	18	90.0%	1,807	1,626	90.0%
8.15 Fracture of upper limb	16	14	87.5%	1,734	1,536	88.6%
8.16 Fracture of spine	14	14	100.0%	1,495	1,339	89.6%
8.17 Fracture of multiple sites	19	16	84.2%	1,951	1,724	88.4%
8.19 Other orthopaedic fracture	15	12	80.0%	1,368	1,253	91.6%
All Fracture AN-SNAP classes	**208**	**184**	**88.5%**	**19,160**	**16,942**	**88.4%**

NOTE: All outcomes analysis are based on completed episodes. A definition of completed episodes can be found in Appendix 1 (Glossary).

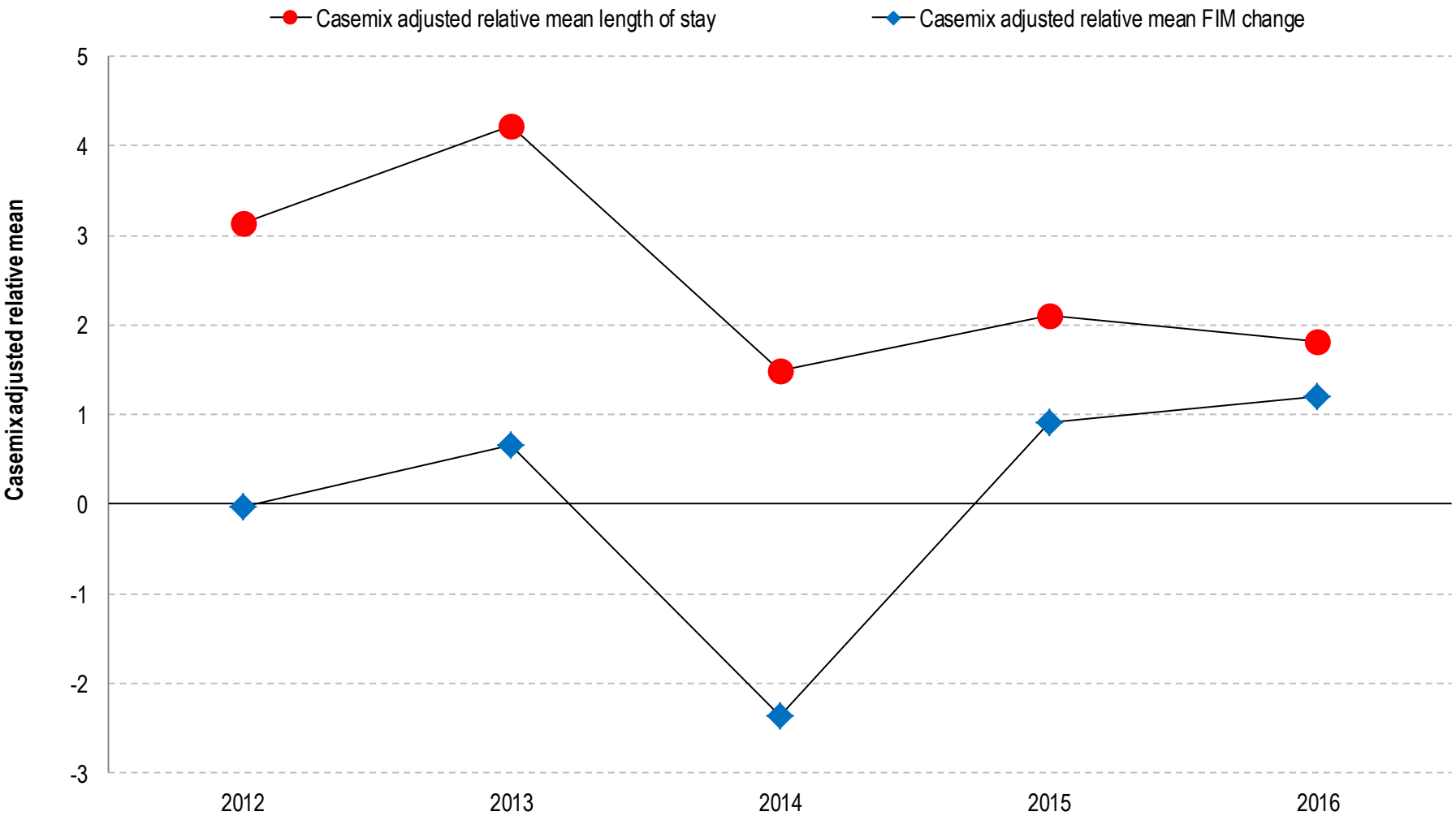
Casemix-adjusted relative means



	YOUR FACILITY		AUSTRALIA
Outcome measures	**Casemix adjustment relative mean**	**95% CI**	**IQR**
Length of stay	1.8	-1.1 to 5.0	-8.4 to 4.6
FIM change	1.2	-0.4 to 3.1	-6.8 to 7.3

Note: Includes only completed episodes with valid FIM scores and LOS

Casemix-adjusted relative means over time

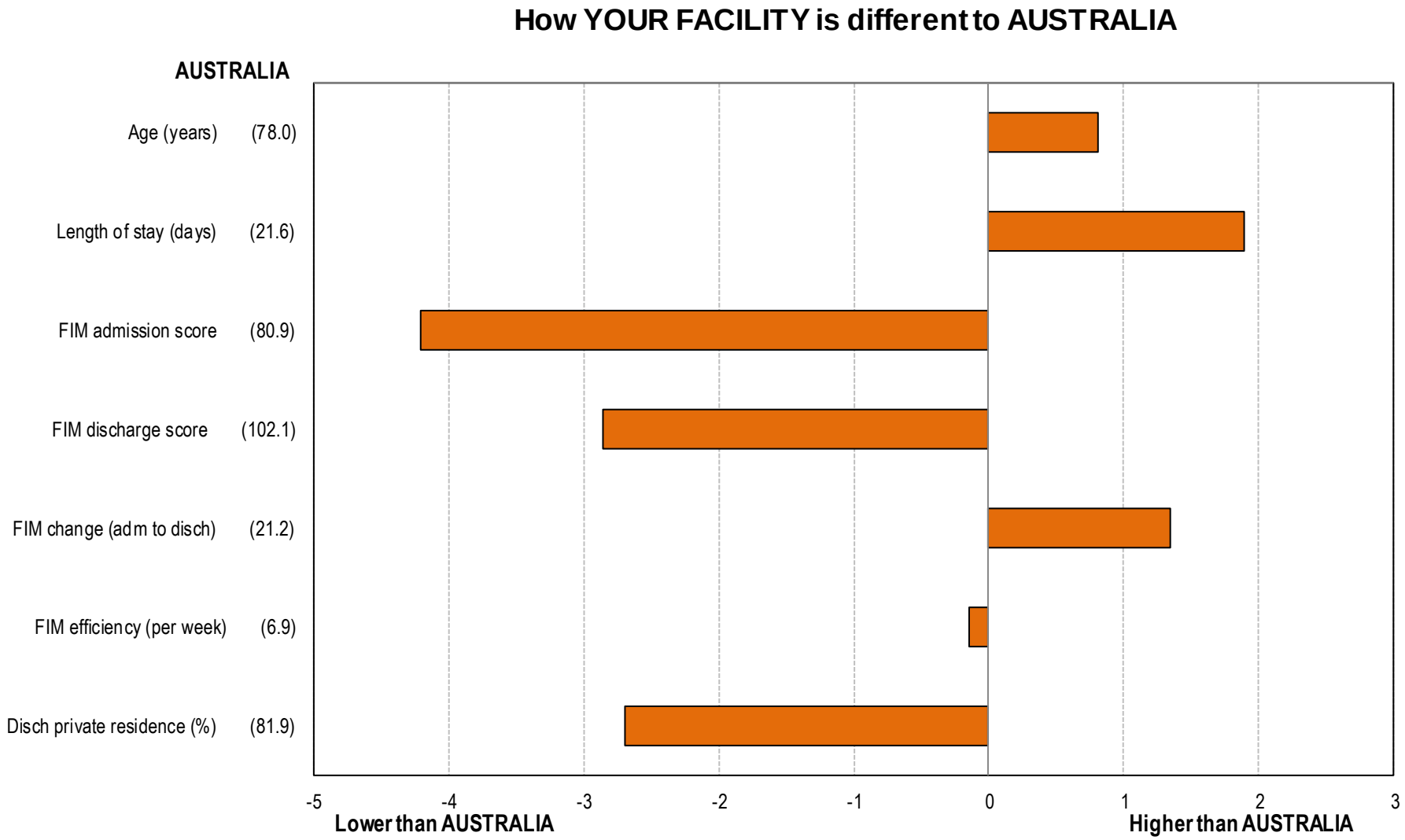


YOUR FACILITY

NOTE: Casemix adjusted values based on FY 2016

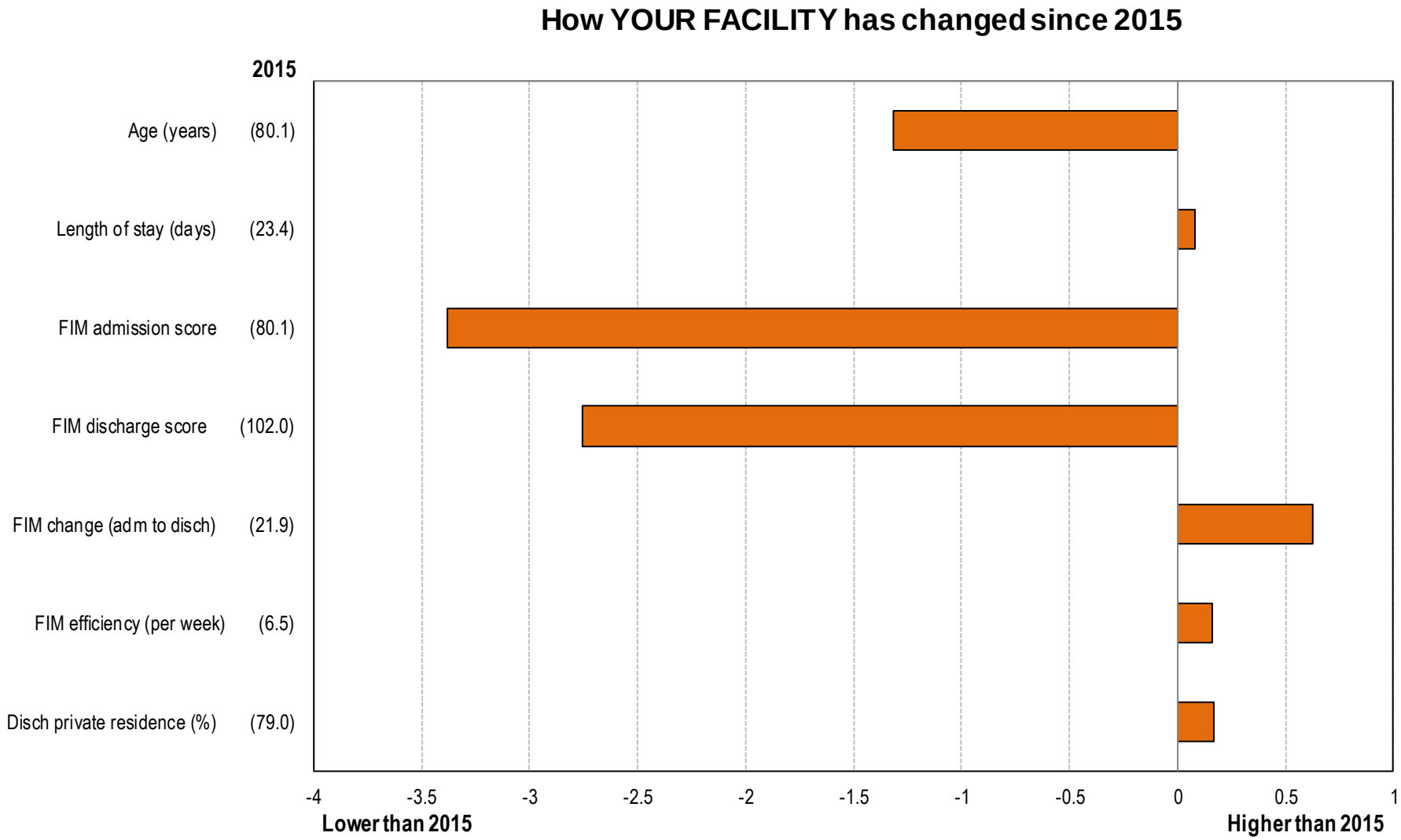
NOTE: Includes only completed episodes with valid FIM scores and LOS; where n<5 the casemix-adjusted relative mean will not be shown

Outcome measures – difference from National



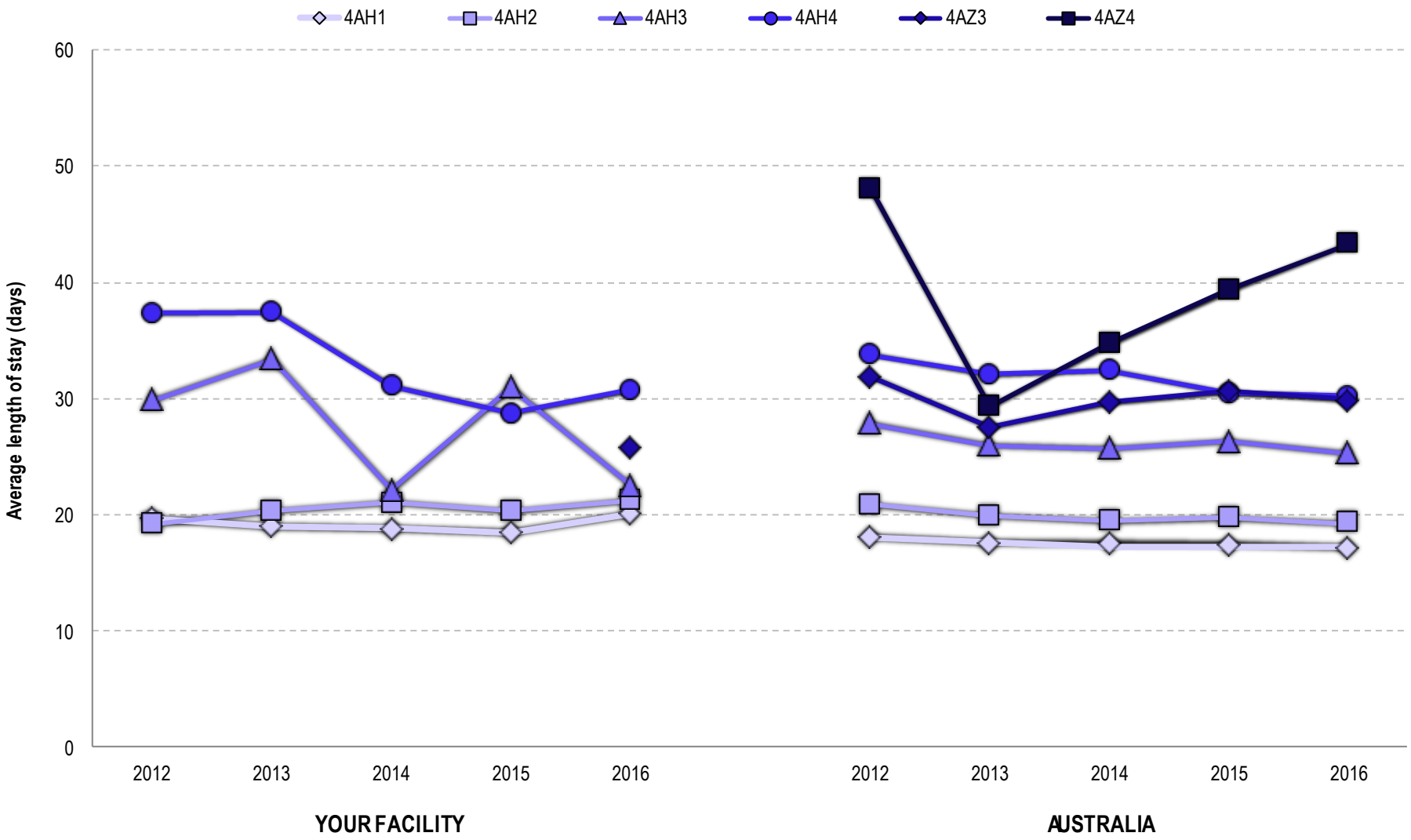
NOTE: Includes only completed episodes with valid FIM scores and LOS

Outcome measures – difference from last year



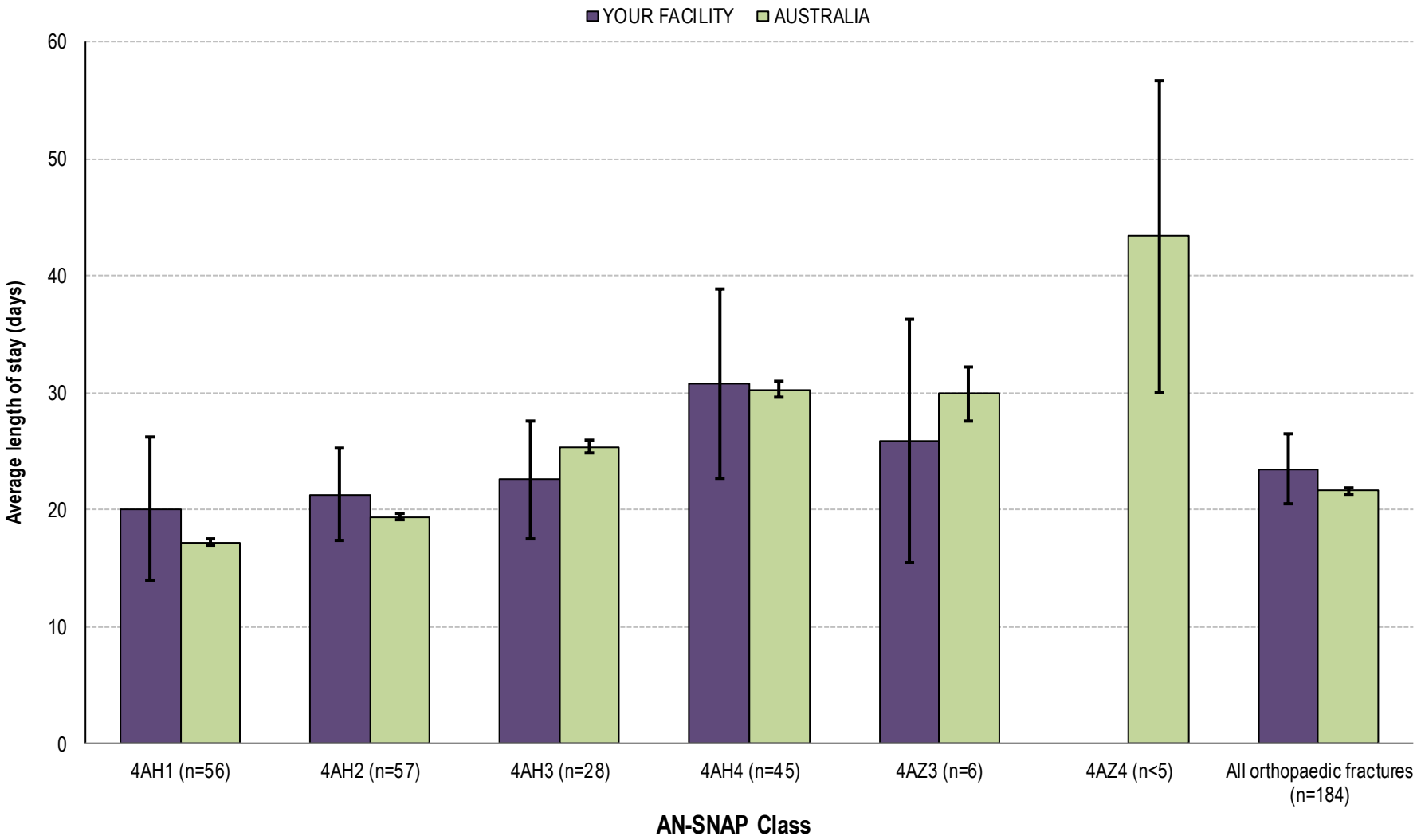
NOTE: Includes only completed episodes with valid FIM scores and LOS

Average LOS by AN-SNAP class over time



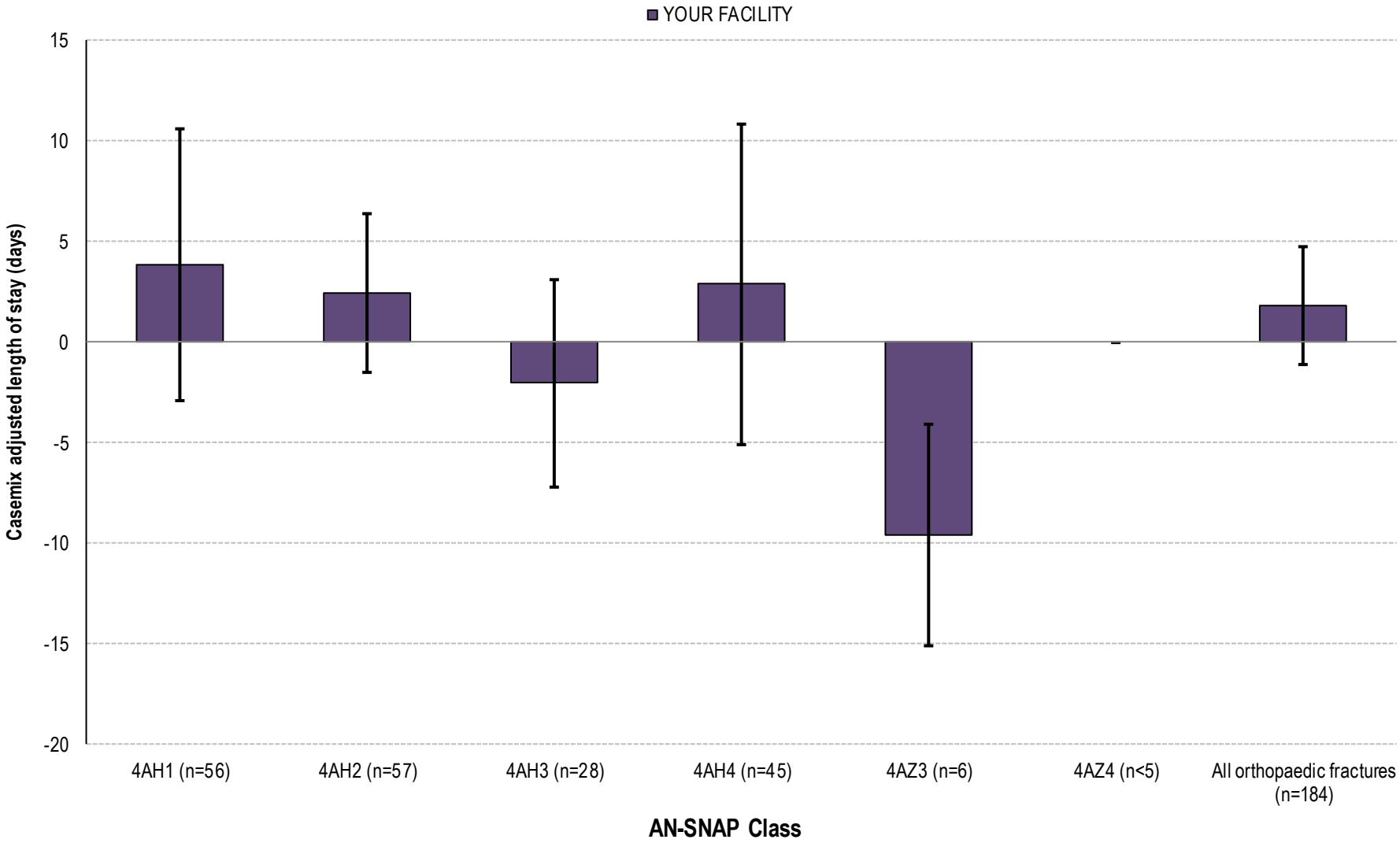
NOTE: Includes only completed episodes with valid LOS; where n<5 average LOS will not be shown

Average LOS by AN-SNAP class



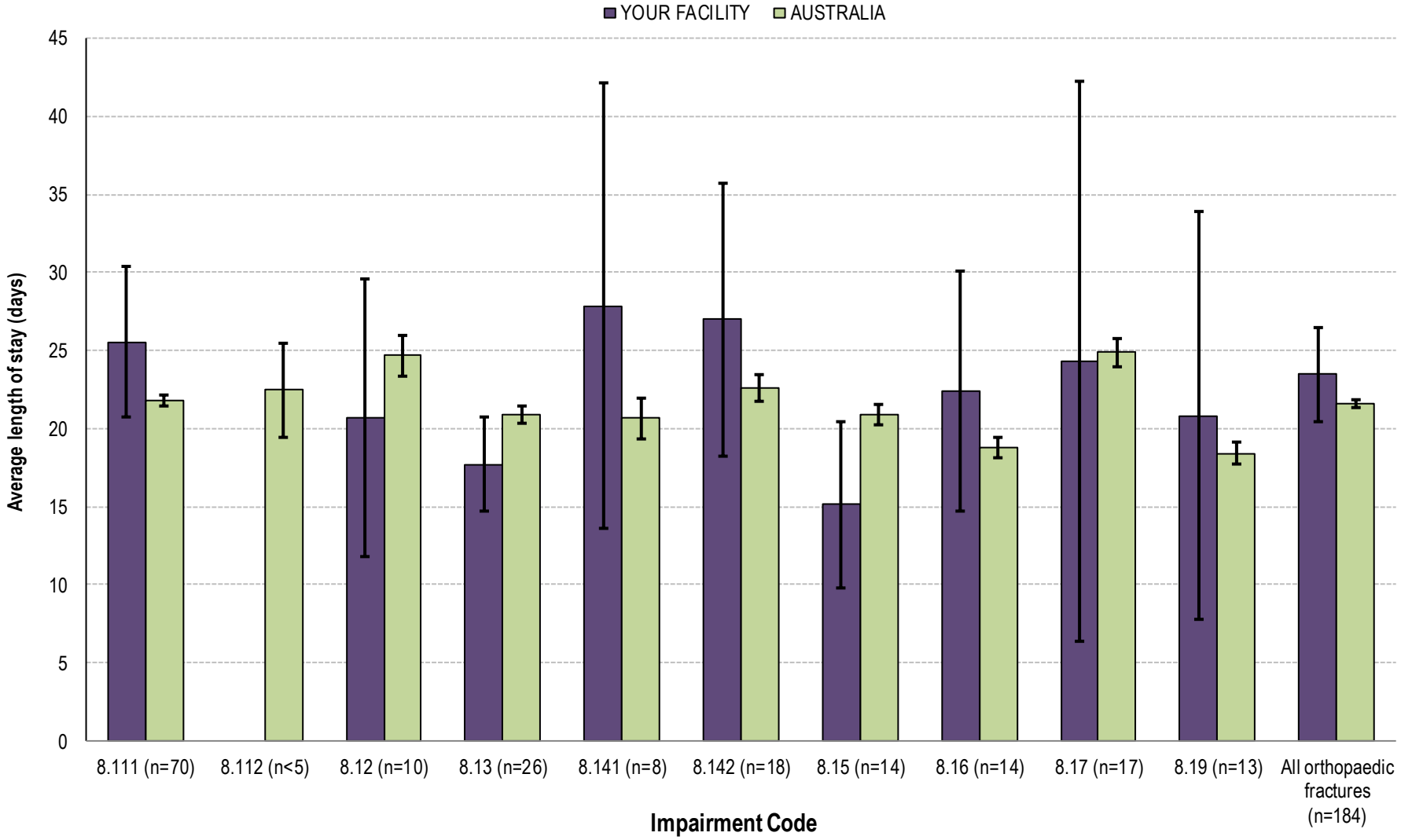
NOTE: Includes only completed episodes with valid LOS, where n<5 average LOS will not be shown

