AROC Impairment Specific Report

Reconditioning Report

INPATIENT – PATHWAY 3

July 2019 – June 2020

Anywhere Hospital

Australasian
Faculty of
Rehabilitation
Medicine

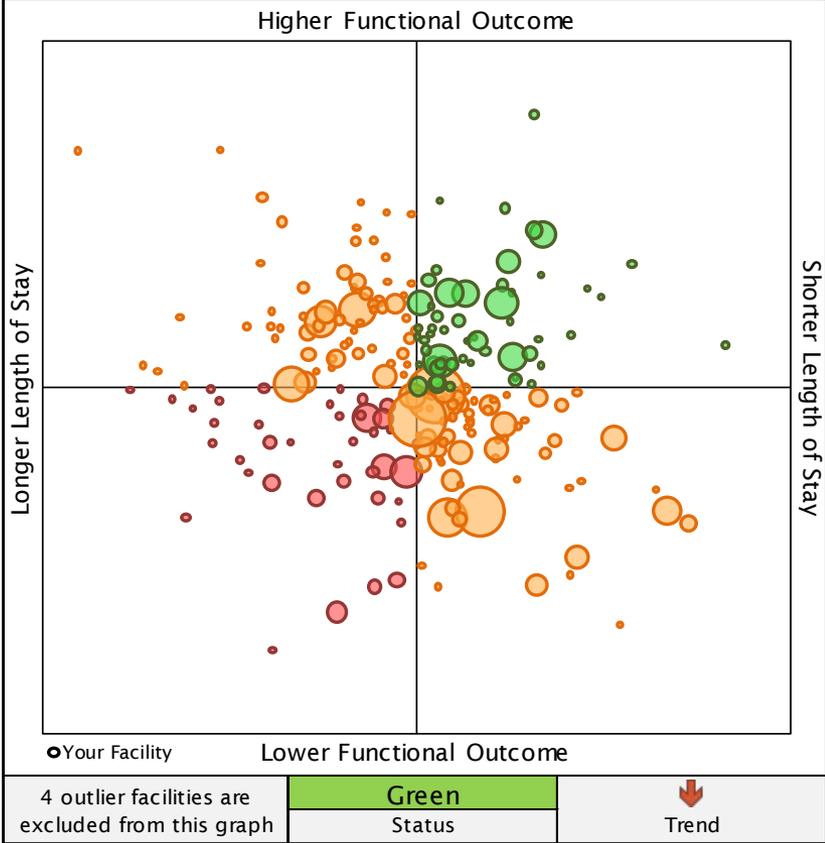australian health services
research institute

UNIVERSITY
OF WOLLONGONG
AUSTRALIA

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Reconditioning Dashboard

Rehabilitation Outcomes by Facility - AUSTRALIA

Higher Functional Outcome

Longer Length of Stay | Shorter Length of Stay

Lower Functional Outcome

○ Your Facility

4 outlier facilities are excluded from this graph	Green	⬇
	Status	Trend

Performance Against Benchmark

Functional gain	🚶(green)	🚶(green)	🚶(red)	🚶(red)
Length of Stay	🛏(green)	🛏(red)	🛏(green)	🛏(red)
Your Facility:	31%	16%	34%	19%
	⬆	⬇	⬆	➡

Performance against last year

Change in Accommodation

☐ Same accommodation (87.5%)

■ Different accommodation (10.4%)

■ Unknown (2.1%)

YOUR FACILITY

AUSTRALIA
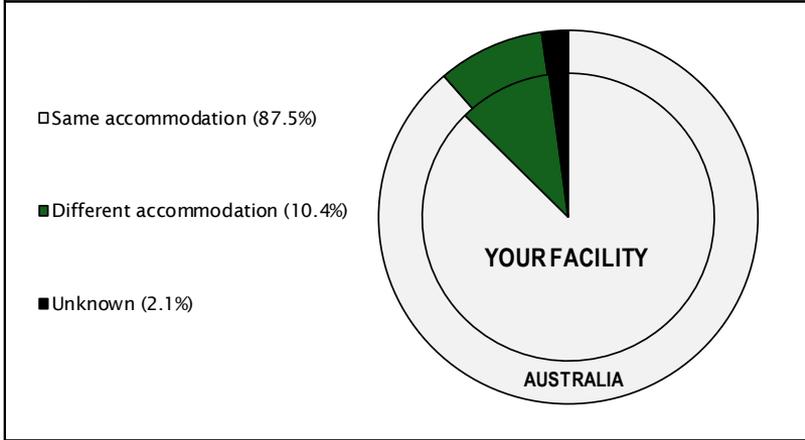
Number of Episodes by Rockwood Frailty Score

2	18	58	48	62	69	14	0		
1 Very Fit	2 Well	3 Well, some comorbid	4 Apparently vulnerable	5 Mildly frail	6 Moderately frail	7 Severely frail	8 Terminally ill	**28**	Facility Beds (All wards)
								340	All Reconditioning Episodes (Total)

Reconditioning Dashboard

Key Indicators*

YOUR FACILITY		AUSTRALIA	
Average Age:	79.2	Average Age:	79.7
Mortality Rate:	0.6%	Mortality Rate:	0.5%
% with at least one comorbidity:	59%	% with at least one comorbidity:	60%
% with at least one complication:	28%	% with at least one complication:	29%
% episodes with start delays:	8%	% episodes with start delays:	8%
Days between onset and rehab episode:	14.3	Days between onset and rehab episode:	14.0
Days between clinically rehab ready & start date:	0.2	Days between clinically rehab ready & start date:	0.9

* Mean value provided unless otherwise specified

Facility FIM Training*

FIM Credentialed Staff per 100 Episodes	FIM Credentialed Facility Trainers
7.1 Your Facility	3 Your Facility
6.9 AUSTRALIA (Mean)	2 AROC Suggested Minimum

* This includes all impairments from all wards

Completed Episodes by Facility

■ Your Facility —— Average of all AU facilities   AUSTRALIA   - -○- - Completion rate over time at Your Facility

Data used in this report
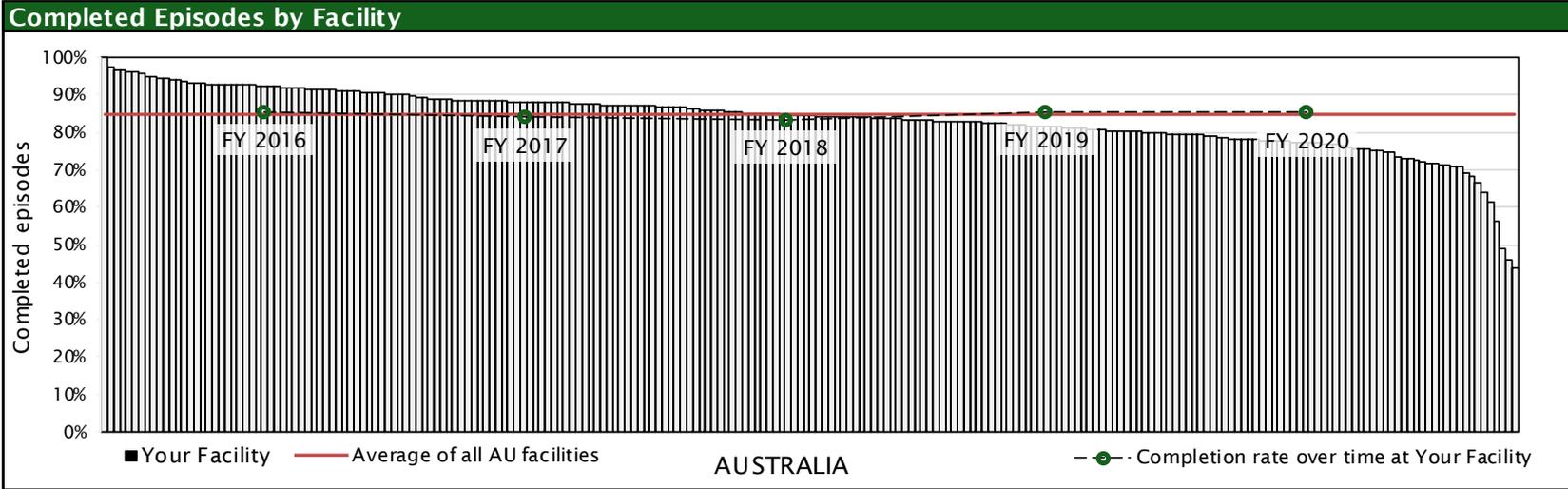
- Reconditioning episodes discharged during the reporting period (July 2019 – June 2020) and time series data covering five years.

- Benchmark group is AUSTRALIA.

- Casemix analysis uses version 4 AN-SNAP classes (Appendix 3). Casemix adjustment is calculated against AUSTRALIA data.

- Unit of counting is by concatenated* episode, not by patient.

- Where there are less than five episodes within a subgroup, summary data are not provided. Missing data and ungroupable AN-SNAP classes are excluded from figures, but are included in tables.

- Facilities will only receive this report when the facility reports a minimum of 20 completed reconditioning episodes.

Note: Appendix 1 (Glossary) contains definitions of concepts referred to in this report. An understanding of these will help with interpretation of the data. This report should be considered in conjunction with the Outcome Benchmarks Report for your facility.

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

Reconditioning impairment codes

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

- 16.1 – Reconditioning following surgery

- 16.2 – Reconditioning following medical illness

- 16.3 – Cancer rehabilitation

Note: A list of all impairment codes can be found in Appendix 2.
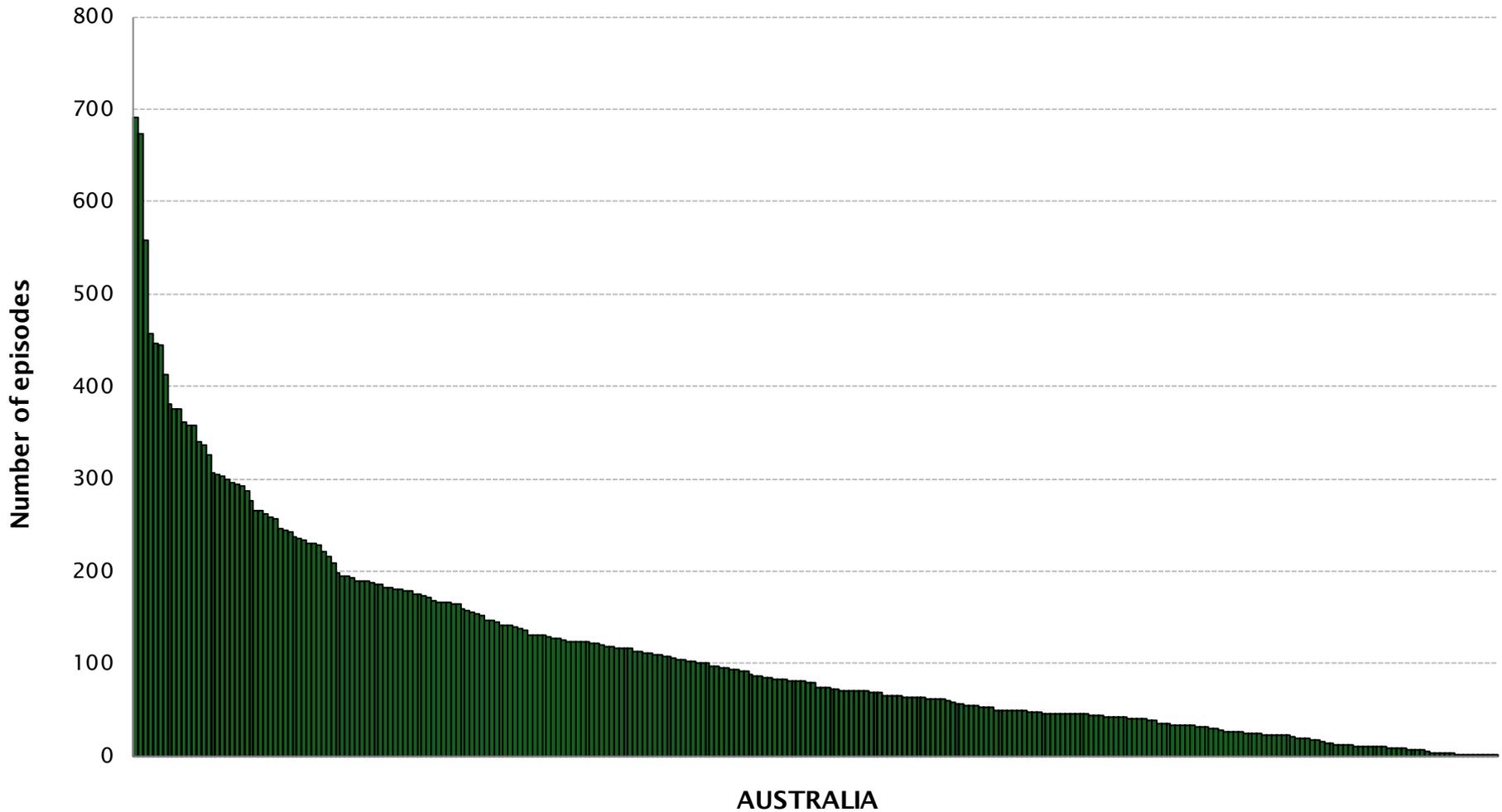
Reconditioning AN-SNAP classes

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

- 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
- 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 reconditioning
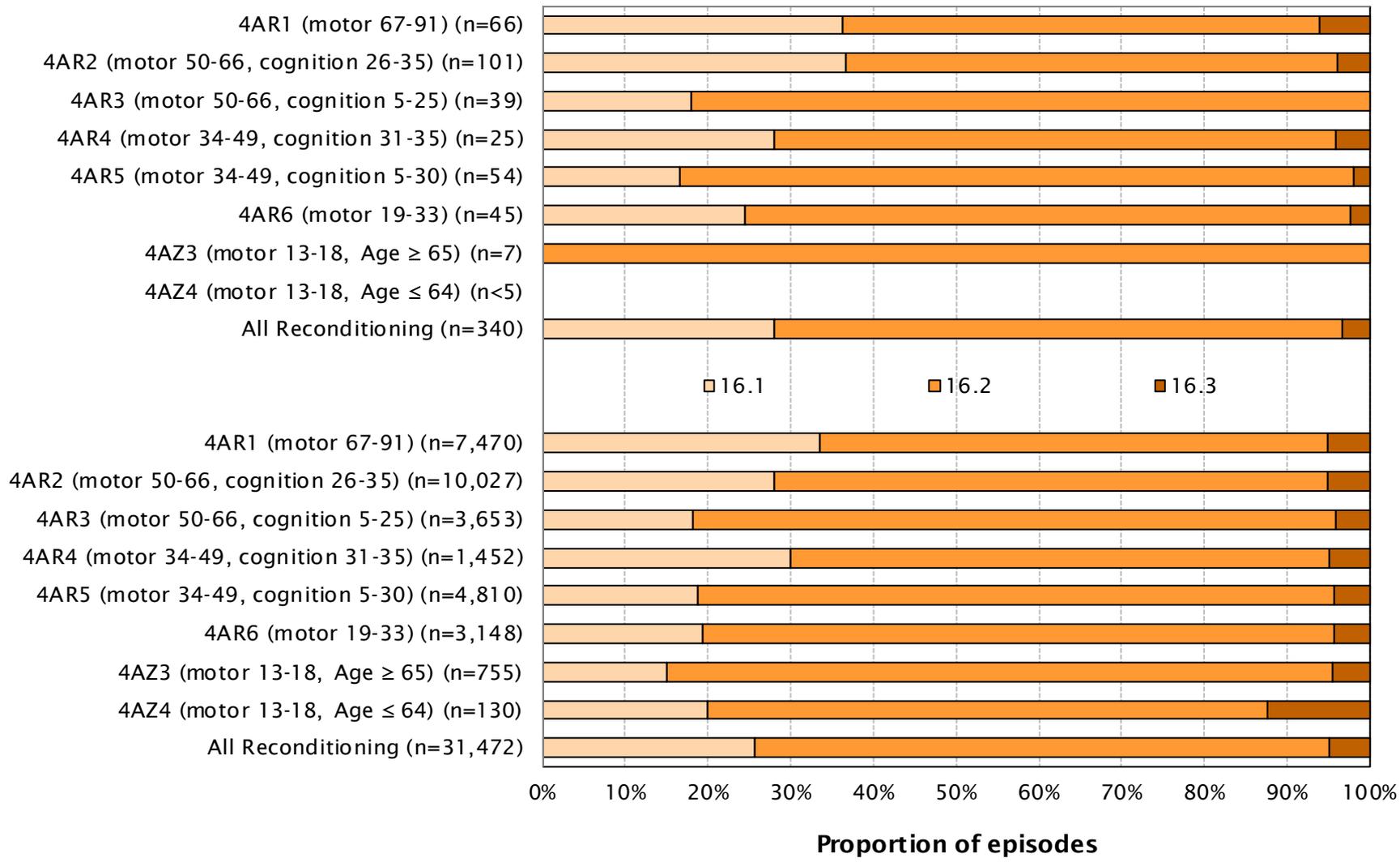

Number of episodes

AUSTRALIA

NOTE: 284 facilities reported at least one reconditioning episode, with 242 facilities reporting between 20 and 692 episodes in this reporting period.

Proportion of episodes by impairment code and AN-SNAP class

# Episodes by AN-SNAP class and impairment code

YOUR FACILITY — N (%)							
AN-SNAP class V4	**16.1**		**16.2**		**16.3**		**All Reconditioning**
4AR1 (motor 67-91)	24	(25.3)	38	(16.2)	4	(36.4)	66	(19.4)
4AR2 (motor 50-66, cognition 26-35)	37	(38.9)	60	(25.6)	4	(36.4)	101	(29.7)
4AR3 (motor 50-66, cognition 5-25)	7	(7.4)	32	(13.7)	0	(0.0)	39	(11.5)
4AR4 (motor 34-49, cognition 31-35)	7	(7.4)	17	(7.3)	1	(9.1)	25	(7.4)
4AR5 (motor 34-49, cognition 5-30)	9	(9.5)	44	(18.8)	1	(9.1)	54	(15.9)
4AR6 (motor 19-33)	11	(11.6)	33	(14.1)	1	(9.1)	45	(13.2)
4AZ3 (motor 13-18, Age ≥ 65)	0	(0.0)	7	(3.0)	0	(0.0)	7	(2.1)
4AZ4 (motor 13-18, Age ≤ 64)	0	(0.0)	1	(0.4)	0	(0.0)	1	(0.3)
499A (Data error - ungroupable)	0	(0.0)	2	(0.9)	0	(0.0)	2	(0.6)
All Reconditioning AN-SNAP Classes	**95**	**(100.0)**	**234**	**(100.0)**	**11**	**(100.0)**	**340**	**(100.0)**

AUSTRALIA — N (%)							
AN-SNAP class V4	**16.1**		**16.2**		**16.3**		**All Reconditioning**
4AR1 (motor 67-91)	2,507	(31.0)	4,584	(20.9)	379	(25.1)	7,470	(23.7)
4AR2 (motor 50-66, cognition 26-35)	2,817	(34.9)	6,700	(30.6)	510	(33.8)	10,027	(31.9)
4AR3 (motor 50-66, cognition 5-25)	665	(8.2)	2,838	(13.0)	150	(10.0)	3,653	(11.6)
4AR4 (motor 34-49, cognition 31-35)	435	(5.4)	947	(4.3)	70	(4.6)	1,452	(4.6)
4AR5 (motor 34-49, cognition 5-30)	906	(11.2)	3,694	(16.9)	210	(13.9)	4,810	(15.3)
4AR6 (motor 19-33)	608	(7.5)	2,403	(11.0)	137	(9.1)	3,148	(10.0)
4AZ3 (motor 13-18, Age ≥ 65)	113	(1.4)	608	(2.8)	34	(2.3)	755	(2.4)
4AZ4 (motor 13-18, Age ≤ 64)	26	(0.3)	88	(0.4)	16	(1.1)	130	(0.4)
499A (Data error - ungroupable)	5	(0.1)	21	(0.1)	1	(0.1)	27	(0.1)
All Reconditioning AN-SNAP Classes	**8,082**	**(100.0)**	**21,883**	**(100.0)**	**1,507**	**(100.0)**	**31,472**	**(100.0)**

Proportion of episodes by AN-SNAP class over time
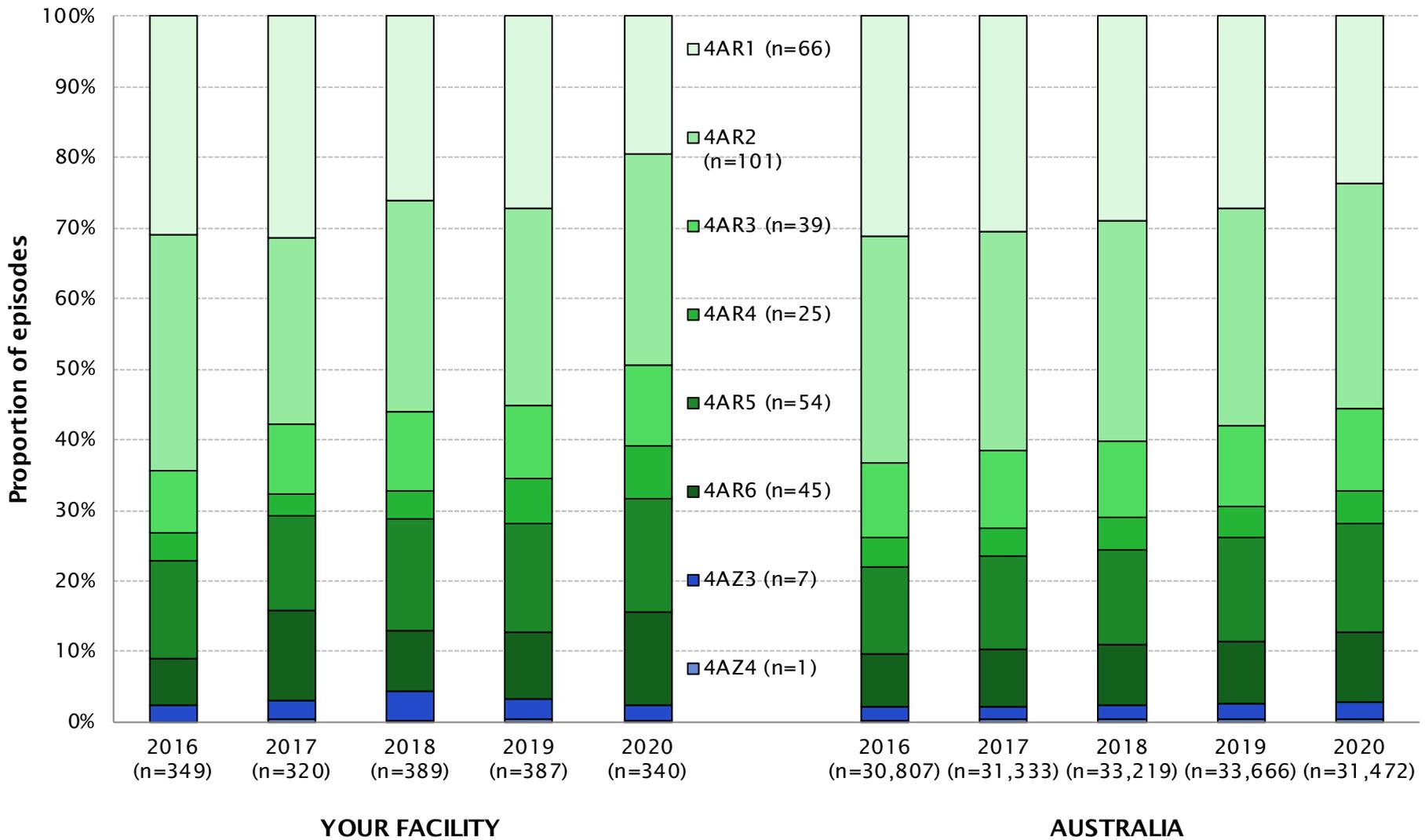
Episodes by AN-SNAP class over time

AN-SNAP class V4	YOUR FACILITY — N					AUSTRALIA — N				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
4AR1 (motor 67-91)	107	100	101	105	66	9,558	9,575	9,594	9,119	7,470
4AR2 (motor 50-66, cognition 26-35)	116	84	116	108	101	9,928	9,706	10,406	10,356	10,027
4AR3 (motor 50-66, cognition 5-25)	31	31	44	40	39	3,224	3,397	3,519	3,863	3,653
4AR4 (motor 34-49, cognition 31-35)	14	10	15	25	25	1,270	1,296	1,536	1,516	1,452
4AR5 (motor 34-49, cognition 5-30)	48	43	62	60	54	3,775	4,077	4,451	4,941	4,810
4AR6 (motor 19-33)	23	40	33	36	45	2,308	2,596	2,856	2,967	3,148
4AZ3 (motor 13-18, Age ≥ 65)	8	9	16	11	7	607	553	711	754	755
4AZ4 (motor 13-18, Age ≤ 64)	0	1	1	2	1	85	109	113	125	130
499A (Data error - ungroupable)	2	2	1	0	2	52	24	33	25	27
All Reconditioning AN-SNAP Classes	**349**	**320**	**389**	**387**	**340**	**30,807**	**31,333**	**33,219**	**33,666**	**31,472**

AN-SNAP class V4	YOUR FACILITY — %					AUSTRALIA — %				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
4AR1 (motor 67-91)	30.7	31.3	26.0	27.1	19.4	31.0	30.6	28.9	27.1	23.7
4AR2 (motor 50-66, cognition 26-35)	33.2	26.3	29.8	27.9	29.7	32.2	31.0	31.3	30.8	31.9
4AR3 (motor 50-66, cognition 5-25)	8.9	9.7	11.3	10.3	11.5	10.5	10.8	10.6	11.5	11.6
4AR4 (motor 34-49, cognition 31-35)	4.0	3.1	3.9	6.5	7.4	4.1	4.1	4.6	4.5	4.6
4AR5 (motor 34-49, cognition 5-30)	13.8	13.4	15.9	15.5	15.9	12.3	13.0	13.4	14.7	15.3
4AR6 (motor 19-33)	6.6	12.5	8.5	9.3	13.2	7.5	8.3	8.6	8.8	10.0
4AZ3 (motor 13-18, Age ≥ 65)	2.3	2.8	4.1	2.8	2.1	2.0	1.8	2.1	2.2	2.4
4AZ4 (motor 13-18, Age ≤ 64)	0.0	0.3	0.3	0.5	0.3	0.3	0.3	0.3	0.4	0.4
499A (Data error - ungroupable)	0.6	0.6	0.3	0.0	0.6	0.2	0.1	0.1	0.1	0.1
All Reconditioning AN-SNAP Classes	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

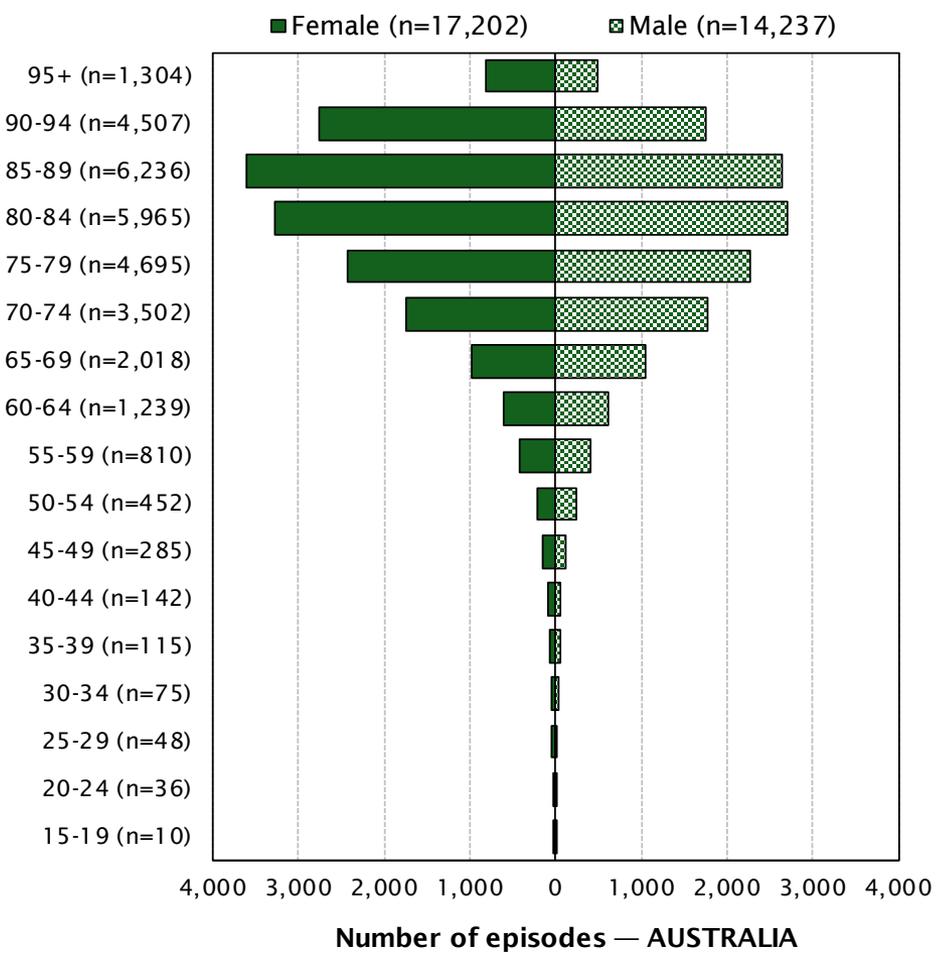# Proportion of episodes by impairment code over time

Episodes by impairment code over time

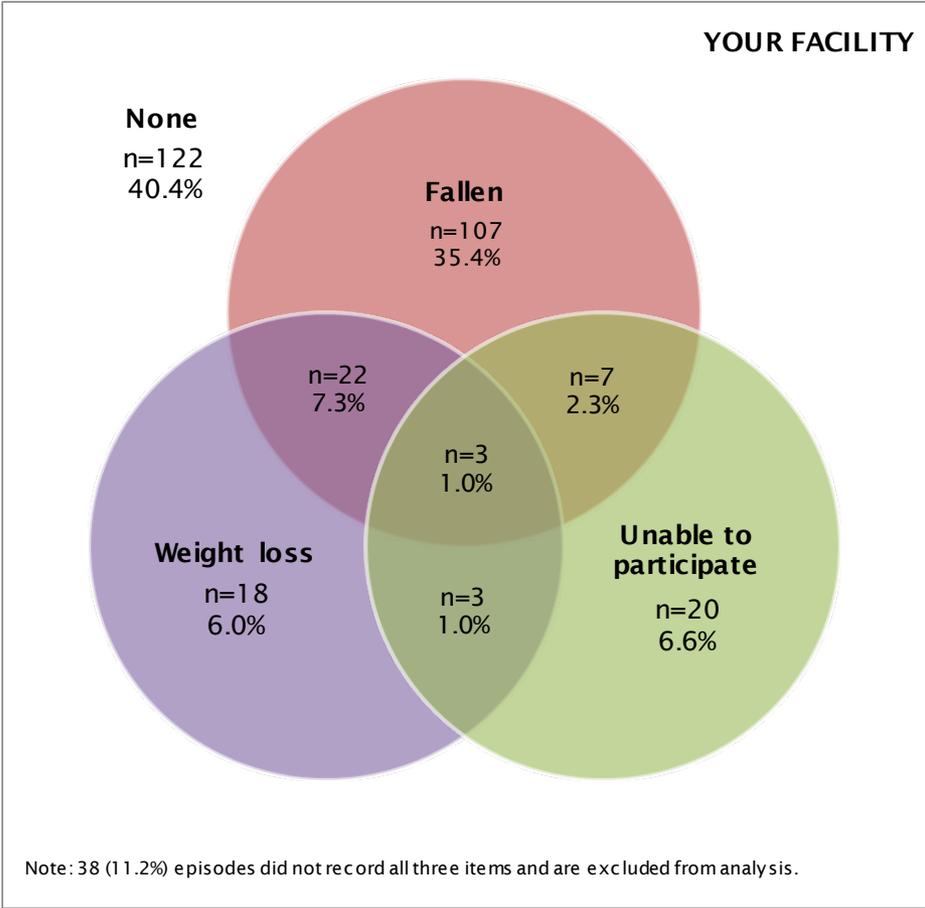|	YOUR FACILITY — N					AUSTRALIA — N				
Impairment	**2016**	**2017**	**2018**	**2019**	**2020**	**2016**	**2017**	**2018**	**2019**	**2020**
16.1 Reconditioning following surgery	101	91	97	87	95	8,337	8,221	8,572	8,925	8,082
16.2 Reconditioning following medical illness	230	212	278	279	234	21,188	21,768	23,223	23,218	21,883
16.3 Cancer rehabilitation	18	17	14	21	11	1,282	1,344	1,424	1,523	1,507
All Reconditioning	**349**	**320**	**389**	**387**	**340**	**30,807**	**31,333**	**33,219**	**33,666**	**31,472**

	YOUR FACILITY — %					AUSTRALIA — %				
Impairment	**2016**	**2017**	**2018**	**2019**	**2020**	**2016**	**2017**	**2018**	**2019**	**2020**
16.1 Reconditioning following surgery	28.9	28.4	24.9	22.5	27.9	27.1	26.2	25.8	26.5	25.7
16.2 Reconditioning following medical illness	65.9	66.3	71.5	72.1	68.8	68.8	69.5	69.9	69.0	69.5
16.3 Cancer rehabilitation	5.2	5.3	3.6	5.4	3.2	4.2	4.3	4.3	4.5	4.8
All Reconditioning	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Reconditioning episodes by age and sex

Reconditioning specific data items

YOUR FACILITY

None
n=122
40.4%

Fallen
n=107
35.4%

n=22
7.3%

n=7
2.3%

n=3
1.0%

Weight loss
n=18
6.0%

Unable to
participate
n=20
6.6%

n=3
1.0%

Note: 38 (11.2%) episodes did not record all three items and are excluded from analysis.

AUSTRALIA

None
n=10,578
37.3%

Fallen
n=11,067
39.0%

n=2,166
7.6%

n=608
2.1%

n=242
0.9%

Weight loss
n=1,548
5.5%

Unable to
participate
n=1,963
6.9%

n=178
0.6%

Note: 3,122 (9.9%) episodes did not record all three items and are excluded from analysis.
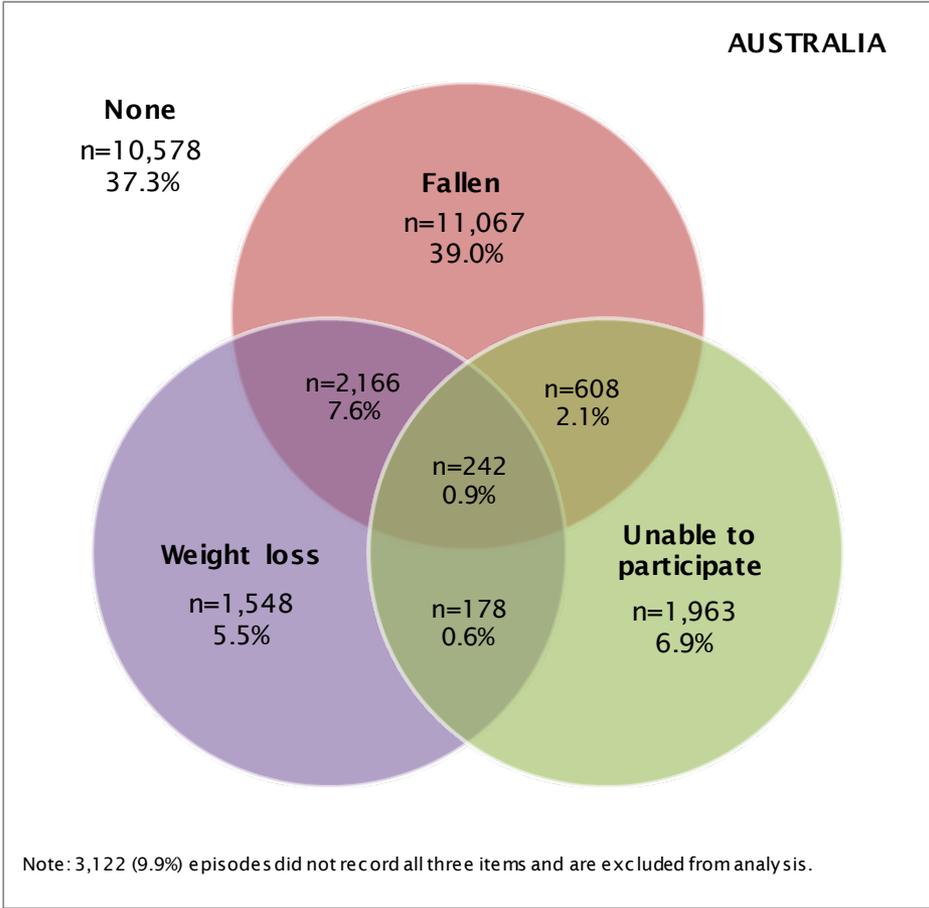
Reconditioning specific data items

		YOUR FACILITY — N					AUSTRALIA — N				
		2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Has patient fallen in the last 12 months?	Yes	129	124	163	177	139	10,990	12,038	13,155	14,046	14,311
	No	165	145	180	168	163	13,979	14,350	15,304	15,451	14,368
Was patient unable to participate in therapy from day 1	Yes	48	34	53	41	33	3,356	3,173	4,027	3,679	2,996
	No	246	235	293	305	269	21,625	23,257	24,465	25,830	25,683
Has patient lost >10% of their body weight in the last 12 months	Yes	53	39	68	54	46	3,553	3,738	3,949	4,018	4,137
	No	237	228	272	288	256	21,201	22,469	24,220	25,218	24,221

		YOUR FACILITY — %					AUSTRALIA — %				
		2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Has patient fallen in the last 12 months?	Yes	43.9	46.1	47.5	51.3	46.0	44.0	45.6	46.2	47.6	49.9
	No	56.1	53.9	52.5	48.7	54.0	56.0	54.4	53.8	52.4	50.1
Was patient unable to participate in therapy from day 1	Yes	16.3	12.6	15.3	11.8	10.9	13.4	12.0	14.1	12.5	10.4
	No	83.7	87.4	84.7	88.2	89.1	86.6	88.0	85.9	87.5	89.6
Has patient lost >10% of their body weight in the last 12 months	Yes	18.3	14.6	20.0	15.8	15.2	14.4	14.3	14.0	13.7	14.6
	No	81.7	85.4	80.0	84.2	84.8	85.6	85.7	86.0	86.3	85.4

Proportion of episodes by frailty score over time

Legend:
- 1 Very Fit
- 2 Well
- 3 Well, some comorbid
- 4 Apparently vulnerable
- 5 Mildly frail
- 6 Moderately frail
- 7 Severely frail
- 8 Terminally ill
- 9 Unknown
- Not Entered

YOUR FACILITY: 2016 (n=349), 2017 (n=320), 2018 (n=389), 2019 (n=387), 2020 (n=340)

AUSTRALIA: 2016 (n=30,807), 2017 (n=31,333), 2018 (n=33,219), 2019 (n=33,666), 2020 (n=31,472)
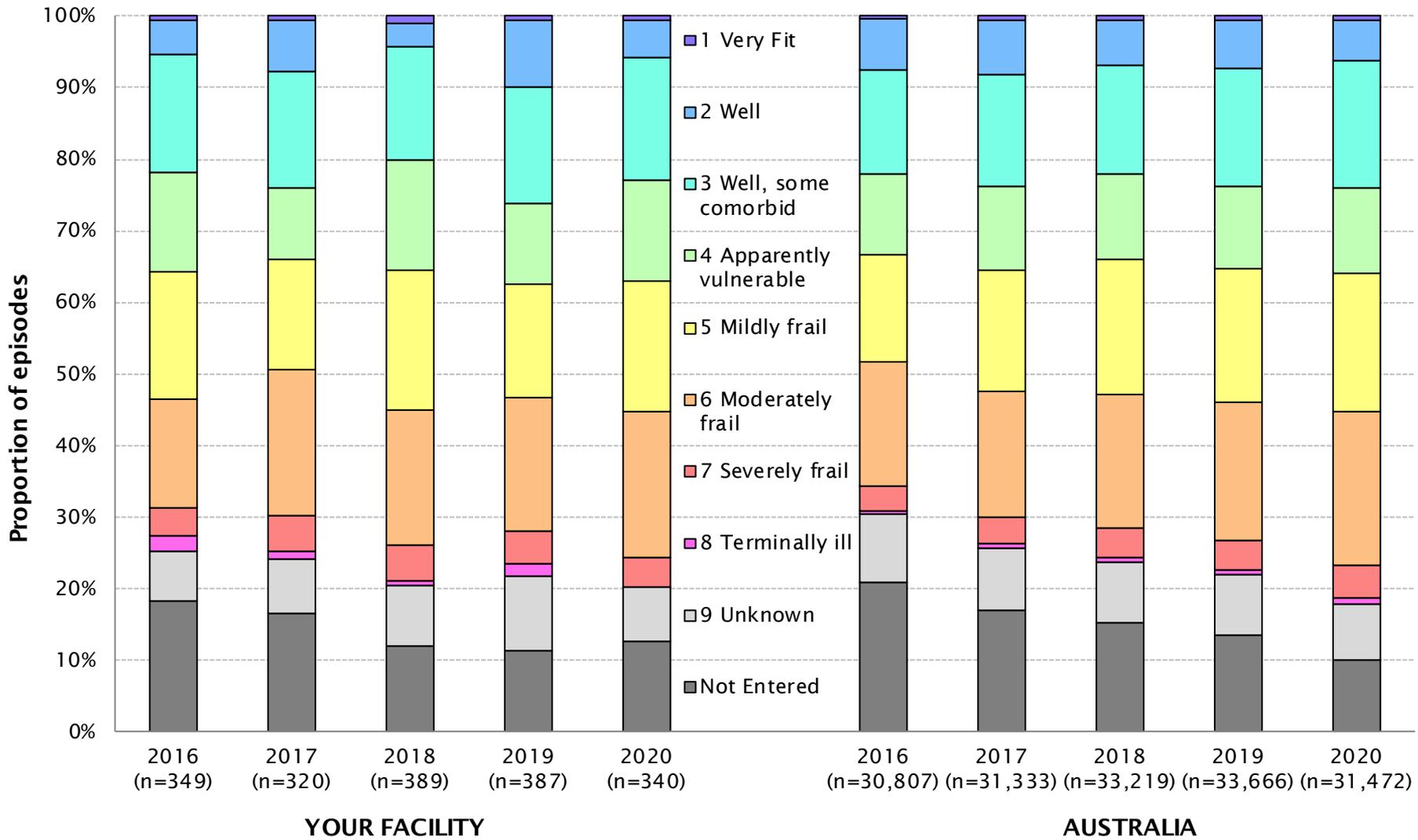
Proportion of episodes by frailty score over time

Frailty	YOUR FACILITY — N					AUSTRALIA — N				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
1 Very Fit	2	2	4	2	2	123	159	175	164	157
2 Well	17	23	13	36	18	2,200	2,377	2,076	2,260	1,817
3 Well, some comorbid	57	52	61	63	58	4,498	4,918	5,103	5,549	5,600
4 Apparently vulnerable	49	32	60	44	48	3,453	3,679	3,921	3,933	3,737
5 Mildly frail	62	49	76	61	62	4,621	5,278	6,252	6,232	6,053
6 Moderately frail	53	65	73	72	69	5295	5540	6226	6529	6768
7 Severely frail	13	16	20	18	14	1080	1109	1359	1350	1422
8 Terminally ill	8	4	2	7	0	184	211	214	216	267
9 Unknown	24	24	33	40	26	2941	2749	2822	2849	2459
Not Entered	64	53	47	44	43	6412	5313	5071	4584	3192
All Reconditioning	349	320	389	387	340	30,807	31,333	33,219	33,666	31,472