Casemix-adjusted relative mean LOS by AN-SNAP class



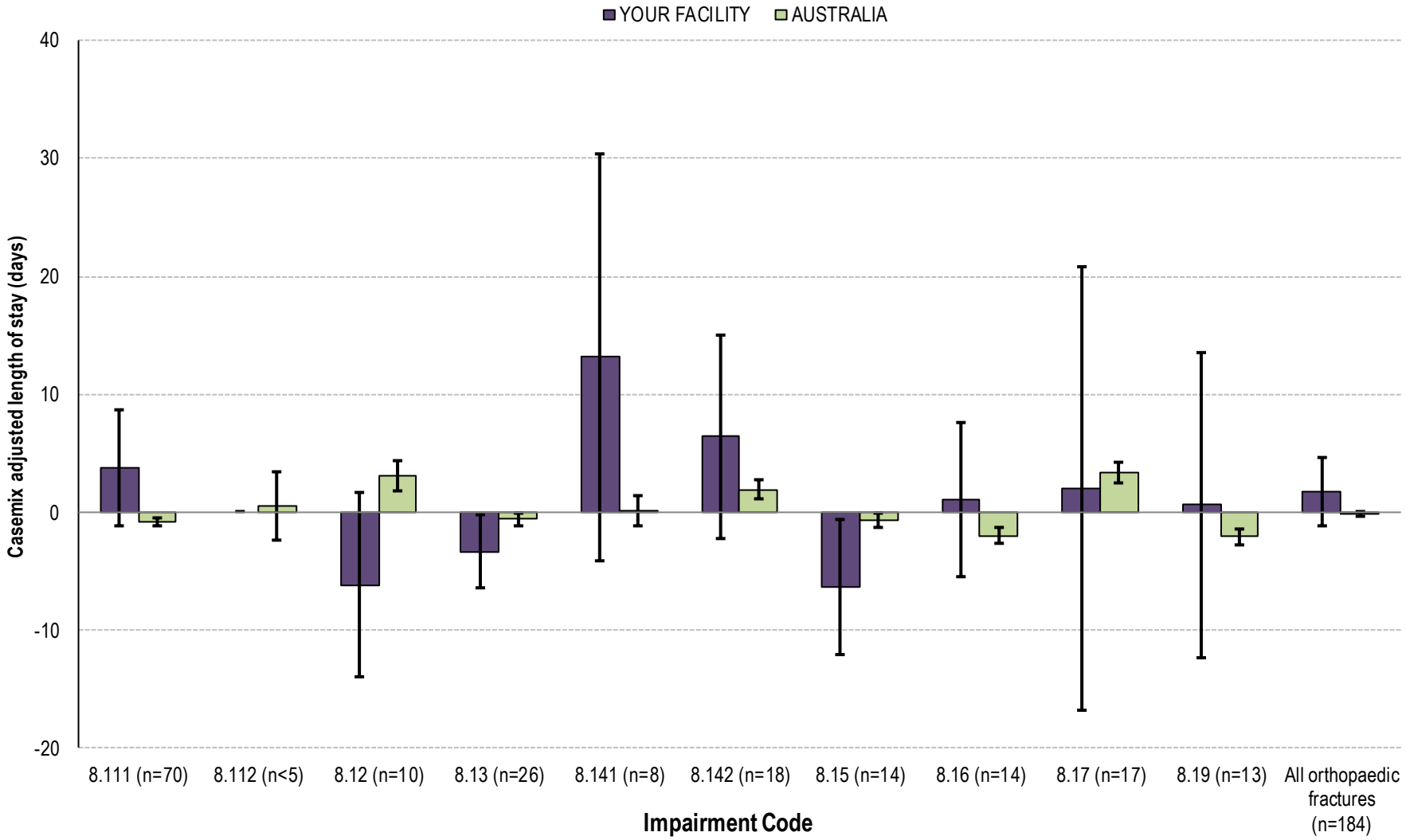
NOTE: Includes only completed episodes with valid LOS; where n<5 CARMI LOS will not be shown

Average LOS by impairment



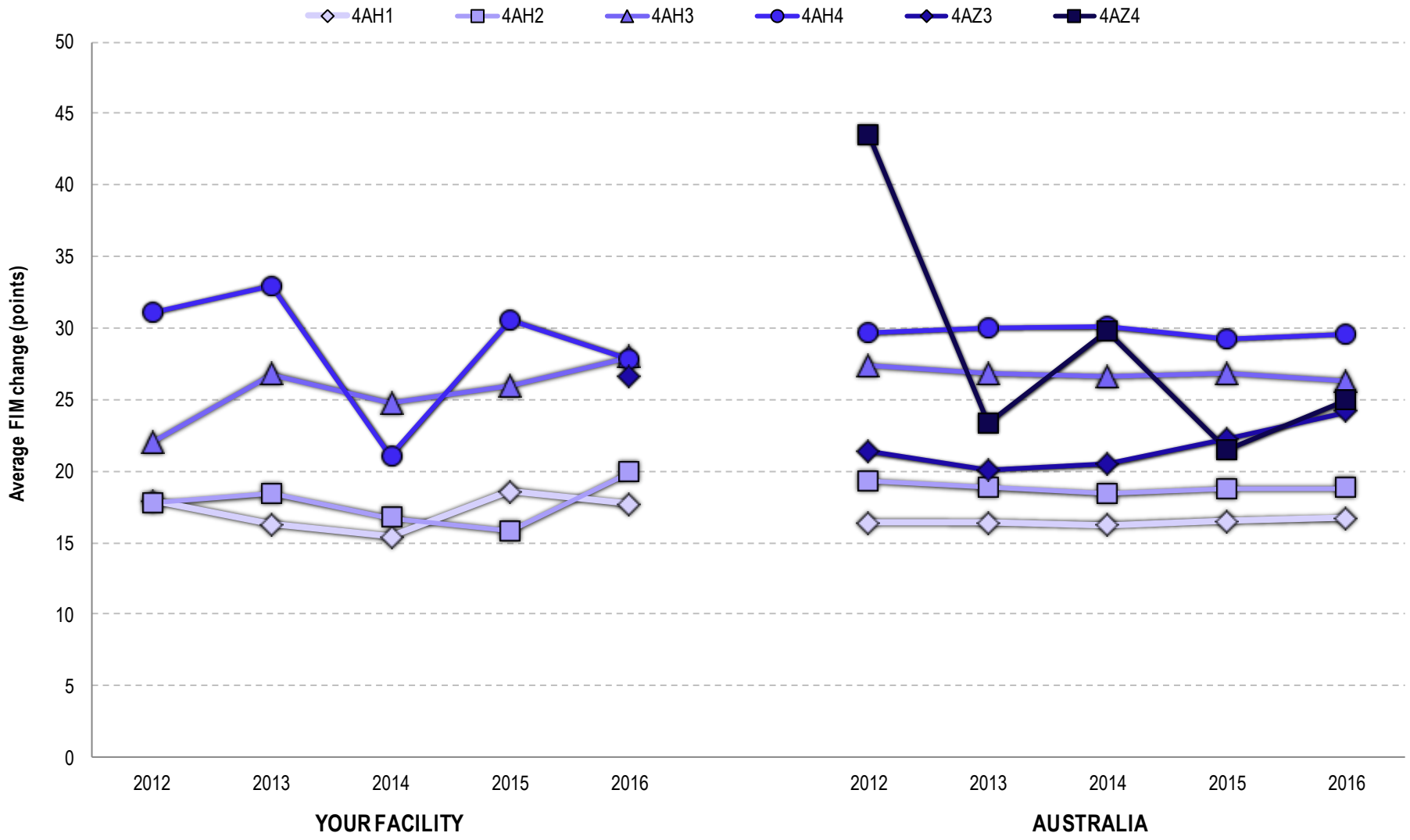
NOTE: Includes only completed episodes with valid LOS, where n<5 average LOS will not be shown

Casemix-adjusted relative mean LOS by impairment



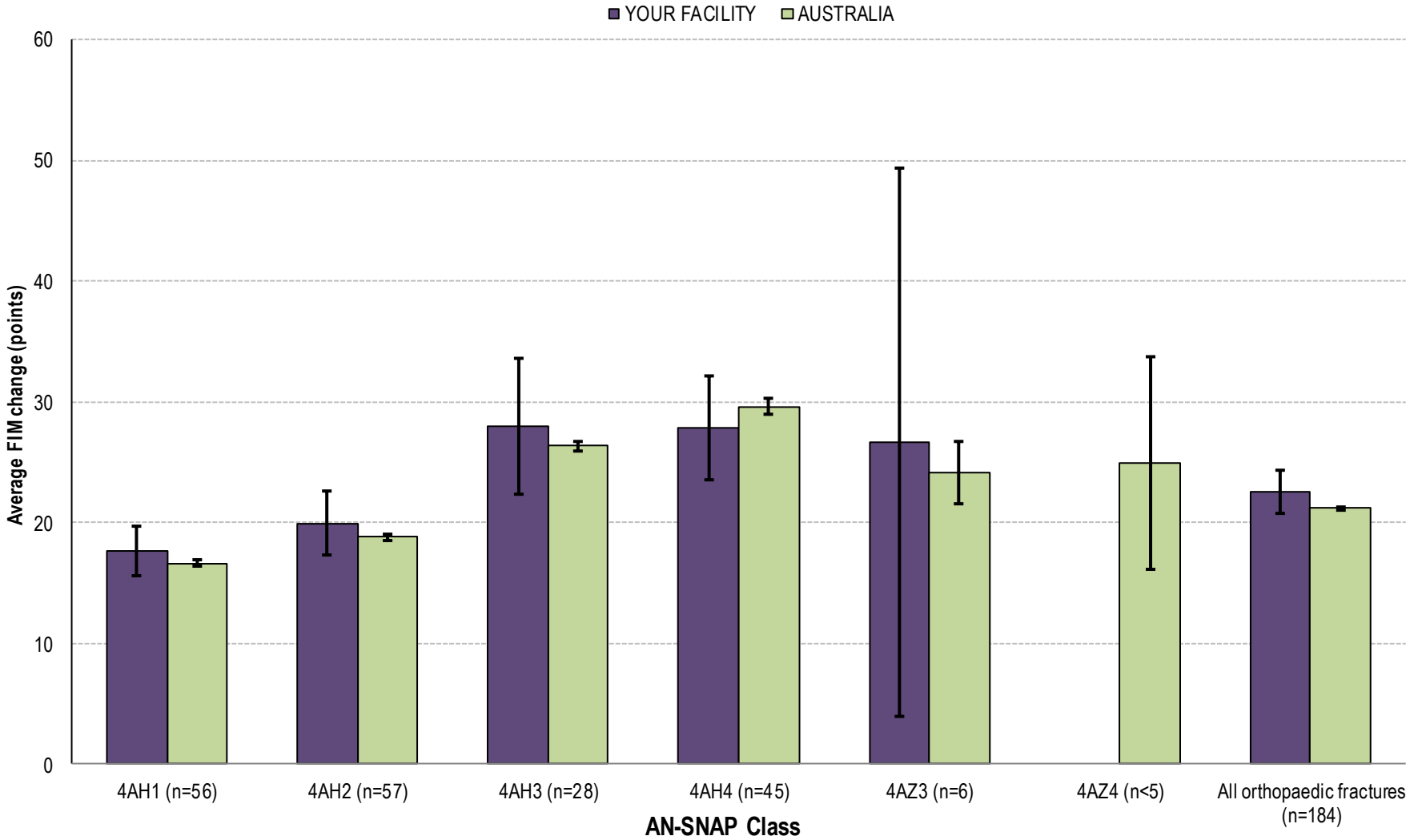
NOTE: Includes only completed episodes with valid LOS; where n<5 CARMI LOS will not be shown

Average FIM change by AN-SNAP class over time



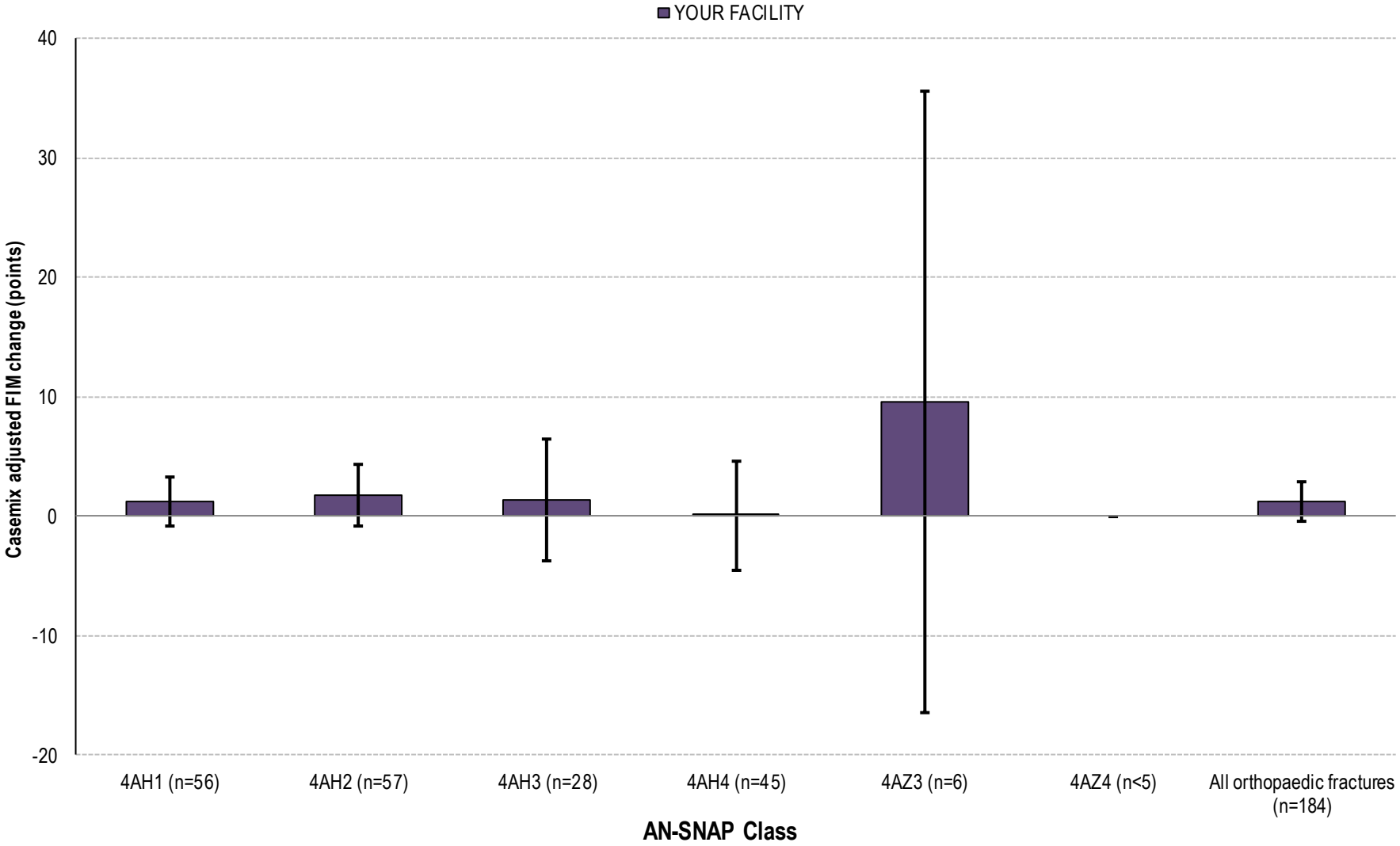
NOTE: Includes only completed episodes with valid FIM scores; where n<5 average FIM change will not be shown

Average FIM change by AN-SNAP class



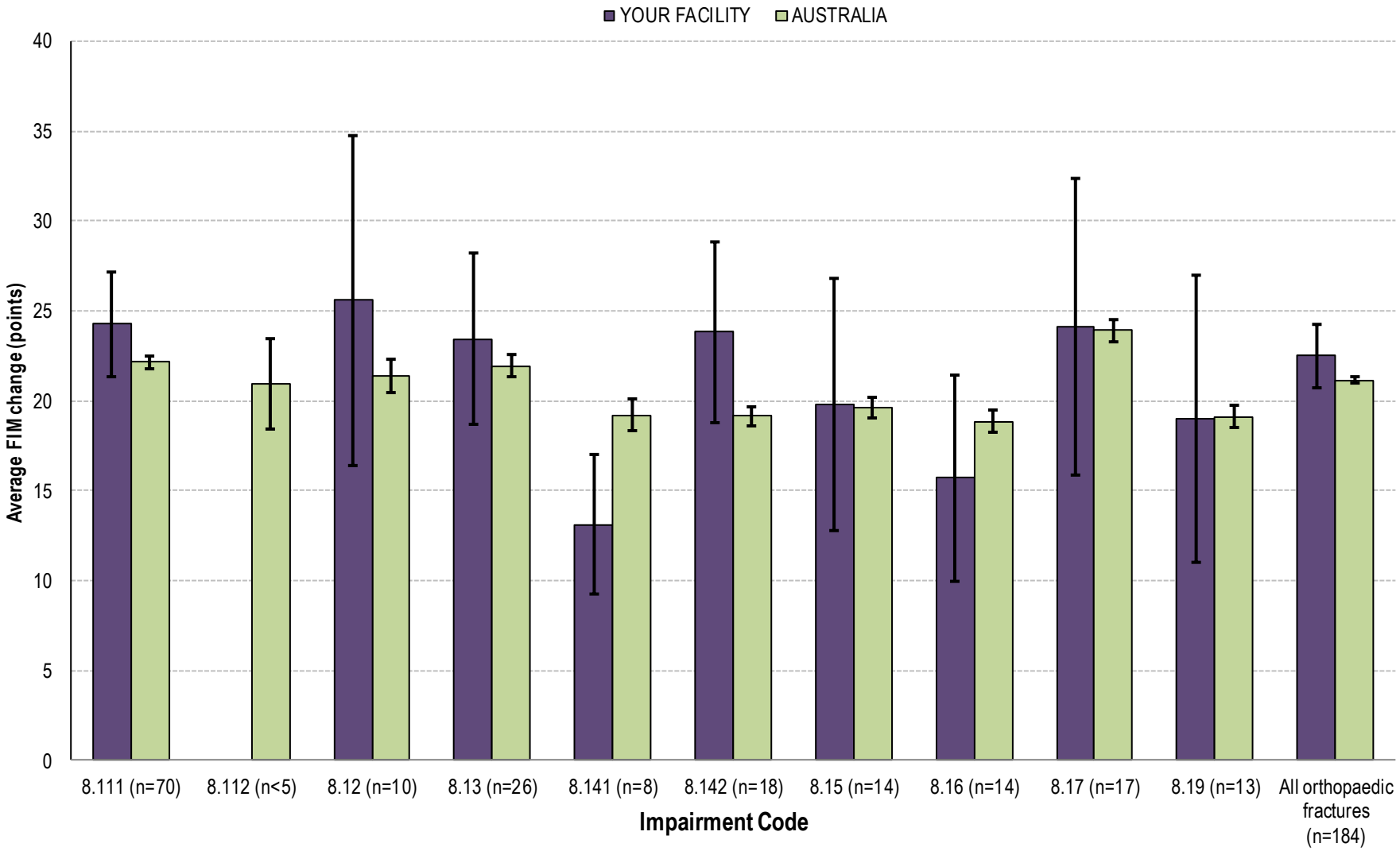
NOTE: Includes only completed episodes with valid FIM scores, where n<5 average FIM change will not be shown

Casemix-adjusted relative mean FIM change by AN-SNAP class



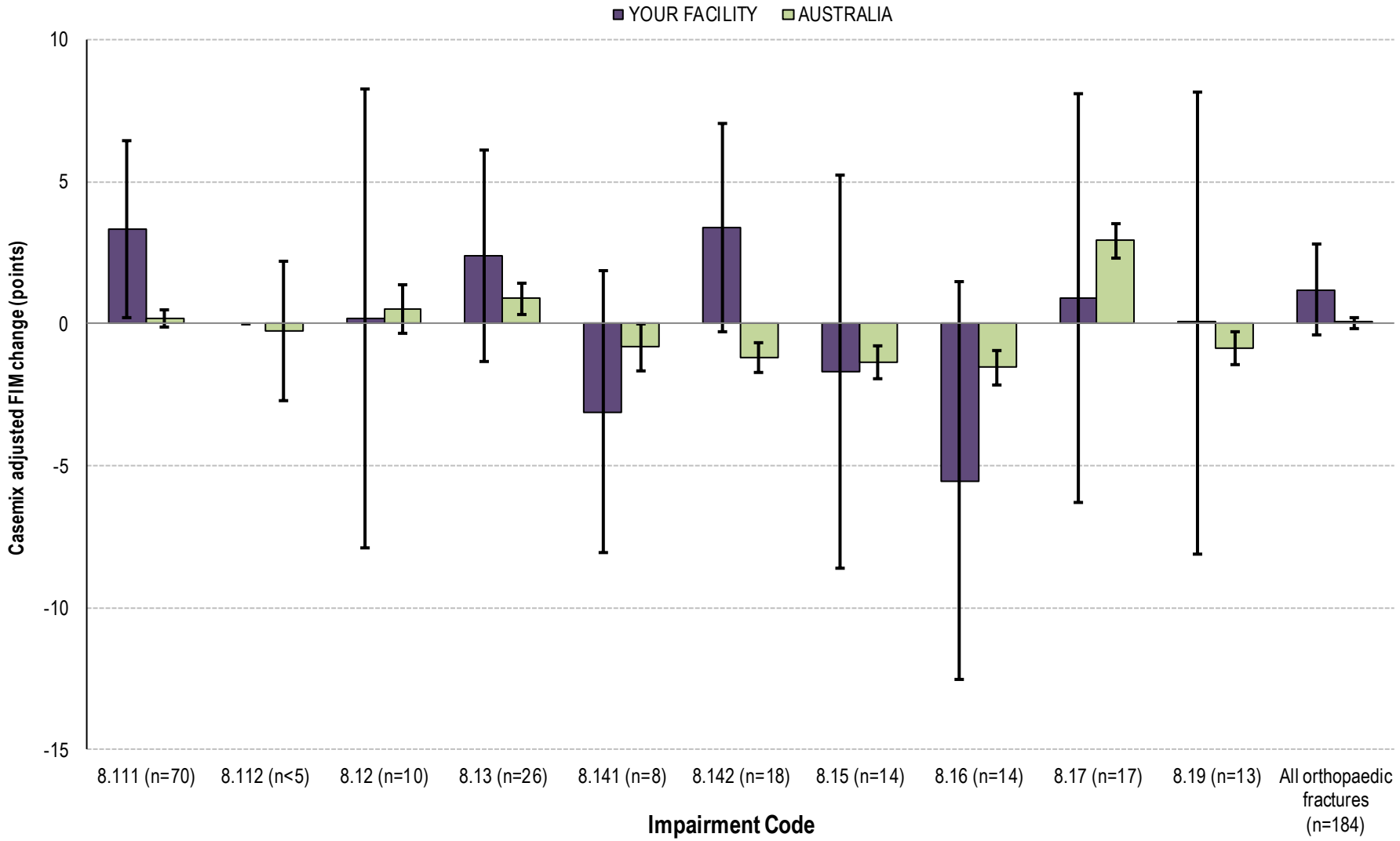
NOTE: Includes only completed episodes with valid FIM scores, where n<5 CARMI FIM change will not be shown

Average FIM change by impairment



NOTE: Includes only completed episodes with valid FIM scores, where n<5 average FIM change will not be shown

Casemix-adjusted relative mean FIM change by impairment



NOTE: Includes only completed episodes with valid FIM scores, where n<5 CARMI FIM change will not be shown

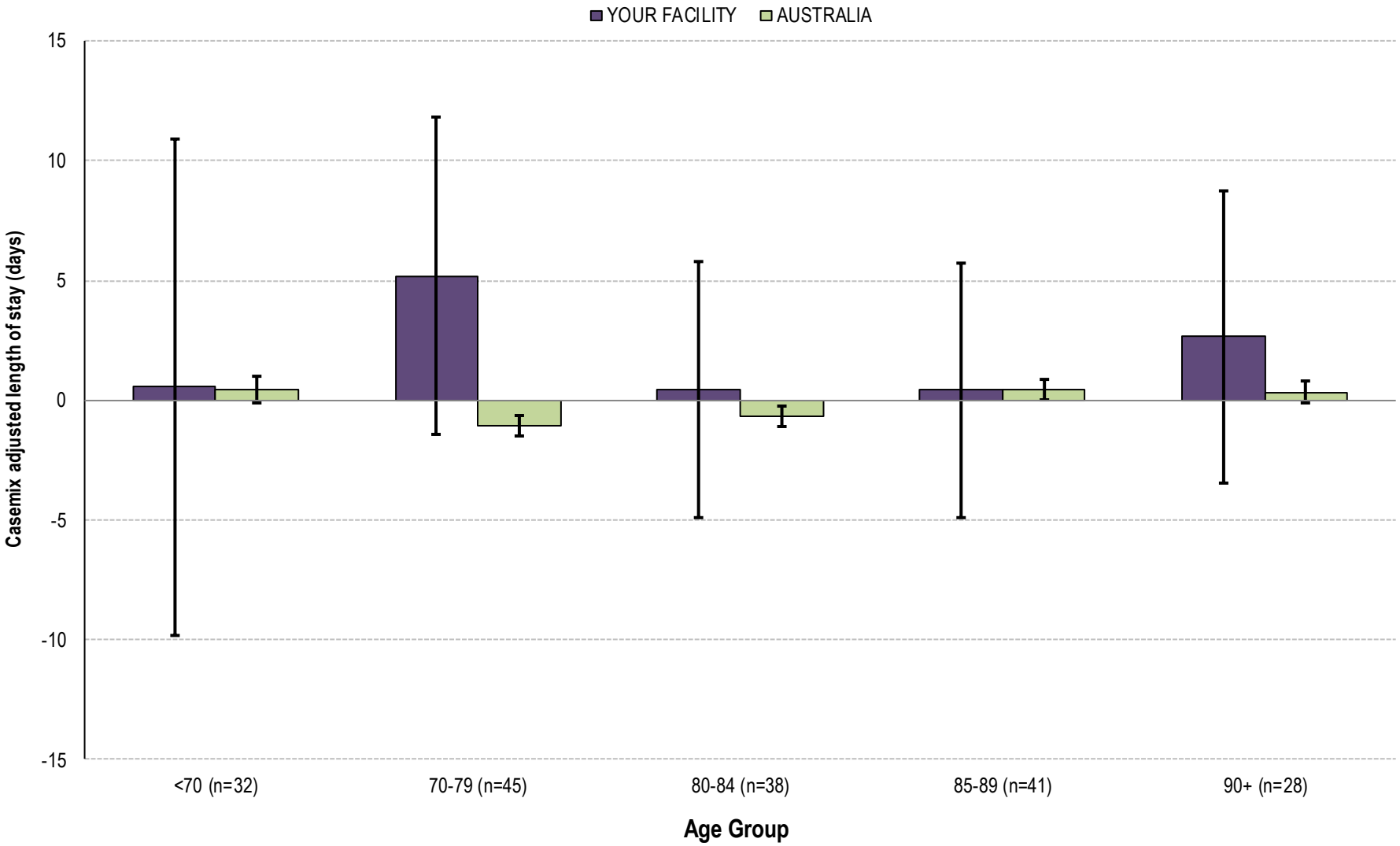
Casemix-adjusted relative mean and average length of stay and FIM change by AN-SNAP class and impairment

	YOUR FACILITY				AUSTRALIA	
	CARMI (95%CI)		Average (95%CI)		Average (95%CI)	
AN-SNAP class V4	**LOS**	**FIM change**	**LOS**	**FIM change**	**LOS**	**FIM change**
4AH1 (motor 49-91, cognition 33-35)	3.8 (-2.9 — 10.6)	1.2 (-0.9 — 3.3)	20.1 (14.0 — 27.5)	17.6 (15.6 — 19.8)	17.2 (16.9 — 17.5)	16.7 (16.4 — 16.9)
4AH2 (motor 49-91, cognition 5-32)	2.4 (-1.5 — 6.4)	1.7 (-0.9 — 4.3)	21.3 (17.3 — 25.0)	19.9 (17.3 — 22.6)	19.4 (19.1 — 19.7)	18.8 (18.6 — 19.1)
4AH3 (motor 38-48)	-2.1 (-7.3 — 3.1)	1.4 (-3.7 — 6.5)	22.6 (17.6 — 27.8)	28.0 (22.3 — 32.5)	25.4 (24.8 — 25.9)	26.3 (25.9 — 26.8)
4AH4 (motor 19-37)	2.9 (-5.1 — 10.8)	0.0 (-4.6 — 4.6)	30.8 (22.7 — 38.8)	27.9 (23.6 — 33.1)	30.3 (29.6 — 31.0)	29.6 (29.0 — 30.3)
4AZ3 (motor 13-18, Age ≥ 65)	-9.6 (-15.1 — -4.1)	9.6 (-16.4 — 35.6)	25.8 (15.4 — 31.8)	26.7 (4.0 — 57.6)	29.9 (27.6 — 32.2)	24.2 (21.6 — 26.8)
4AZ4 (motor 13-18, Age ≤ 64)	—	—	—	—	43.4 (30.1 — 56.7)	25.0 (16.2 — 33.7)
All Fracture AN-SNAP classes	**1.8 (-1.1 — 5.0)**	**1.2 (-0.4 — 3.1)**	**23.5 (20.5 — 26.7)**	**22.5 (20.7 — 24.5)**	**21.6 (21.4 — 21.8)**	**21.2 (21.0 — 21.4)**