Frailty	YOUR FACILITY — %					AUSTRALIA — %				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
1 Very Fit	0.6	0.6	1.0	0.5	0.6	0.4	0.5	0.5	0.5	0.5
2 Well	4.9	7.2	3.3	9.3	5.3	7.1	7.6	6.2	6.7	5.8
3 Well, some comorbid	16.3	16.3	15.7	16.3	17.1	14.6	15.7	15.4	16.5	17.8
4 Apparently vulnerable	14.0	10.0	15.4	11.4	14.1	11.2	11.7	11.8	11.7	11.9
5 Mildly frail	17.8	15.3	19.5	15.8	18.2	15.0	16.8	18.8	18.5	19.2
6 Moderately frail	15.2	20.3	18.8	18.6	20.3	17.2	17.7	18.7	19.4	21.5
7 Severely frail	3.7	5.0	5.1	4.7	4.1	3.5	3.5	4.1	4.0	4.5
8 Terminally ill	2.3	1.3	0.5	1.8	0.0	0.6	0.7	0.6	0.6	0.8
9 Unknown	6.9	7.5	8.5	10.3	7.6	9.5	8.8	8.5	8.5	7.8
Not Entered	18.3	16.6	12.1	11.4	12.6	20.8	17.0	15.3	13.6	10.1
All Reconditioning	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Has patient fallen in the last 12 months? by frailty score

Rockwood Frailty Score

Legend: ■ Yes ■ No

AUSTRALIA

Score	Yes	No	n
1 Very fit	20%	80%	(n=157)
2 Well	28%	72%	(n=1,814)
3 Well, with comorbid disease	41%	59%	(n=5,596)
4 Apparently vulnerable	49%	51%	(n=3,731)
5 Mildly frail	56%	44%	(n=6,046)
6 Moderately frail	63%	37%	(n=6,760)
7 Severely frail	69%	31%	(n=1,420)
8 Terminally ill	54%	46%	(n=267)
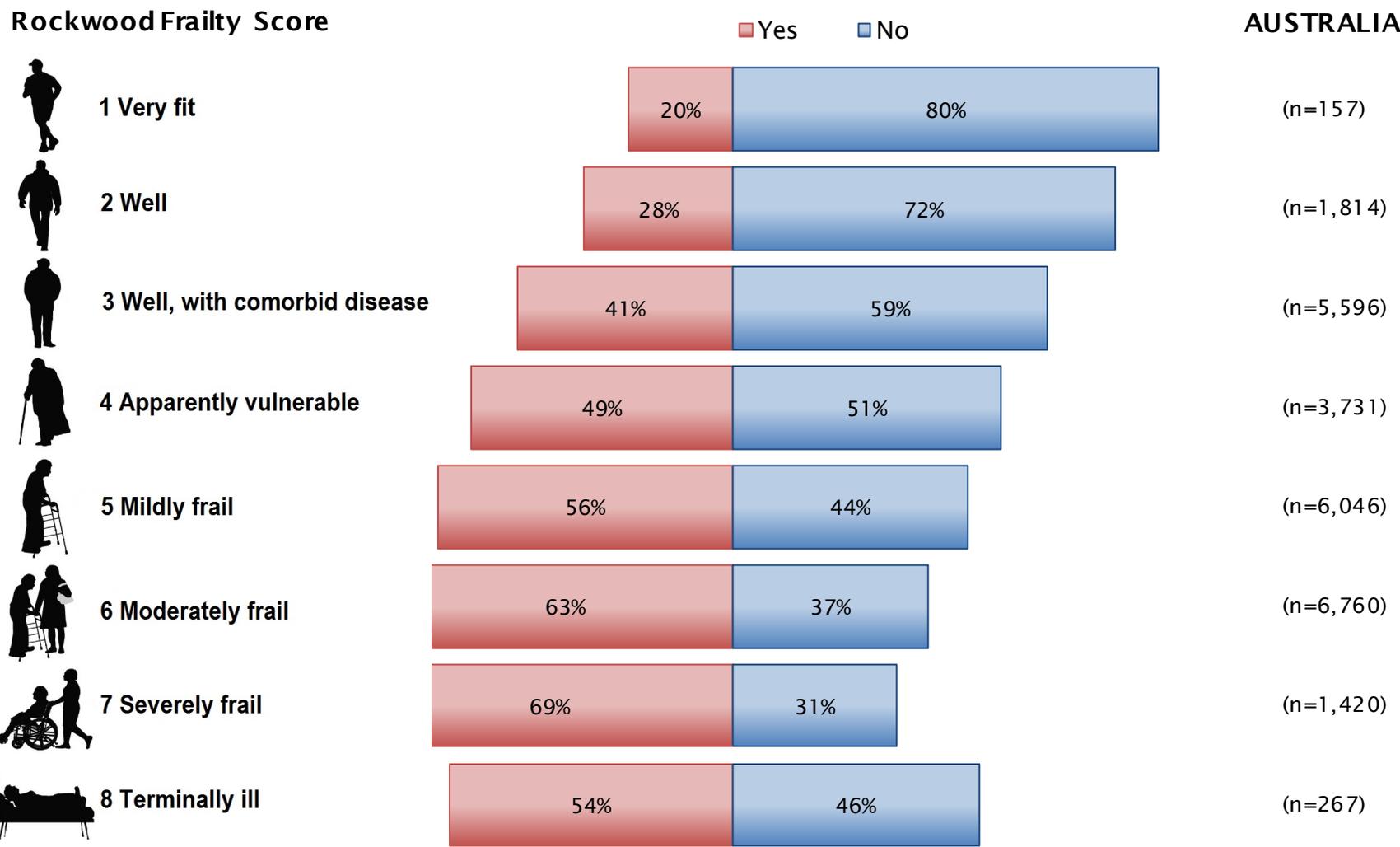
Unable to participate in therapy on day one? by frailty score

Rockwood Frailty Score

Yes   No

AUSTRALIA

Rockwood Frailty Score	Yes	No	AUSTRALIA
1 Very fit	3%	97%	(n=157)
2 Well	6%	94%	(n=1,814)
3 Well, with comorbid disease	5%	95%	(n=5,597)
4 Apparently vulnerable	5%	95%	(n=3,731)
5 Mildly frail	5%	95%	(n=6,045)
6 Moderately frail	7%	93%	(n=6,761)
7 Severely frail	17%	83%	(n=1,420)
8 Terminally ill	33%	67%	(n=267)
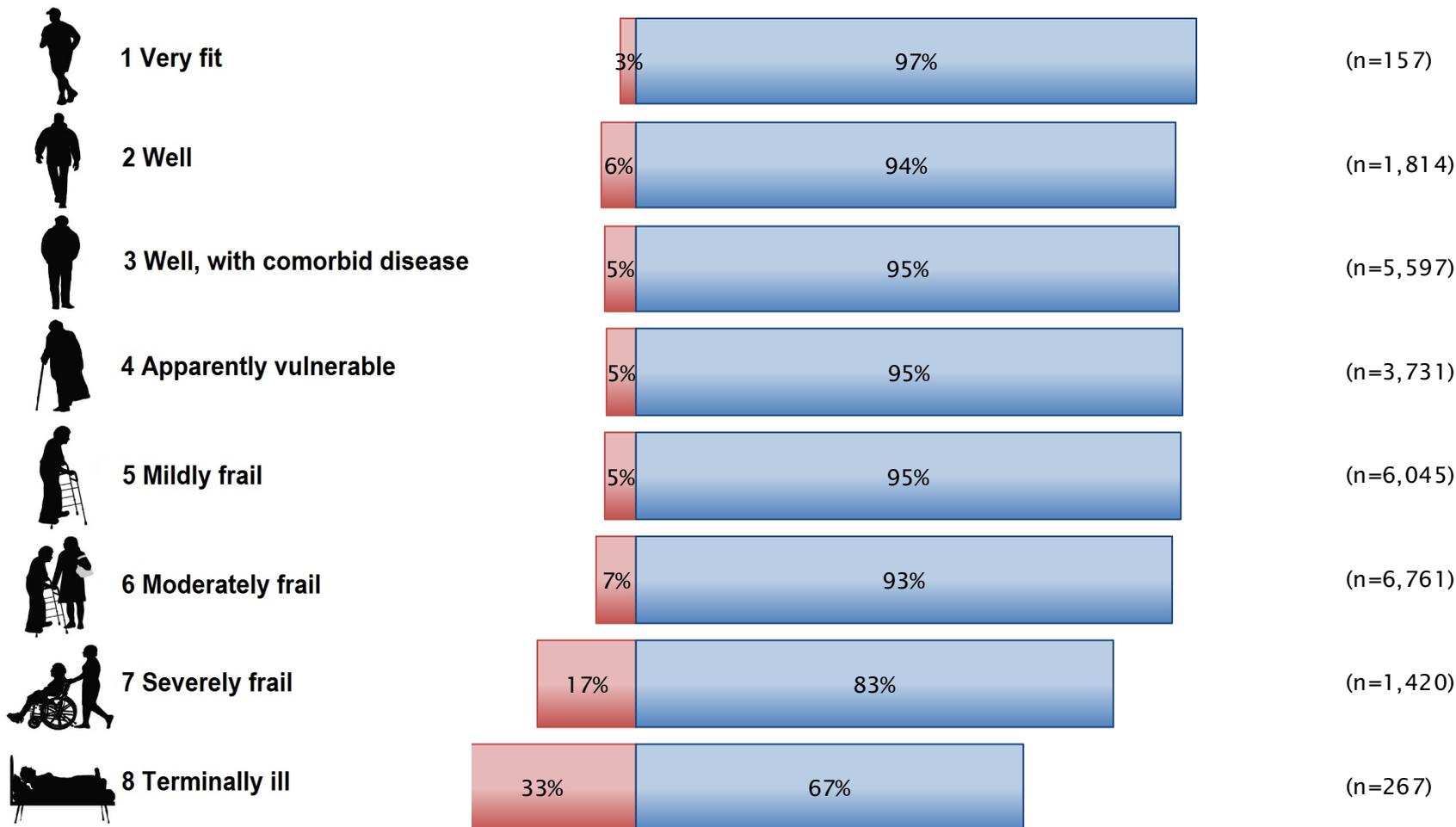
Has patient lost >10% body weight in the last 12 months? by frailty score

Rockwood Frailty Score

□ Yes □ No

AUSTRALIA

	Yes	No	
1 Very fit	15%	85%	(n=157)
2 Well	8%	92%	(n=1,806)
3 Well, with comorbid disease	9%	91%	(n=5,459)
4 Apparently vulnerable	16%	84%	(n=3,632)
5 Mildly frail	15%	85%	(n=5,982)
6 Moderately frail	19%	81%	(n=6,754)
7 Severely frail	36%	64%	(n=1,419)
8 Terminally ill	50%	50%	(n=266)
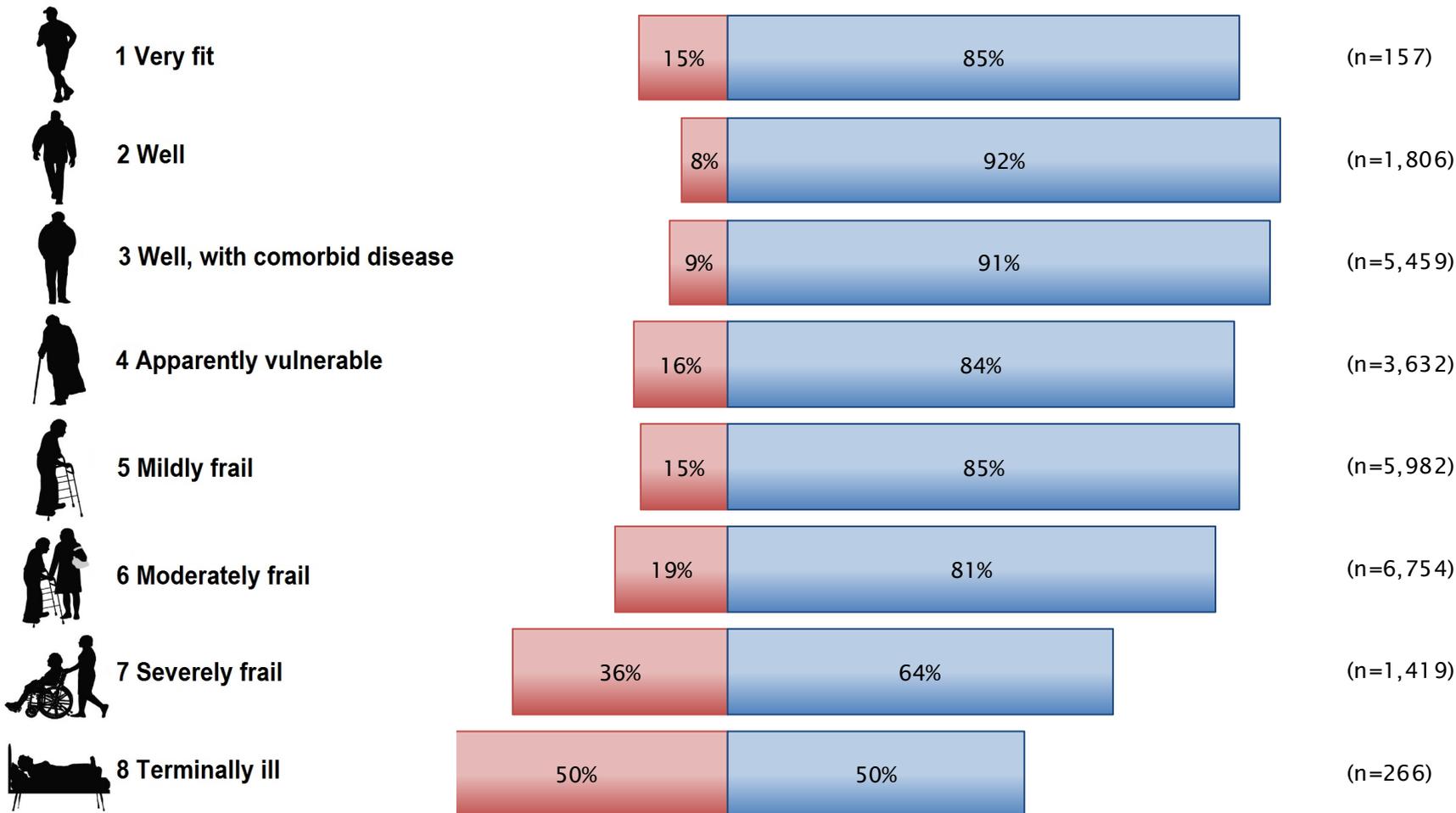
Average age by frailty score

Rockwood Frailty Score

■ YOUR FACILITY   ■ AUSTRALIA

Rockwood Frailty Score	Your Facility	Australia
1 Very fit	(n<5)	(n=157)
2 Well	(n=18)	(n=1,816)
3 Well, with comorbid disease	(n=58)	(n=5,591)
4 Apparently vulnerable	(n=48)	(n=3,734)
5 Mildly frail	(n=62)	(n=6,049)
6 Moderately frail	(n=69)	(n=6,766)
7 Severely frail	(n=14)	(n=1,421)
8 Terminally ill	(n<5)	(n=267)

Average Age
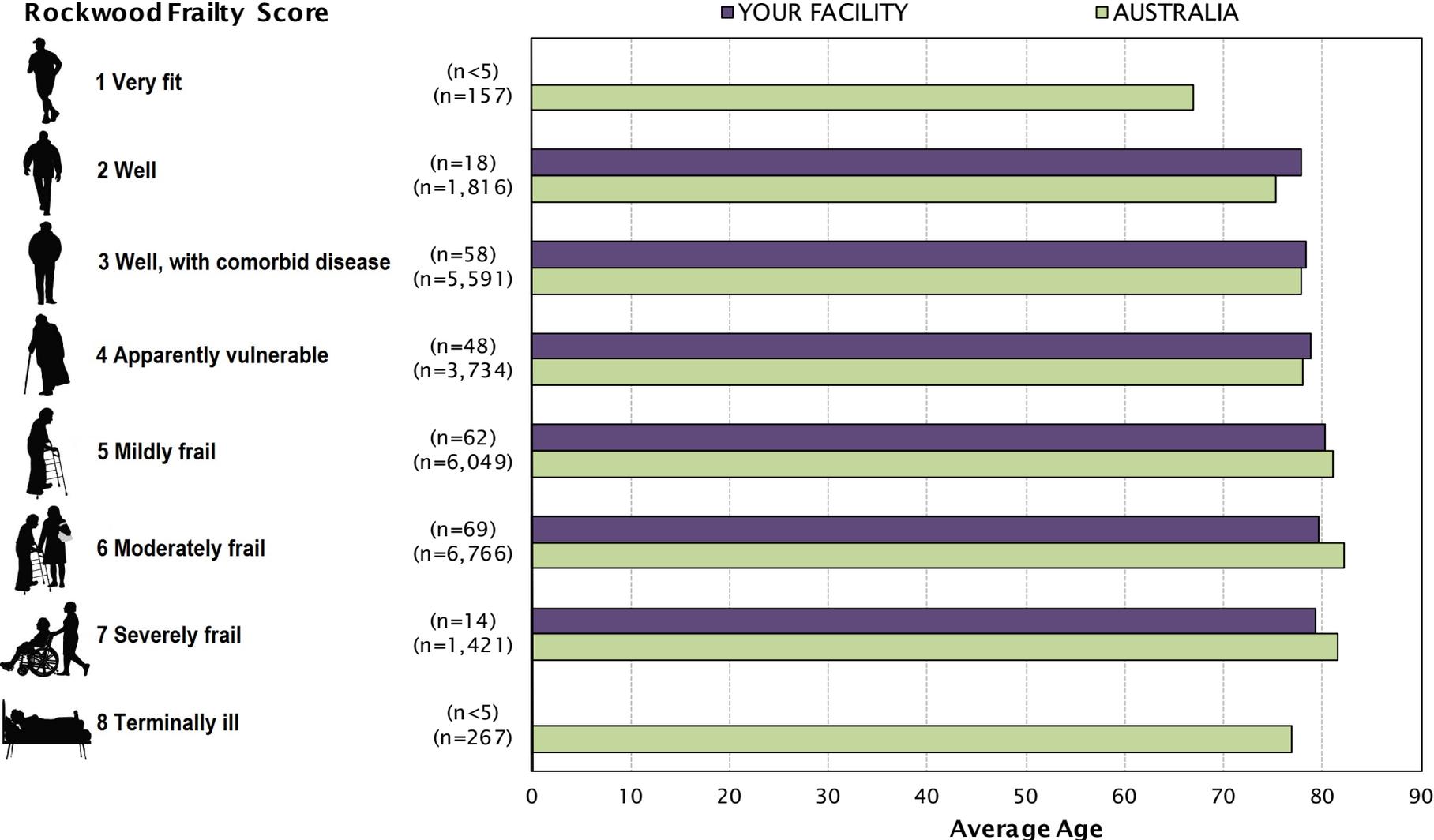
Summary of incomplete episodes

Complete episode analysis	YOUR FACILITY		AUSTRALIA	
	No.	(%)	No.	(%)
Total reporting episodes	340		31,472	
Incomplete episodes	45	(13.2)	4,827	(15.3)
Reason for incomplete:				
Discharged home with end FIM=18	0	(0.0)	37	(0.8)
Discharged home with no end FIM	1	(2.2)	25	(0.5)
Discharged to another hospital	19	(42.2)	2,222	(46.0)
Care type change - same hospital	19	(42.2)	1,967	(40.7)
Discharged at own risk	1	(2.2)	222	(4.6)
Change of care type (LOS<1 week)	2	(4.4)	90	(1.9)
Died	2	(4.4)	161	(3.3)
Other/Unknown Discharge	1	(2.2)	103	(2.1)

	YOUR FACILITY			
	Incomplete Episodes		Complete episodes	
Impairment Code:				
16.1 Reconditioning following surgery	5	(11.1)	90	(30.5)
16.2 Reconditioning following medical illness	38	(84.4)	196	(66.4)
16.3 Cancer rehabilitation	2	(4.4)	9	(3.1)
AN-SNAP Class:				
4AR1 (motor 67-91)	3	(6.8)	63	(21.4)
4AR2 (motor 50-66, cognition 26-35)	5	(11.4)	96	(32.7)
4AR3 (motor 50-66, cognition 5-25)	5	(11.4)	34	(11.6)
4AR4 (motor 34-49, cognition 31-35)	5	(11.4)	20	(6.8)
4AR5 (motor 34-49, cognition 5-30)	13	(29.5)	41	(13.9)
4AR6 (motor 19-33)	8	(18.2)	37	(12.6)
4AZ3 (motor 13-18, Age ≥ 65)	4	(9.1)	3	(1.0)
4AZ4 (motor 13-18, Age ≤ 64)	1	(2.3)	0	(0.0)

Review of FIM item scoring

by AN-SNAP class

Interpreting the comparative FIM item scoring charts

Admission FIM scores
- YOUR FACILITY
- AUSTRALIA

Figure A

Discharge FIM scores
- YOUR FACILITY
- AUSTRALIA

Figure B
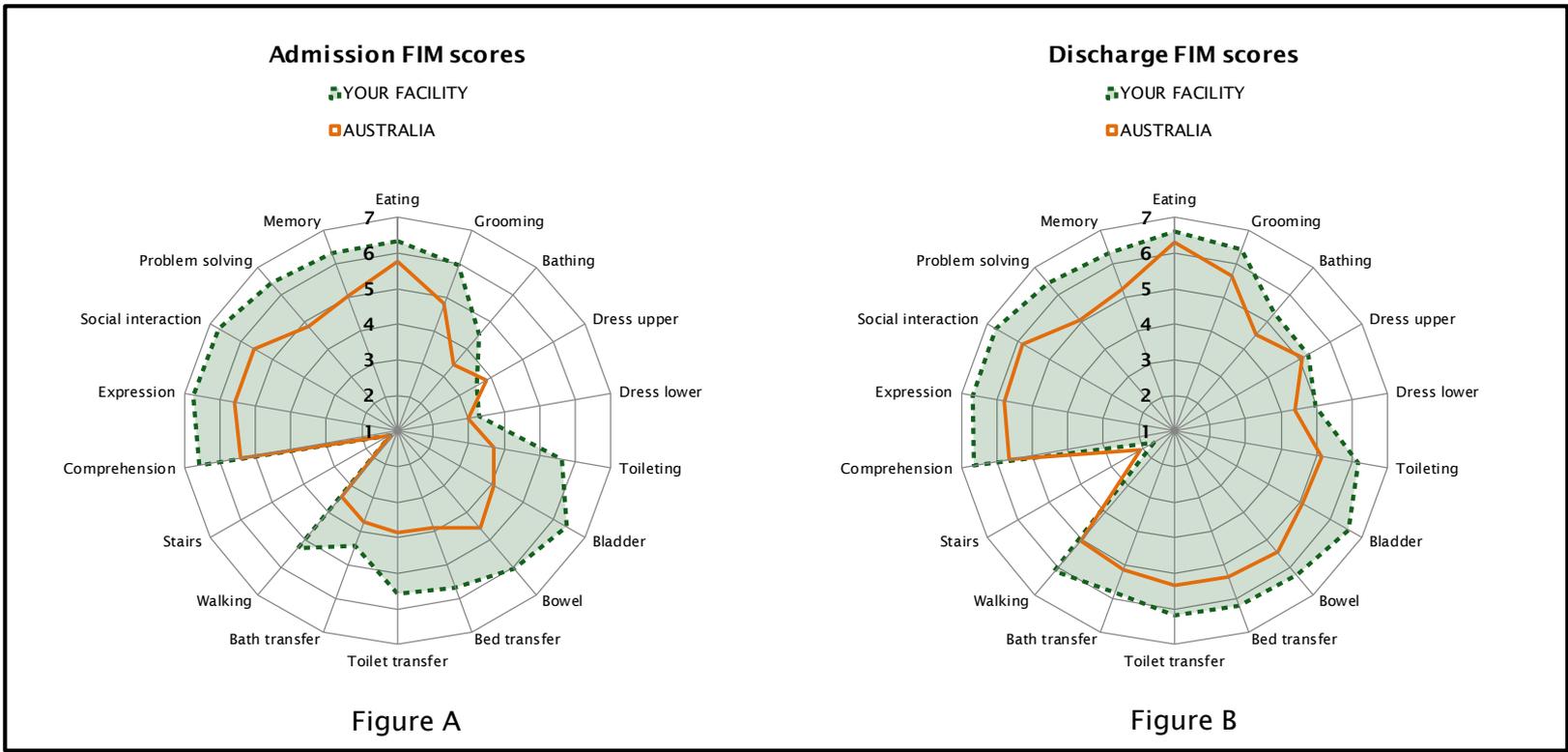
The FIM splat provides a graphic presentation of functional status in a radar chart. The 18 FIM items are arranged in order as 'spokes' of a wheel and the scoring levels from 1 (total dependence) to 7 (total independence) run from the centre outwards. The mean FIM item score for each item is indicated — 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 4AR1

4AR1 Admission FIM scores

- YOUR FACILITY (n=63)
- AUSTRALIA (n=6,814)
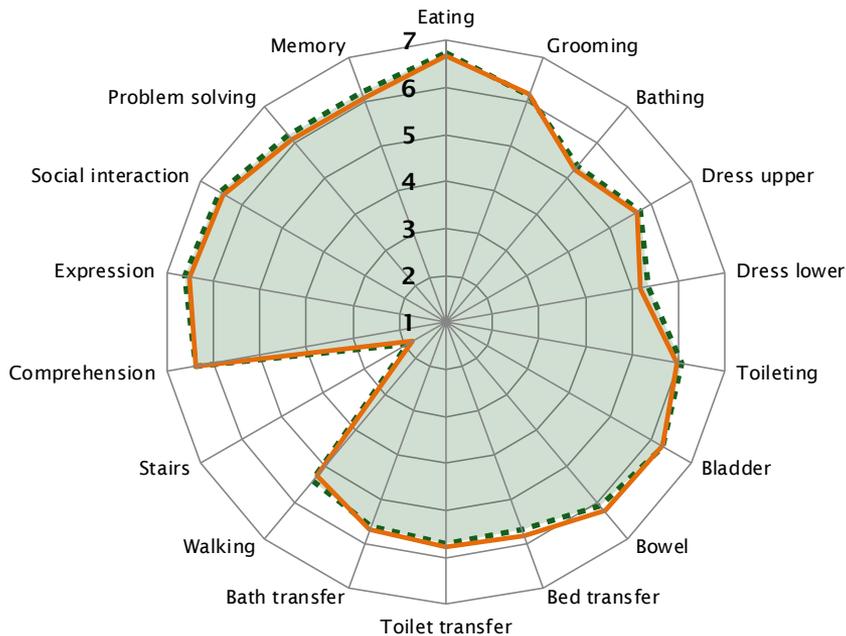
4AR1 Discharge FIM scores
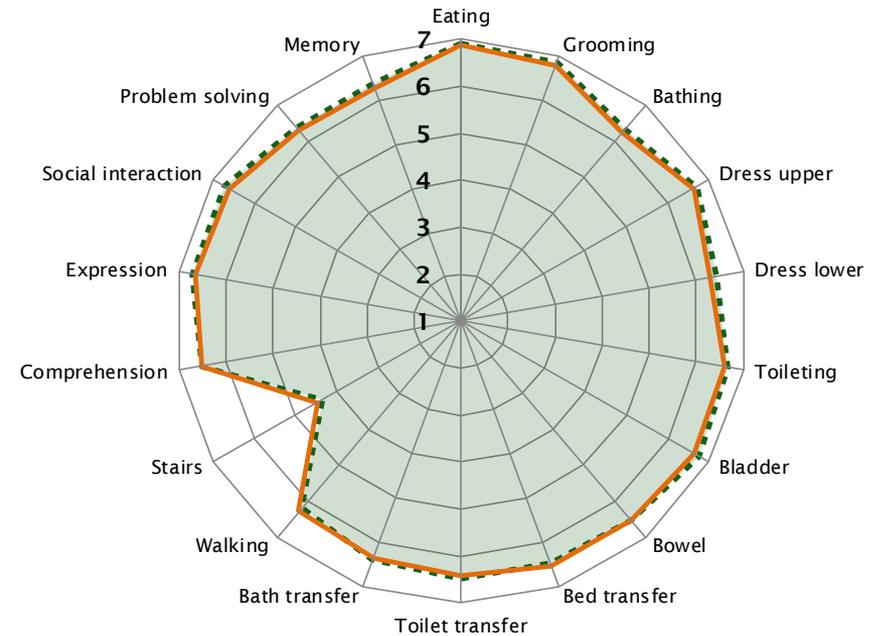
- YOUR FACILITY (n=63)
- AUSTRALIA (n=6,814)

Note: Includes only completed episodes with valid FIM scores

Comparative FIM item scoring
AN-SNAP class 4AR2

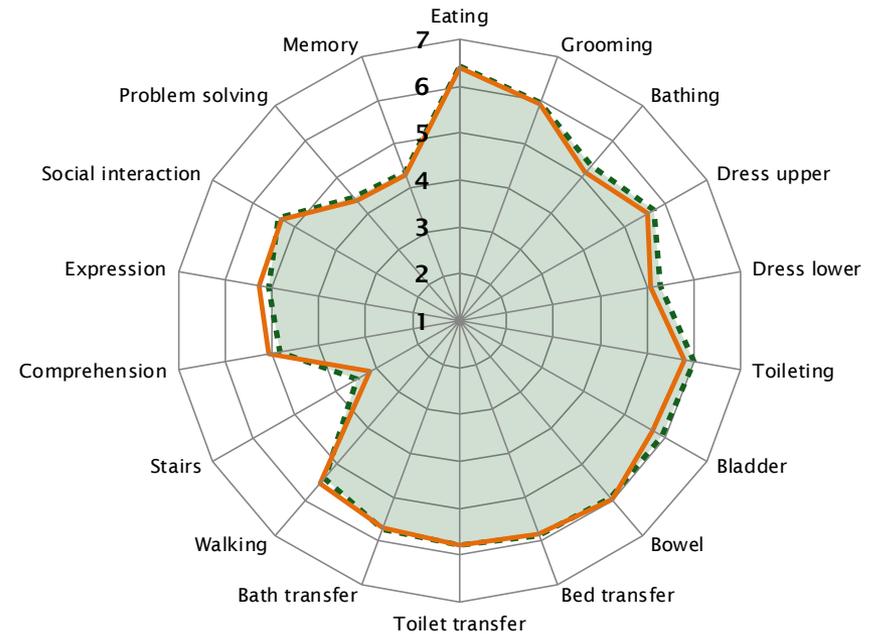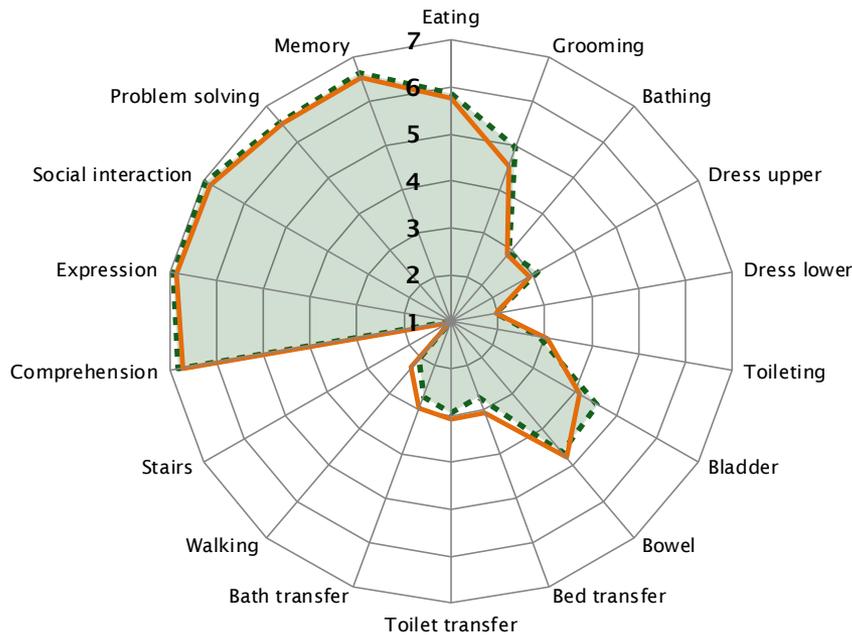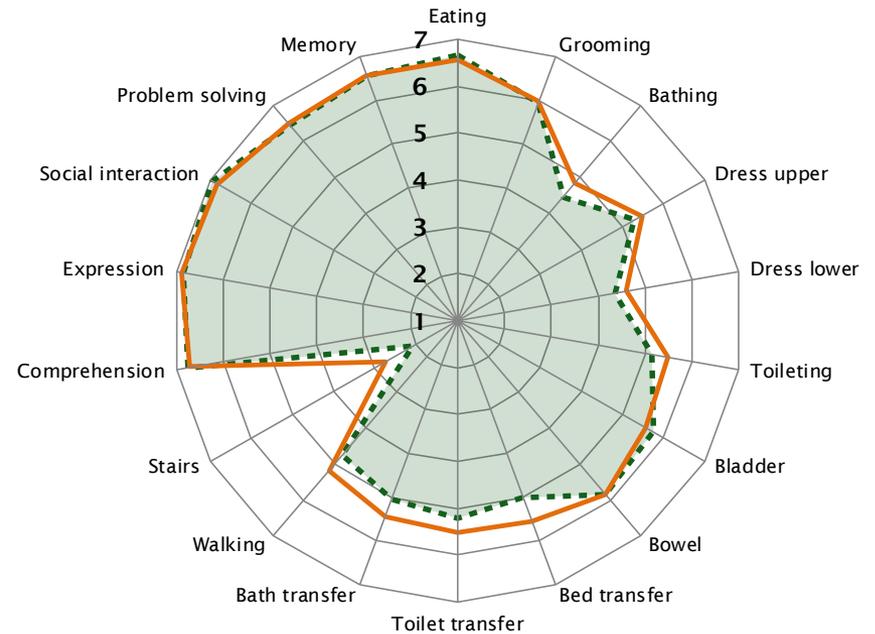**4AR2 Admission FIM scores**

YOUR FACILITY (n=96)
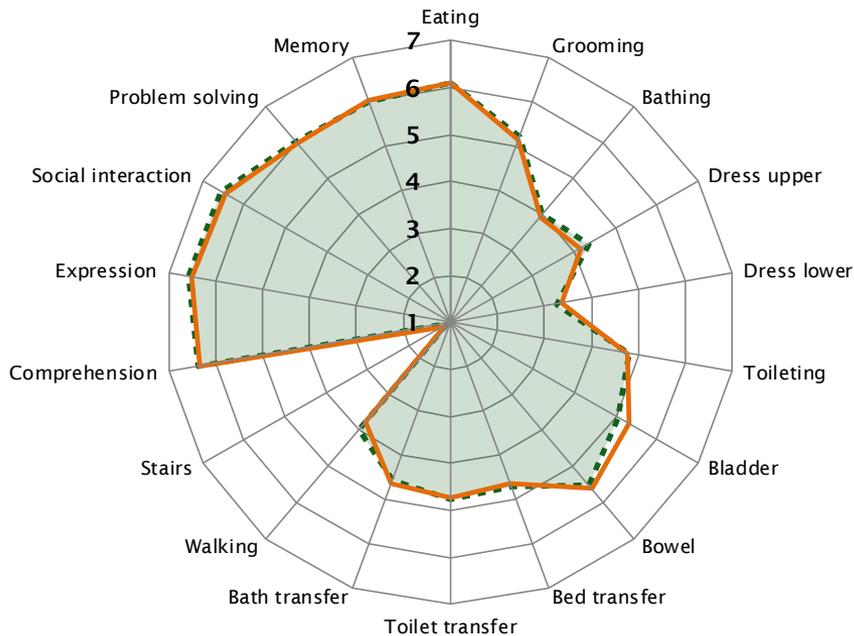
AUSTRALIA (n=8,730)

4AR2 Discharge FIM scores
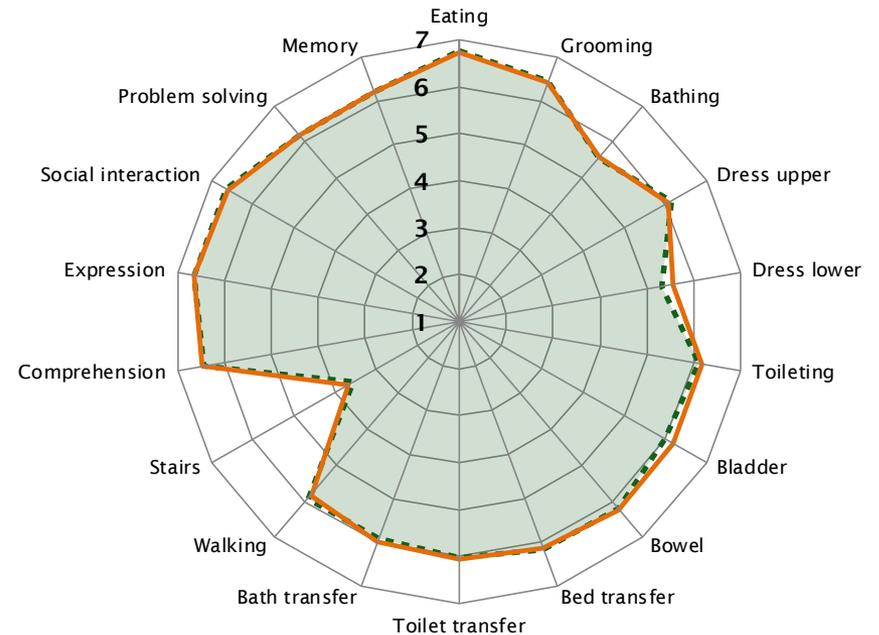
YOUR FACILITY (n=96)

AUSTRALIA (n=8,730)

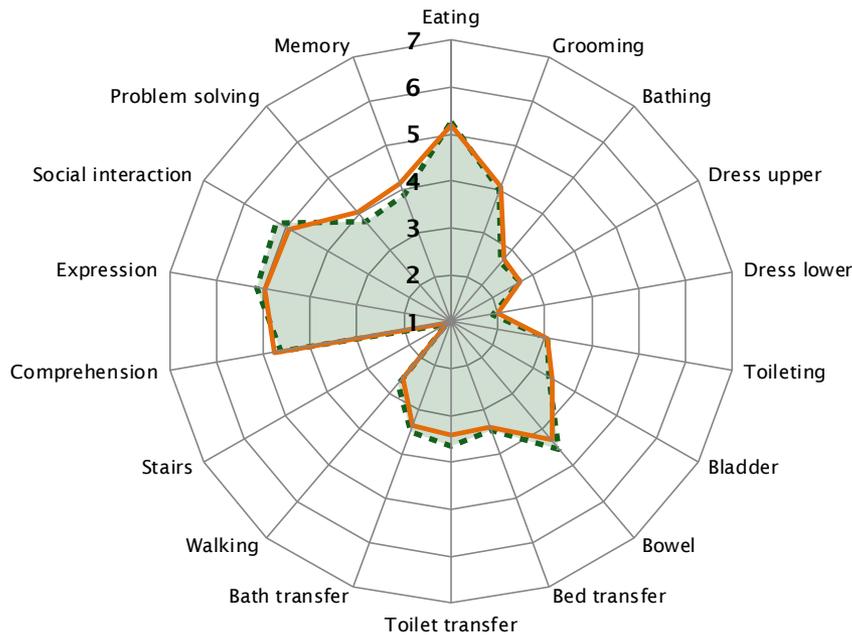Note: Includes only completed episodes with valid FIM scores
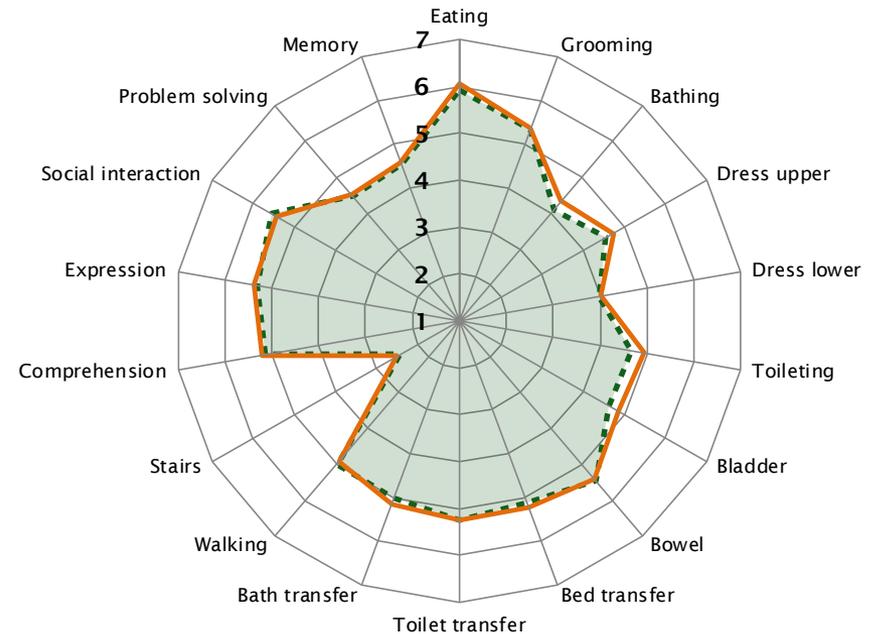
Comparative FIM item scoring
AN-SNAP class 4AR3

4AR3 Admission FIM scores

- YOUR FACILITY (n=34)
- AUSTRALIA (n=3,108)
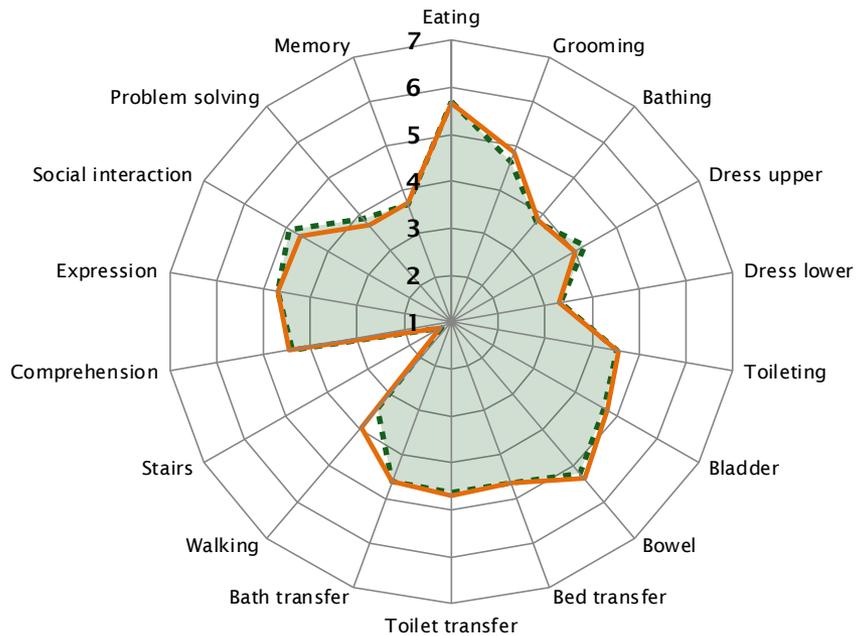
4AR3 Discharge FIM scores