	YOUR FACILITY				AUSTRALIA	
	CARMI (95%CI)		Average (95%CI)		Average (95%CI)	
Impairment	**LOS**	**FIM change**	**LOS**	**FIM change**	**LOS**	**FIM change**
8.111 Fracture of hip, unilateral	3.8 (-1.1 — 8.6)	3.3 (0.2 — 6.4)	25.6 (20.8 — 30.9)	24.3 (21.4 — 28.0)	21.8 (21.5 — 22.1)	22.1 (21.8 — 22.5)
8.112 Fracture of hip, bilateral	—	—	—	—	22.5 (19.4 — 25.5)	21.0 (18.4 — 23.5)
8.12 Fracture of shaft of femur	-6.1 (-14.0 — 1.7)	0.2 (-7.9 — 8.3)	20.7 (11.8 — 26.6)	25.6 (16.4 — 34.9)	24.7 (23.4 — 26.0)	21.4 (20.5 — 22.4)
8.13 Fracture of pelvis	-3.3 (-6.5 — -0.2)	2.4 (-1.3 — 6.1)	17.7 (14.8 — 20.7)	23.5 (18.7 — 28.2)	20.9 (20.3 — 21.4)	21.9 (21.3 — 22.5)
8.141 Fracture of knee	13.2 (-4.1 — 30.4)	-3.1 (-8.1 — 1.9)	27.9 (13.6 — 47.8)	13.1 (9.3 — 18.5)	20.7 (19.4 — 21.9)	19.2 (18.3 — 20.1)
8.142 Fracture of leg, ankle, foot	6.4 (-2.2 — 15.0)	3.4 (-0.3 — 7.0)	27.0 (18.3 — 35.7)	23.8 (18.8 — 28.9)	22.6 (21.7 — 23.4)	19.1 (18.6 — 19.7)
8.15 Fracture of upper limb	-6.3 (-12.0 — -0.7)	-1.7 (-8.6 — 5.2)	15.1 (9.8 — 20.5)	19.8 (12.8 — 26.8)	20.9 (20.3 — 21.6)	19.6 (19.1 — 20.2)
8.16 Fracture of spine	1.1 (-5.5 — 7.6)	-5.5 (-12.5 — 1.5)	22.4 (14.7 — 30.1)	15.7 (10.0 — 21.5)	18.8 (18.1 — 19.5)	18.9 (18.2 — 19.5)
8.17 Fracture of multiple sites	2.0 (-16.8 — 20.8)	0.9 (-6.3 — 8.1)	24.3 (6.4 — 42.9)	24.1 (15.9 — 30.0)	24.9 (23.9 — 25.8)	23.9 (23.2 — 24.6)
8.19 Other orthopaedic fracture	0.6 (-12.3 — 13.6)	0.0 (-8.1 — 8.2)	20.8 (7.8 — 32.5)	19.0 (11.0 — 28.3)	18.4 (17.7 — 19.1)	19.1 (18.5 — 19.7)
All Orthopaedic Fractures	**1.8 (-1.1 — 5.0)**	**1.2 (-0.4 — 3.1)**	**23.5 (20.5 — 26.7)**	**22.5 (20.7 — 24.5)**	**21.6 (21.4 — 21.8)**	**21.2 (21.0 — 21.4)**

NOTE: Includes only completed episodes with valid FIM scores and LOS, where n<5 no values provided

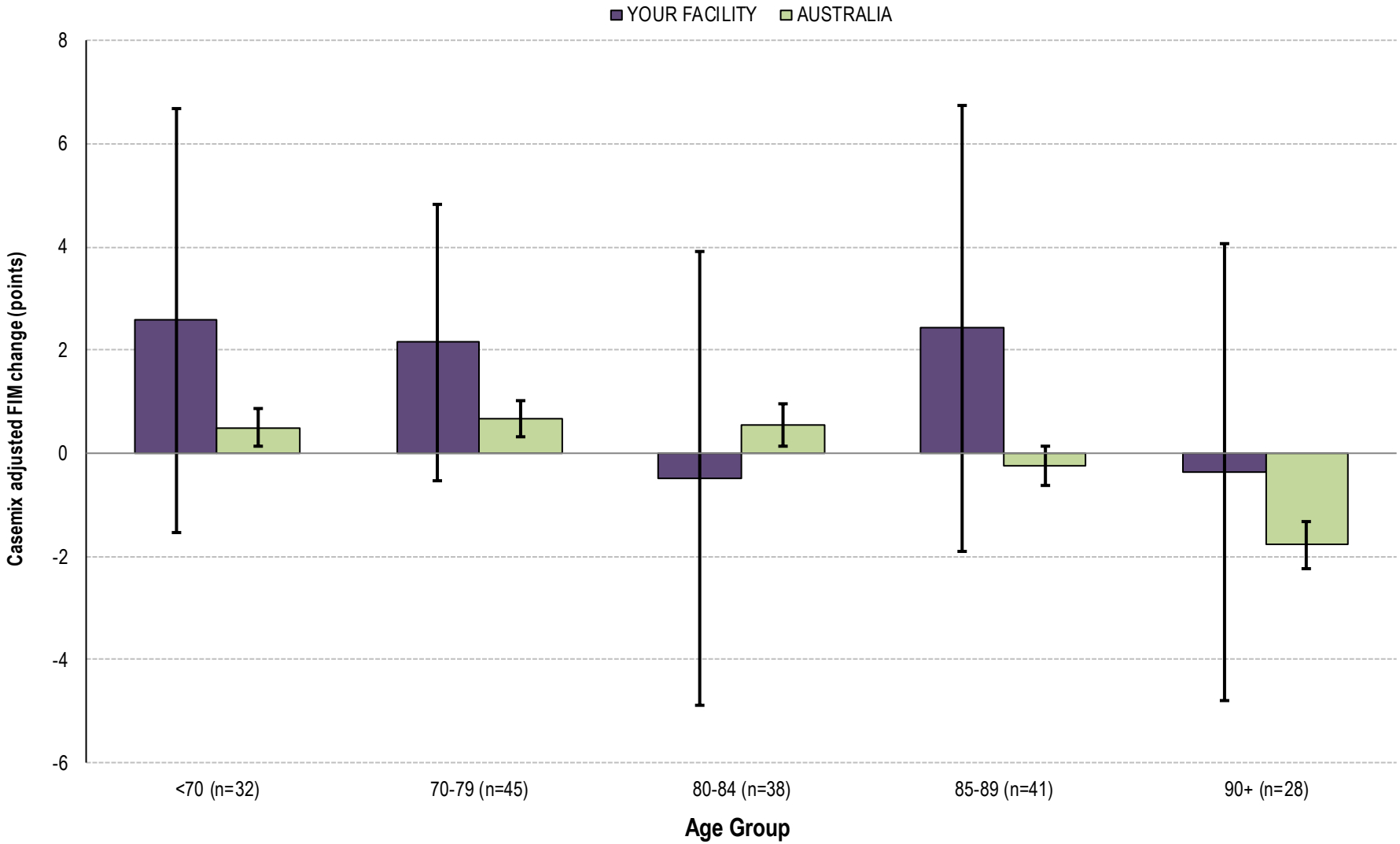
Casemix-adjusted relative mean LOS by age group*



NOTE: Includes only completed episodes with valid LOS and age, where n<5 CARMI LOS will not be shown

* *Approximately 20% national population per age group*

Casemix-adjusted relative mean FIM change by age group*



NOTE: Includes only completed episodes with valid FIM scores and age, where n<5 CARMI FIM change will not be shown

* *Approximately 20% national population per age group*

Average and casemix-adjusted relative mean length of stay and FIM change by age group*

	YOUR FACILITY		AUSTRALIA	
Age group	LOS (95%CI)	FIM change (95%CI)	LOS (95%CI)	FIM change (95%CI)
<70	21.2 (11.1 — 31.2)	22.9 (18.3 — 27.6)	21.1 (20.5 — 21.7)	20.6 (20.1 — 21.0)
70-79	25.9 (18.6 — 33.1)	22.8 (19.4 — 26.2)	20.1 (19.7 — 20.6)	21.3 (20.9 — 21.7)
80-84	23.1 (18.0 — 28.1)	21.9 (17.4 — 26.4)	21.1 (20.7 — 21.6)	21.8 (21.3 — 22.2)
85-89	22.9 (17.2 — 28.6)	24.0 (19.7 — 28.4)	22.6 (22.2 — 23.0)	21.4 (21.0 — 21.8)
90+	24.3 (18.7 — 29.9)	21.0 (16.3 — 25.8)	23.6 (23.1 — 24.1)	20.8 (20.3 — 21.3)

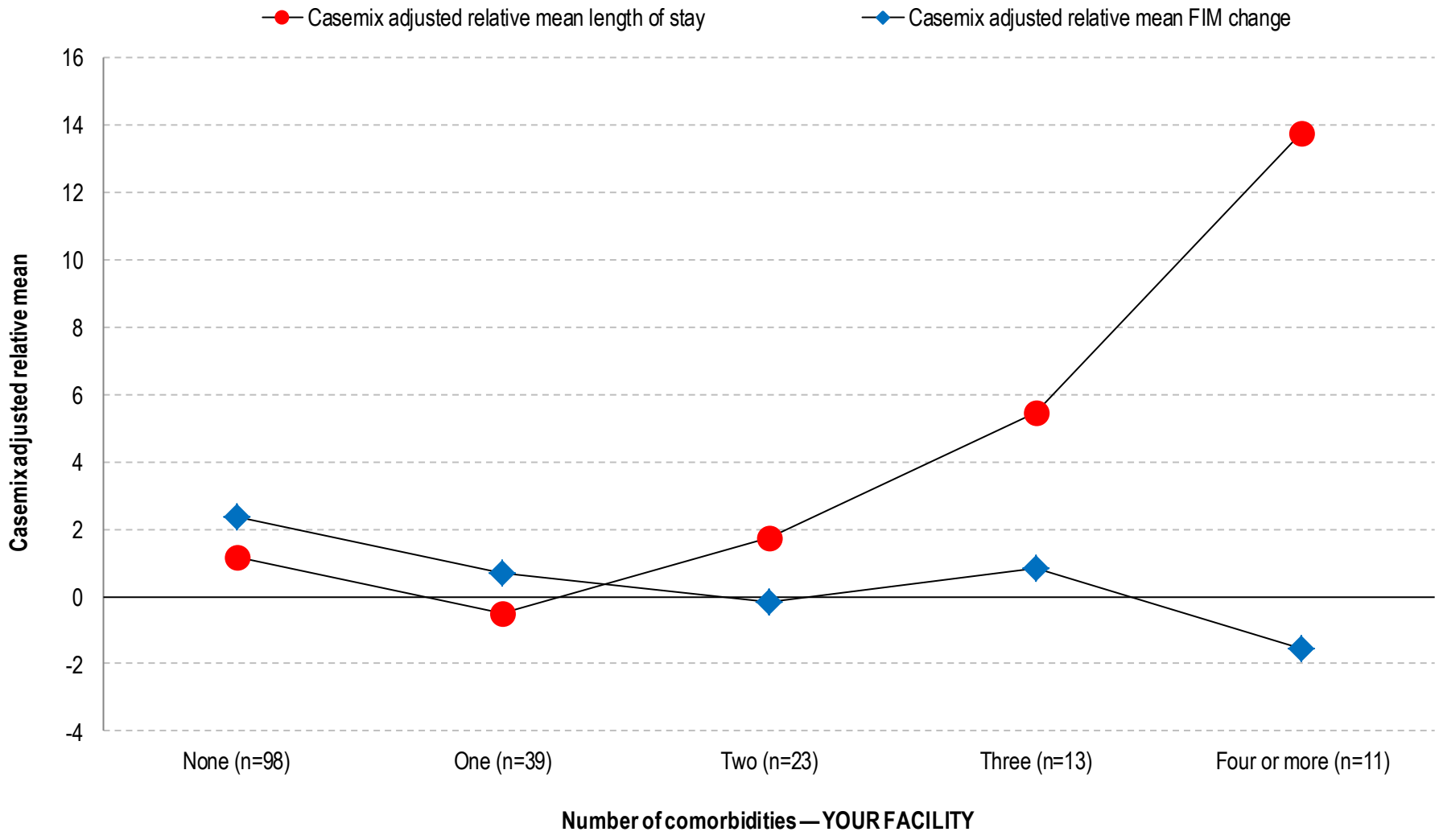
	YOUR FACILITY		AUSTRALIA	
Age group	CARMI LOS (95%CI)	CARMI FIM change (95%CI)	CARMI LOS (95%CI)	CARMI FIM change (95%CI)
<70	0.6 (-9.8 — 10.9)	2.6 (-1.5 — 6.7)	0.5 (-0.1 — 1.0)	0.5 (0.1 — 0.9)
70-79	5.2 (-1.5 — 11.8)	2.1 (-0.5 — 4.8)	-1.0 (-1.5 — -0.6)	0.7 (0.3 — 1.0)
80-84	0.4 (-4.9 — 5.8)	-0.5 (-4.9 — 3.9)	-0.7 (-1.1 — -0.2)	0.5 (0.1 — 1.0)
85-89	0.4 (-4.9 — 5.7)	2.4 (-1.9 — 6.7)	0.4 (0.0 — 0.8)	-0.2 (-0.6 — 0.1)
90+	2.6 (-3.4 — 8.7)	-0.4 (-4.8 — 4.1)	0.3 (-0.1 — 0.8)	-1.8 (-2.2 — -1.3)

NOTE: Includes only completed episodes with valid FIM scores and LOS and age, where n<5 no values provided

*Approximately 20% national population per age group

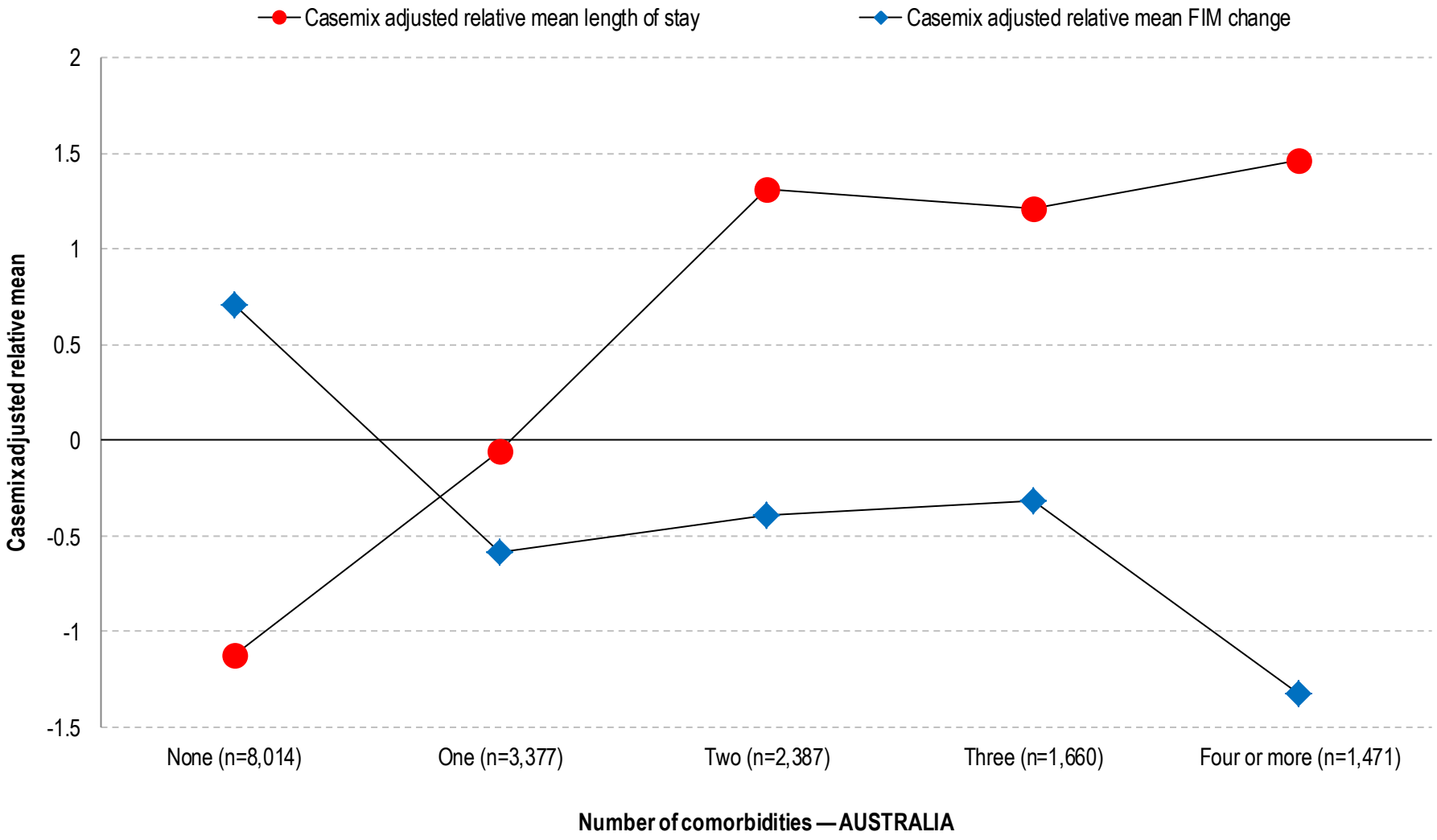
Explanatory data

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



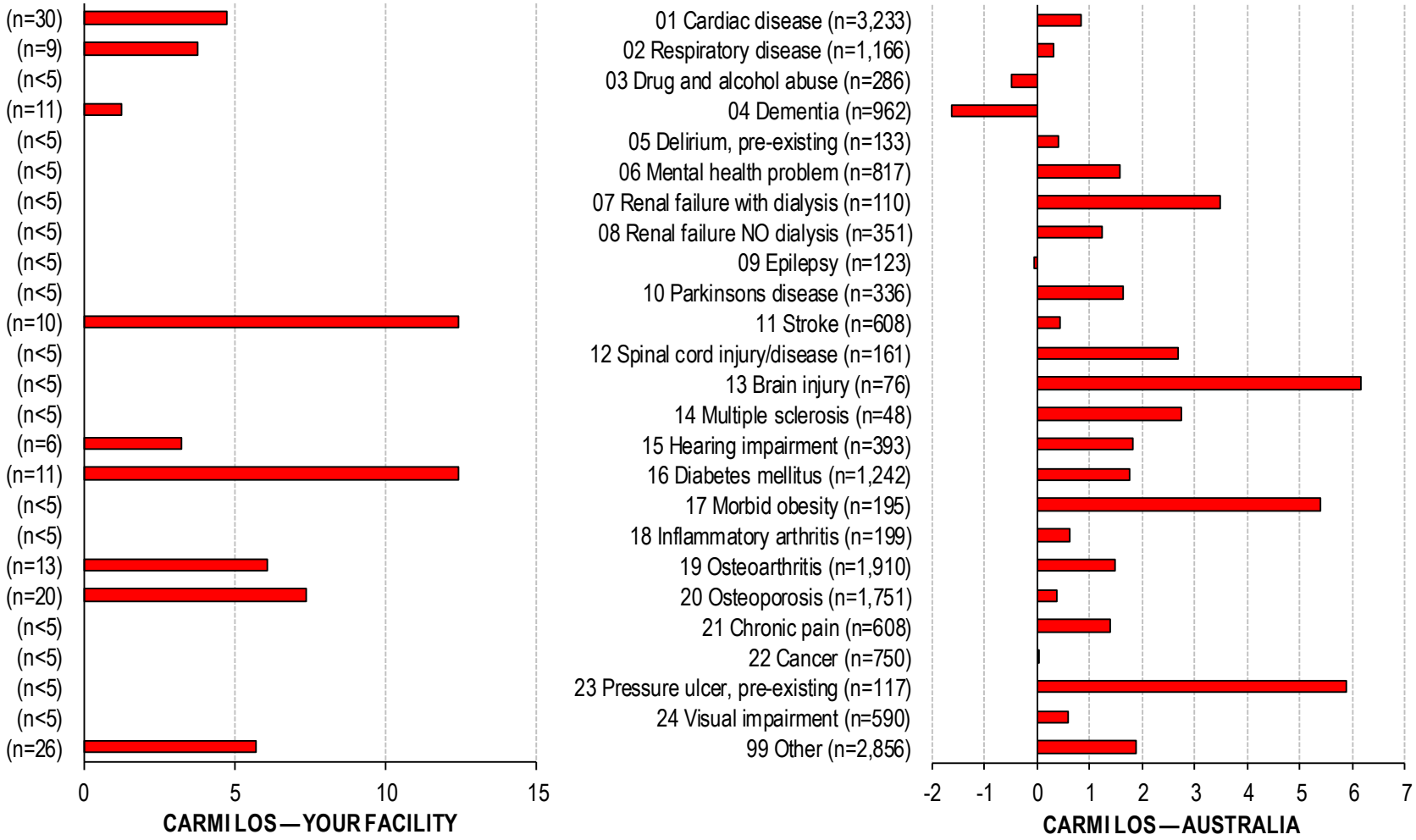
NOTE: Includes only completed episodes with valid FIM scores and LOS; where n<5 the casemix-adjusted relative mean will not be shown

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



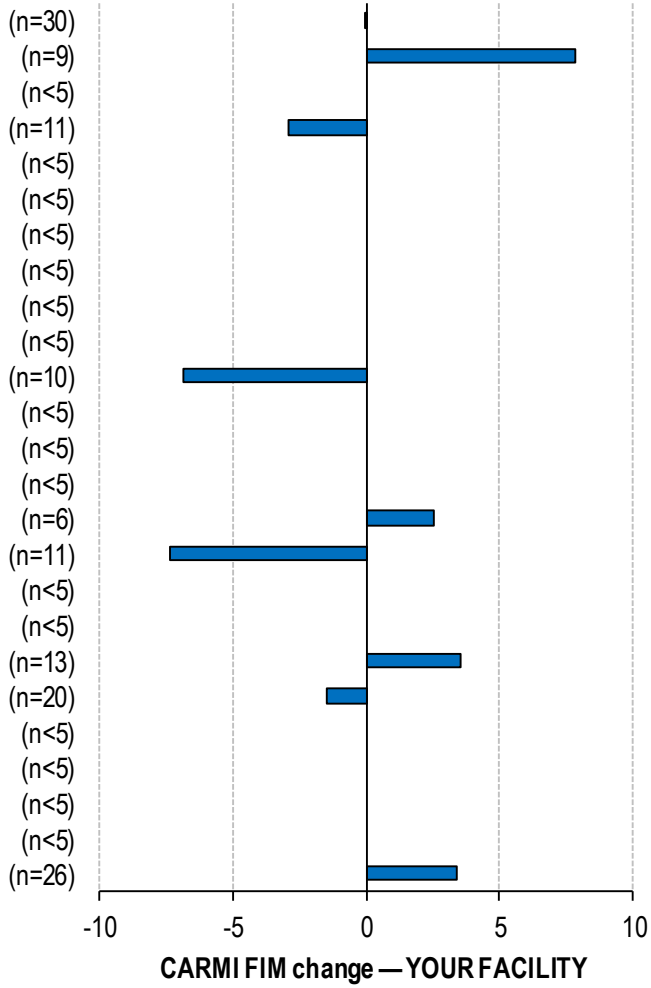
NOTE: Includes only completed episodes with valid FIM scores and LOS; where n<5 the casemix-adjusted relative mean will not be shown

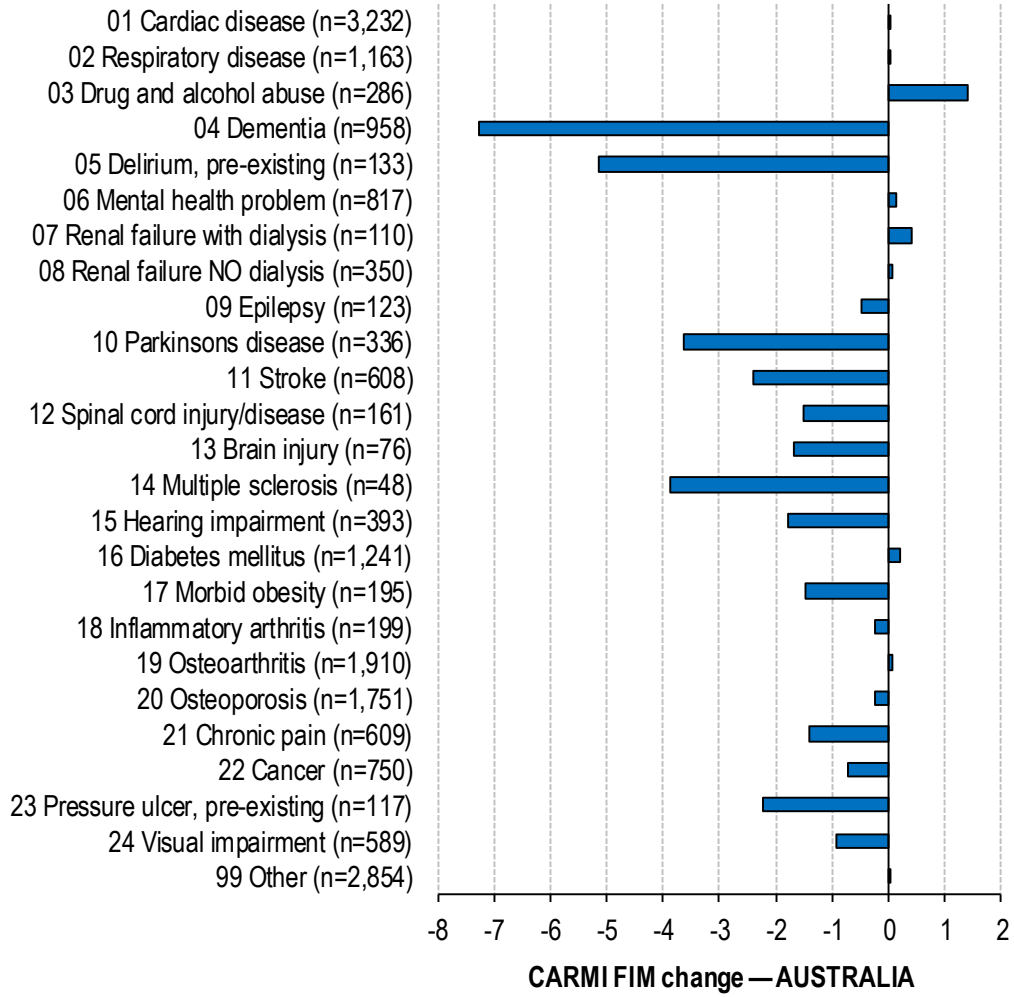
Casemix-adjusted relative mean LOS by type of comorbidity



* No data included where number of episodes <5
NOTE: Includes only completed episodes with valid LOS