- YOUR FACILITY (n=34)
- AUSTRALIA (n=3,108)

Note: Includes only completed episodes with valid FIM scores

Comparative FIM item scoring
AN-SNAP class 4AR4

4AR4 Admission FIM scores

- YOUR FACILITY (n=20)
- AUSTRALIA (n=1,154)

4AR4 Discharge FIM scores

- YOUR FACILITY (n=20)
- AUSTRALIA (n=1,154)

Note: Includes only completed episodes with valid FIM scores

Comparative FIM item scoring
AN-SNAP class 4AR5

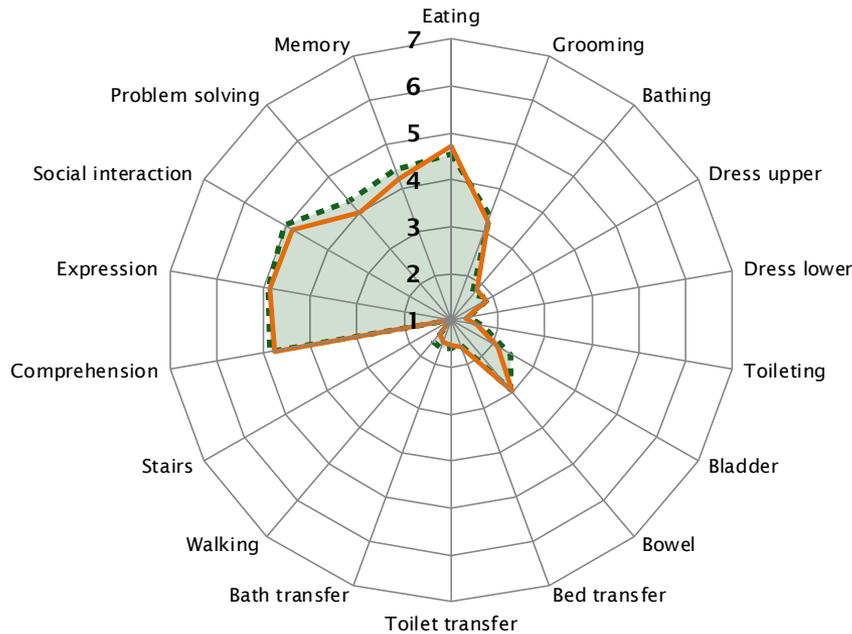Note: Includes only completed episodes with valid FIM scores

Comparative FIM item scoring
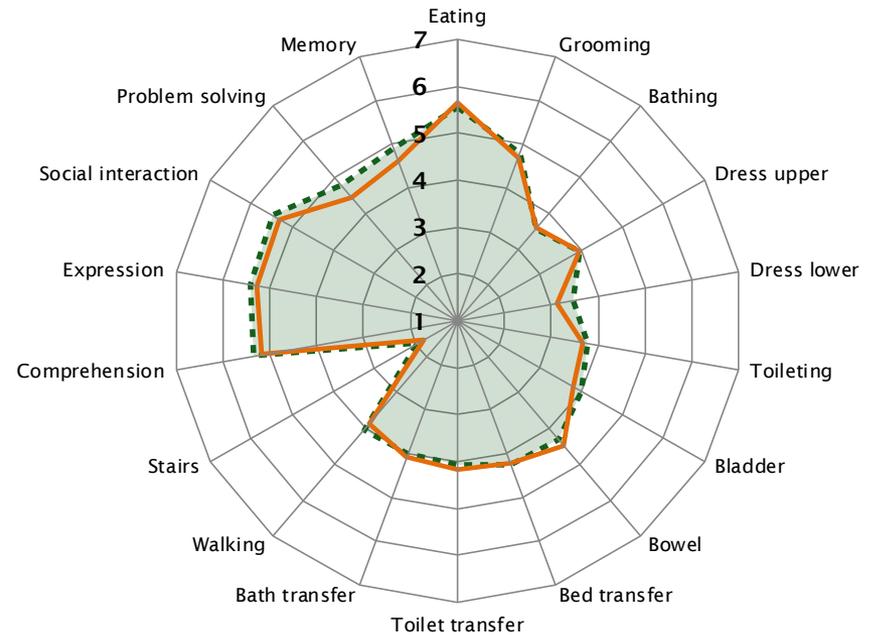# AN-SNAP class 4AR6

4AR6 Admission FIM scores

- YOUR FACILITY (n=37)
- AUSTRALIA (n=2,326)

4AR6 Discharge FIM scores

- YOUR FACILITY (n=37)
- AUSTRALIA (n=2,326)

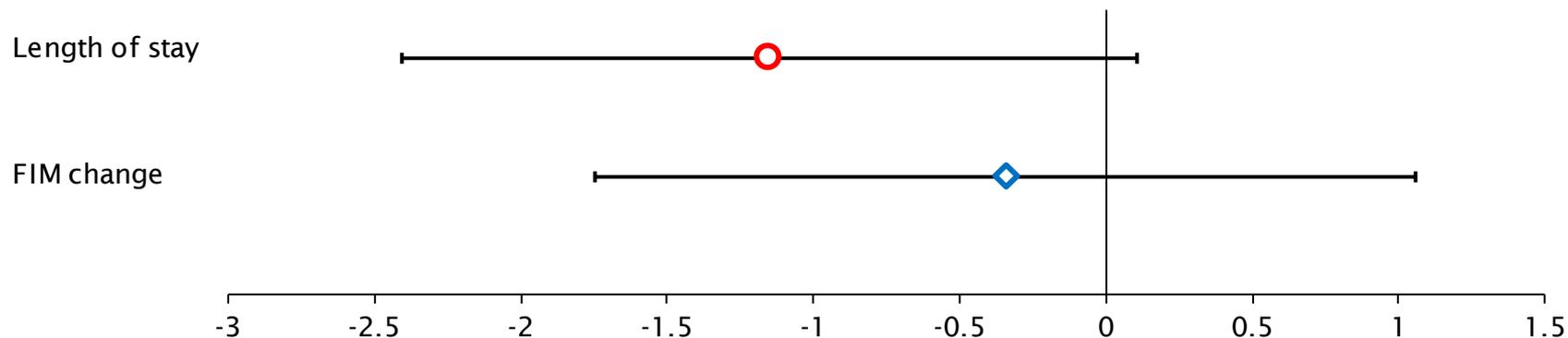Note: Includes only completed episodes with valid FIM scores

Outcome analysis

Completed episodes by AN-SNAP class

AN-SNAP class V4	YOUR FACILITY			AUSTRALIA		
	All episodes	Completed episodes	% Complete	All episodes	Completed episodes	% Complete
4AR1 (motor 67-91)	66	63	95.5	7,470	6,814	91.2
4AR2 (motor 50-66, cognition 26-35)	101	96	95.0	10,027	8,731	87.1
4AR3 (motor 50-66, cognition 5-25)	39	34	87.2	3,653	3,109	85.1
4AR4 (motor 34-49, cognition 31-35)	25	20	80.0	1,452	1,154	79.5
4AR5 (motor 34-49, cognition 5-30)	54	41	75.9	4,810	3,936	81.8
4AR6 (motor 19-33)	45	37	82.2	3,148	2,326	73.9
4AZ3 (motor 13-18, Age ≥ 65)	7	3	42.9	755	498	66.0
4AZ4 (motor 13-18, Age ≤ 64)	1	0	0.0	130	69	53.1
499A (Data error - ungroupable)	2	1	50.0	27	8	29.6
All Reconditioning AN-SNAP Classes	**340**	**295**	**86.8**	**31,472**	**26,645**	**84.7**

NOTE: All outcomes analysis are based on completed episodes. A definition of completed episodes can be found in Appendix1 (Glossary)
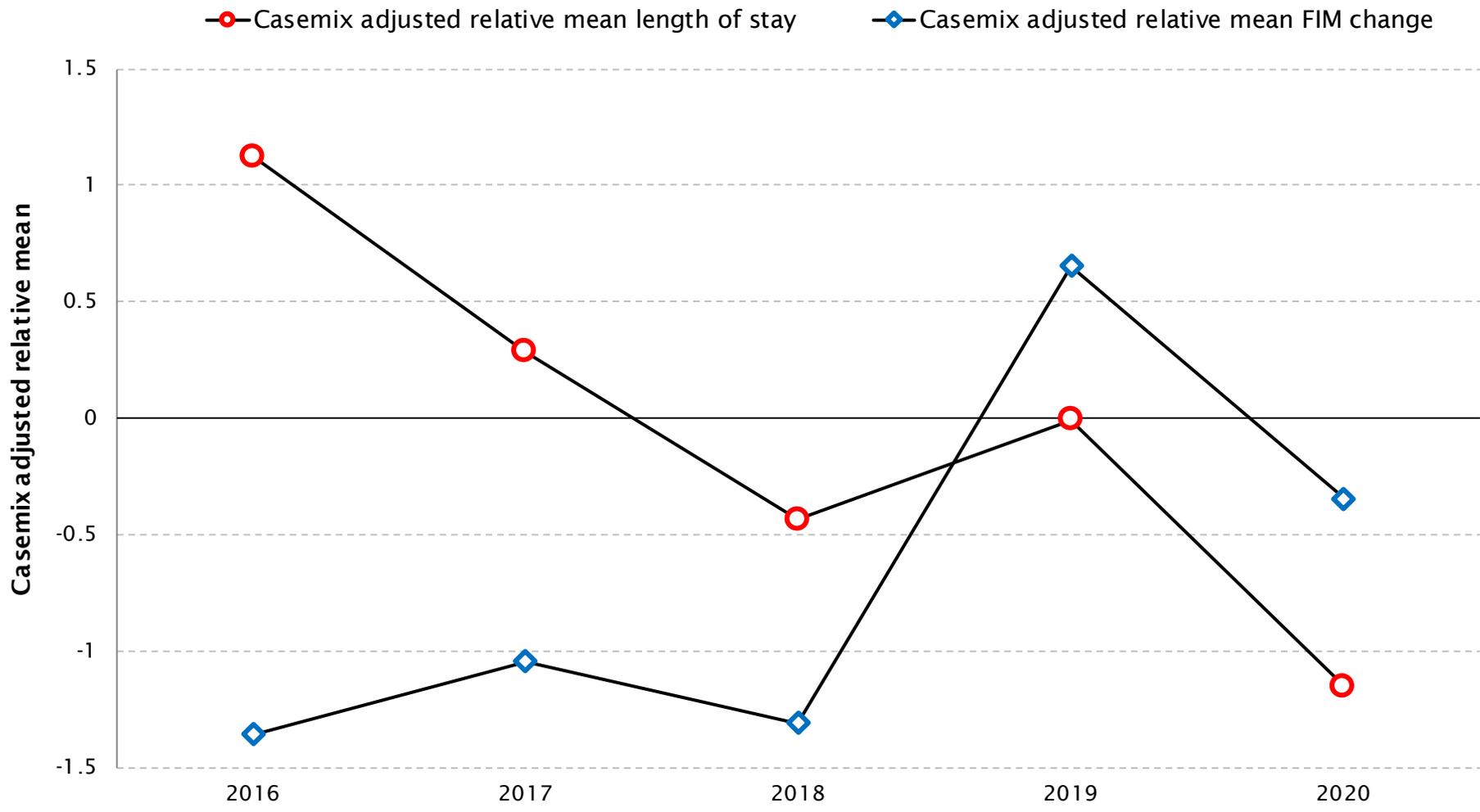
Casemix-adjusted* relative means

Casemix-adjusted relative means with 95% confidence intervals

	YOUR FACILITY		AUSTRALIA
Outcome measures	Casemix-adjusted* relative mean	95% CI	IQR
Length of stay	-1.2	-2.4 to 0.1	-6.1 to 3.0
FIM change	-0.3	-1.7 to 1.1	-6.8 to 6.8

*Includes only completed episodes with valid FIM scores and LOS

Casemix-adjusted* relative means over time

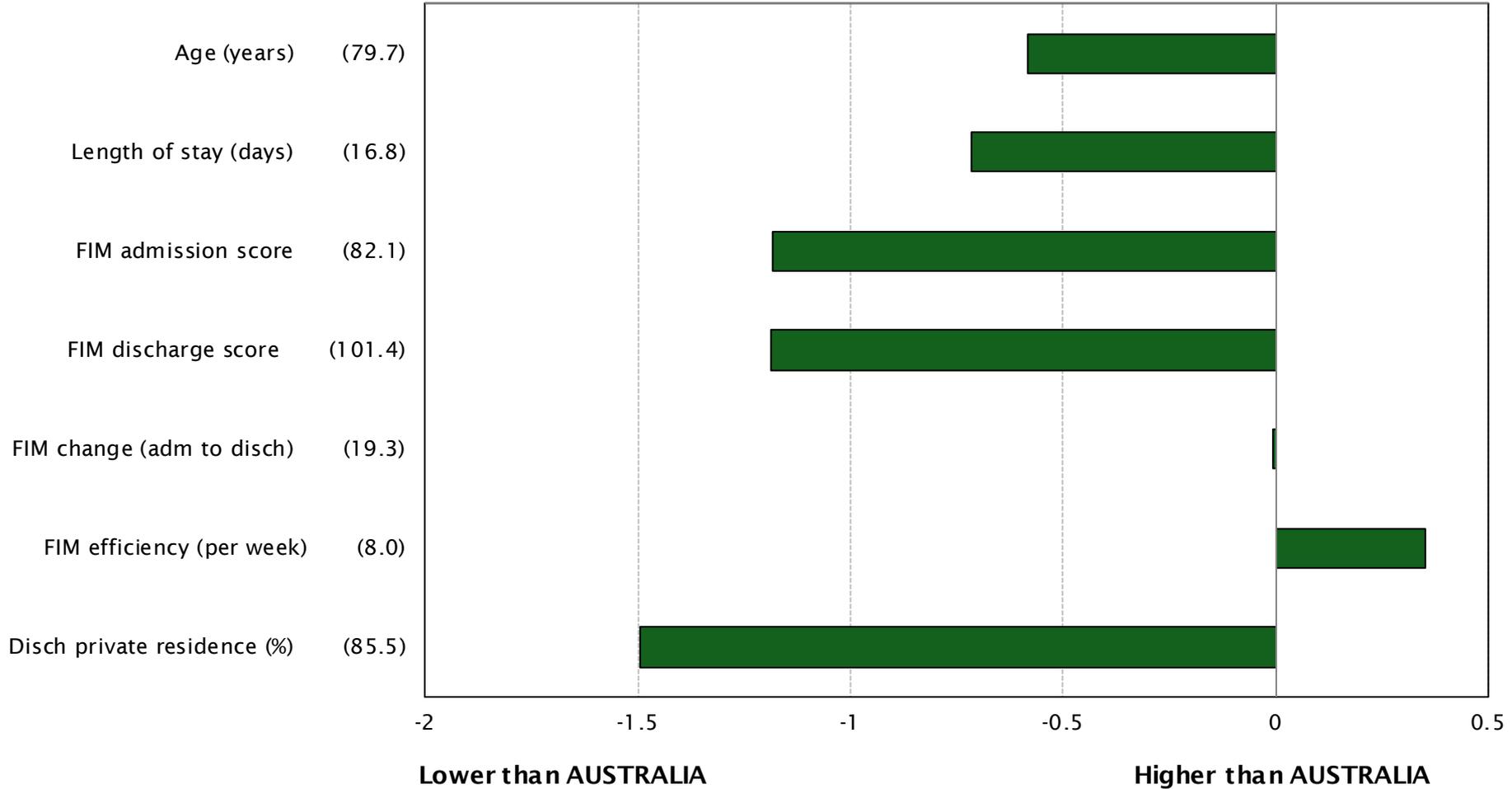*Casemix adjusted values based on FY 2020

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 data

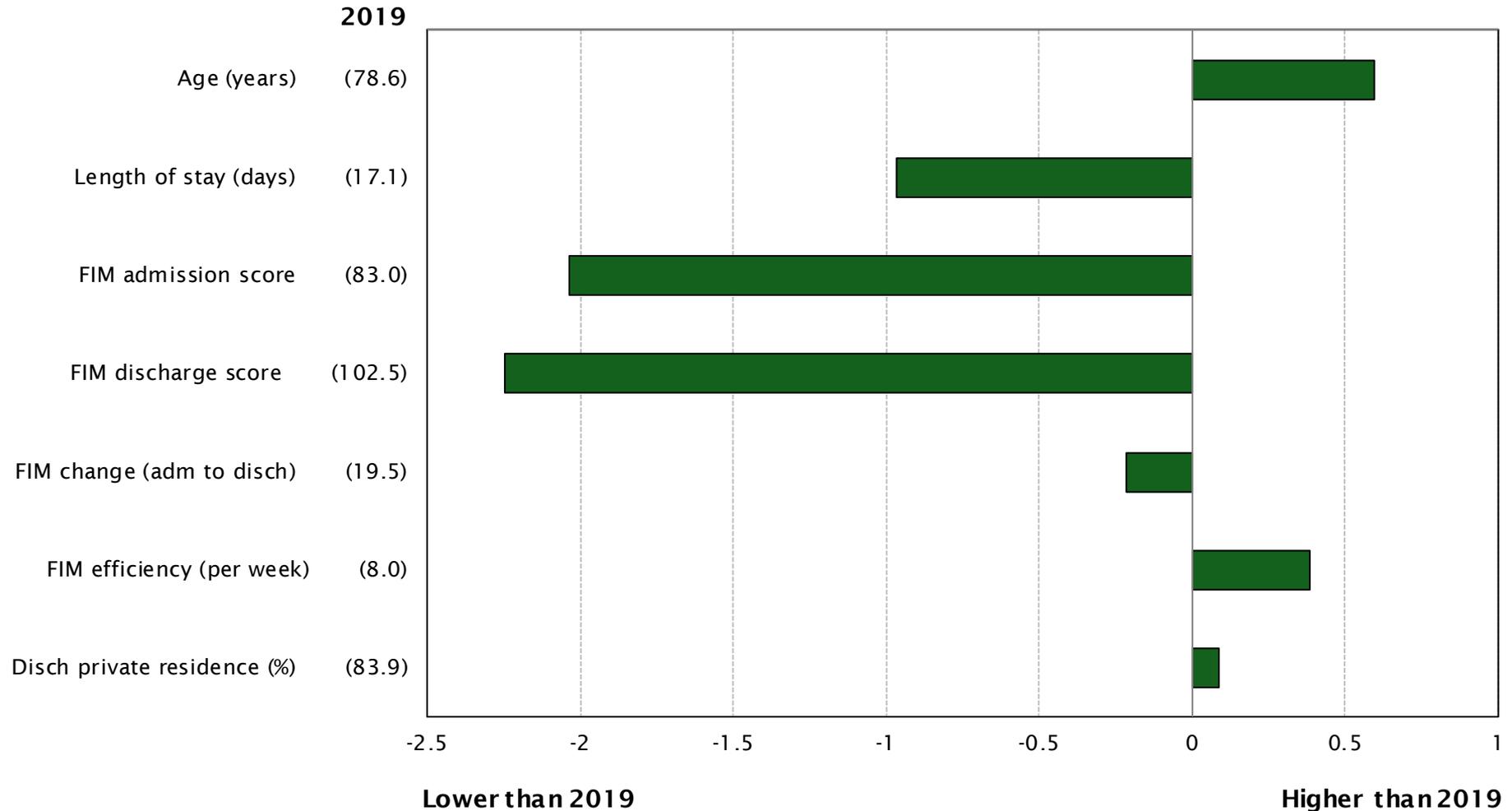**How YOUR FACILITY is different to AUSTRALIA**

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

Outcome measures – difference from last year

How YOUR FACILITY has changed since 2019

2019	
Age (years)	(78.6)
Length of stay (days)	(17.1)
FIM admission score	(83.0)
FIM discharge score	(102.5)
FIM change (adm to disch)	(19.5)
FIM efficiency (per week)	(8.0)
Disch private residence (%)	(83.9)