Casemix-adjusted relative mean FIM change by type of comorbidity

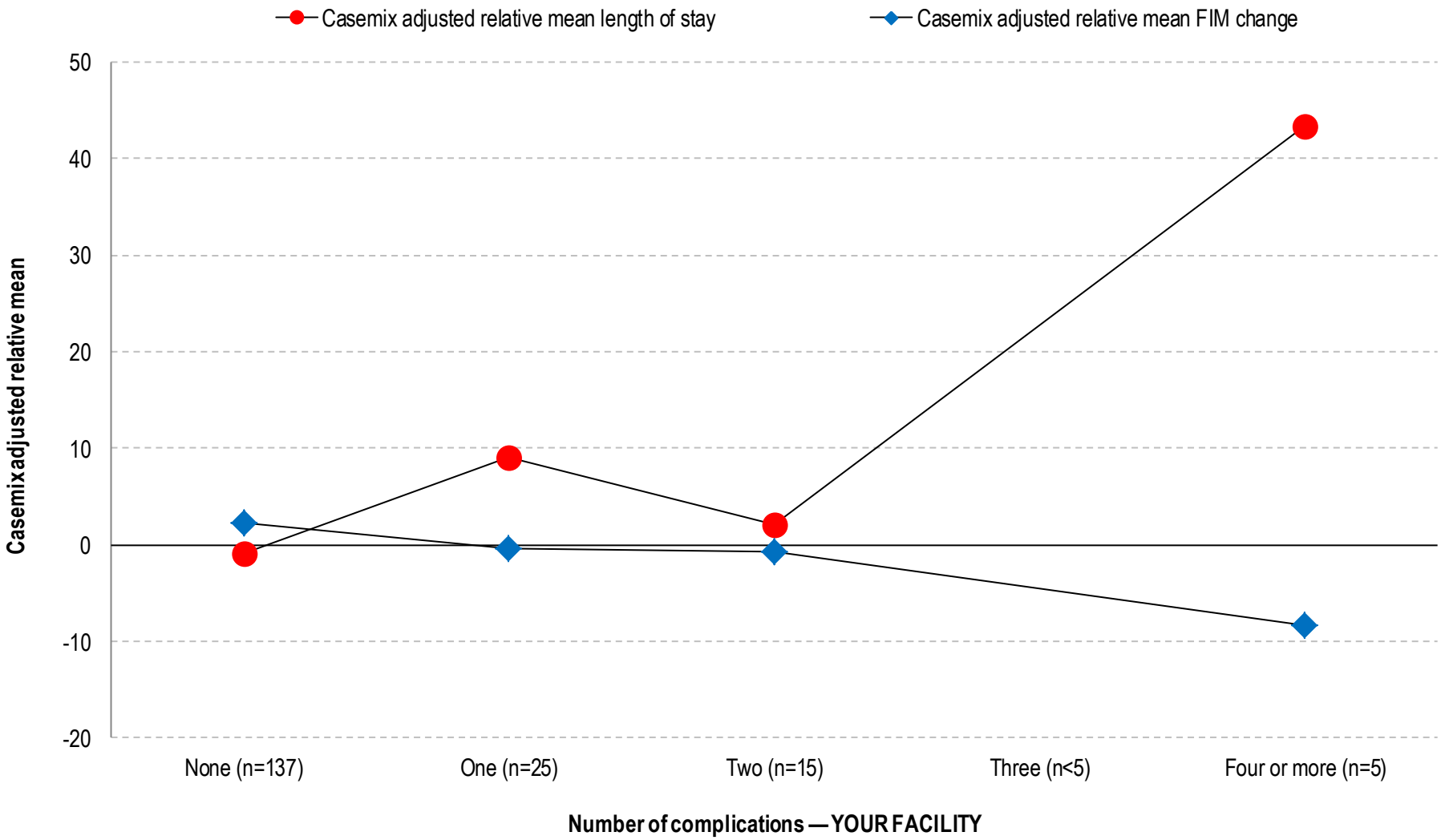




* No data included where number of episodes <5

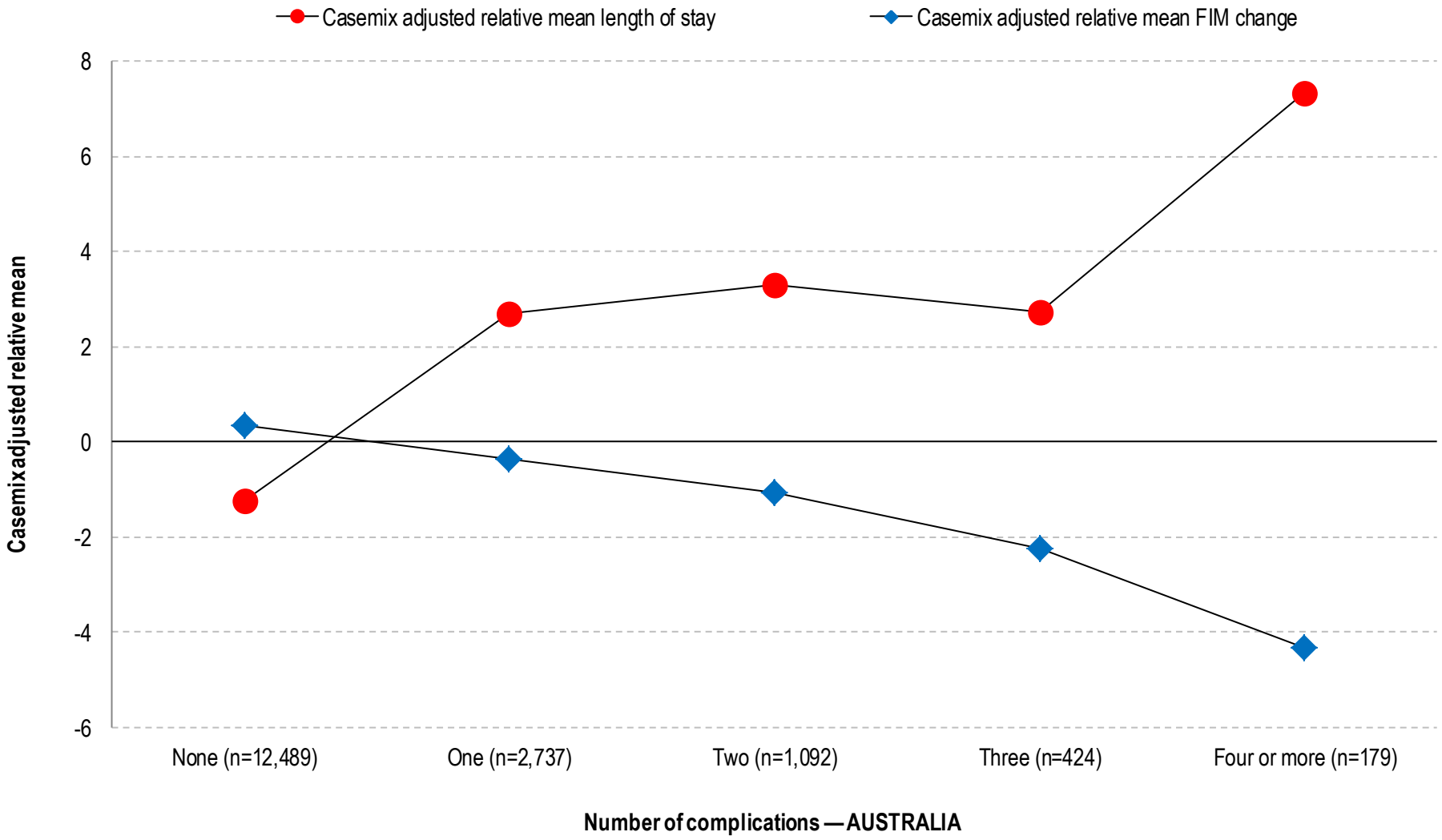
NOTE: Includes only completed episodes with valid FIM scores

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



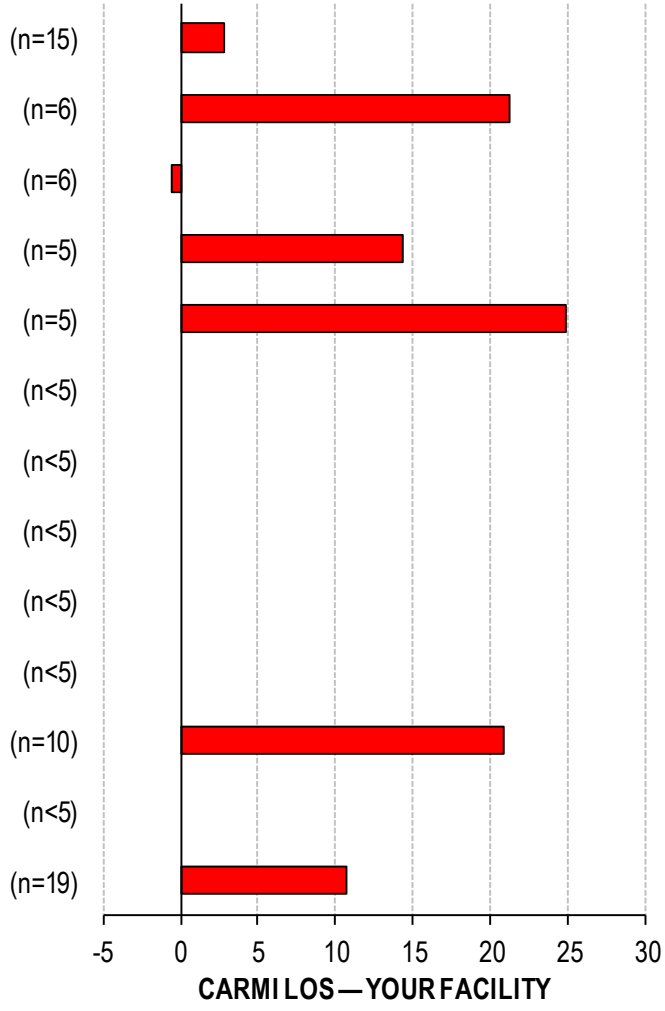
NOTE: Includes only completed episodes with valid FIM scores and LOS; where n<5 the casemix-adjusted relative mean will not be shown

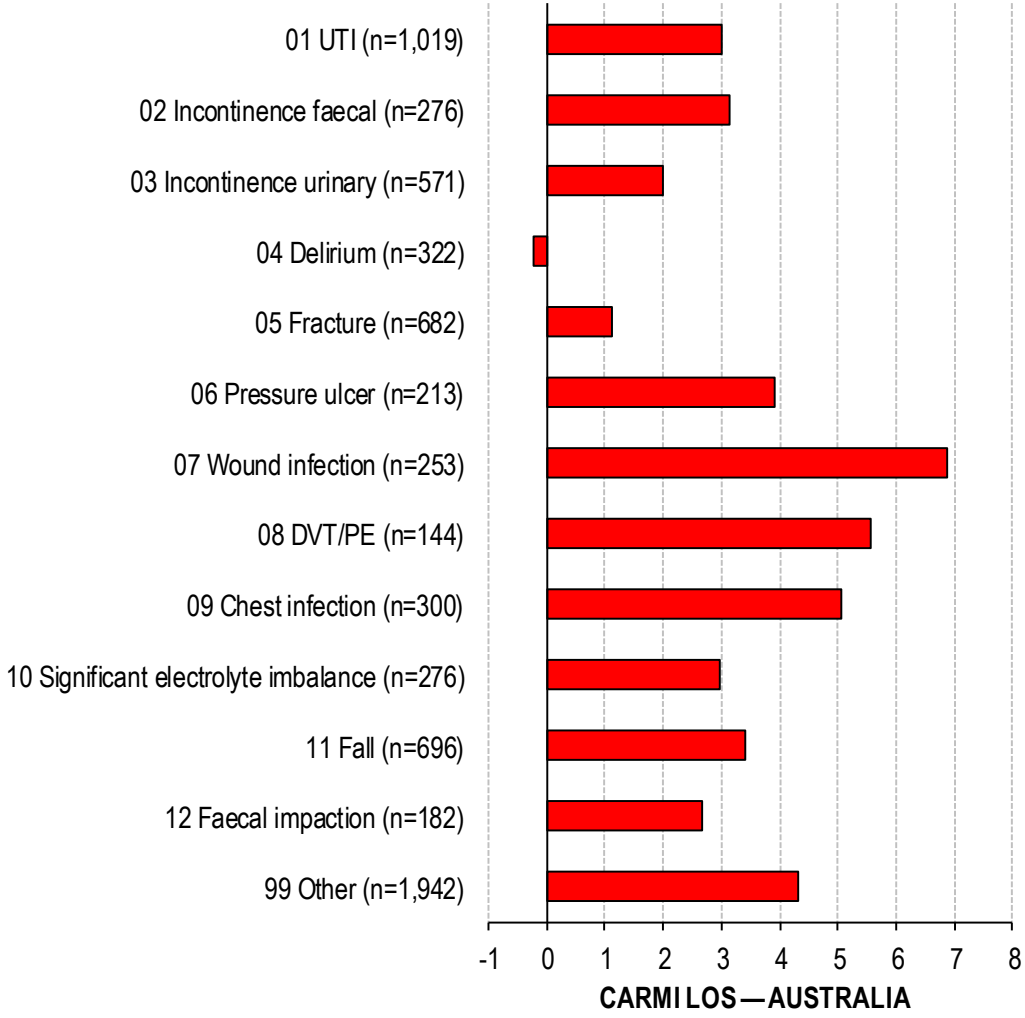
Casemix-adjusted relative mean LOS and FIM change by number of complications



NOTE: Includes only completed episodes with valid FIM scores and LOS; where n<5 the casemix-adjusted relative mean will not be shown

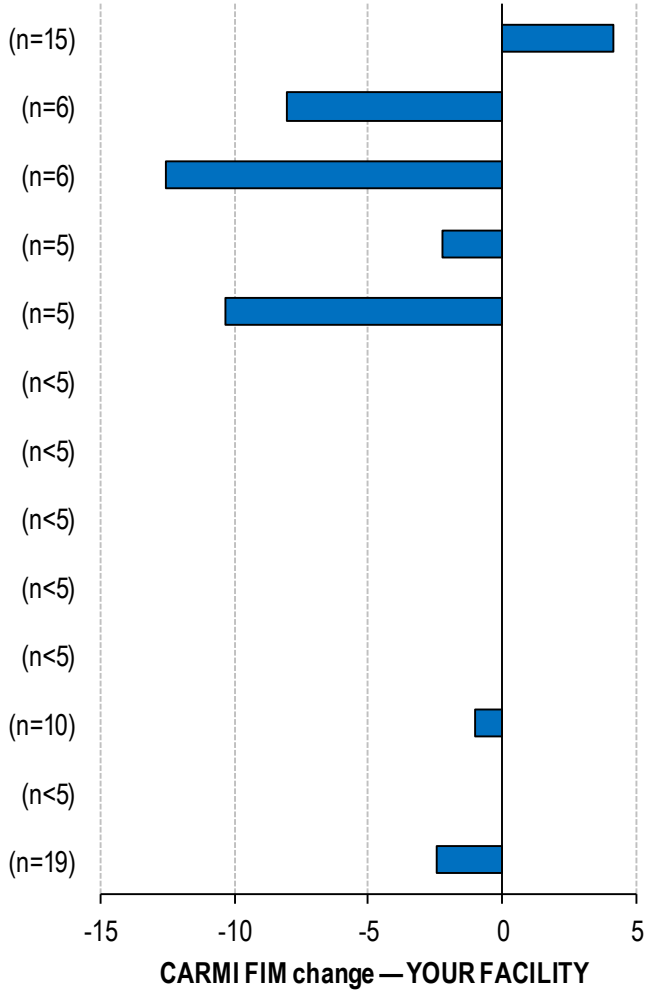
Casemix-adjusted relative mean length of stay by type of complication

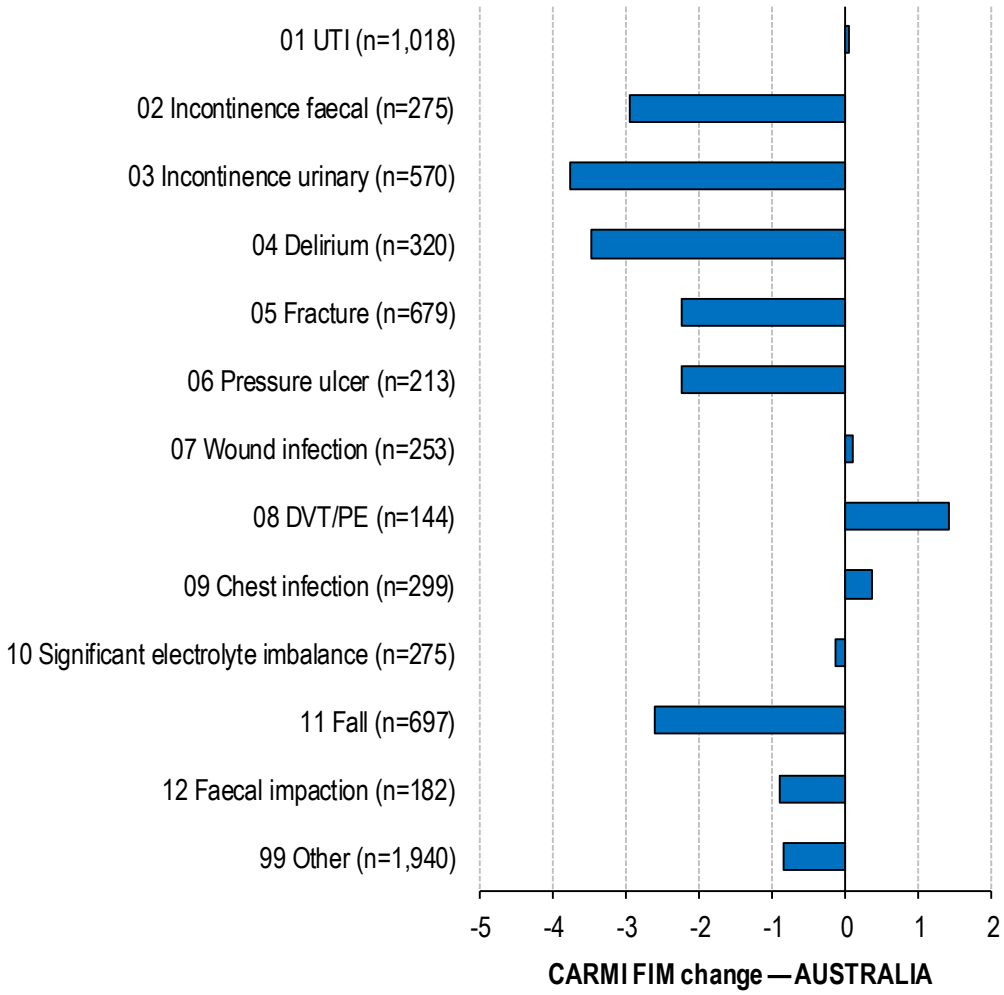




* No data included where number of episodes <5
NOTE: Includes only completed episodes with valid LOS

Casemix-adjusted relative mean FIM change by type of complication

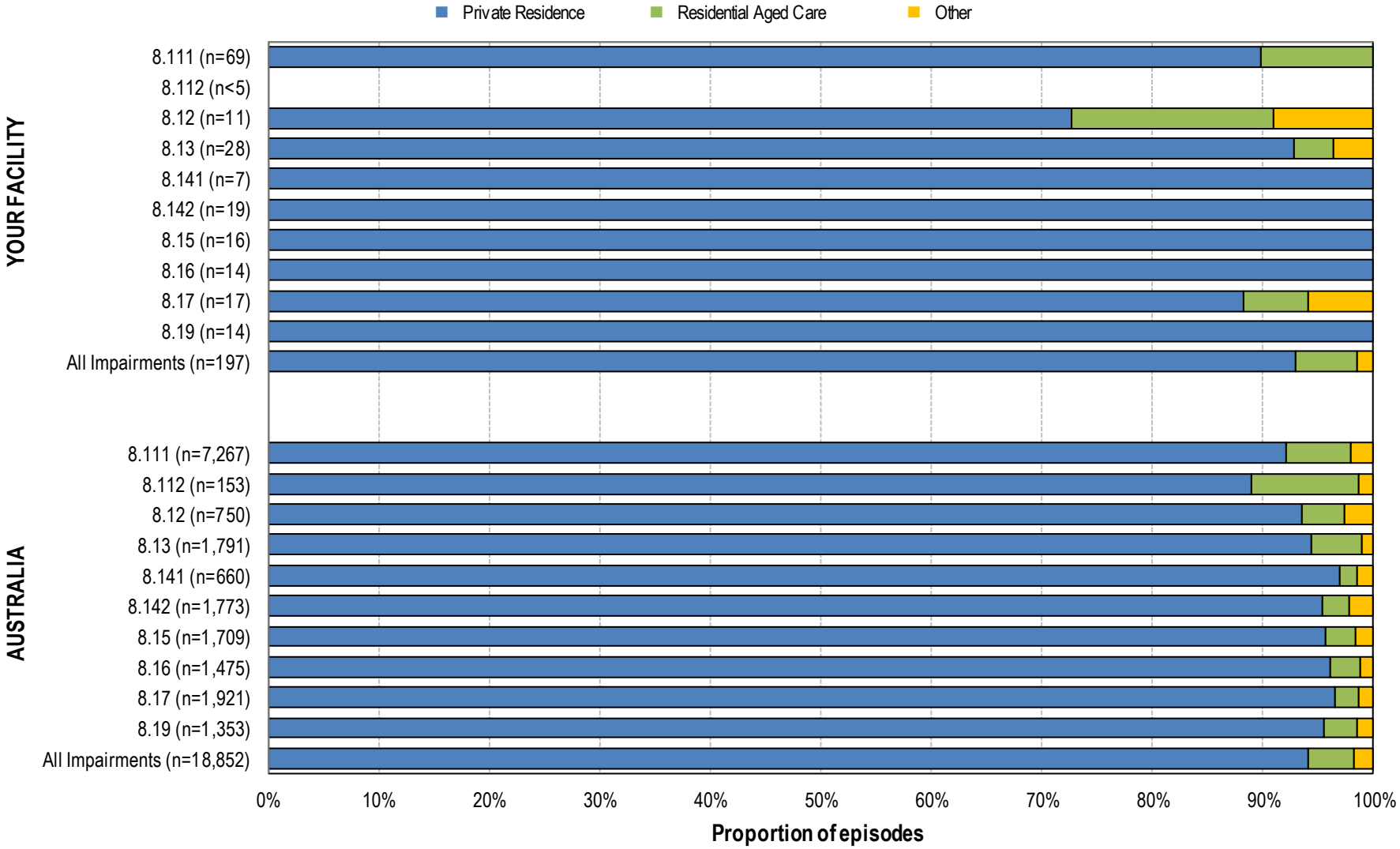




* No data included where number of episodes <5

NOTE: Includes only completed episodes with valid FIM scores

Type of accommodation prior to impairment

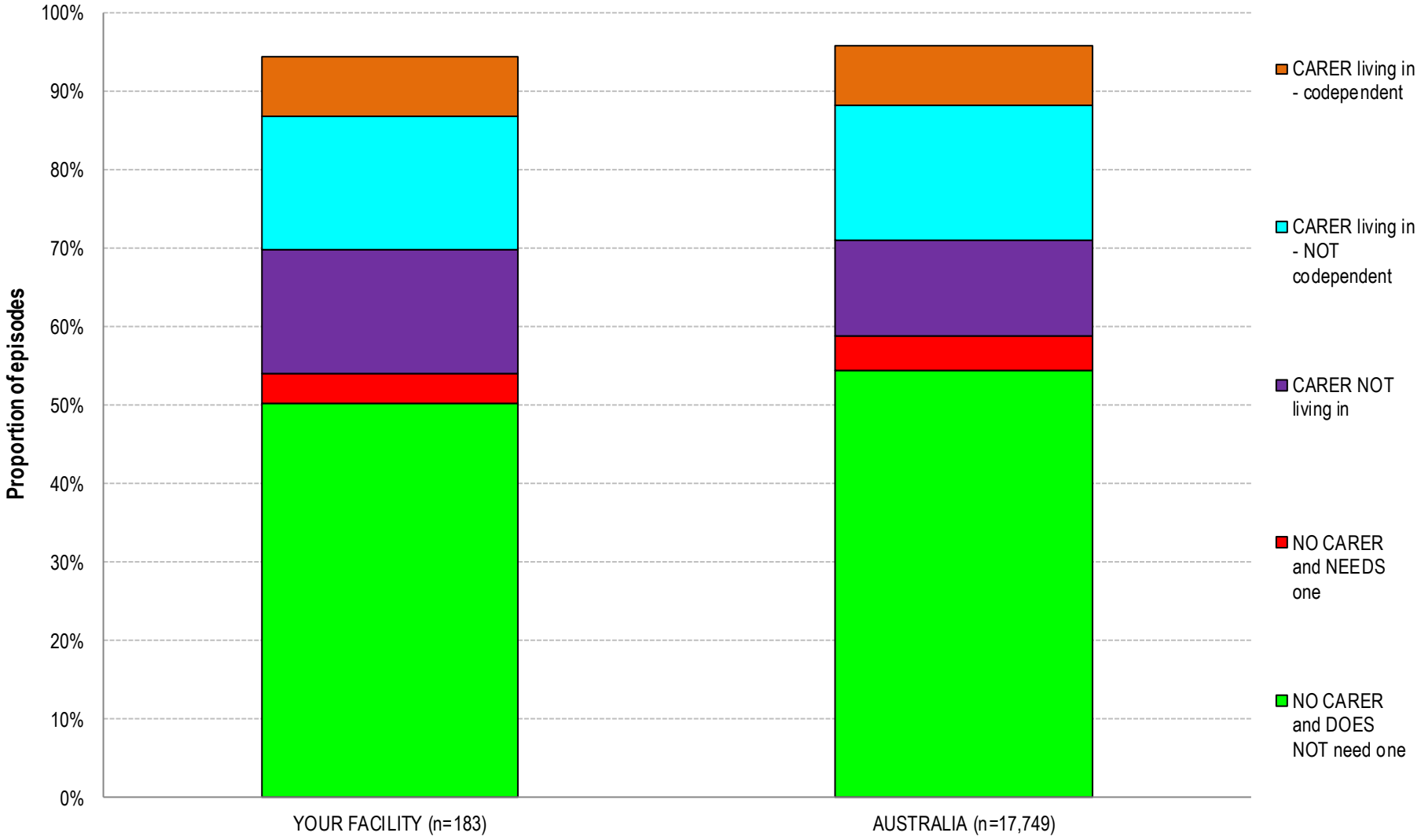


Type of accommodation prior to impairment

Impairment	YOUR FACILITY — N (%)				
	Private residence	Residential Aged Care	Other	Unknown	All episodes
8.111 Fracture of hip, unilateral	62 (88.6%)	7 (10.0%)	0 (0.0%)	1	70 (100.0%)
8.112 Fracture of hip, bilateral	2 (100.0%)	0 (0.0%)	0 (0.0%)	0	2 (100.0%)
8.12 Fracture of shaft of femur	8 (72.7%)	2 (18.2%)	1 (9.1%)	0	11 (100.0%)
8.13 Fracture of pelvis	26 (92.9%)	1 (3.6%)	1 (3.6%)	0	28 (100.0%)
8.141 Fracture of knee	7 (100.0%)	0 (0.0%)	0 (0.0%)	0	7 (100.0%)
8.142 Fracture of leg, ankle, foot	19 (95.0%)	0 (0.0%)	0 (0.0%)	1	20 (100.0%)
8.15 Fracture of upper limb	16 (100.0%)	0 (0.0%)	0 (0.0%)	0	16 (100.0%)
8.16 Fracture of spine	14 (100.0%)	0 (0.0%)	0 (0.0%)	0	14 (100.0%)
8.17 Fracture of multiple sites	15 (88.2%)	1 (5.9%)	1 (5.9%)	0	17 (100.0%)
8.19 Other orthopaedic fracture	14 (100.0%)	0 (0.0%)	0 (0.0%)	0	14 (100.0%)
All Orthopaedic Fractures	**183 (92.0%)**	**11 (5.5%)**	**3 (1.5%)**	**2**	**199 (100.0%)**

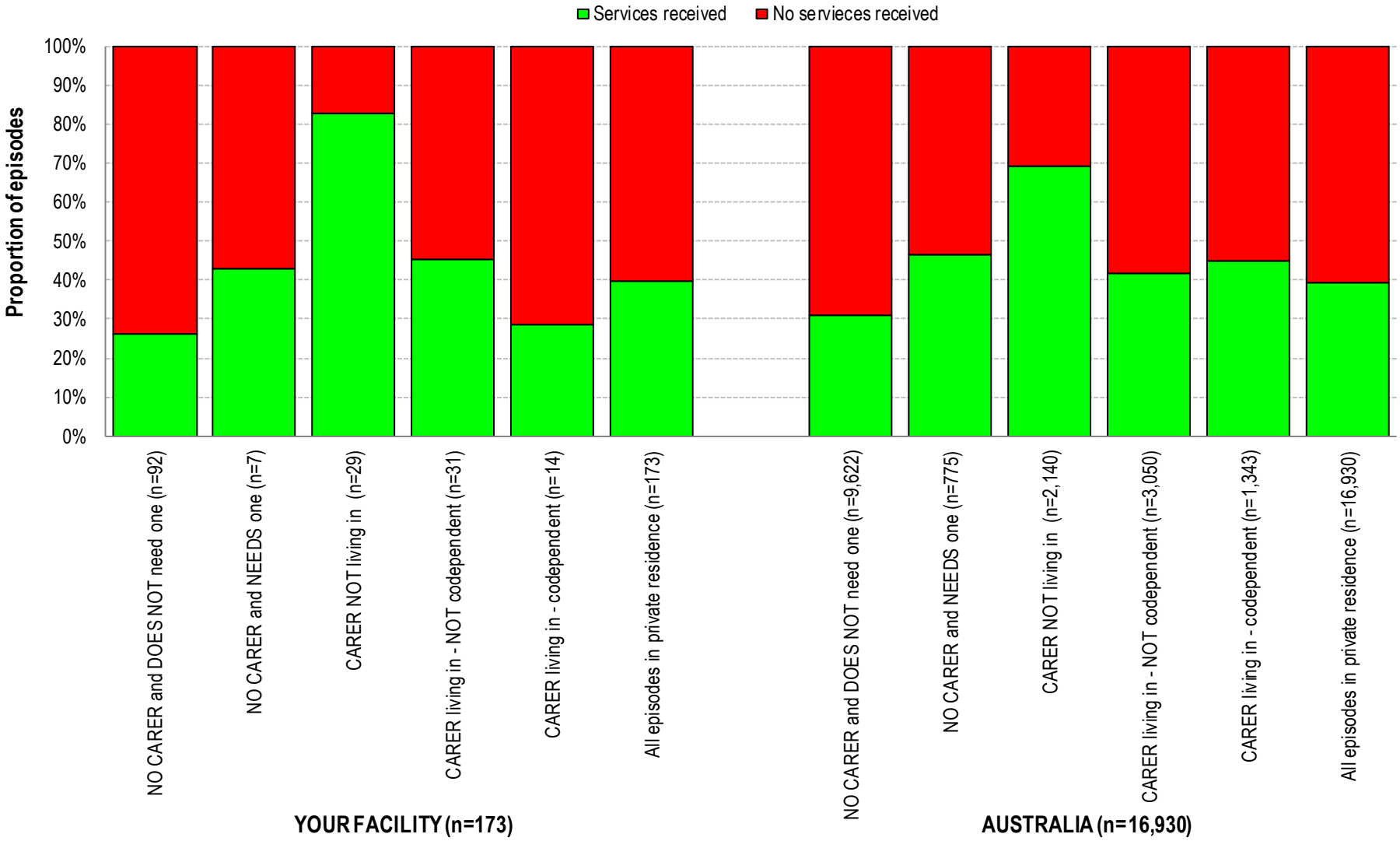
Impairment	AUSTRALIA — N (%)				
	Private residence	Residential Aged Care	Other	Unknown	All episodes
8.111 Fracture of hip, unilateral	6,696 (90.6%)	419 (5.7%)	152 (2.1%)	122	7,389 (100.0%)
8.112 Fracture of hip, bilateral	136 (88.9%)	15 (9.8%)	2 (1.3%)	0	153 (100.0%)
8.12 Fracture of shaft of femur	701 (92.4%)	29 (3.8%)	20 (2.6%)	9	759 (100.0%)
8.13 Fracture of pelvis	1,689 (92.2%)	84 (4.6%)	18 (1.0%)	41	1,832 (100.0%)
8.141 Fracture of knee	640 (95.2%)	10 (1.5%)	10 (1.5%)	12	672 (100.0%)
8.142 Fracture of leg, ankle, foot	1,691 (93.6%)	42 (2.3%)	40 (2.2%)	34	1,807 (100.0%)
8.15 Fracture of upper limb	1,634 (94.2%)	48 (2.8%)	27 (1.6%)	25	1,734 (100.0%)
8.16 Fracture of spine	1,417 (94.8%)	40 (2.7%)	18 (1.2%)	20	1,495 (100.0%)
8.17 Fracture of multiple sites	1,853 (95.0%)	41 (2.1%)	27 (1.4%)	30	1,951 (100.0%)
8.19 Other orthopaedic fracture	1,293 (94.5%)	39 (2.9%)	21 (1.5%)	15	1,368 (100.0%)
All Orthopaedic Fractures	**17,750 (92.6%)**	**767 (4.0%)**	**335 (1.7%)**	**308**	**19,160 (100.0%)**

Carer status prior to impairment



NOTE: Includes only those episodes coming from private residence

Any services received prior to impairment by carer status



NOTE: Includes only those episodes coming from private residence and with known carer status and known services status

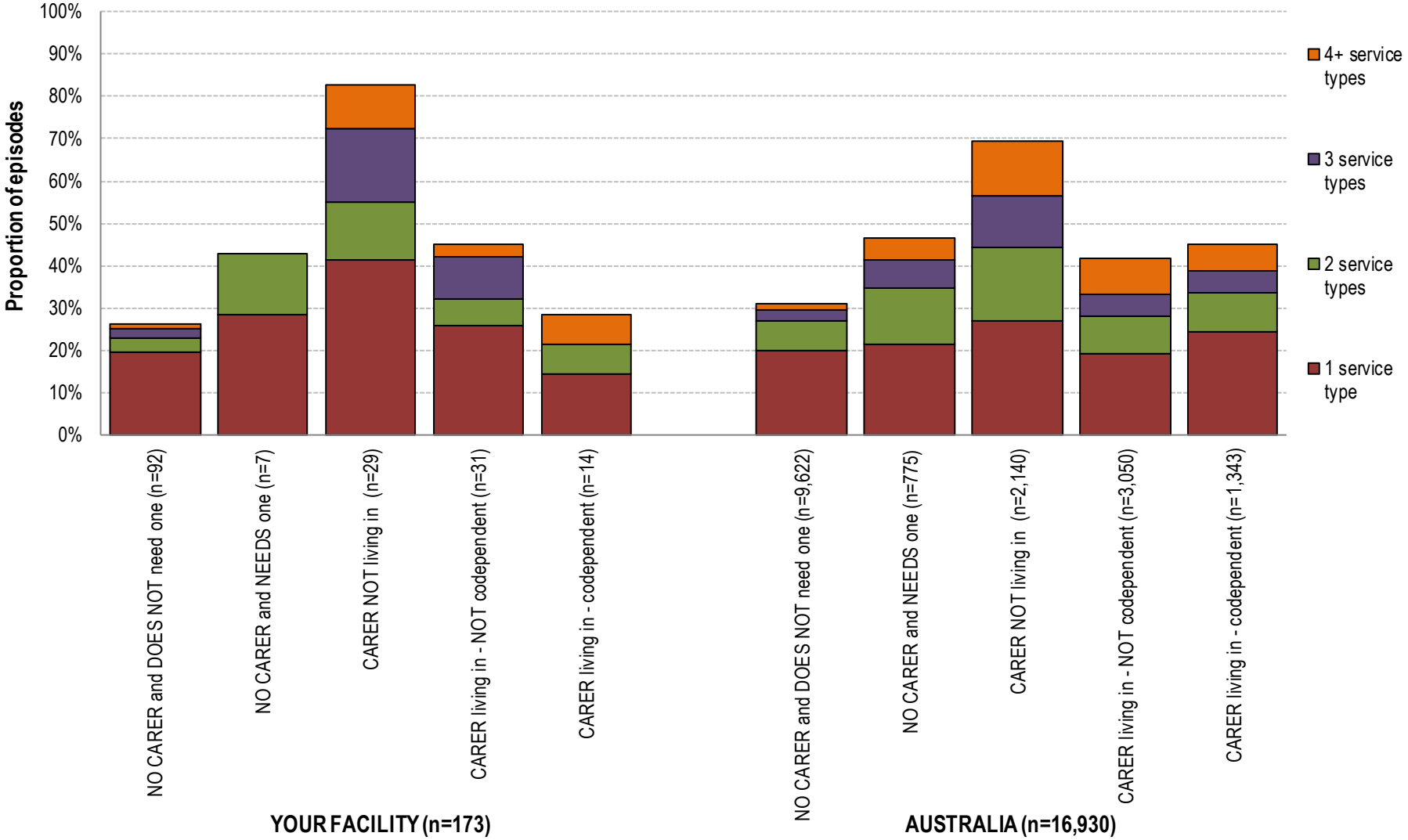
Carer status and any services received prior to impairment

Carer status prior to this impairment	YOUR FACILITY No.	YOUR FACILITY %	AUSTRALIA No.	AUSTRALIA %
NO CARER and DOES NOT need one	92	53.2	9,677	56.9
NO CARER and NEEDS one	7	4.0	776	4.6
CARER NOT living in	29	16.8	2,142	12.6
CARER living in - NOT codependent	31	17.9	3,064	18.0
CARER living in - codependent	14	8.1	1,348	7.9
Missing	10		742	
All episodes in private residence	**183**	**100.0**	**17,749**	**100.0**

	Any services received prior to this impairment?			
	YOUR FACILITY		AUSTRALIA	
Carer status prior to this impairment	**Yes (%)**	**No (%)**	**Yes (%)**	**No (%)**
NO CARER and DOES NOT need one	26.1	73.9	30.9	69.1
NO CARER and NEEDS one	42.9	57.1	46.6	53.4
CARER NOT living in	82.8	17.2	69.3	30.7
CARER living in - NOT codependent	45.2	54.8	41.6	58.4
CARER living in - codependent	28.6	71.4	44.9	55.1
All episodes in private residence	**39.9**	**60.1**	**39.5**	**60.5**

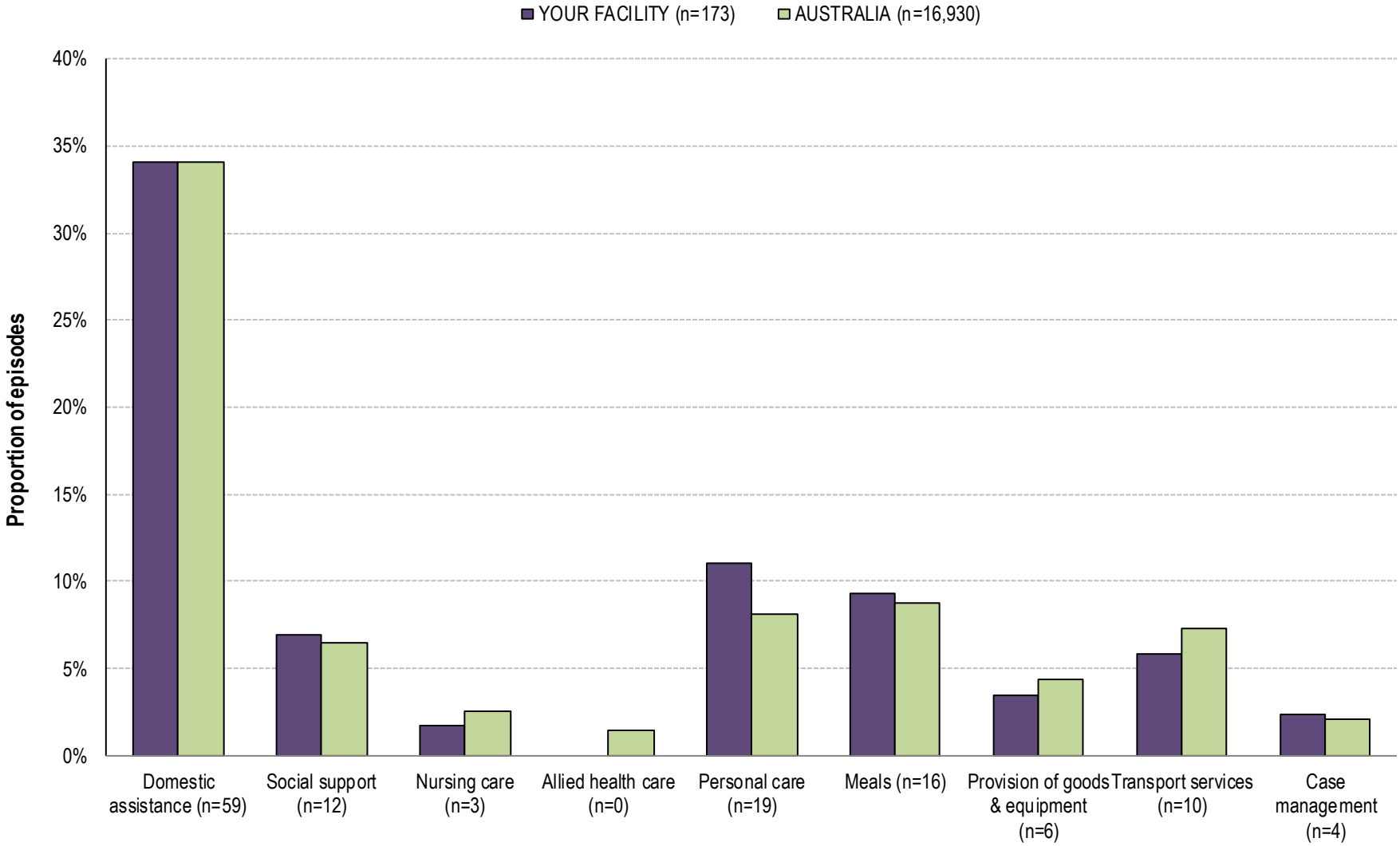
NOTE: Includes only those episodes coming from private residence and with known carer status

Number of services received prior to impairment by carer status



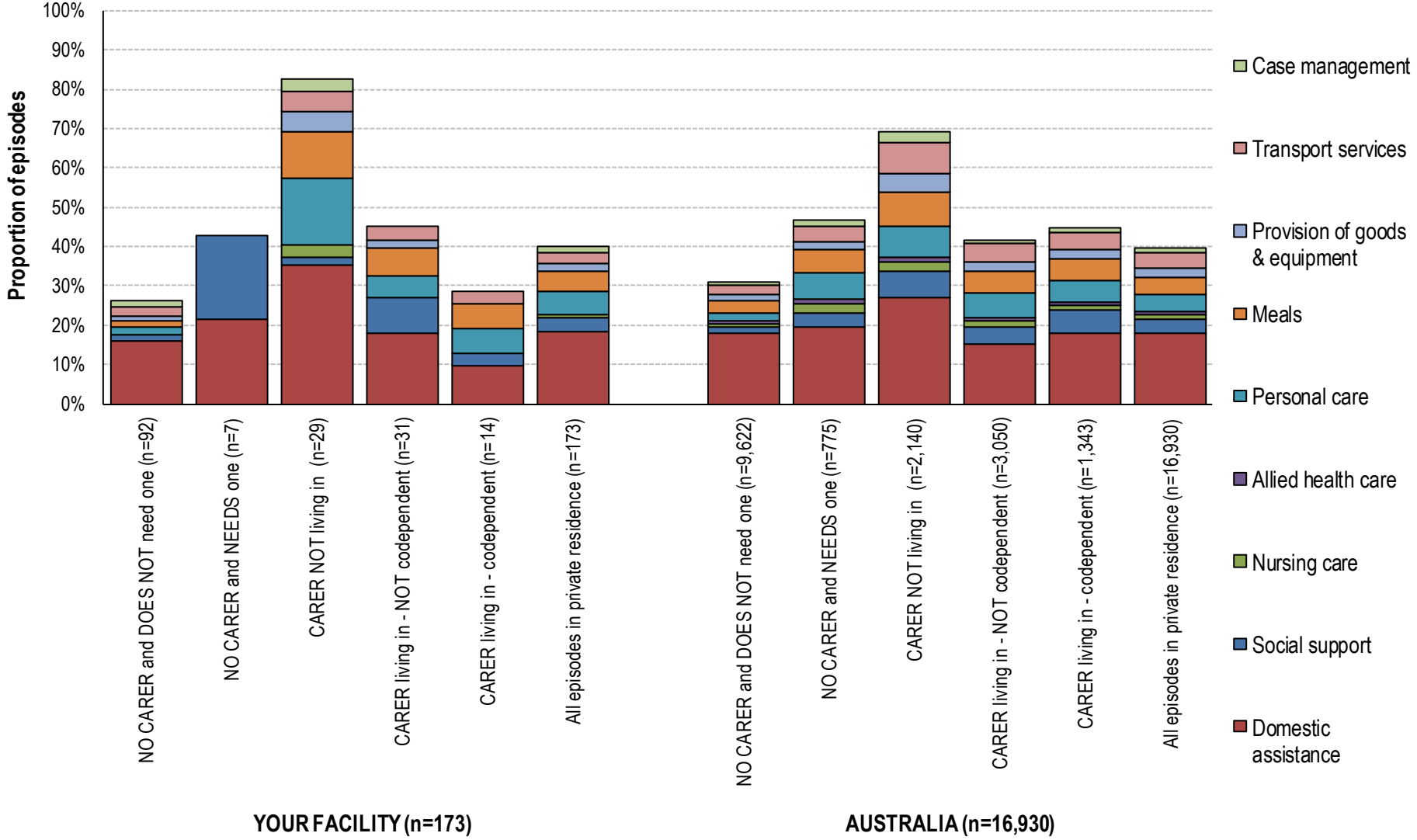
NOTE: Includes only those episodes coming from private residence and with known carer status and known services status

Type of services received prior to impairment



NOTE: Includes only those episodes coming from private residence and with known carer status and known services status

Type of services received prior to impairment by carer status



NOTE: Includes only those episodes coming from private residence and with known carer status and known services status

Number and type of services received prior to impairment by carer status

Services received prior to this impairment (NOTE: Accommodation prior is private residence)	Carer status prior to 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	92	7	29	31	14	**173**
Percent of episodes receiving:						
No services	73.9	57.1	17.2	54.8	71.4	**60.1**
1 service type	19.6	28.6	41.4	25.8	14.3	**24.3**
2 service types	3.3	14.3	13.8	6.5	7.1	**6.4**
3 service types	2.2	0.0	17.2	9.7	0.0	**5.8**
4 or more service types	1.1	0.0	10.3	3.2	7.1	**3.5**
Service Type received						
Domestic assistance	23.9	28.6	72.4	32.3	21.4	**33.5**
Social support	2.2	28.6	3.4	16.1	7.1	**6.4**
Nursing care	0.0	0.0	6.9	0.0	0.0	**1.2**
Allied health care	0.0	0.0	0.0	0.0	0.0	**0.0**
Personal care	3.3	0.0	34.5	9.7	14.3	**10.4**
Meals	2.2	0.0	24.1	12.9	14.3	**8.7**
Provision of goods & equipment	2.2	0.0	10.3	3.2	0.0	**3.5**
Transport services	3.3	0.0	10.3	6.5	7.1	**5.2**
Case management	2.2	0.0	6.9	0.0	0.0	**2.3**

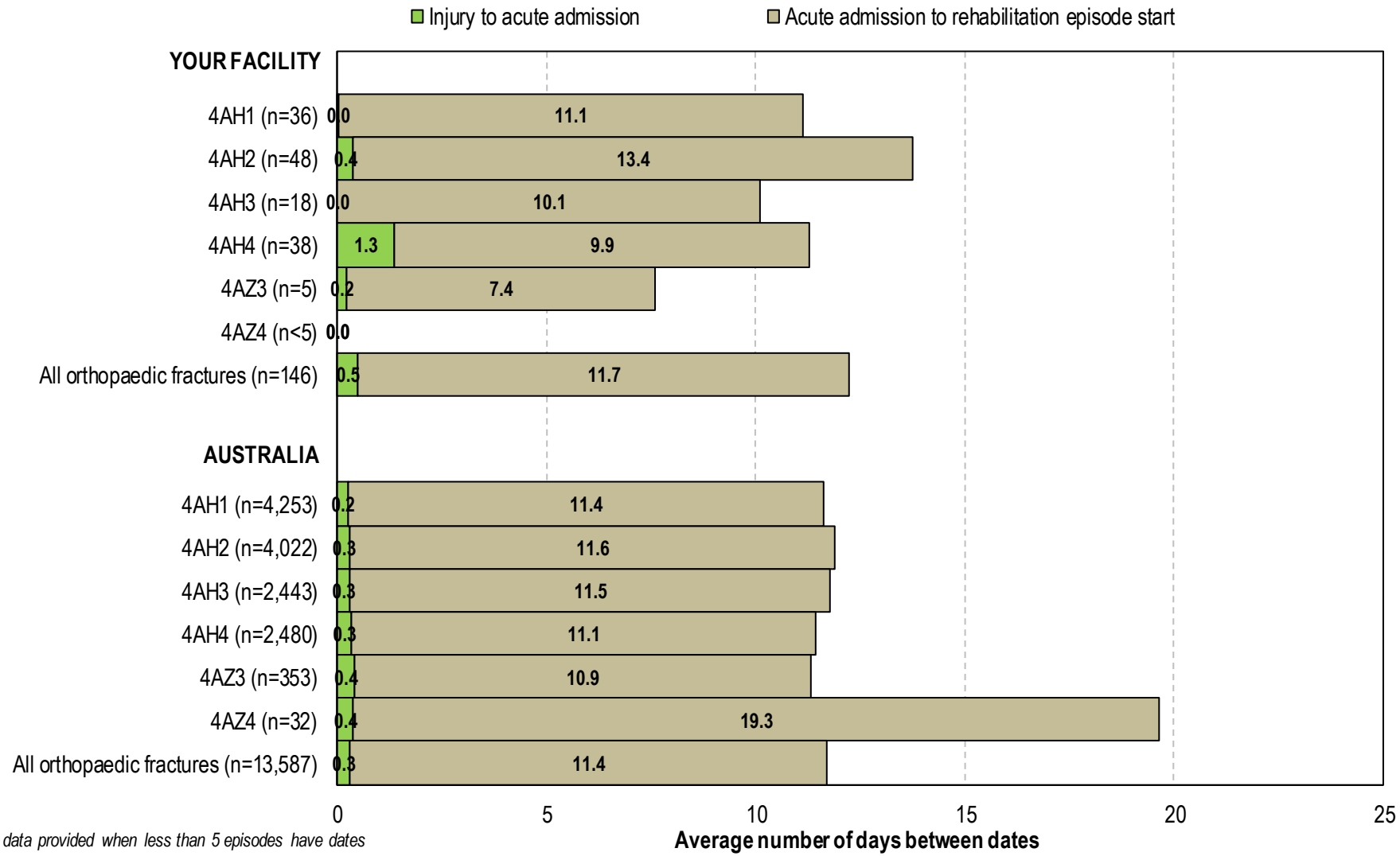
NOTE: Includes only those episodes coming from private residence and with known carer status and known services status

Number and type of services received prior to impairment by carer status

Services received prior to this impairment (NOTE: Accommodation prior is private residence)	Carer status prior to discharge - AUSTRALIA					
	NO CARER and DOES NOT need one	NO CARER and NEEDS one	CARER NOT living in	CARER living in - NOT codependent	CARER living in - codependent	All episodes in private residence
Number of episodes in private residence	9,622	775	2,140	3,050	1,343	**16,930**
Percent of episodes receiving:						
No services	69.1	53.4	30.7	58.4	55.1	**60.5**
1 service type	19.9	21.4	26.8	19.2	24.3	**21.1**
2 service types	7.0	13.4	17.7	8.8	9.3	**9.1**
3 service types	2.8	6.6	12.1	5.4	5.2	**4.8**
4 or more service types	1.2	5.2	12.8	8.2	6.0	**4.5**
Service Type received						
Domestic assistance	27.6	38.2	61.6	33.4	34.8	**34.0**
Social support	2.6	6.5	14.9	10.1	11.5	**6.4**
Nursing care	1.4	4.9	5.6	3.5	2.6	**2.5**
Allied health care	1.0	2.5	2.5	1.8	1.6	**1.4**
Personal care	3.2	12.8	18.1	14.1	10.6	**8.1**
Meals	4.6	12.0	19.8	12.4	10.5	**8.7**
Provision of goods & equipment	2.8	3.2	10.5	4.7	4.8	**4.3**
Transport services	3.6	7.7	18.1	10.3	8.9	**7.2**
Case management	0.9	3.0	6.6	2.0	2.2	**2.0**

NOTE: Includes only those episodes coming from private residence and with known carer status and known services status

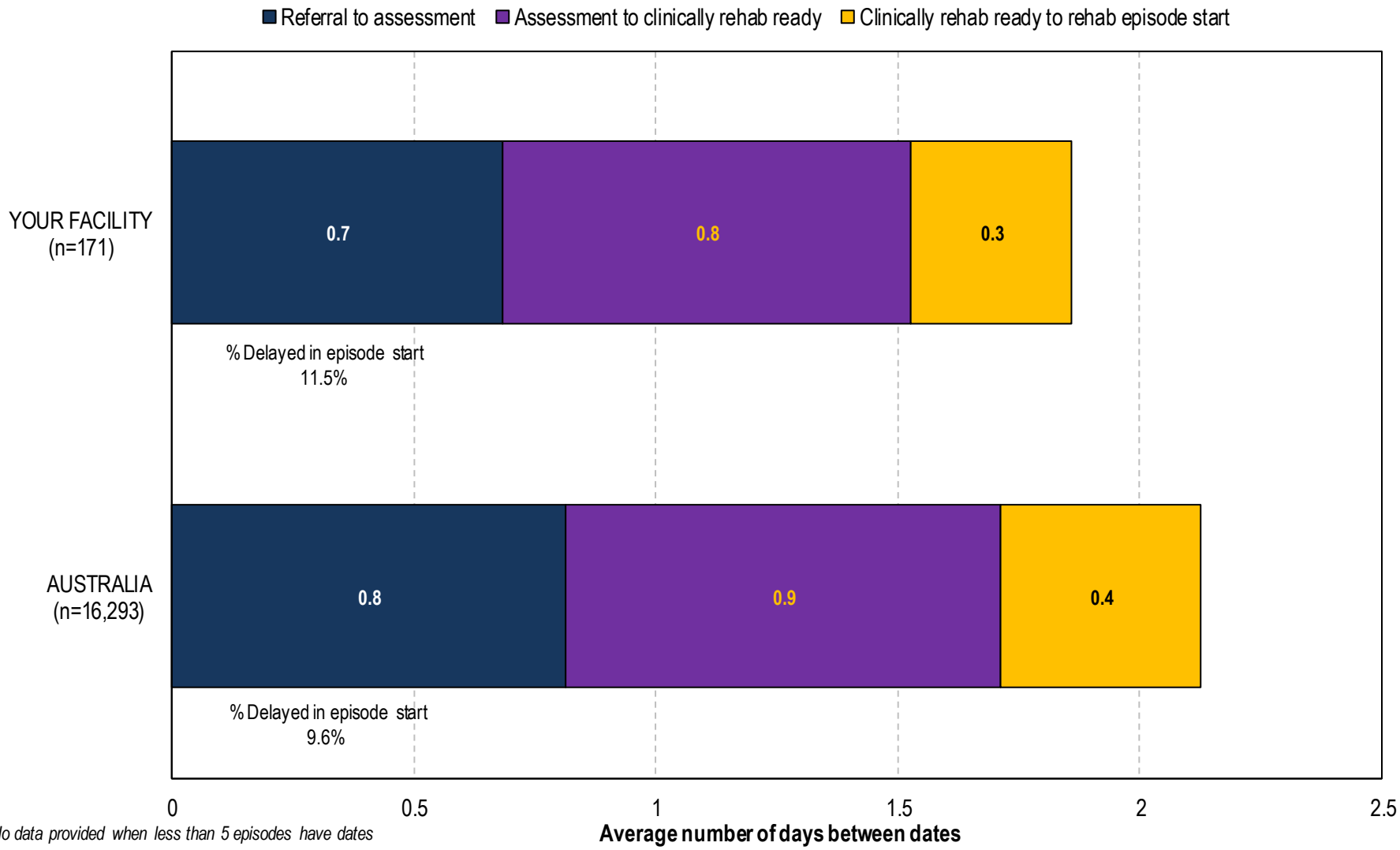
Days from injury to episode start with an acute admission by AN-SNAP class



*No data provided when less than 5 episodes have dates

NOTE: Includes first admissions where all dates have been entered only

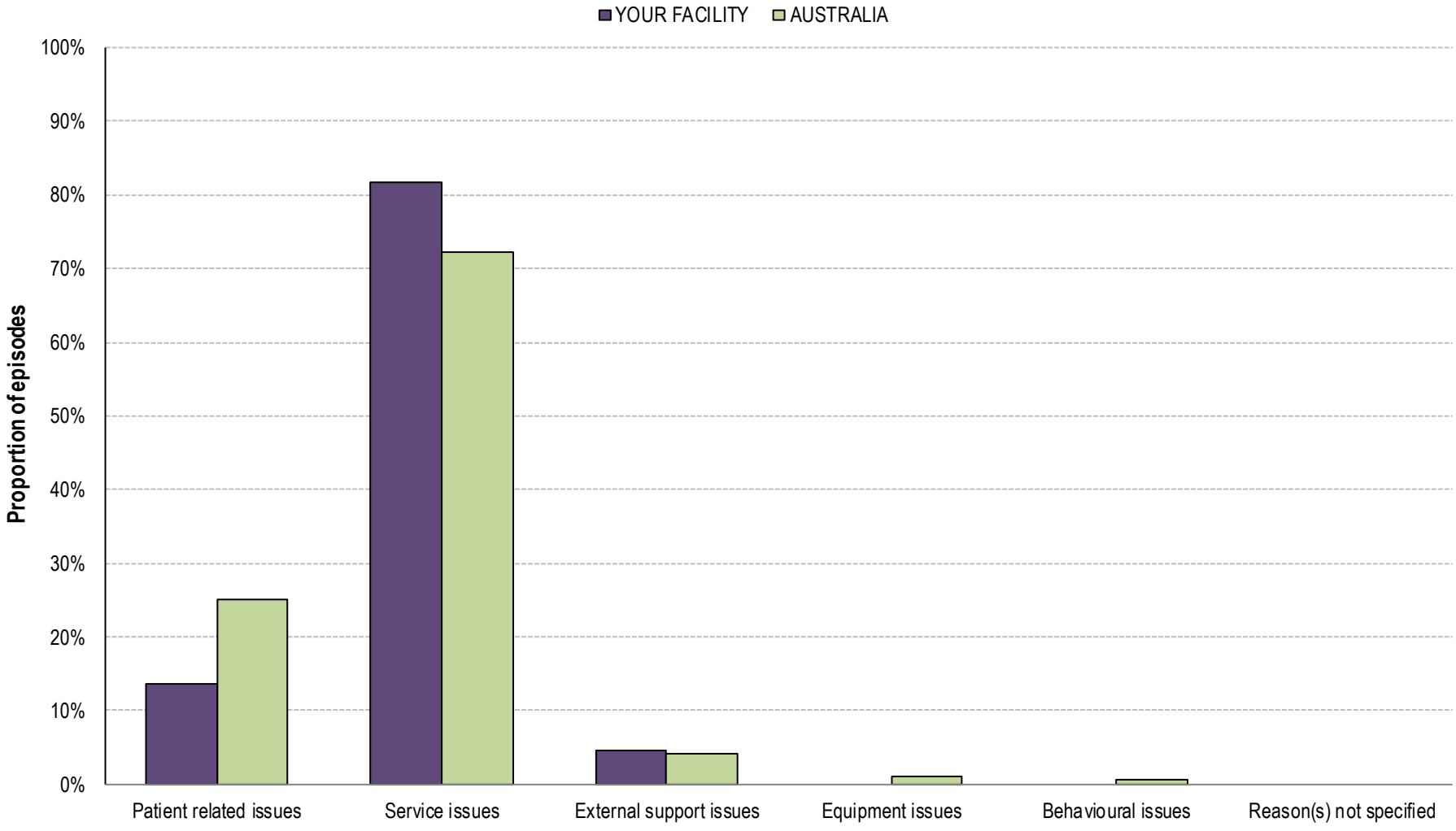
Days from referral to rehabilitation episode start