-2.5   -2   -1.5   -1   -0.5   0   0.5   1

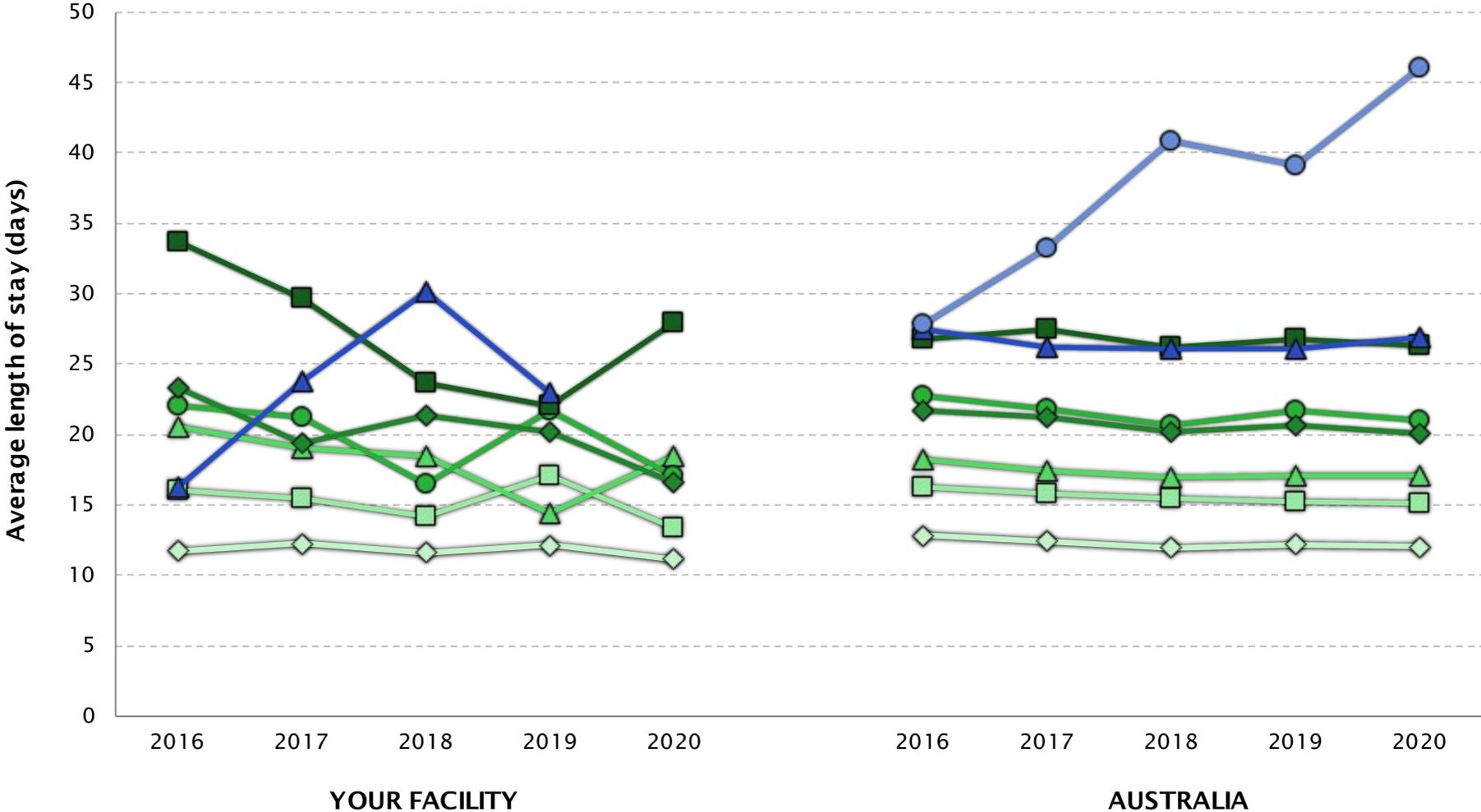**Lower than 2019**   **Higher than 2019**

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

Average length of stay by AN-SNAP class over time

Legend: 4AR1, 4AR2, 4AR3, 4AR4, 4AR5, 4AR6, 4AZ3, 4AZ4

Y-axis: Average length of stay (days)

YOUR FACILITY — AUSTRALIA

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

Average length of stay by AN-SNAP class

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

Casemix-adjusted relative mean length of stay by AN-SNAP class

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
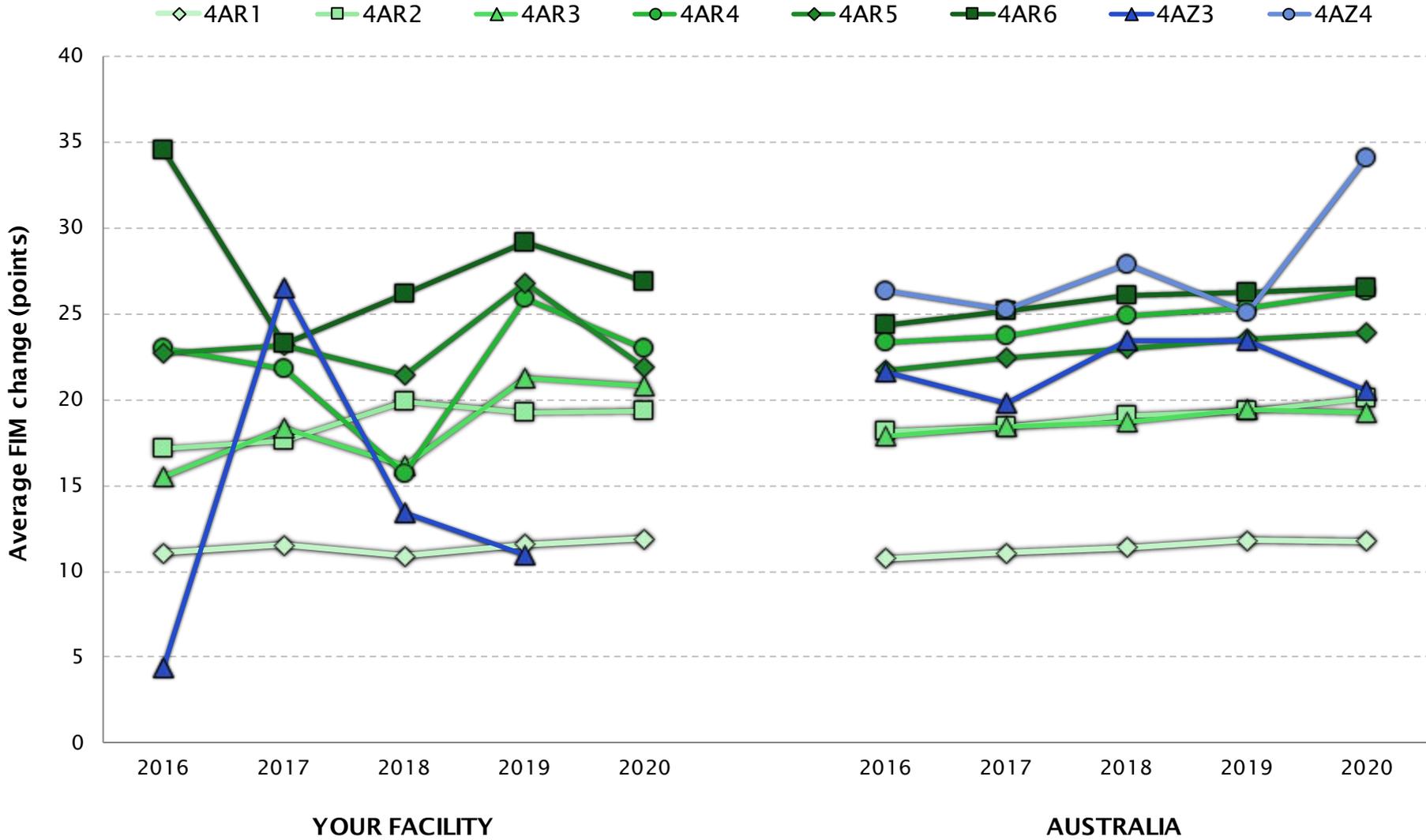
Legend: 4AR1, 4AR2, 4AR3, 4AR4, 4AR5, 4AR6, 4AZ3, 4AZ4

YOUR FACILITY

AUSTRALIA

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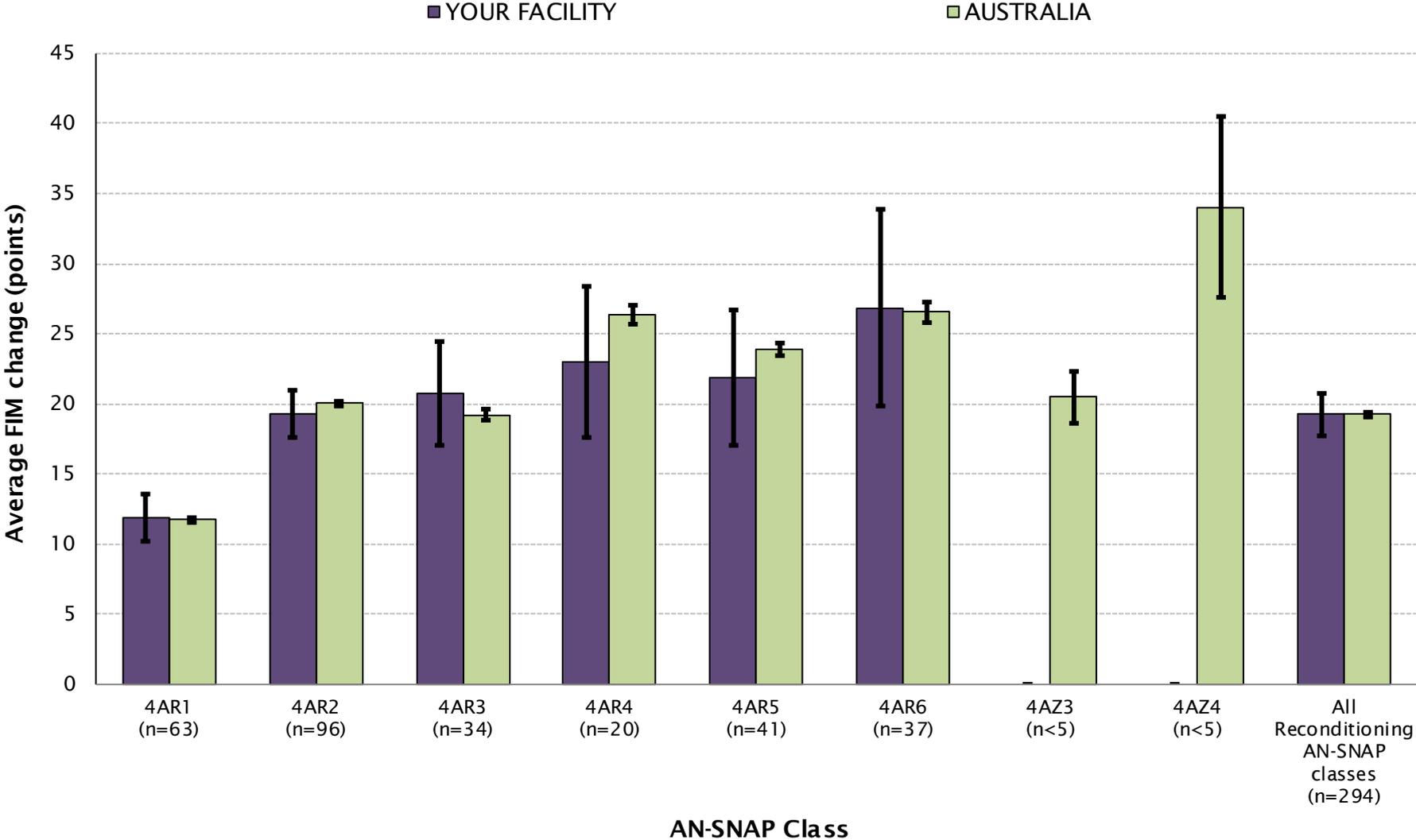
NOTE: Includes only completed episodes with valid FIM scores; where n<5 Average FIM change will not be shown

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

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

| | 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
4AR1 (motor 67-91)	-1.0 (-2.5 – 0.6)		0.3 (-1.4 – 2.0)	11.2 (9.6 – 12.7)		11.9 (10.2 – 13.6)	12.0 (11.9 – 12.2)		11.8 (11.6 – 11.9)
4AR2 (motor 50-66, cognition 26-35)	-1.7 (-3.2 – -0.1)		-0.6 (-2.3 – 1.0)	13.4 (11.8 – 15.0)		19.3 (17.6 – 21.0)	15.1 (14.9 – 15.3)		20.0 (19.8 – 20.2)
4AR3 (motor 50-66, cognition 5-25)	1.4 (-2.0 – 4.8)		1.6 (-2.0 – 5.3)	18.4 (15.1 – 21.8)		20.7 (17.1 – 24.4)	17.0 (16.5 – 17.5)		19.2 (18.8 – 19.6)
4AR4 (motor 34-49, cognition 31-35)	-3.6 (-7.7 – 0.6)		-2.9 (-8.4 – 2.5)	17.1 (12.9 – 21.3)		23.0 (17.6 – 28.4)	21.0 (20.2 – 21.9)		26.3 (25.6 – 27.0)
4AR5 (motor 34-49, cognition 5-30)	-3.0 (-5.3 – -0.6)		-0.7 (-5.3 – 4.0)	16.6 (14.3 – 18.9)		21.9 (17.0 – 26.7)	20.1 (19.6 – 20.5)		23.9 (23.4 – 24.3)
4AR6 (motor 19-33)	2.0 (-5.3 – 9.2)		1.0 (-6.0 – 7.9)	27.9 (20.7 – 35.2)		26.8 (19.8 – 33.8)	26.3 (25.5 – 27.0)		26.5 (25.8 – 27.3)
4AZ3 (motor 13-18, Age ≥ 65)	—		—	—		—	26.9 (24.9 – 28.8)		20.5 (18.6 – 22.3)
4AZ4 (motor 13-18, Age ≤ 64)	—		—	—		—	46.0 (36.8 – 55.3)		34.0 (27.6 – 40.5)
All Reconditioning AN-SNAP Classes	-1.2 (-2.4 – 0.1)		-0.3 (-1.7 – 1.1)	16.1 (14.7 – 17.4)		19.3 (17.8 – 20.8)	16.8 (16.7 – 17.0)		19.3 (19.1 – 19.4)

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

Casemix-adjusted relative mean length of stay by age group*

*Approximately 20% of all episodes per age group

NOTE: Includes only completed episodes with valid LOS and age, where n<5 CARMI LOS will not be shown
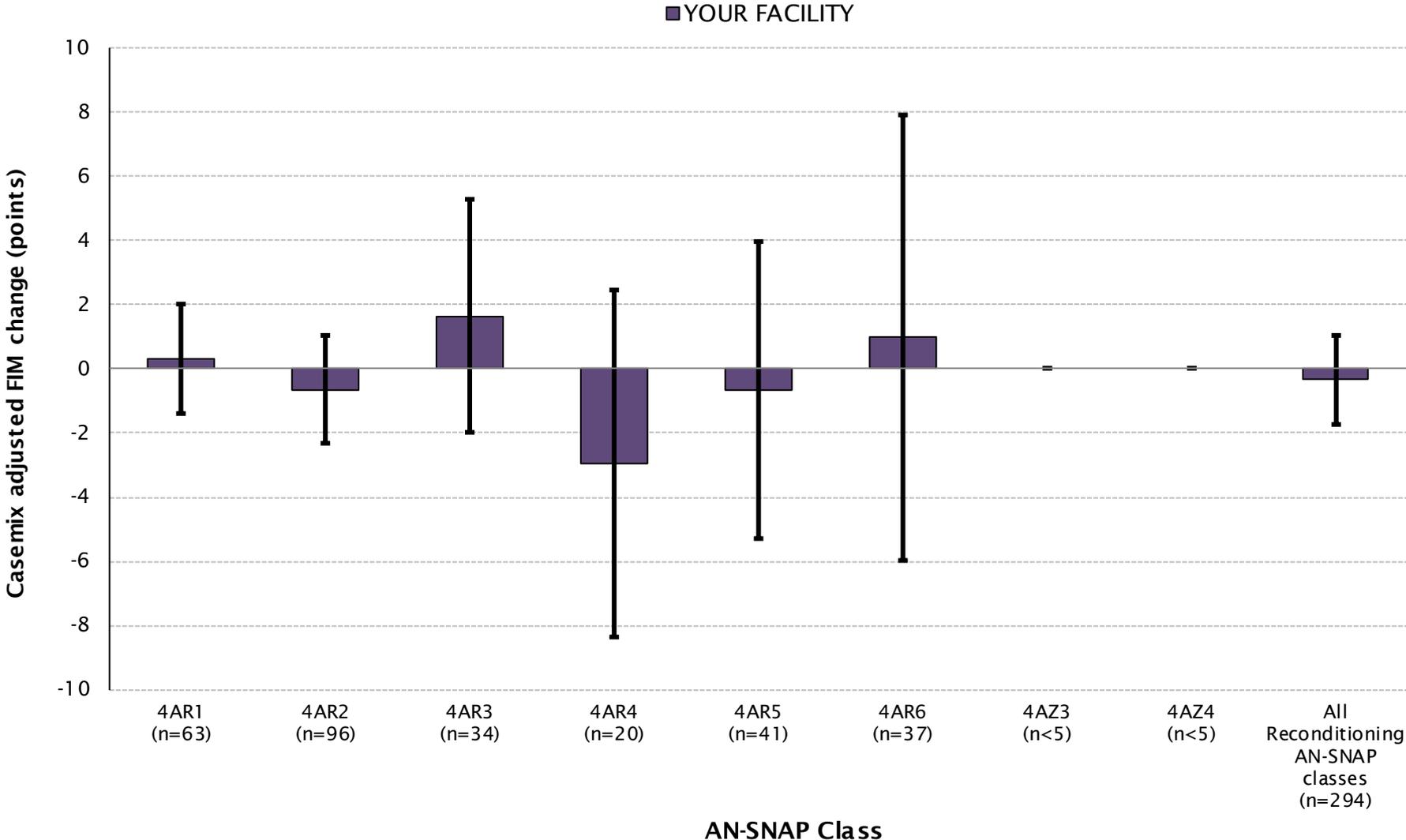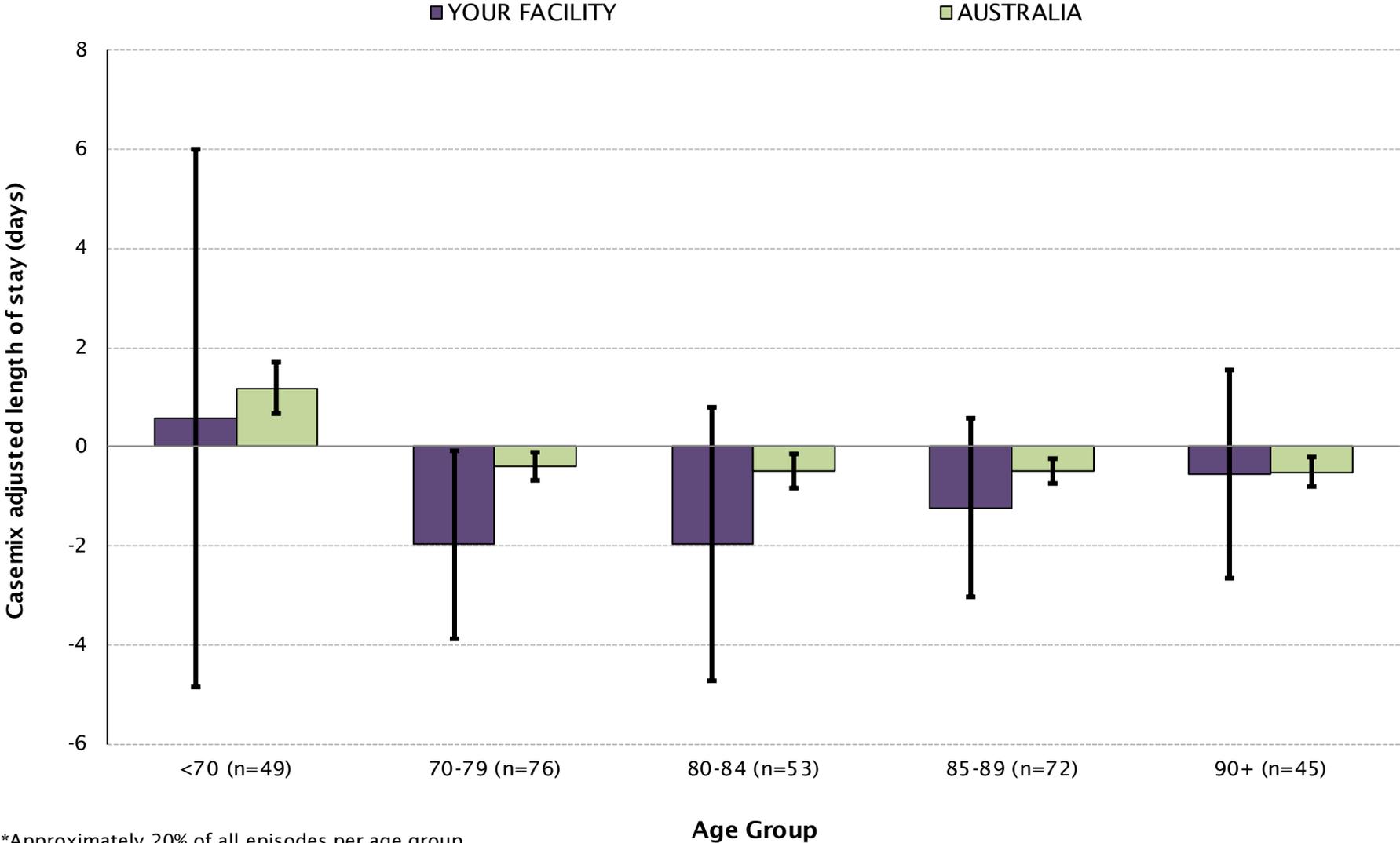
Casemix-adjusted relative mean FIM change by age group*
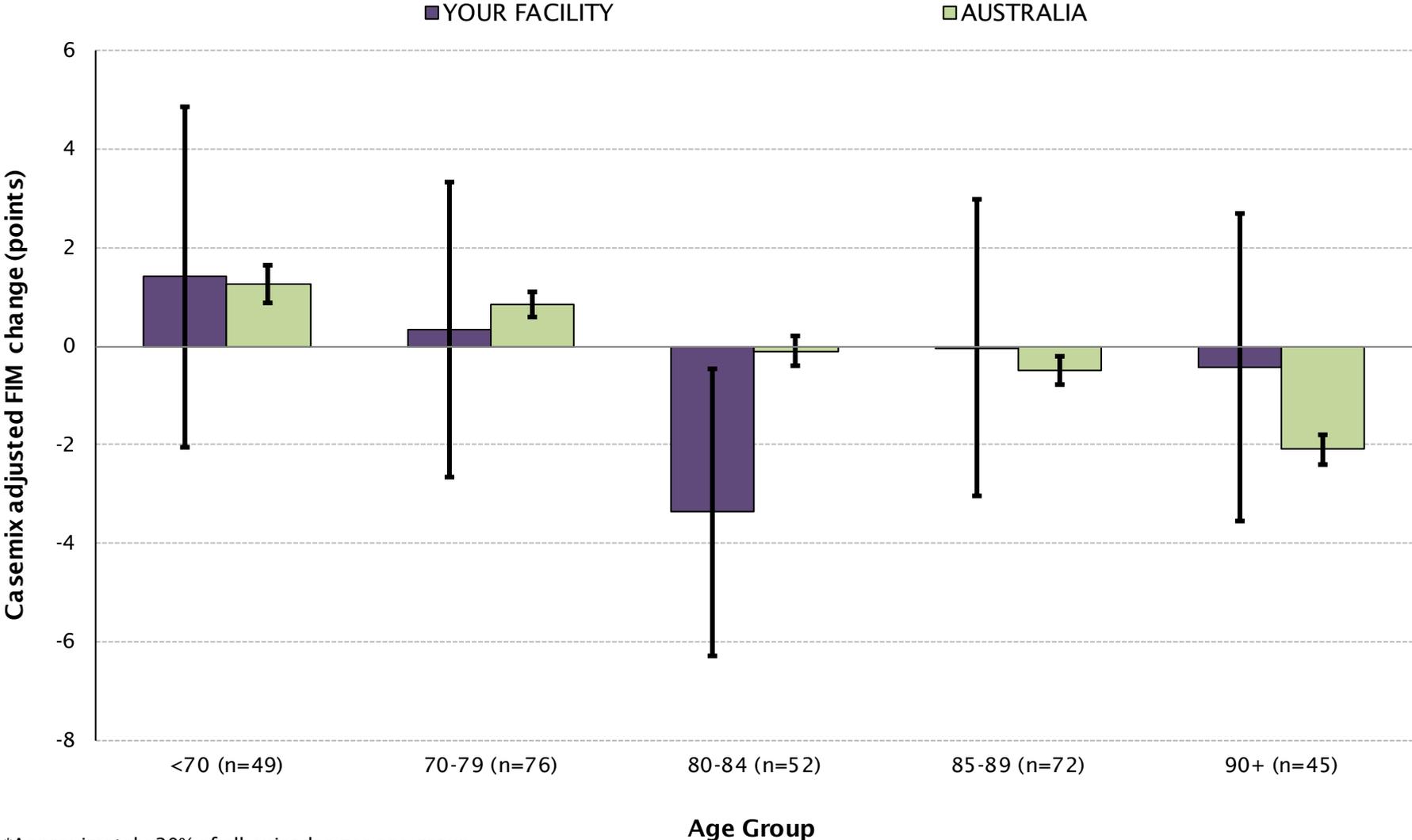
*Approximately 20% of all episodes per age group

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

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

Age group	YOUR FACILITY LOS (95%CI)	YOUR FACILITY FIM change (95%CI)	AUSTRALIA LOS (95%CI)	AUSTRALIA FIM change (95%CI)
<70	17.8 (11.8 – 23.7)	21.0 (16.9 – 25.2)	18.3 (17.8 – 18.9)	20.1 (19.6 – 20.5)
70-79	15.5 (13.2 – 17.7)	19.6 (16.5 – 22.7)	16.2 (16.0 – 16.5)	19.7 (19.4 – 20.0)
80-84	15.5 (12.9 – 18.2)	16.8 (13.7 – 19.9)	16.3 (15.9 – 16.6)	19.1 (18.8 – 19.4)
85-89	16.1 (14.2 – 17.9)	19.7 (16.7 – 22.8)	16.6 (16.3 – 16.8)	19.2 (18.8 – 19.5)
90+	15.9 (13.5 – 18.3)	18.8 (15.4 – 22.3)	17.1 (16.8 – 17.4)	18.3 (18.0 – 18.7)

Age group	YOUR FACILITY CARMI LOS (95%CI)	YOUR FACILITY CARMI FIM change (95%CI)	AUSTRALIA CARMI LOS (95%CI)	AUSTRALIA CARMI FIM change (95%CI)
<70	0.6 (-4.8 – 6.0)	1.4 (-2.0 – 4.9)	1.2 (0.7 – 1.7)	1.3 (0.9 – 1.6)
70-79	-2.0 (-3.9 – -0.1)	0.3 (-2.7 – 3.3)	-0.4 (-0.7 – -0.1)	0.8 (0.6 – 1.1)
80-84	-2.0 (-4.7 – 0.8)	-3.4 (-6.3 – -0.4)	-0.5 (-0.8 – -0.1)	-0.1 (-0.4 – 0.2)
85-89	-1.2 (-3.0 – 0.6)	0.0 (-3.0 – 3.0)	-0.5 (-0.7 – -0.2)	-0.5 (-0.8 – -0.2)
90+	-0.6 (-2.7 – 1.5)	-0.4 (-3.5 – 2.7)	-0.5 (-0.8 – -0.2)	-2.1 (-2.4 – -1.8)

*Approximately 20% of all episodes per age group

NOTE: Includes only completed episodes with valid LOS, FIM score and age

Average length of stay by frailty score
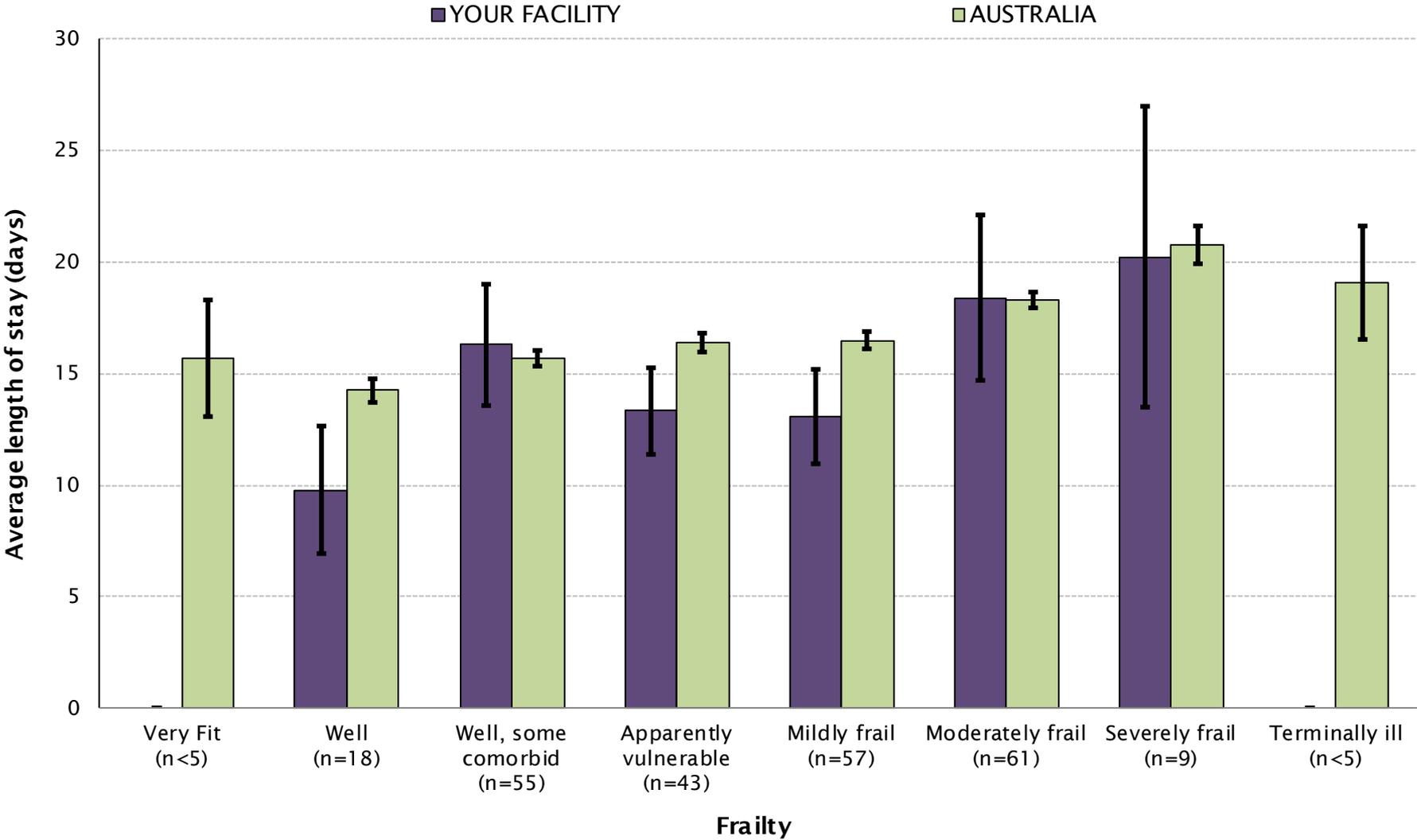
Casemix-adjusted relative mean length of stay by frailty score
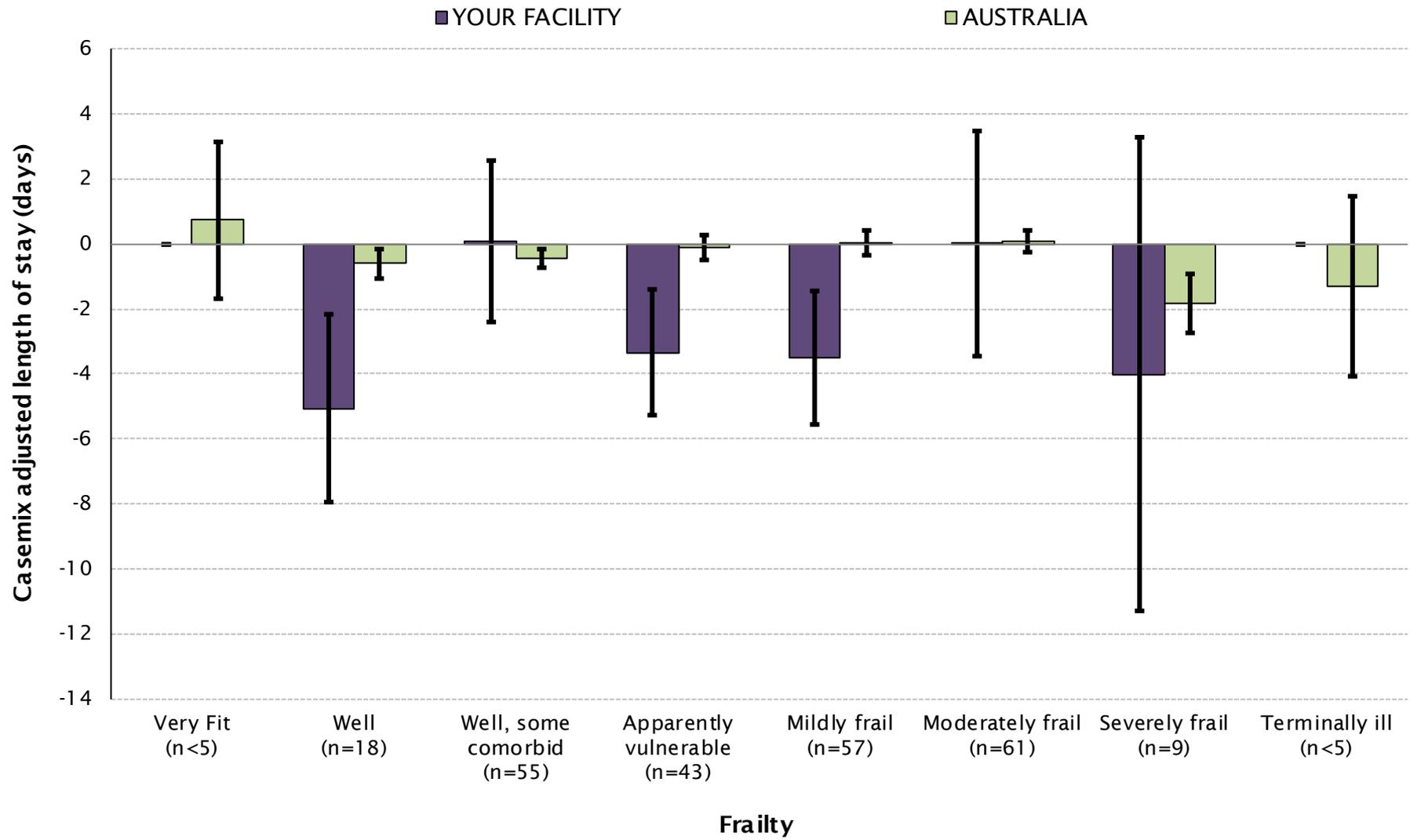
NOTE: Includes only completed episodes with valid LOS; where n<5 CARMI LOS will not be shown

National FIM admission and discharge scores by frailty score

Legend: ■ Admission Total ■ Discharge Total

Y-axis: **Average FIM admission & discharge scores** (0–130)

X-axis: **Frailty**

- Very Fit (n=141)
- Well (n=1,667)
- Well, some comorbid (n=5,013)
- Apparently vulnerable (n=3,153)
- Mildly frail (n=5,262)
- Moderately frail (n=5,616)
- Severely frail (n=1,000)
- Terminally ill (n=116)
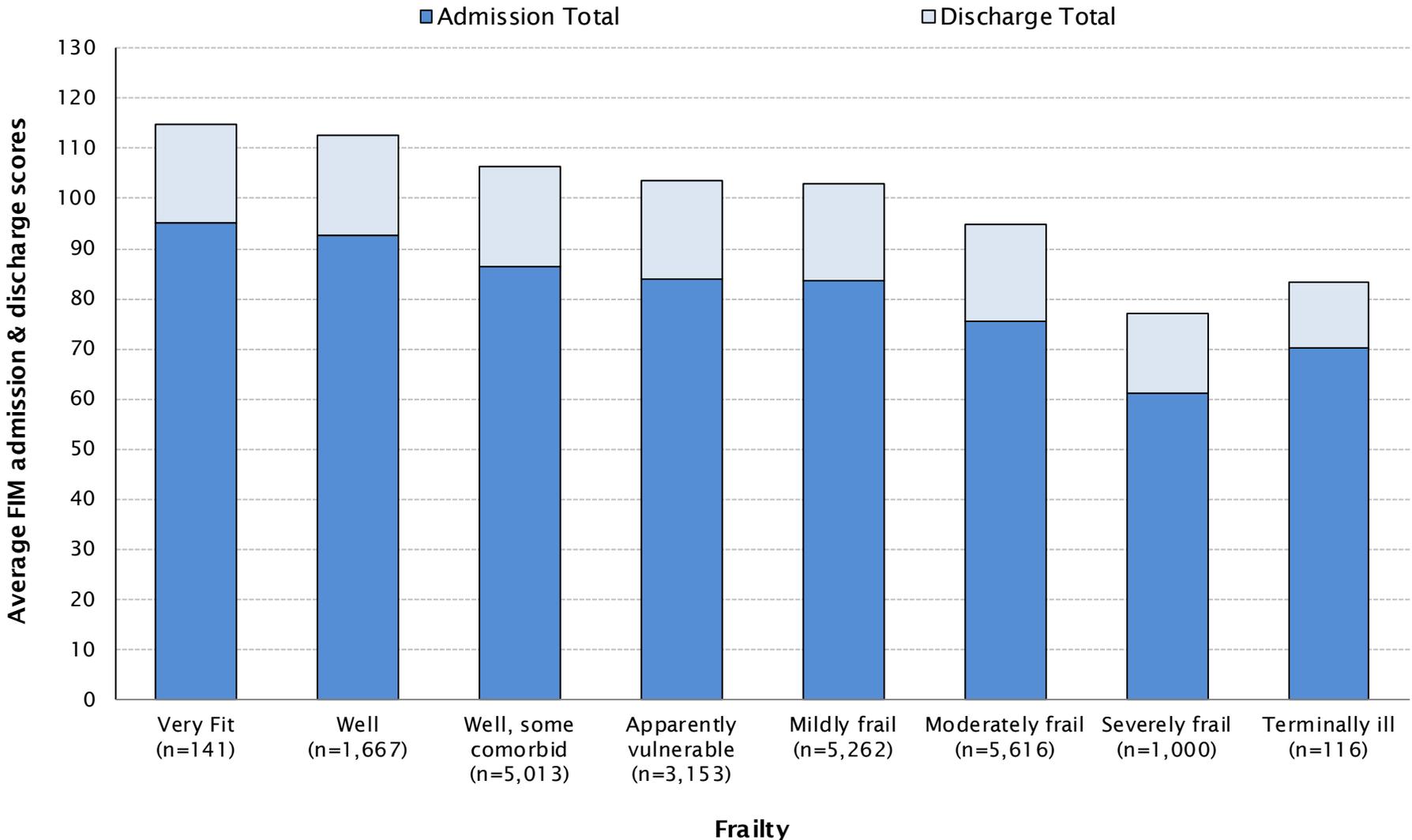
NOTE: Includes only completed episodes with valid FIM scores

Average FIM change by frailty score
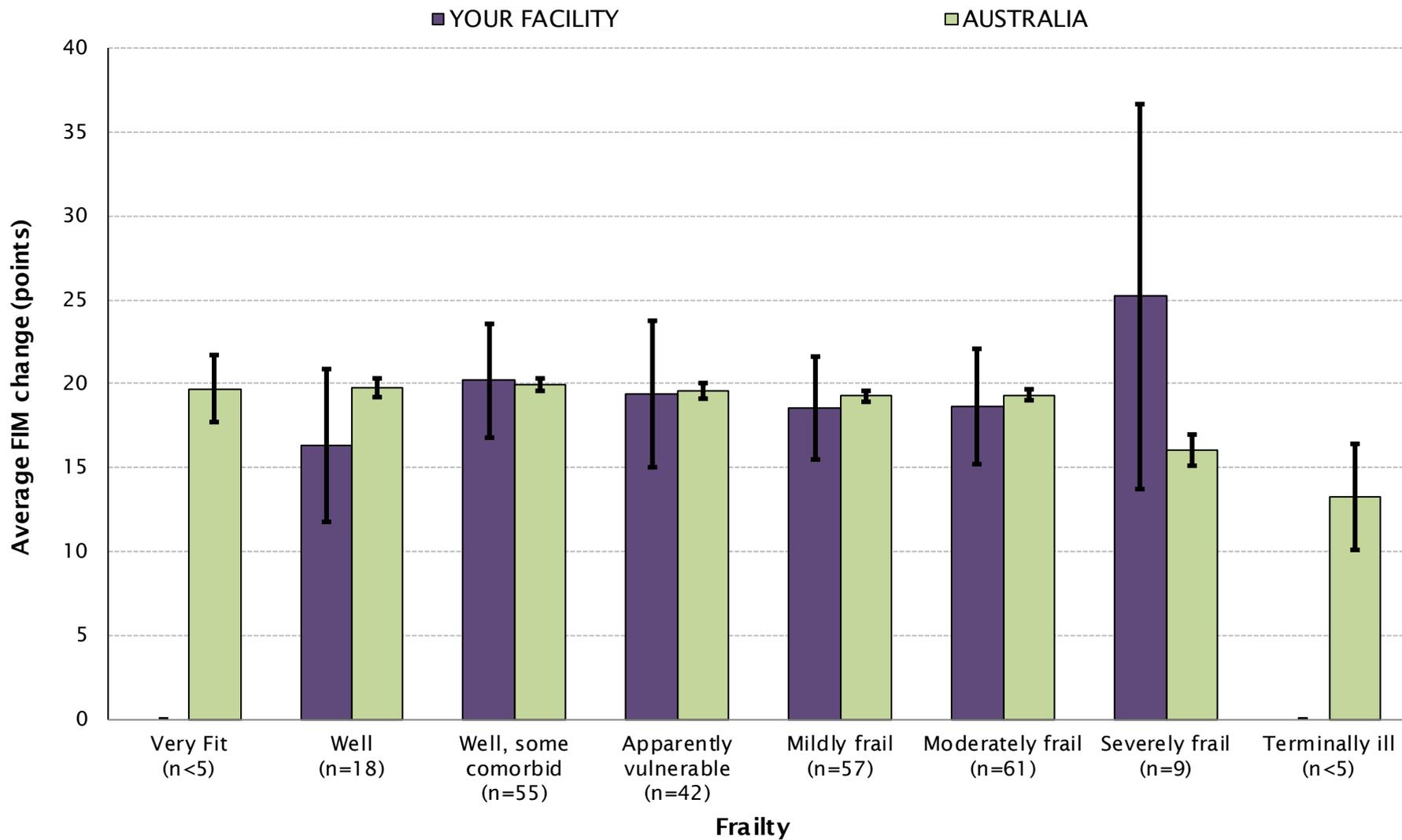
Casemix-adjusted relative mean FIM change by frailty score
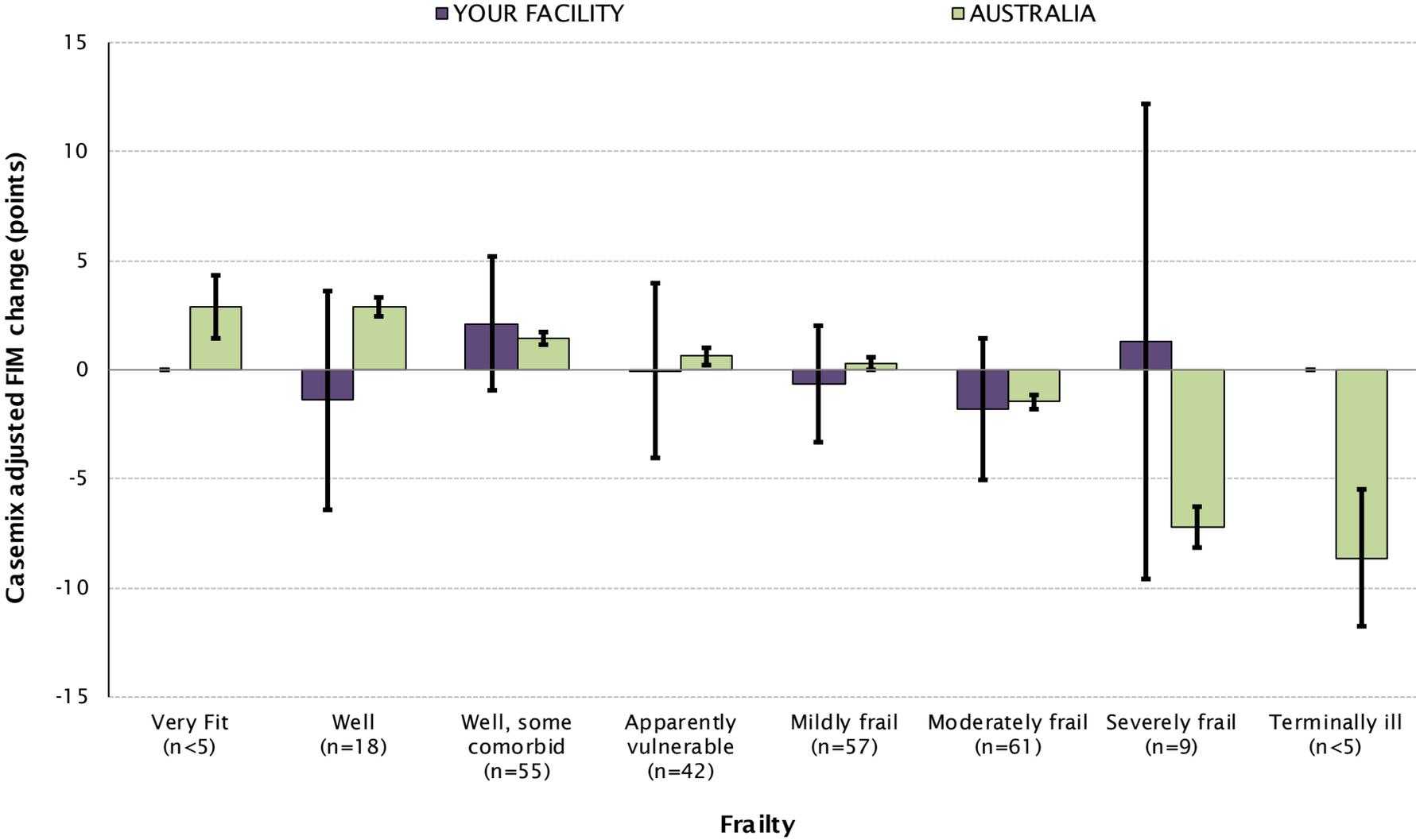
NOTE: Includes only completed episodes with valid FIM scores; where n<5 CARMI FIM change will not be shown