*No data provided when less than 5 episodes have dates

NOTE: Includes first admissions where all dates have been entered only

Type of delay in episode start

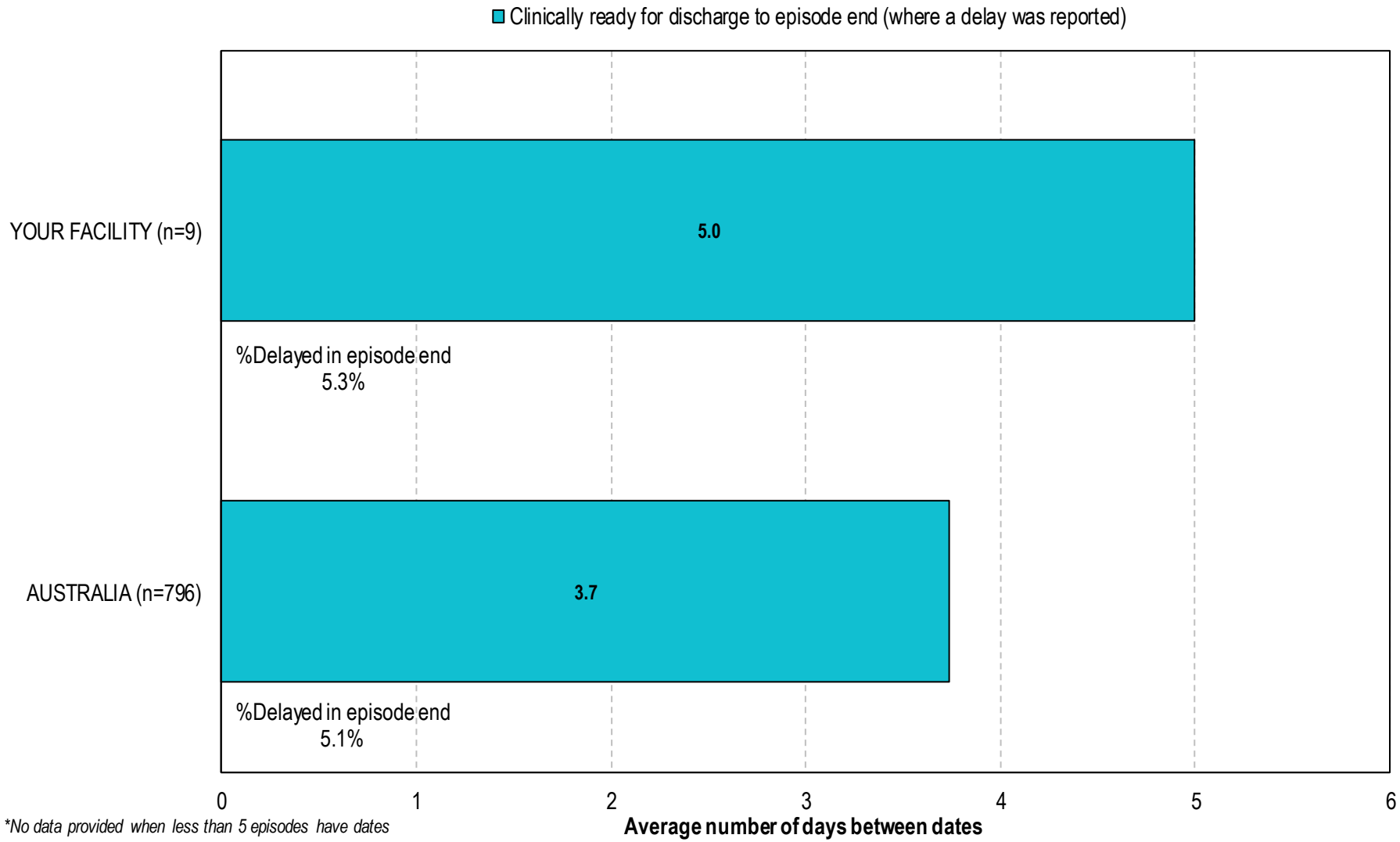


Delays in episode start

Delay in episode start	YOUR FACILITY		AUSTRALIA	
	No.	%	No.	%
No delay	170	88.5	16,598	90.4
Delay in episode start	22	11.5	1,754	9.6
Missing	7		808	
All episodes	**199**	**100.0**	**19,160**	**100.0**

Reasons for delay in episode start	YOUR FACILITY		AUSTRALIA	
	No.	%	No.	%
Patient related issues	3	13.6	441	25.1
Service issues	18	81.8	1,268	72.3
External support issues	1	4.5	72	4.1
Equipment issues	0	0.0	16	0.9
Behavioural issues	0	0.0	11	0.6
Reason(s) not specified	0	0.0	0	0.0

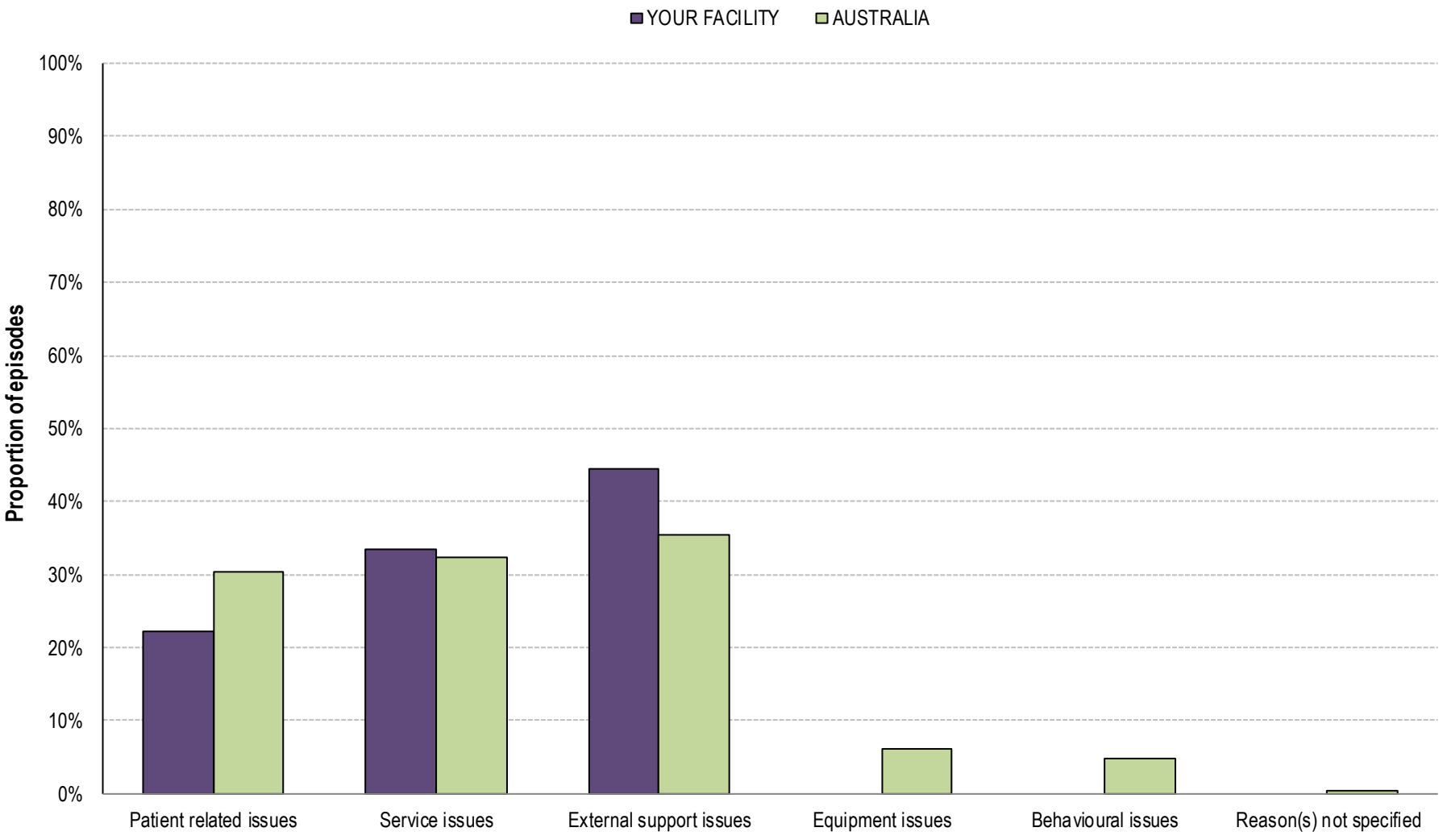
Days from clinically ready to discharge



*No data provided when less than 5 episodes have dates

NOTE: Includes completed episodes with a delay in discharge

Type of delay in episode end



NOTE: Includes completed episodes only

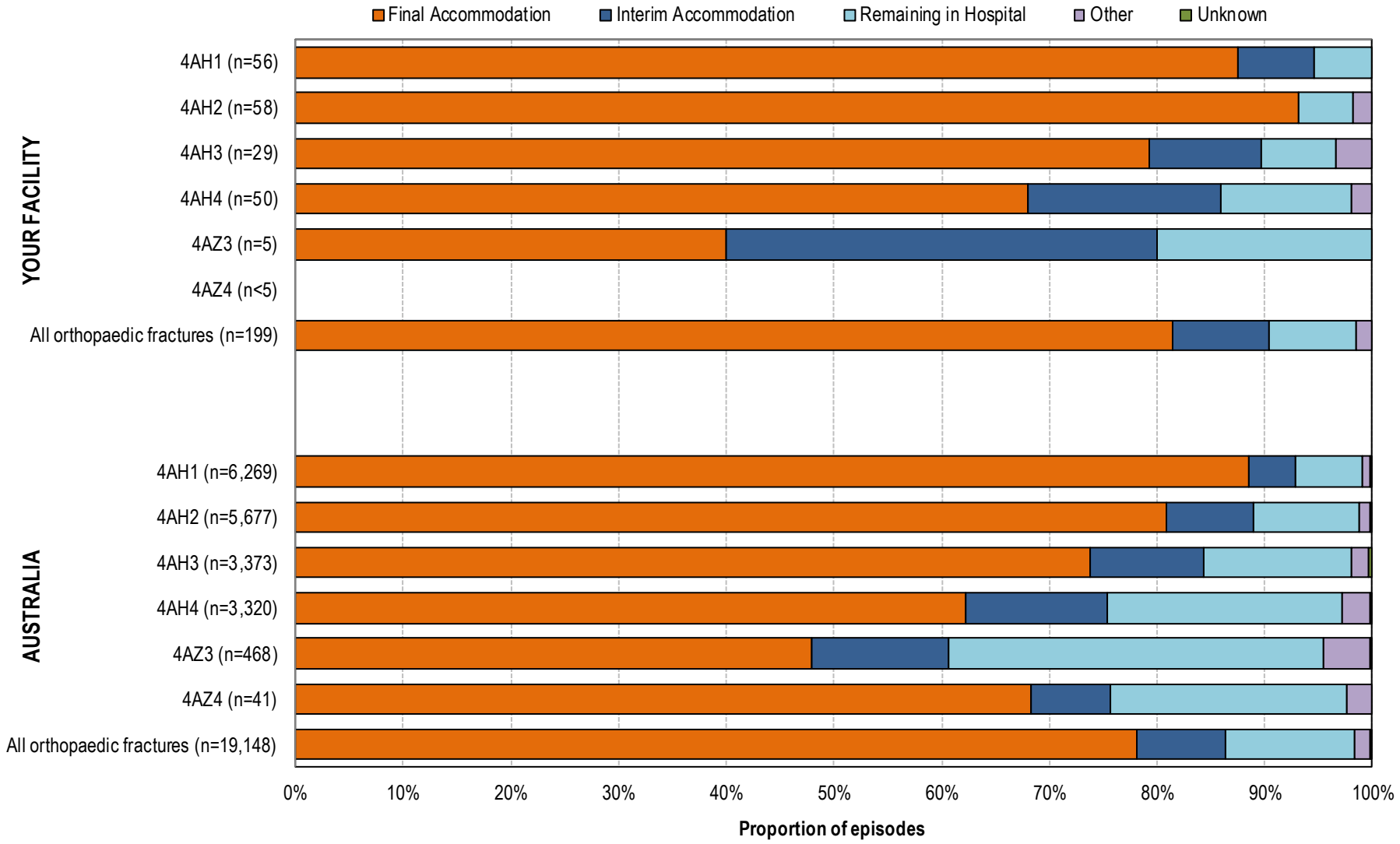
Delays in episode end

Delay in episode end	YOUR FACILITY		AUSTRALIA	
	No.	%	No.	%
No delay	162	94.7	15,003	94.9
Delay in episode end	9	5.3	812	5.1
Missing	12		1,016	
All episodes	**183**	**100.0**	**16,831**	**100.0**

Reasons for delay in episode end	YOUR FACILITY		AUSTRALIA	
	No.	%	No.	%
Patient related issues	2	22.2	247	30.4
Service issues	3	33.3	263	32.4
External support issues	4	44.4	287	35.3
Equipment issues	0	0.0	50	6.2
Behavioural issues	0	0.0	38	4.7
Reason(s) not specified	0	0.0	2	0.2

NOTE: Includes completed episodes only

Mode of episode end by AN-SNAP class

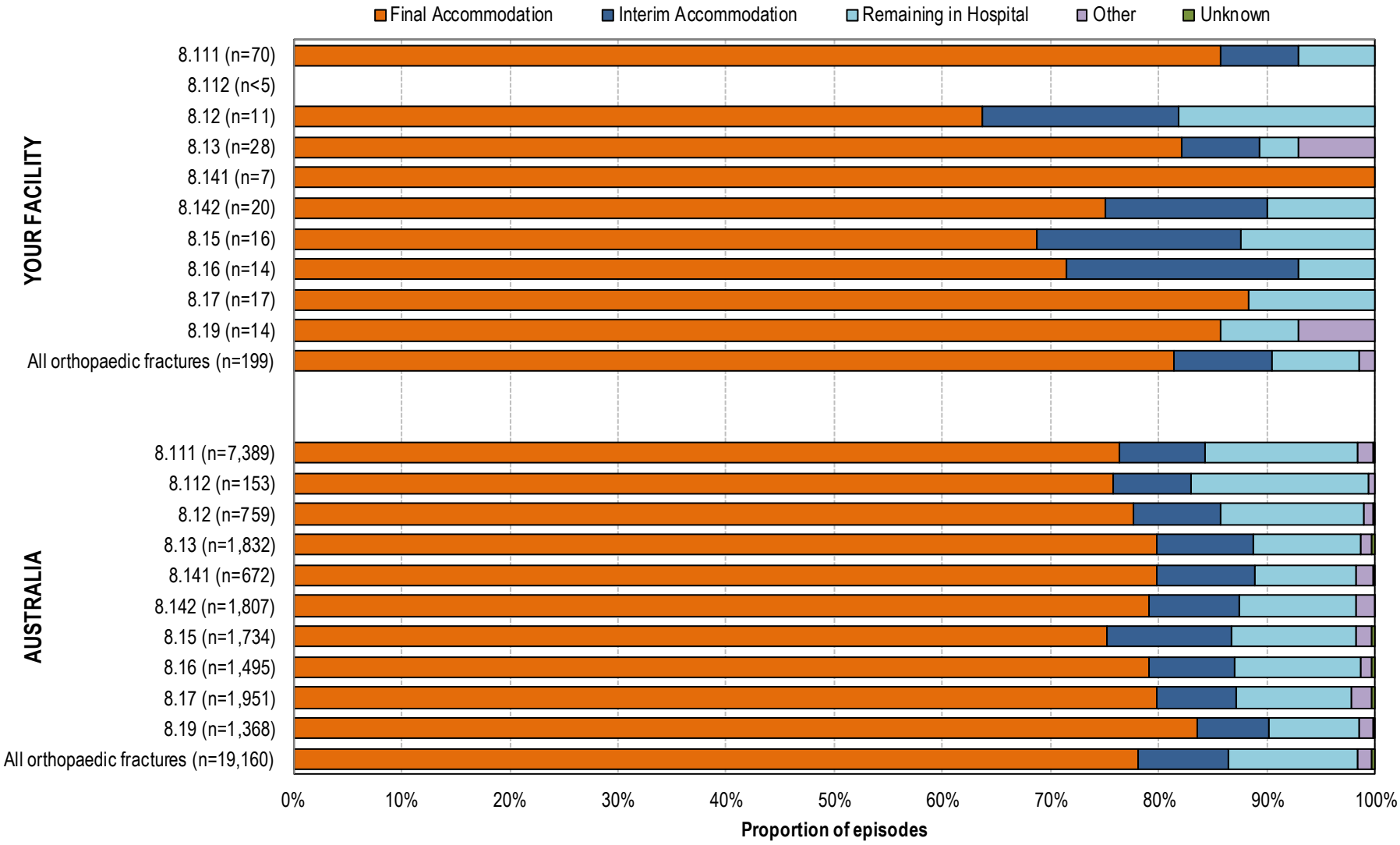


Mode of episode end by AN-SNAP class

	YOUR FACILITY — N					AUSTRALIA — N				
AN-SNAP class V4	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown
4AH1 (motor 49-91, cognition 33-35)	49	4	3	0	0	5,551	275	387	43	13
4AH2 (motor 49-91, cognition 5-32)	54	0	3	1	0	4,594	454	560	55	14
4AH3 (motor 38-48)	23	3	2	1	0	2,490	356	462	51	14
4AH4 (motor 19-37)	34	9	6	1	0	2,068	437	721	86	8
4AZ3 (motor 13-18, Age ≥ 65)	2	2	1	0	0	224	60	163	20	1
4AZ4 (motor 13-18, Age ≤ 64)	0	0	1	0	0	28	3	9	1	0
All Fracture AN-SNAP classes	**162**	**18**	**16**	**3**	**0**	**14,955**	**1,585**	**2,302**	**256**	**50**

	YOUR FACILITY — %					AUSTRALIA — %				
AN-SNAP class V4	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown
4AH1 (motor 49-91, cognition 33-35)	87.5	7.1	5.4	0.0	0.0	88.5	4.4	6.2	0.7	0.2
4AH2 (motor 49-91, cognition 5-32)	93.1	0.0	5.2	1.7	0.0	80.9	8.0	9.9	1.0	0.2
4AH3 (motor 38-48)	79.3	10.3	6.9	3.4	0.0	73.8	10.6	13.7	1.5	0.4
4AH4 (motor 19-37)	68.0	18.0	12.0	2.0	0.0	62.3	13.2	21.7	2.6	0.2
4AZ3 (motor 13-18, Age ≥ 65)	40.0	40.0	20.0	0.0	0.0	47.9	12.8	34.8	4.3	0.2
4AZ4 (motor 13-18, Age ≤ 64)	0.0	0.0	100.0	0.0	0.0	68.3	7.3	22.0	2.4	0.0
All Fracture AN-SNAP classes	**81.4**	**9.0**	**8.0**	**1.5**	**0.0**	**78.1**	**8.3**	**12.0**	**1.3**	**0.3**

Mode of episode end by impairment code

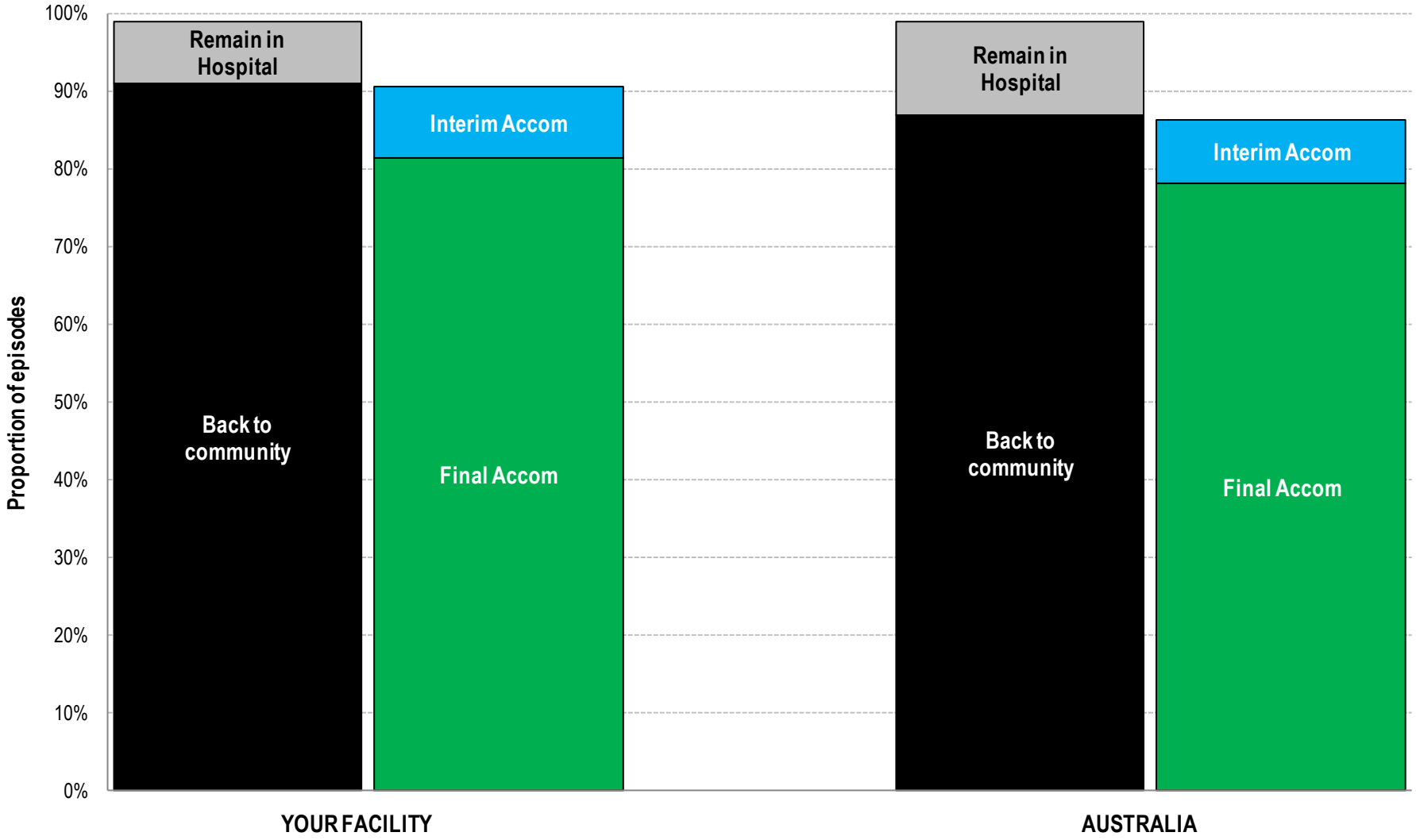


Mode of episode end by impairment code

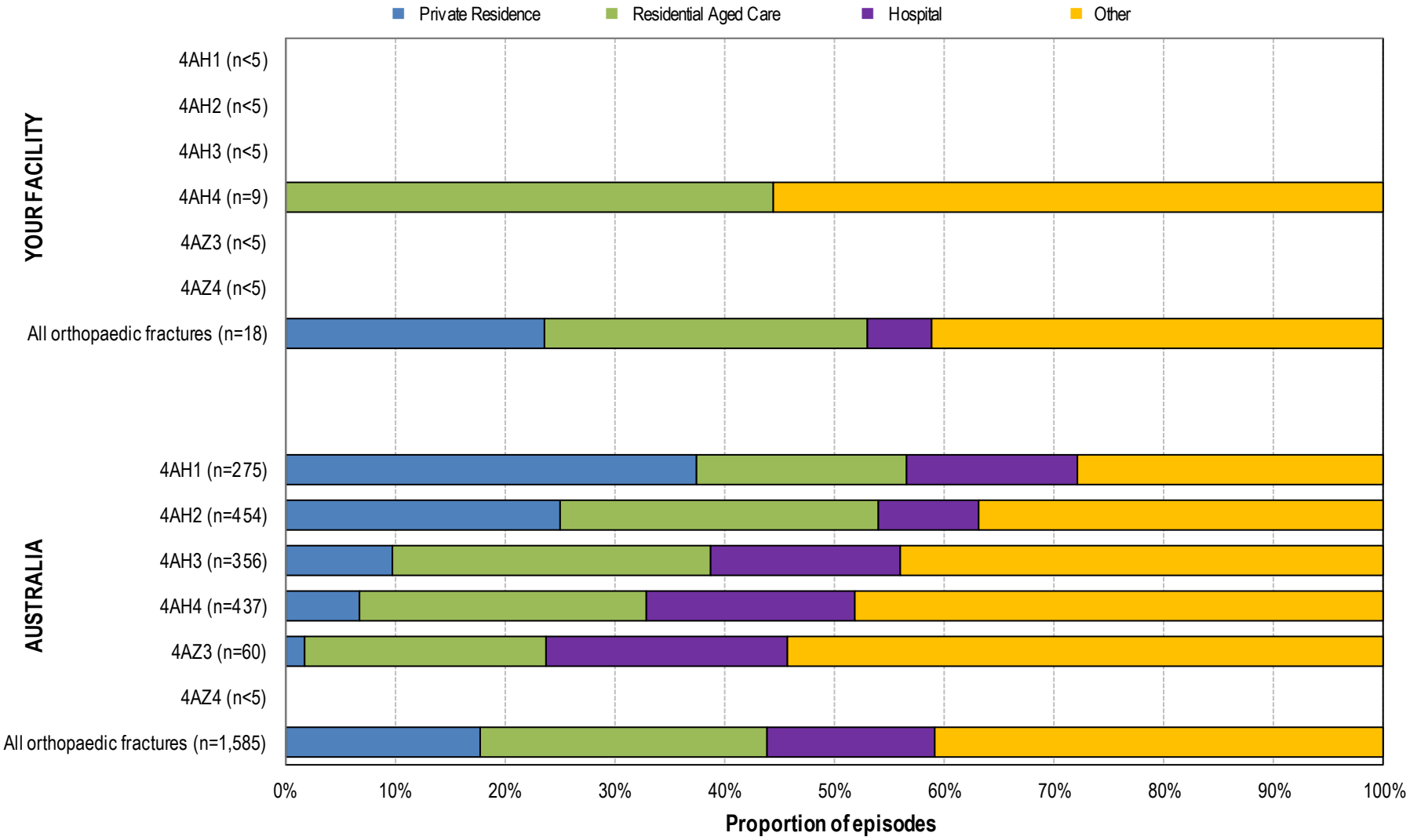
	YOUR FACILITY — N					AUSTRALIA — N				
Impairment	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown
8.111 Fracture of hip, unilateral	60	5	5	0	0	5,640	587	1,044	98	20
8.112 Fracture of hip, bilateral	2	0	0	0	0	116	11	25	1	0
8.12 Fracture of shaft of femur	7	2	2	0	0	589	61	101	7	1
8.13 Fracture of pelvis	23	2	1	2	0	1,461	164	181	20	6
8.141 Fracture of knee	7	0	0	0	0	536	61	63	11	1
8.142 Fracture of leg, ankle, foot	15	3	2	0	0	1,429	151	194	31	2
8.15 Fracture of upper limb	11	3	2	0	0	1,304	200	199	24	7
8.16 Fracture of spine	10	3	1	0	0	1,183	118	174	14	6
8.17 Fracture of multiple sites	15	0	2	0	0	1,557	142	210	34	8
8.19 Other orthopaedic fracture	12	0	1	1	0	1,143	91	114	17	3
All Orthopaedic Fractures	**162**	**18**	**16**	**3**	**0**	**14,958**	**1,586**	**2,305**	**257**	**54**

	YOUR FACILITY — %					AUSTRALIA — %				
Impairment	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown
8.111 Fracture of hip, unilateral	85.7	7.1	7.1	0.0	0.0	76.3	7.9	14.1	1.3	0.3
8.112 Fracture of hip, bilateral	100.0	0.0	0.0	0.0	0.0	75.8	7.2	16.3	0.7	0.0
8.12 Fracture of shaft of femur	63.6	18.2	18.2	0.0	0.0	77.6	8.0	13.3	0.9	0.1
8.13 Fracture of pelvis	82.1	7.1	3.6	7.1	0.0	79.7	9.0	9.9	1.1	0.3
8.141 Fracture of knee	100.0	0.0	0.0	0.0	0.0	79.8	9.1	9.4	1.6	0.1
8.142 Fracture of leg, ankle, foot	75.0	15.0	10.0	0.0	0.0	79.1	8.4	10.7	1.7	0.1
8.15 Fracture of upper limb	68.8	18.8	12.5	0.0	0.0	75.2	11.5	11.5	1.4	0.4
8.16 Fracture of spine	71.4	21.4	7.1	0.0	0.0	79.1	7.9	11.6	0.9	0.4
8.17 Fracture of multiple sites	88.2	0.0	11.8	0.0	0.0	79.8	7.3	10.8	1.7	0.4
8.19 Other orthopaedic fracture	85.7	0.0	7.1	7.1	0.0	83.6	6.7	8.3	1.2	0.2
All Orthopaedic Fractures	**81.4**	**9.0**	**8.0**	**1.5**	**0.0**	**78.1**	**8.3**	**12.0**	**1.3**	**0.3**

Mode of episode end



Interim accommodation post discharge by AN-SNAP class



NOTE: Includes only those episodes with mode of episode end equal to interim accommodation

Interim accommodation post discharge by AN-SNAP class

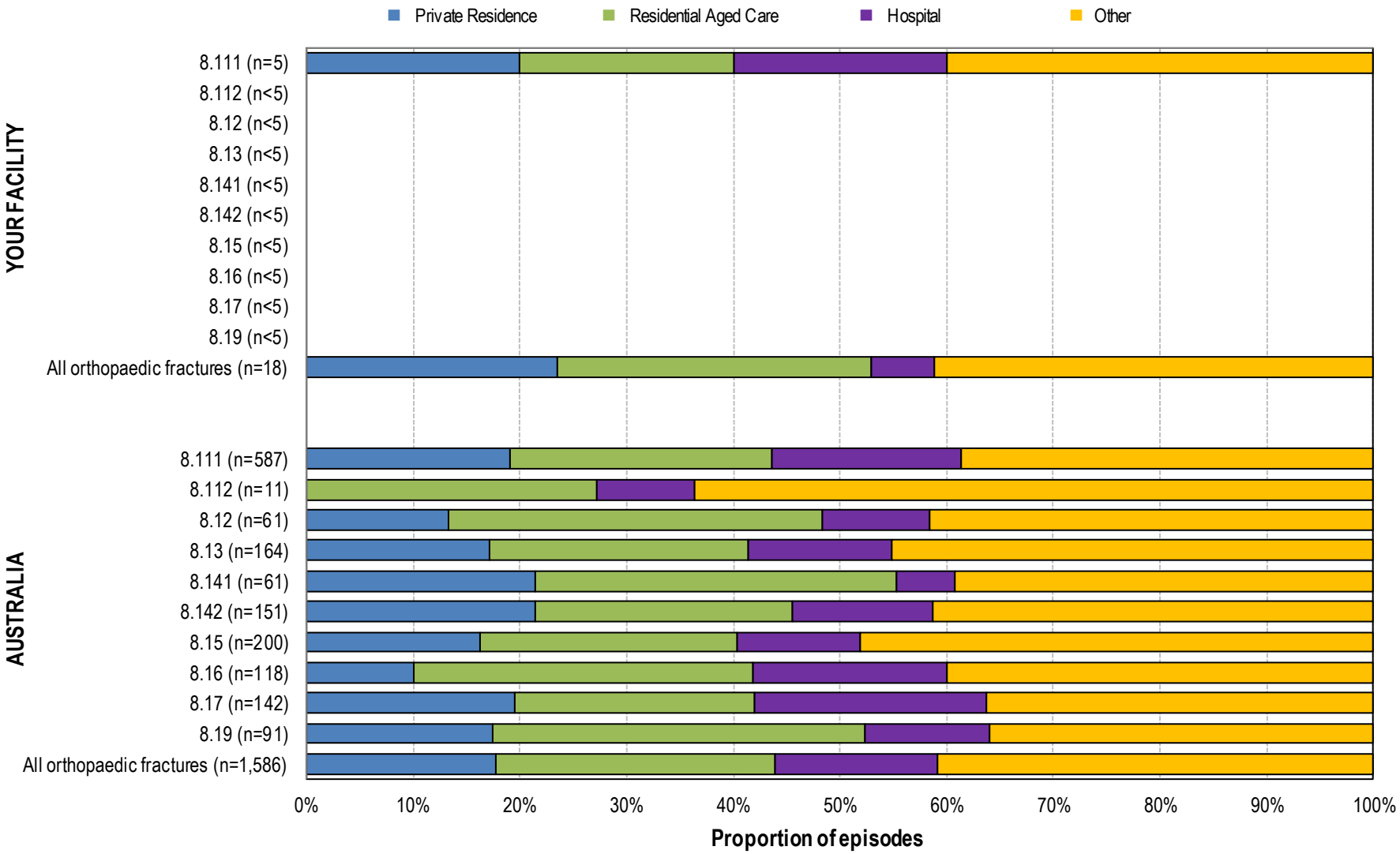
AN-SNAP class V4	YOUR FACILITY				
	Private residence	Residential Aged Care	Hospital	Other	All episodes**
4AH1 (motor 49-91, cognition 33-35)	2 (50.0%)	0 (0.0%)	0 (0.0%)	1 (25.0%)	4 (100.0%)
4AH2 (motor 49-91, cognition 5-32)	0 —	0 —	0 —	0 —	0 —
4AH3 (motor 38-48)	2 (66.7%)	1 (33.3%)	0 (0.0%)	0 (0.0%)	3 (100.0%)
4AH4 (motor 19-37)	0 (0.0%)	4 (44.4%)	0 (0.0%)	5 (55.6%)	9 (100.0%)
4AZ3 (motor 13-18, Age ≥ 65)	0 (0.0%)	0 (0.0%)	1 (50.0%)	1 (50.0%)	2 (100.0%)
4AZ4 (motor 13-18, Age ≤ 64)	0 —	0 —	0 —	0 —	0 —
All Fracture AN-SNAP classes	**4 (22.2%)**	**5 (27.8%)**	**1 (5.6%)**	**7 (38.9%)**	**18 (100.0%)**

AN-SNAP class V4	AUSTRALIA				
	Private residence	Residential Aged Care	Hospital	Other	All episodes**
4AH1 (motor 49-91, cognition 33-35)	98 (35.6%)	50 (18.2%)	41 (14.9%)	73 (26.5%)	275 (100.0%)
4AH2 (motor 49-91, cognition 5-32)	107 (23.6%)	124 (27.3%)	39 (8.6%)	158 (34.8%)	454 (100.0%)
4AH3 (motor 38-48)	33 (9.3%)	99 (27.8%)	59 (16.6%)	150 (42.1%)	356 (100.0%)
4AH4 (motor 19-37)	28 (6.4%)	109 (24.9%)	79 (18.1%)	201 (46.0%)	437 (100.0%)
4AZ3 (motor 13-18, Age ≥ 65)	1 (1.7%)	13 (21.7%)	13 (21.7%)	32 (53.3%)	60 (100.0%)
4AZ4 (motor 13-18, Age ≤ 64)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (100.0%)	3 (100.0%)
All Fracture AN-SNAP classes	**267 (16.8%)**	**395 (24.9%)**	**231 (14.6%)**	**617 (38.9%)**	**1,585 (100.0%)**

** There was 1 episode(s) in YOUR FACILITY and 75 episodes in AUSTRALIA with unknown interim accommodation

NOTE: Includes only those episodes with mode of episode end equal to interim accommodation

Interim accommodation post discharge by impairment



NOTE: Includes only those episodes with mode of episode end equal to interim accommodation

Interim accommodation post discharge by impairment

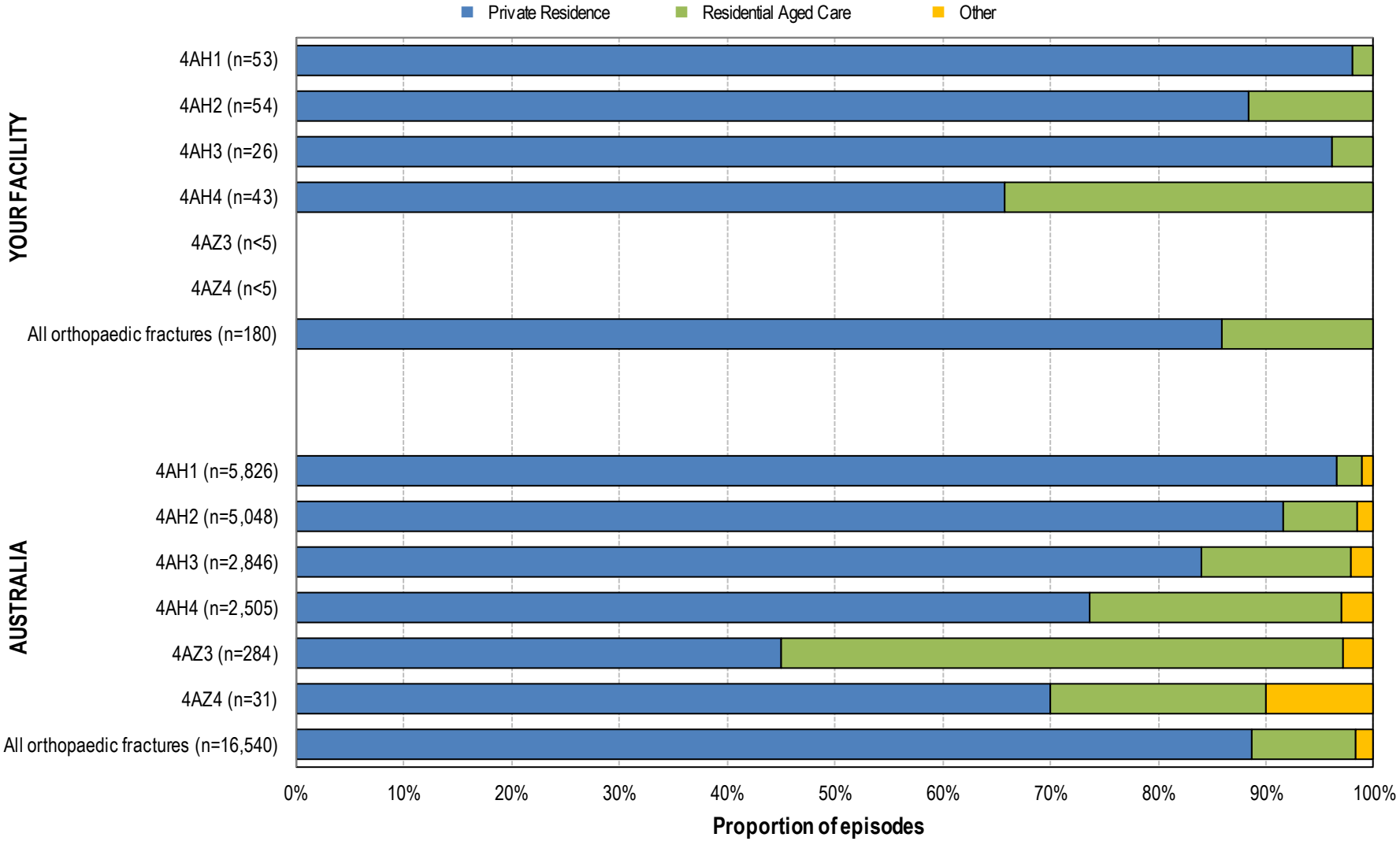
Impairment	YOUR FACILITY				
	Private residence	Residential Aged Care	Hospital	Other	All episodes**
8.111 Fracture of hip, unilateral	1 (20.0%)	1 (20.0%)	1 (20.0%)	2 (40.0%)	5 (100.0%)
8.112 Fracture of hip, bilateral	0 —	0 —	0 —	0 —	0 —
8.12 Fracture of shaft of femur	0 (0.0%)	1 (50.0%)	0 (0.0%)	1 (50.0%)	2 (100.0%)
8.13 Fracture of pelvis	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)	2 (100.0%)
8.141 Fracture of knee	0 —	0 —	0 —	0 —	0 —
8.142 Fracture of leg, ankle, foot	2 (66.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (100.0%)
8.15 Fracture of upper limb	0 (0.0%)	1 (33.3%)	0 (0.0%)	2 (66.7%)	3 (100.0%)
8.16 Fracture of spine	1 (33.3%)	2 (66.7%)	0 (0.0%)	0 (0.0%)	3 (100.0%)
8.17 Fracture of multiple sites	0 —	0 —	0 —	0 —	0 —
8.19 Other orthopaedic fracture	0 —	0 —	0 —	0 —	0 —
All Orthopaedic Fractures	**4 (22.2%)**	**5 (27.8%)**	**1 (5.6%)**	**7 (38.9%)**	**18 (100.0%)**

Impairment	AUSTRALIA				
	Private residence	Residential Aged Care	Hospital	Other	All episodes**
8.111 Fracture of hip, unilateral	106 (18.1%)	137 (23.3%)	99 (16.9%)	215 (36.6%)	587 (100.0%)
8.112 Fracture of hip, bilateral	0 (0.0%)	3 (27.3%)	1 (9.1%)	7 (63.6%)	11 (100.0%)
8.12 Fracture of shaft of femur	8 (13.1%)	21 (34.4%)	6 (9.8%)	25 (41.0%)	61 (100.0%)
8.13 Fracture of pelvis	27 (16.5%)	38 (23.2%)	21 (12.8%)	71 (43.3%)	164 (100.0%)
8.141 Fracture of knee	12 (19.7%)	19 (31.1%)	3 (4.9%)	22 (36.1%)	61 (100.0%)
8.142 Fracture of leg, ankle, foot	31 (20.5%)	35 (23.2%)	19 (12.6%)	60 (39.7%)	151 (100.0%)
8.15 Fracture of upper limb	31 (15.5%)	46 (23.0%)	22 (11.0%)	92 (46.0%)	200 (100.0%)
8.16 Fracture of spine	11 (9.3%)	35 (29.7%)	20 (16.9%)	44 (37.3%)	118 (100.0%)
8.17 Fracture of multiple sites	27 (19.0%)	31 (21.8%)	30 (21.1%)	50 (35.2%)	142 (100.0%)
8.19 Other orthopaedic fracture	15 (16.5%)	30 (33.0%)	10 (11.0%)	31 (34.1%)	91 (100.0%)
All Orthopaedic Fractures	**268 (16.9%)**	**395 (24.9%)**	**231 (14.6%)**	**617 (38.9%)**	**1,586 (100.0%)**

** There was 1 episode(s) in YOUR FACILITY and 75 episodes in AUSTRALIA with unknown interim accommodation

NOTE: Includes only those episodes with mode of episode end equal to interim accommodation

Final accommodation post discharge by AN-SNAP class



NOTE: Includes only those episodes with mode of episode end equal to either final or interim accommodation

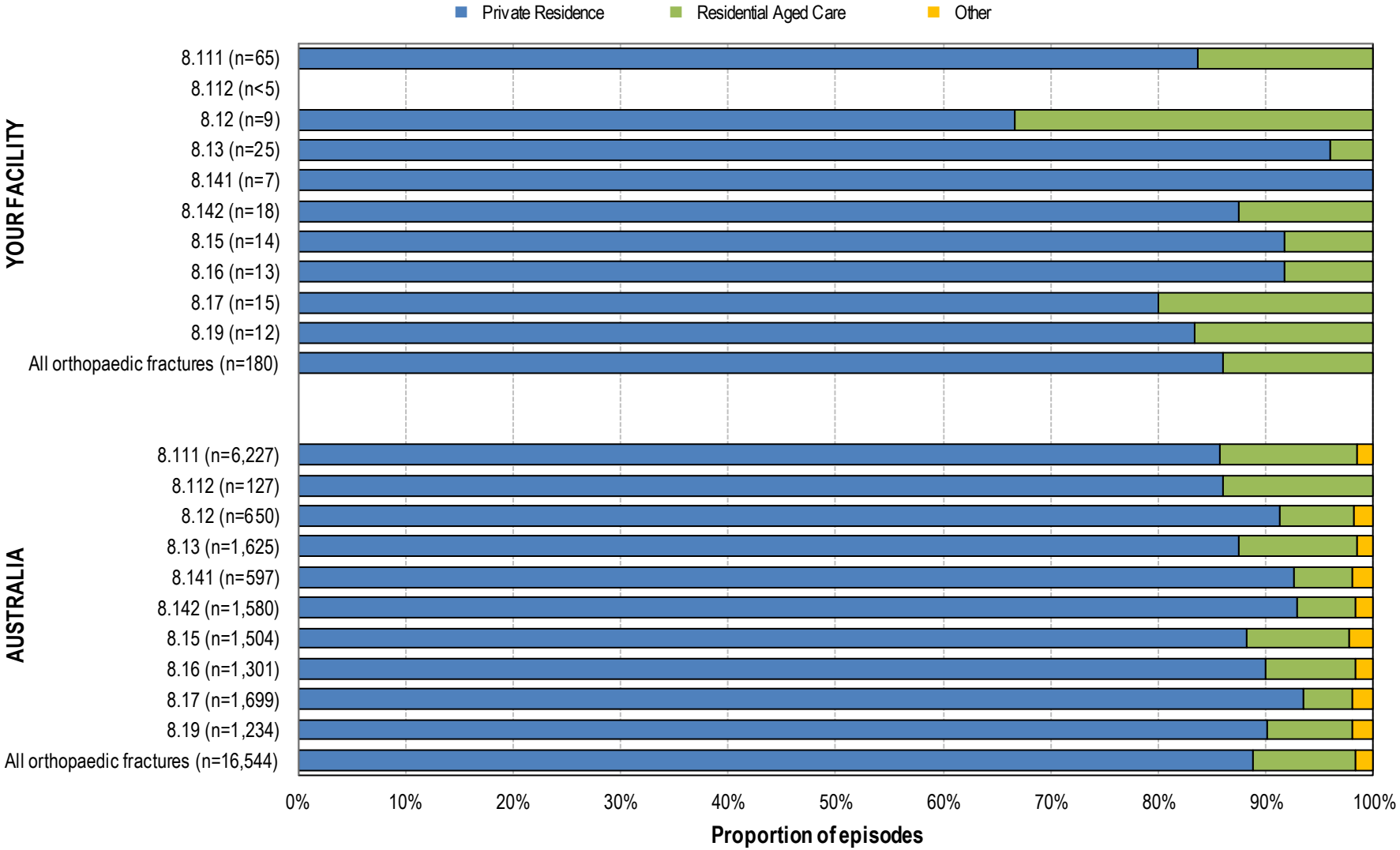
Final accommodation post discharge by AN-SNAP class

AN-SNAP class V4	YOUR FACILITY				
	Private residence	Residential Aged Care	Other	Missing	All episodes
4AH1 (motor 49-91, cognition 33-35)	50 (98.0%)	1 (2.0%)	0 (0.0%)	2	51 (100.0%)
4AH2 (motor 49-91, cognition 5-32)	46 (86.8%)	6 (11.3%)	1 (1.9%)	1	53 (100.0%)
4AH3 (motor 38-48)	25 (96.2%)	1 (3.8%)	0 (0.0%)	0	26 (100.0%)
4AH4 (motor 19-37)	25 (62.5%)	13 (32.5%)	2 (5.0%)	3	40 (100.0%)
4AZ3 (motor 13-18, Age ≥ 65)	1 (25.0%)	3 (75.0%)	0 (0.0%)	0	4 (100.0%)
4AZ4 (motor 13-18, Age ≤ 64)	0 —	0 —	0 —	0	0 —
All Fracture AN-SNAP classes	**147 (84.5%)**	**24 (13.8%)**	**3 (1.7%)**	**6**	**174 (100.0%)**

AN-SNAP class V4	AUSTRALIA				
	Private residence	Residential Aged Care	Other	Missing	All episodes
4AH1 (motor 49-91, cognition 33-35)	5,470 (93.9%)	129 (2.2%)	122 (2.1%)	105	5,826 (100.0%)
4AH2 (motor 49-91, cognition 5-32)	4,400 (87.2%)	332 (6.6%)	190 (3.8%)	126	5,048 (100.0%)
4AH3 (motor 38-48)	2,214 (77.8%)	365 (12.8%)	175 (6.1%)	92	2,846 (100.0%)
4AH4 (motor 19-37)	1,665 (66.5%)	528 (21.1%)	222 (8.9%)	90	2,505 (100.0%)
4AZ3 (motor 13-18, Age ≥ 65)	110 (38.7%)	127 (44.7%)	29 (10.2%)	18	284 (100.0%)
4AZ4 (motor 13-18, Age ≤ 64)	21 (67.7%)	6 (19.4%)	4 (12.9%)	0	31 (100.0%)
All Fracture AN-SNAP classes	**13,880 (83.9%)**	**1,487 (9.0%)**	**742 (4.5%)**	**431**	**16,540 (100.0%)**

NOTE: Includes only those episodes with mode of episode end equal to either final or interim accommodation

Final accommodation post discharge by impairment



NOTE: Includes only those episodes with mode of episode end equal to either final or interim accommodation

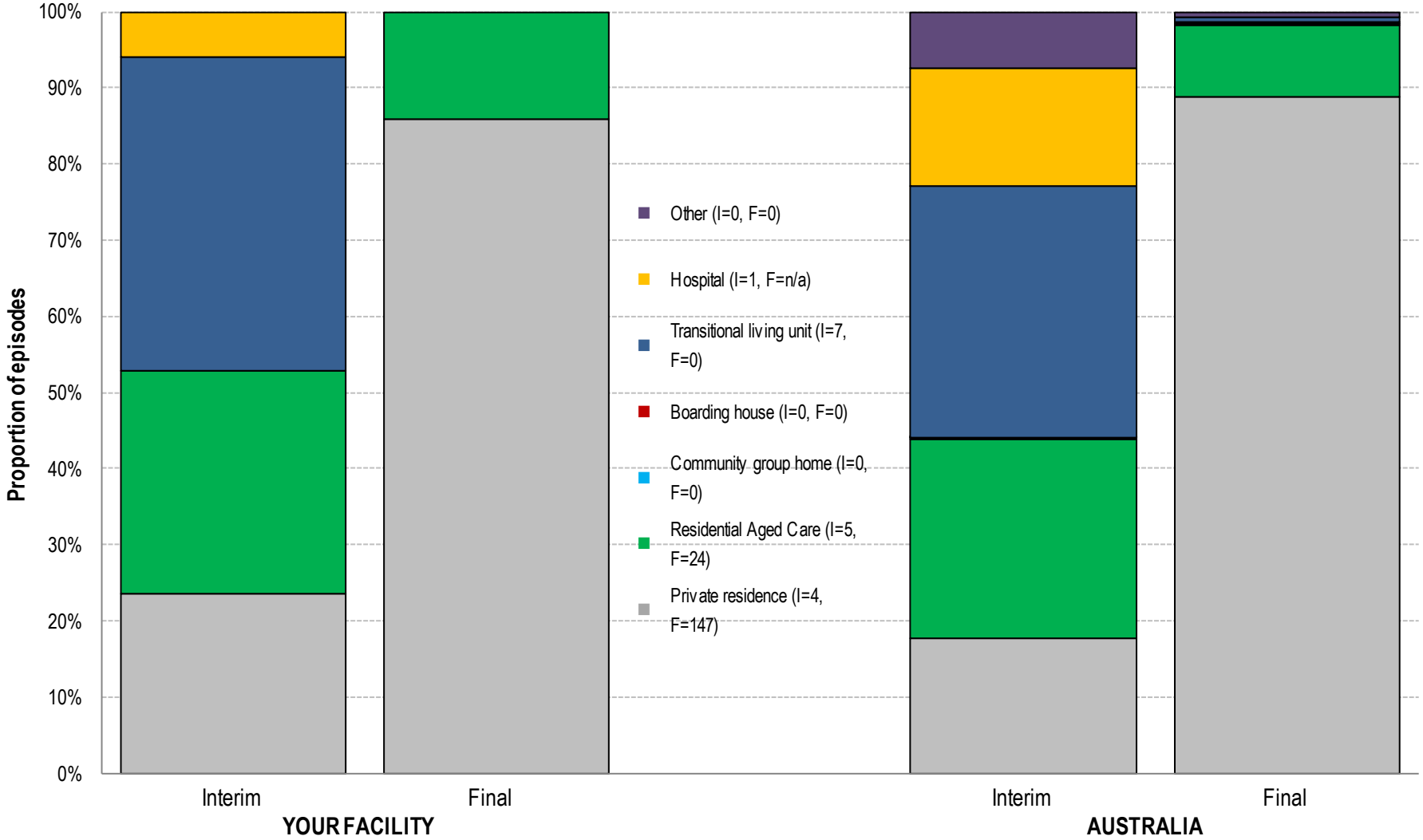
Final accommodation post discharge by impairment

Impairment	YOUR FACILITY				
	Private residence	Residential Aged Care	Other	Missing	All episodes
8.111 Fracture of hip, unilateral	51 (82.3%)	10 (16.1%)	1 (1.6%)	3	62 (100.0%)
8.112 Fracture of hip, bilateral	1 (50.0%)	1 (50.0%)	0 (0.0%)	0	2 (100.0%)
8.12 Fracture of shaft of femur	6 (66.7%)	3 (33.3%)	0 (0.0%)	0	9 (100.0%)
8.13 Fracture of pelvis	24 (96.0%)	1 (4.0%)	0 (0.0%)	0	25 (100.0%)
8.141 Fracture of knee	7 (100.0%)	0 (0.0%)	0 (0.0%)	0	7 (100.0%)
8.142 Fracture of leg, ankle, foot	14 (87.5%)	2 (12.5%)	0 (0.0%)	2	16 (100.0%)
8.15 Fracture of upper limb	11 (78.6%)	1 (7.1%)	2 (14.3%)	0	14 (100.0%)
8.16 Fracture of spine	11 (91.7%)	1 (8.3%)	0 (0.0%)	1	12 (100.0%)
8.17 Fracture of multiple sites	12 (80.0%)	3 (20.0%)	0 (0.0%)	0	15 (100.0%)
8.19 Other orthopaedic fracture	10 (83.3%)	2 (16.7%)	0 (0.0%)	0	12 (100.0%)
All Orthopaedic Fractures	**147 (84.5%)**	**24 (13.8%)**	**3 (1.7%)**	**6**	**174 (100.0%)**

Impairment	AUSTRALIA				
	Private residence	Residential Aged Care	Other	Missing	All episodes
8.111 Fracture of hip, unilateral	5,015 (80.5%)	739 (11.9%)	280 (4.5%)	193	6,227 (100.0%)
8.112 Fracture of hip, bilateral	105 (82.7%)	17 (13.4%)	5 (3.9%)	0	127 (100.0%)
8.12 Fracture of shaft of femur	562 (86.5%)	43 (6.6%)	34 (5.2%)	11	650 (100.0%)
8.13 Fracture of pelvis	1,331 (81.9%)	167 (10.3%)	76 (4.7%)	51	1,625 (100.0%)
8.141 Fracture of knee	522 (87.4%)	31 (5.2%)	27 (4.5%)	17	597 (100.0%)
8.142 Fracture of leg, ankle, foot	1,397 (88.4%)	83 (5.3%)	63 (4.0%)	37	1,580 (100.0%)
8.15 Fracture of upper limb	1,246 (82.8%)	134 (8.9%)	91 (6.1%)	33	1,504 (100.0%)
8.16 Fracture of spine	1,109 (85.2%)	103 (7.9%)	58 (4.5%)	31	1,301 (100.0%)
8.17 Fracture of multiple sites	1,521 (89.5%)	76 (4.5%)	68 (4.0%)	34	1,699 (100.0%)
8.19 Other orthopaedic fracture	1,074 (87.0%)	94 (7.6%)	40 (3.2%)	26	1,234 (100.0%)
All Orthopaedic Fractures	**13,882 (83.9%)**	**1,487 (9.0%)**	**742 (4.5%)**	**433**	**16,544 (100.0%)**

NOTE: Includes only those episodes with mode of episode end equal to either final or interim accommodation

Interim and final accommodation post discharge



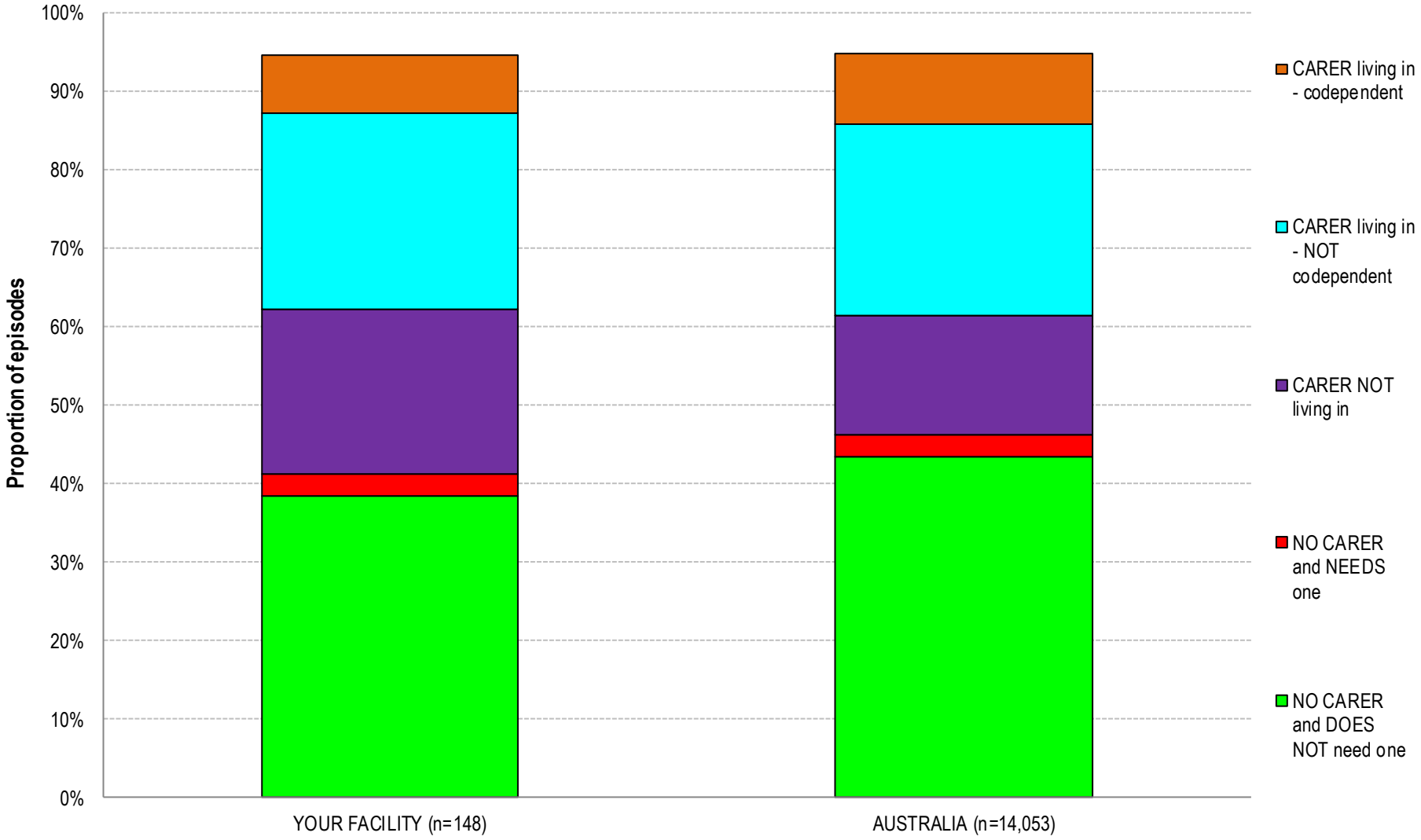
NOTE: Includes only those episodes with mode of episode end equal to either final or interim accommodation

Interim and final accommodation post discharge

	YOUR FACILITY		AUSTRALIA	
Accommodation	**Interim (%)**	**Final (%)**	**Interim (%)**	**Final (%)**
Private residence	4 (23.5%)	147 (86.0%)	267 (17.7%)	13,880 (88.8%)
Residential Aged Care	5 (29.4%)	24 (14.0%)	395 (26.2%)	1,487 (9.5%)
Community group home	0 (0.0%)	0 (0.0%)	2 (0.1%)	46 (0.3%)
Boarding house	0 (0.0%)	0 (0.0%)	1 (0.1%)	14 (0.1%)
Transitional living unit	7 (41.2%)	0 (0.0%)	501 (33.2%)	89 (0.6%)
Hospital	1 (5.9%)	n/a	231 (15.3%)	n/a
Other	0 (0.0%)	0 (0.0%)	113 (7.5%)	122 (0.8%)
Missing/Unknown	1	9	75	902
All episodes	**18 (100.0%)**	**180 (100.0%)**	**1,585 (100.0%)**	**16,540 (100.0%)**

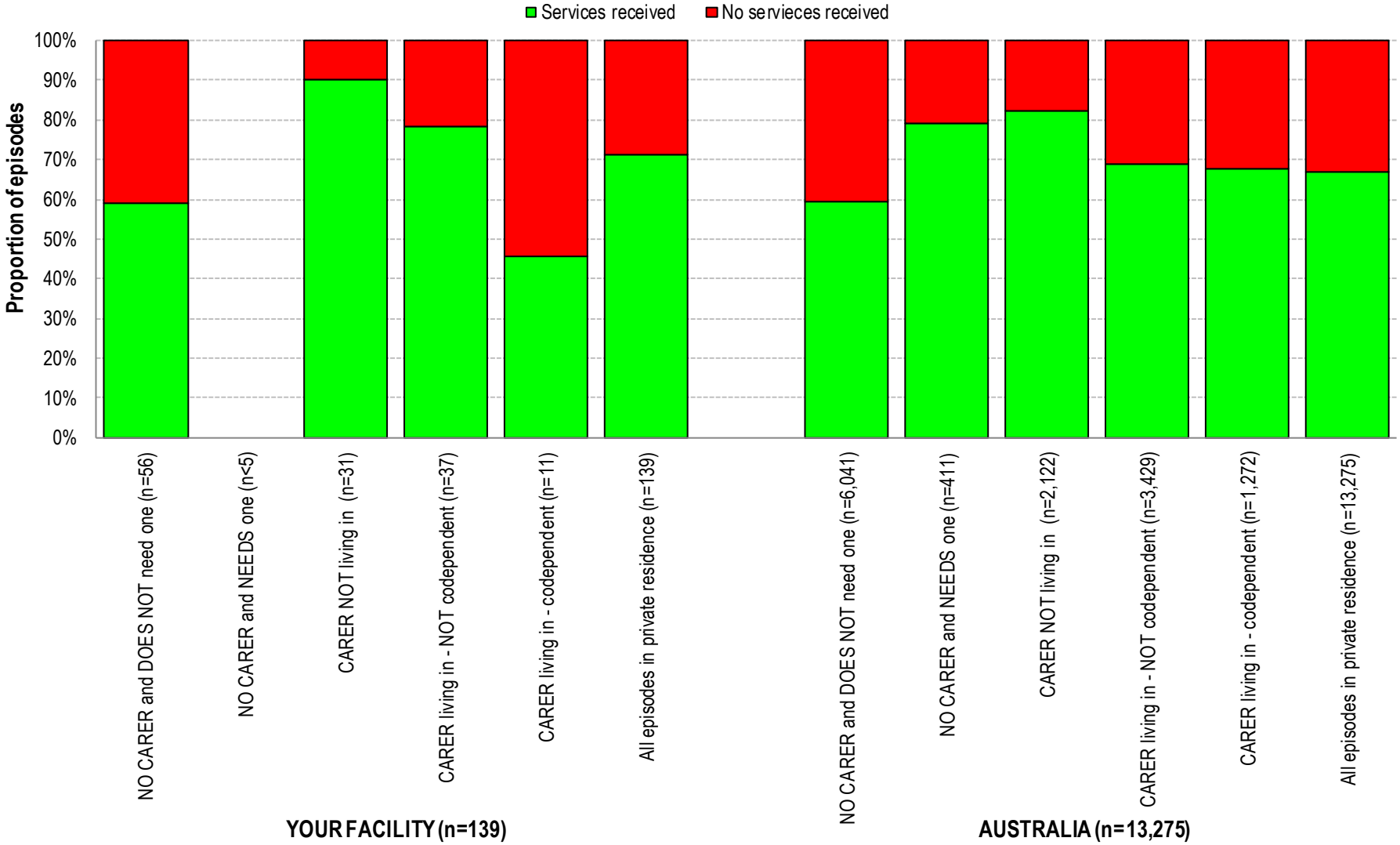
NOTE: Includes only those episodes with mode of episode end equal to either final or interim accommodation

Carer status post discharge



NOTE: Includes only those episodes whose final accommodation is private residence

Any services received post discharge by carer status



NOTE: Includes only those episodes whose final accommodation is private residence and with known carer status and known services status

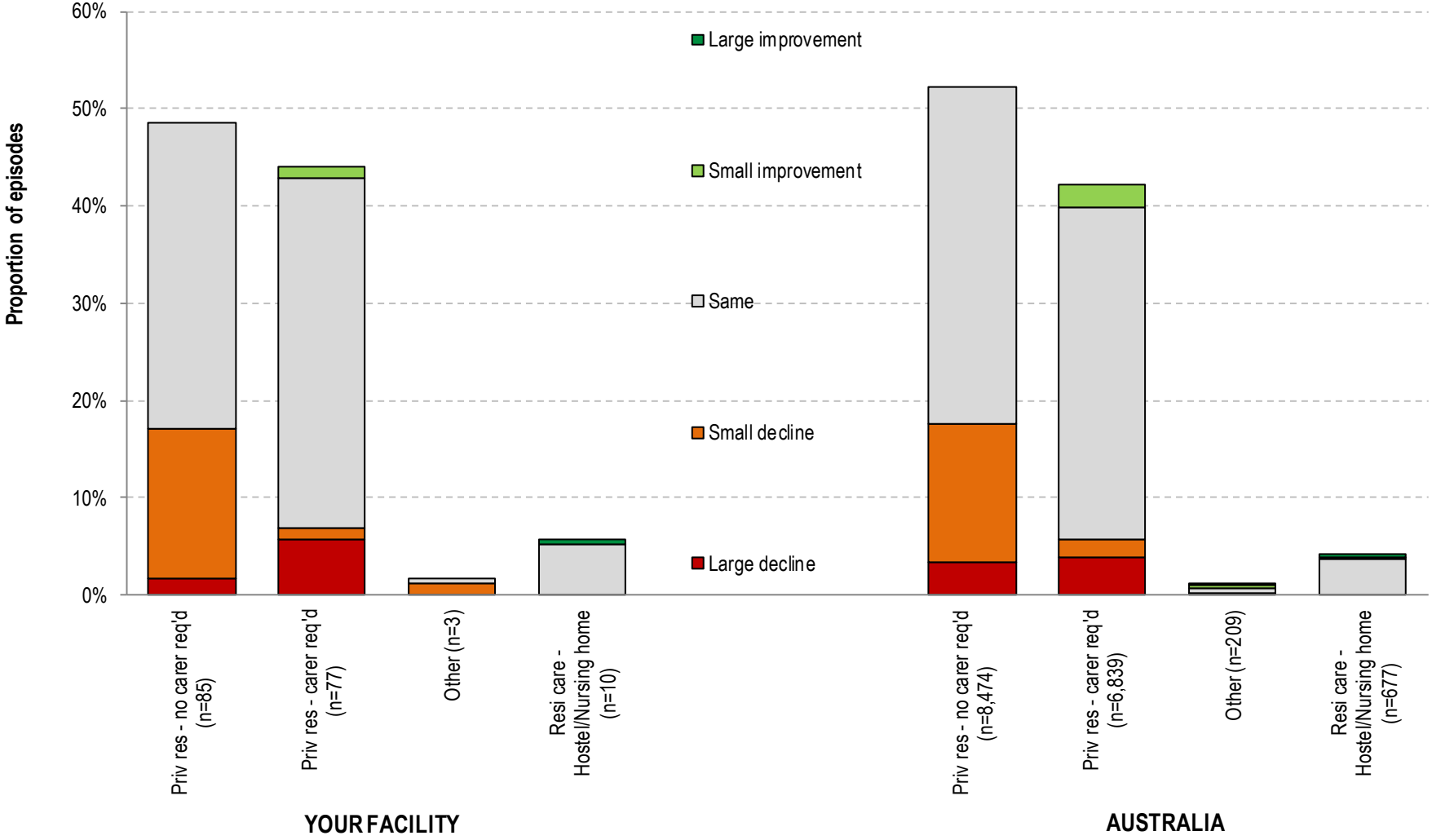
Carer status and any services received post discharge

	YOUR FACILITY		AUSTRALIA	
Carer status after this impairment	**No.**	**%**	**No.**	**%**
NO CARER and DOES NOT need one	57	40.7	6,097	45.7
NO CARER and NEEDS one	4	2.9	412	3.1
CARER NOT living in	31	22.1	2,126	15.9
CARER living in - NOT codependent	37	26.4	3,432	25.7
CARER living in - codependent	11	7.9	1,275	9.6
Missing	8		711	
All episodes in private residence	**148**	**100.0**	**14,053**	**100.0**

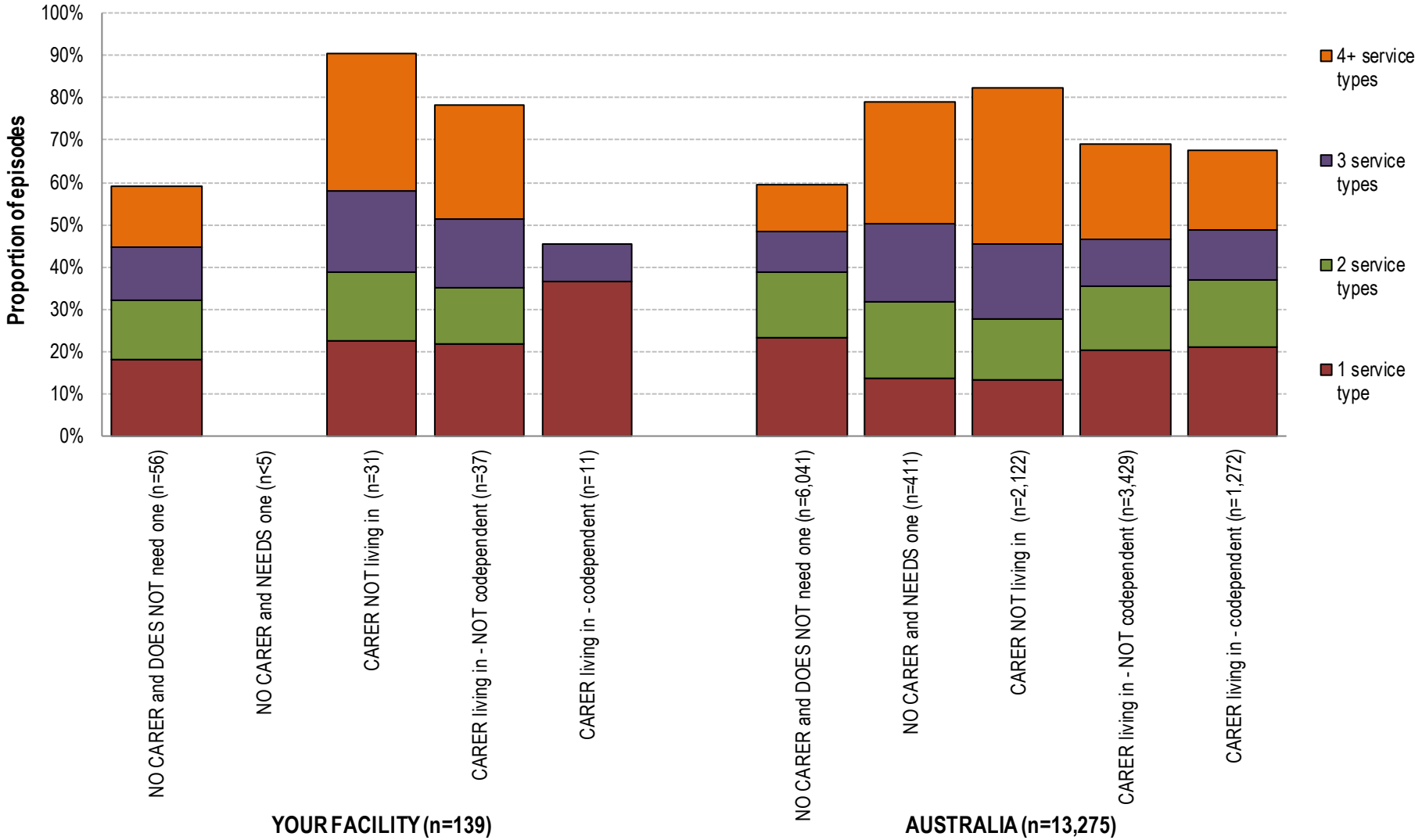
	Any services received after this impairment?			
	YOUR FACILITY		AUSTRALIA	
Carer status after this impairment	**Yes (%)**	**No (%)**	**Yes (%)**	**No (%)**
NO CARER and DOES NOT need one	58.9	41.1	59.3	40.7
NO CARER and NEEDS one	—	—	79.3	20.7
CARER NOT living in	90.3	9.7	82.4	17.6
CARER living in - NOT codependent	78.4	21.6	69.0	31.0
CARER living in - codependent	45.5	54.5	67.7	32.3
All episodes in private residence	**71.2**	**28.8**	**66.9**	**33.1**

NOTE: Includes only those episodes whose final accommodation is private residence and with known carer status and known services status

Change in prior accommodation post discharge

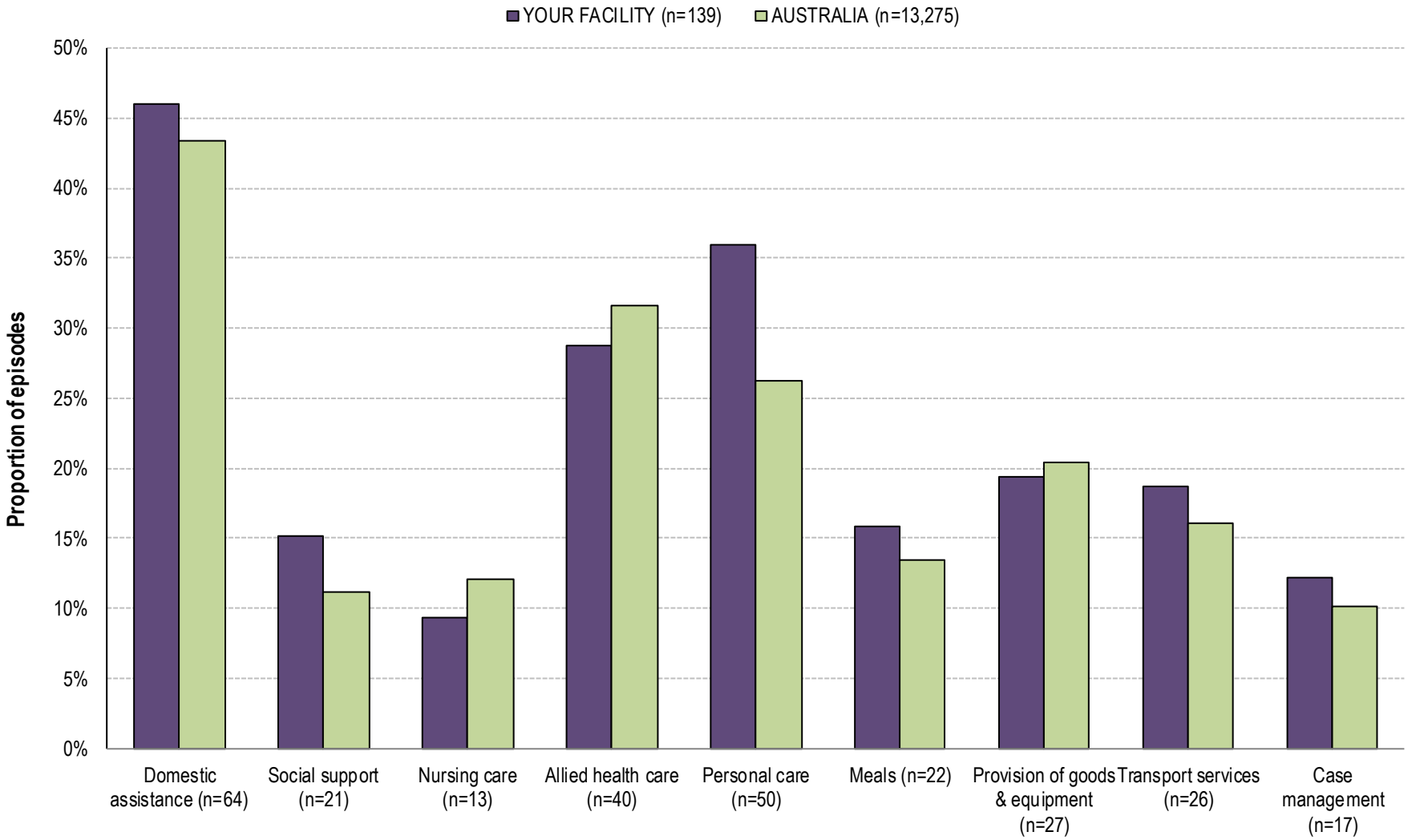


Number of services received post discharge by carer status



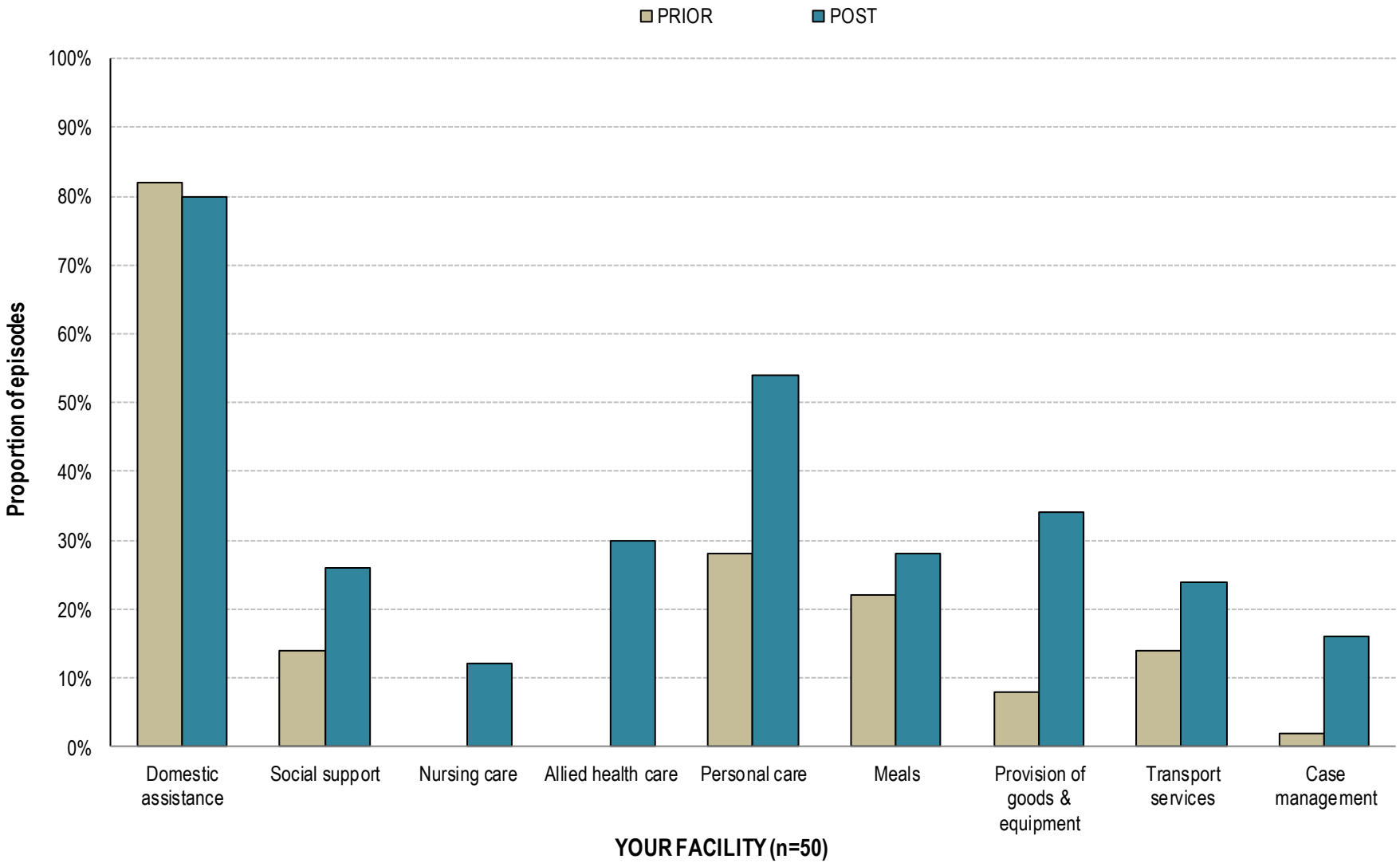
NOTE: Includes only those episodes whose final accommodation is private residence and with known carer status and known services status

Type of services received post discharge



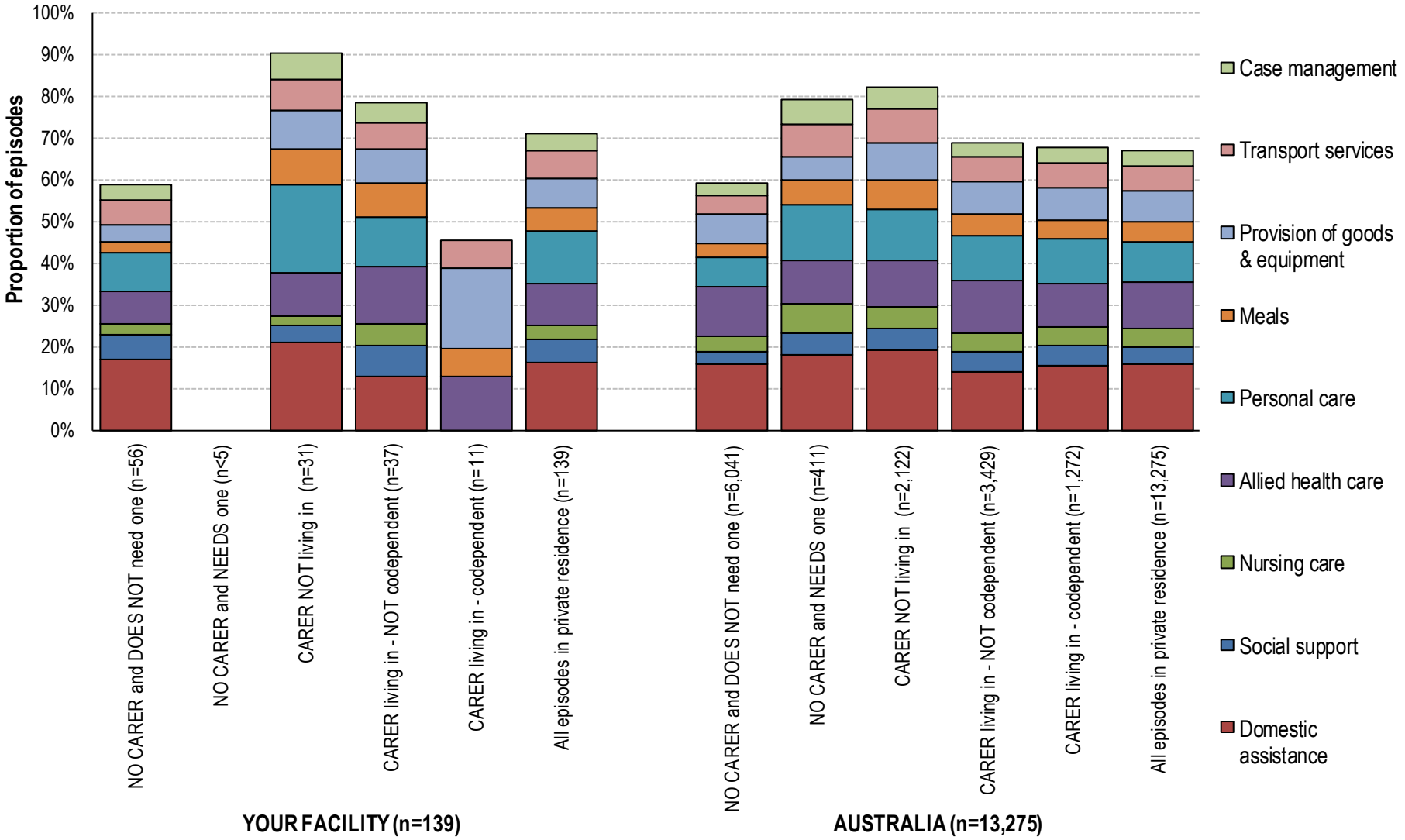
NOTE: Includes only those episodes whose final accommodation is private residence and with known carer status and known services status

Type of services received pre and post rehab



NOTE: Includes only those episodes whose final accommodation is private residence and with known carer status and received services both pre and post the episode

Type of services received post discharge by carer status



NOTE: Includes only those episodes whose final accommodation is private residence and with known carer status and known services status

Number and type of services received post discharge by carer status

Services received after this impairment (NOTE: Accommodation post is 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	56	4	31	37	11	**139**
Percent of episodes receiving:						
No services	41.1	0.0	9.7	21.6	54.5	**28.8**
1 service type	17.9	25.0	22.6	21.6	36.4	**21.6**
2 service types	14.3	25.0	16.1	13.5	0.0	**13.7**
3 service types	12.5	0.0	19.4	16.2	9.1	**14.4**
4 or more service types	14.3	50.0	32.3	27.0	0.0	**21.6**
Service Type received						
Domestic assistance	46.4	100.0	64.5	37.8	0.0	**46.0**
Social support	16.1	0.0	12.9	21.6	0.0	**15.1**
Nursing care	7.1	25.0	6.5	16.2	0.0	**9.4**
Allied health care	21.4	25.0	32.3	40.5	18.2	**28.8**
Personal care	25.0	75.0	64.5	35.1	0.0	**36.0**
Meals	7.1	0.0	25.8	24.3	9.1	**15.8**
Provision of goods & equipment	10.7	0.0	29.0	24.3	27.3	**19.4**
Transport services	16.1	50.0	22.6	18.9	9.1	**18.7**
Case management	10.7	0.0	19.4	13.5	0.0	**12.2**

NOTE: Includes only those episodes whose final accommodation is private residence and with known carer status and known services status

Number and type of services received post discharge by carer status

Services received after this impairment (NOTE: Accommodation post is private residence)	Carer status post discharge - AUSTRALIA					
	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	6,041	411	2,122	3,429	1,272	**13,275**
Percent of episodes receiving:						
No services	40.7	20.7	17.6	31.0	32.3	**33.1**
1 service type	23.3	13.6	13.4	20.3	21.1	**20.4**
2 service types	15.5	18.0	14.4	15.1	15.6	**15.3**
3 service types	9.7	18.5	17.8	11.3	11.9	**11.9**
4 or more service types	10.8	29.0	36.9	22.3	19.1	**19.3**
Service Type received						
Domestic assistance	36.3	57.7	65.7	40.4	42.7	**43.3**
Social support	6.7	17.5	18.3	13.3	12.3	**11.1**
Nursing care	8.8	21.7	17.2	13.0	12.7	**12.0**
Allied health care	26.6	34.3	38.2	36.8	29.0	**31.6**
Personal care	16.3	42.3	41.9	30.7	29.4	**26.2**
Meals	8.0	19.5	25.1	15.4	12.2	**13.4**
Provision of goods & equipment	15.9	17.8	30.6	22.2	20.8	**20.4**
Transport services	10.5	24.8	28.0	17.1	16.4	**16.0**
Case management	6.7	19.5	17.9	9.9	10.2	**10.0**

NOTE: Includes only those episodes whose final accommodation is private residence and with known carer status and known services status

Appendix 1: Glossary

AN-SNAP class

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

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

AROC

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

Benchmark group

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

Glossary … continued

Casemix-adjusted relative mean

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

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

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

For each episode calculate:

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 injury & 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.

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

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.

- **Suggested acknowledgement**

  Anywhere Hospital AROC Impairment Specific Report on Orthopaedic Fractures (Inpatient - pathway 3), July 2015 - June 2016. Australasian Rehabilitation Outcomes Centre (2016)

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