Casemix-adjusted relative mean and average length of stay and FIM change by frailty score

Frailty	YOUR FACILITY						AUSTRALIA			
	CARMI (95%CI)				Average (95%CI)				Average (95%CI)	
	LOS		FIM change		LOS		FIM change		LOS		FIM change	

Frailty	LOS		FIM change		LOS		FIM change		LOS		FIM change	
Very Fit	—		—		—		—		15.7	(13.1 – 18.3)	19.7	(17.7 – 21.7)
Well	-5.1	(-7.9 – -2.2)	-1.4	(-6.4 – 3.6)	9.8	(6.9 – 12.6)	16.3	(11.8 – 20.9)	14.2	(13.7 – 14.8)	19.7	(19.2 – 20.3)
Well, some comorbid	0.1	(-2.4 – 2.6)	2.1	(-0.9 – 5.2)	16.3	(13.6 – 19.0)	20.2	(16.8 – 23.6)	15.7	(15.4 – 16.0)	19.9	(19.6 – 20.3)
Apparently vulnerable	-3.3	(-5.3 – -1.4)	0.0	(-4.0 – 4.0)	13.3	(11.4 – 15.3)	19.4	(15.0 – 23.7)	16.4	(16.0 – 16.8)	19.6	(19.1 – 20.0)
Mildly frail	-3.5	(-5.6 – -1.4)	-0.7	(-3.3 – 2.0)	13.1	(11.0 – 15.2)	18.5	(15.5 – 21.6)	16.5	(16.1 – 16.9)	19.3	(19.0 – 19.6)
Moderately frail	0.0	(-3.4 – 3.5)	-1.8	(-5.1 – 1.4)	18.4	(14.7 – 22.1)	18.6	(15.2 – 22.1)	18.3	(18.0 – 18.7)	19.3	(19.0 – 19.6)
Severely frail	-4.0	(-11.3 – 3.3)	1.3	(-9.6 – 12.2)	20.2	(13.5 – 27.0)	25.2	(13.8 – 36.7)	20.8	(19.9 – 21.6)	16.0	(15.1 – 17.0)
Terminally ill	—		—		—		—		19.1	(16.6 – 21.6)	13.3	(10.1 – 16.4)

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

Average FIM scores and length of stay by reconditioning specific data items – Your facility

YOUR FACILITY

Fallen
FIM adm=80.2
FIM change=18.7
LOS=16.0
(n=96)

None
FIM adm=83.0
FIM change=20.9
LOS=14.5
(n=109)

FIM adm=75.8
FIM change=14.0
LOS=14.8
(n=18)

n<5

FIM adm=68.3
FIM change=15.0
LOS=15.7
(n=7)

Weight loss
FIM adm=88.0
FIM change=18.7
LOS=13.6
(n=18)

n<5

Unable to participate
FIM adm=84.2
FIM change=14.5
LOS=19.0
(n=18)
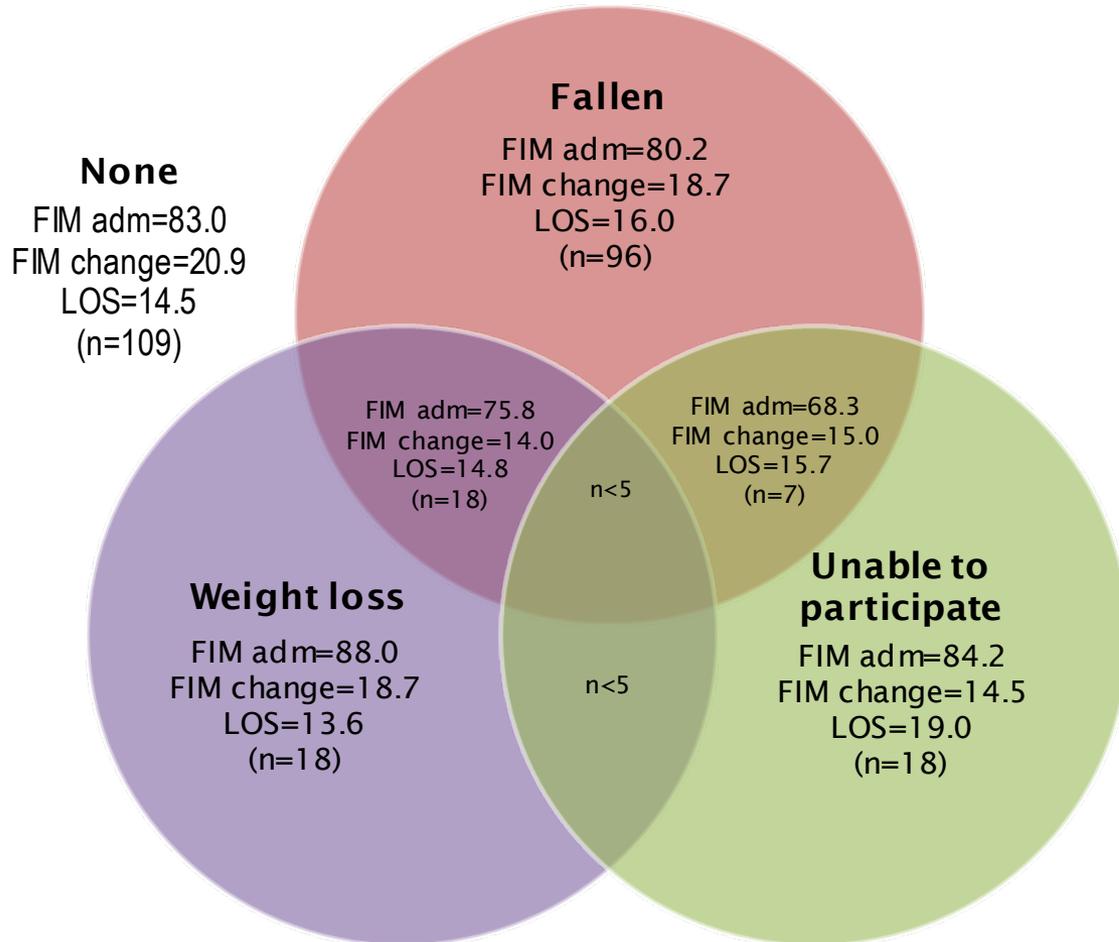
Note: 23 (7.8%) episodes did not record all three items and are excluded from analysis

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

AUSTRALIA

None
FIM adm=87.7
FIM change=19.3
LOS=15.0
(n=9,232)

Fallen
FIM adm=79.5
FIM change=19.1
LOS=17.3
(n=9,657)

FIM adm=75.5
FIM change=18.5
LOS=19.1
(n=1,744)

FIM adm=70.8
FIM change=18.2
LOS=21.0
(n=427)

FIM adm=62.5
FIM change=19.1
LOS=28.4
(n=150)

Weight loss
FIM adm=84.6
FIM change=21.1
LOS=17.0
(n=1,279)

FIM adm=74.0
FIM change=22.0
LOS=25.7
(n=118)

Unable to participate
FIM adm=87.5
FIM change=18.3
LOS=16.2
(n=1,587)

Note: 2,430 (9.1%) episodes did not record all three items and are excluded from analysis

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

Average length of stay by reconditioning specific data items

Average length of stay (days)

Fallen in last 12 months

YOUR FACILITY
- Yes (n=125)
- No (n=147)

AUSTRALIA
- Yes (n=12,162)
- No (n=12,296)

Unable to participate on day one

YOUR FACILITY
- Yes (n=30)
- No (n=242)

AUSTRALIA
- Yes (n=2,287)
- No (n=22,169)

Weight loss >10%

YOUR FACILITY
- Yes (n=41)
- No (n=231)

AUSTRALIA
- Yes (n=3,296)
- No (n=20,911)
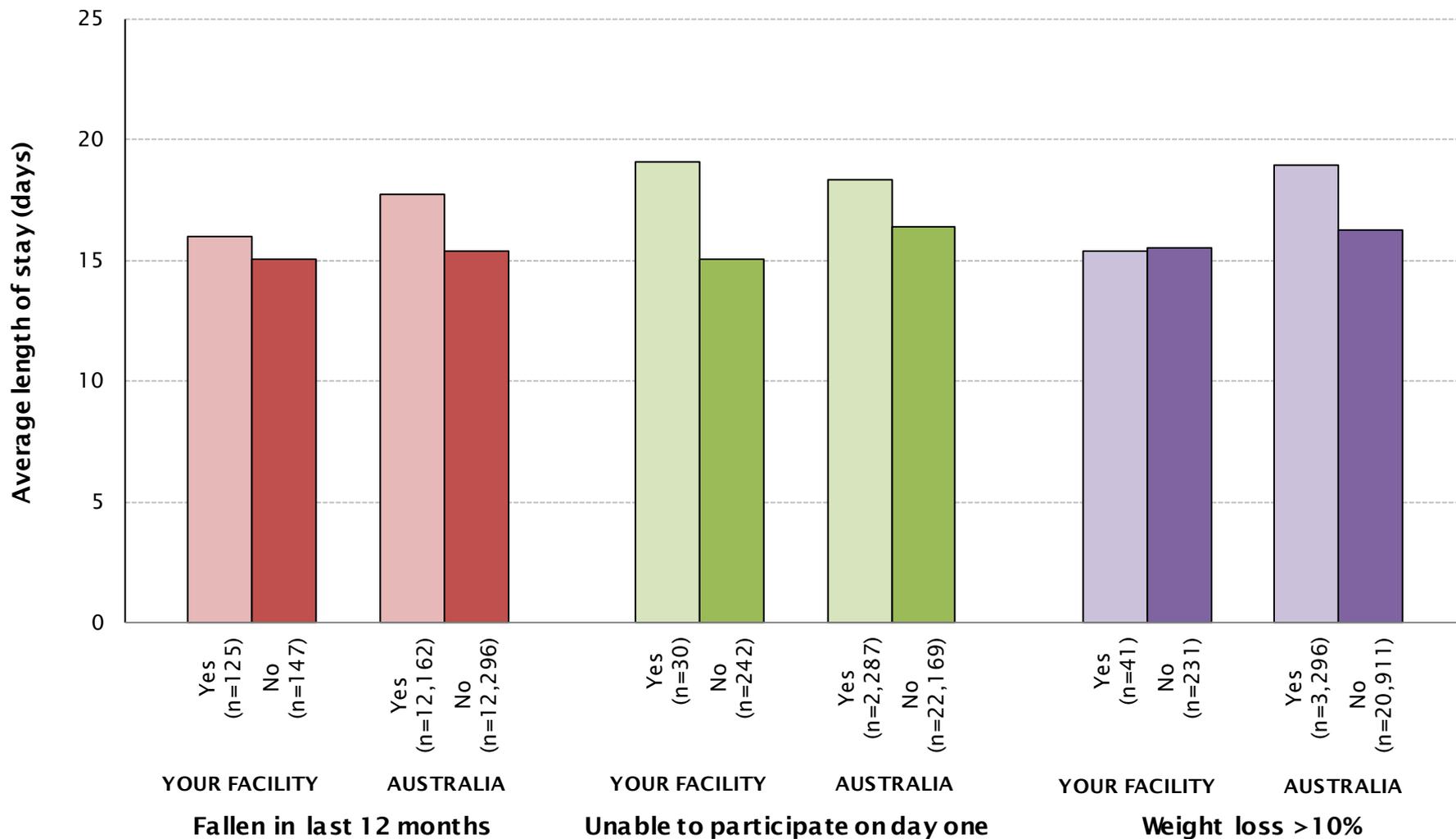
NOTE: Includes only completed episodes with valid LOS

Casemix-adjusted length of stay by reconditioning specific data items
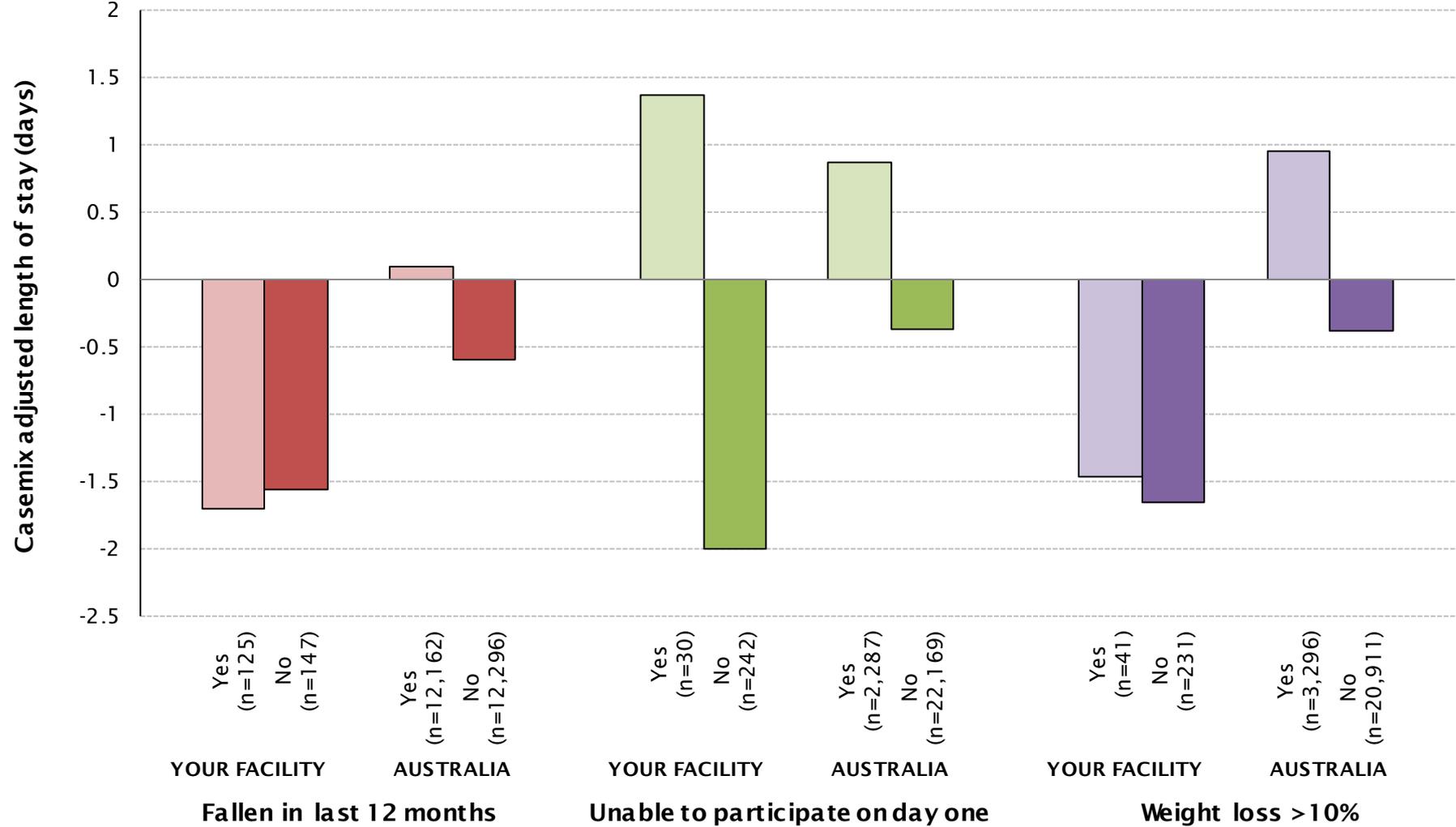
NOTE: Includes only completed episodes with valid LOS

Average FIM scores by reconditioning specific data items

Legend: FIM admission (Yes) · FIM admission (No) · FIM discharge

Groups along x-axis:

Fallen in last 12 months
- YOUR FACILITY — Yes (n=124), No (n=147)
- AUSTRALIA — Yes (n=12,161), No (n=12,302)

Unable to participate on day one
- YOUR FACILITY — Yes (n=30), No (n=241)
- AUSTRALIA — Yes (n=2,289), No (n=22,172)

Weight loss >10%
- YOUR FACILITY — Yes (n=41), No (n=230)
- AUSTRALIA — Yes (n=3,296), No (n=20,916)

Y-axis: Average FIM admission & discharge scores (0–130)
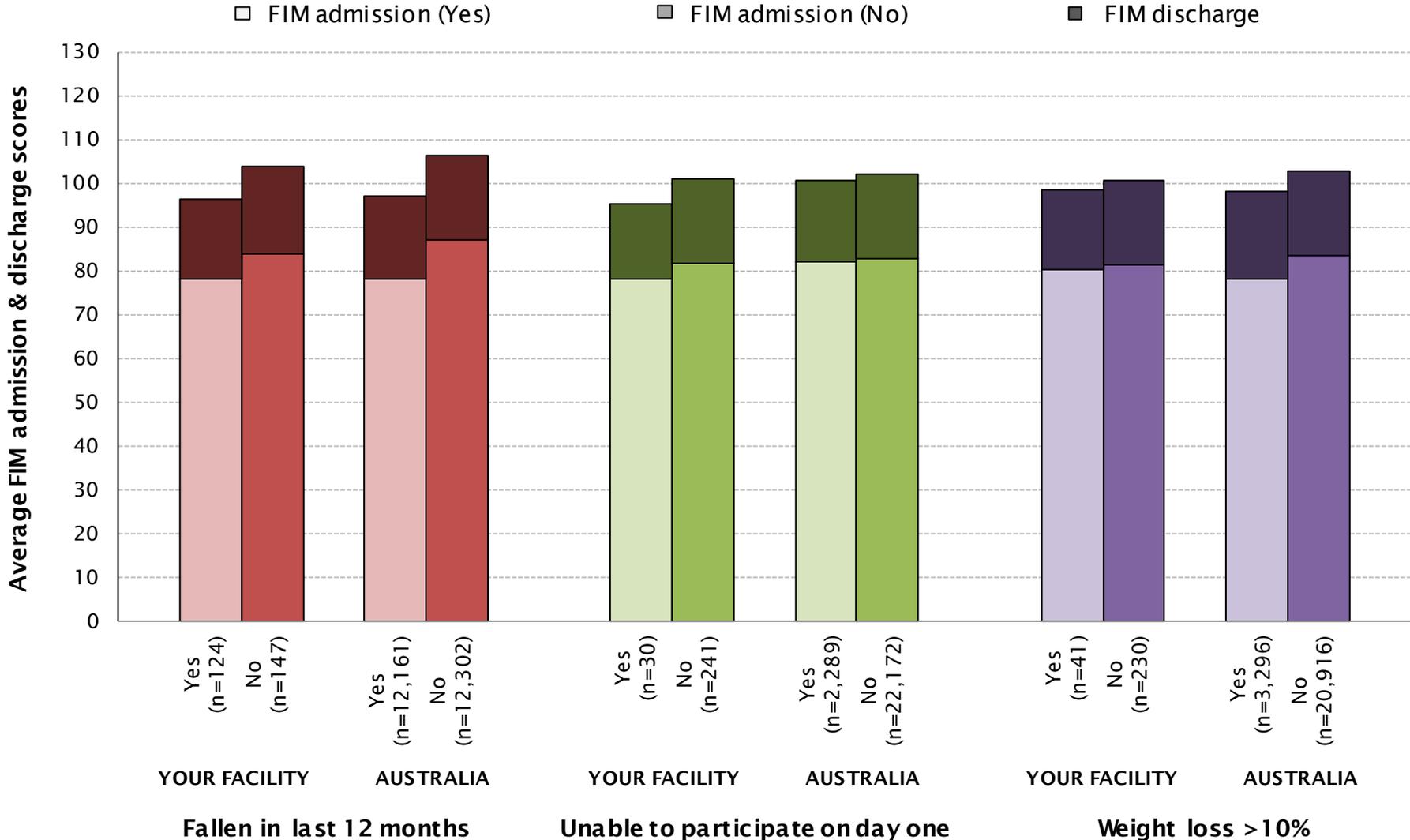
NOTE: Includes only completed episodes with valid FIM scores

Casemix-adjusted FIM change by reconditioning specific data items
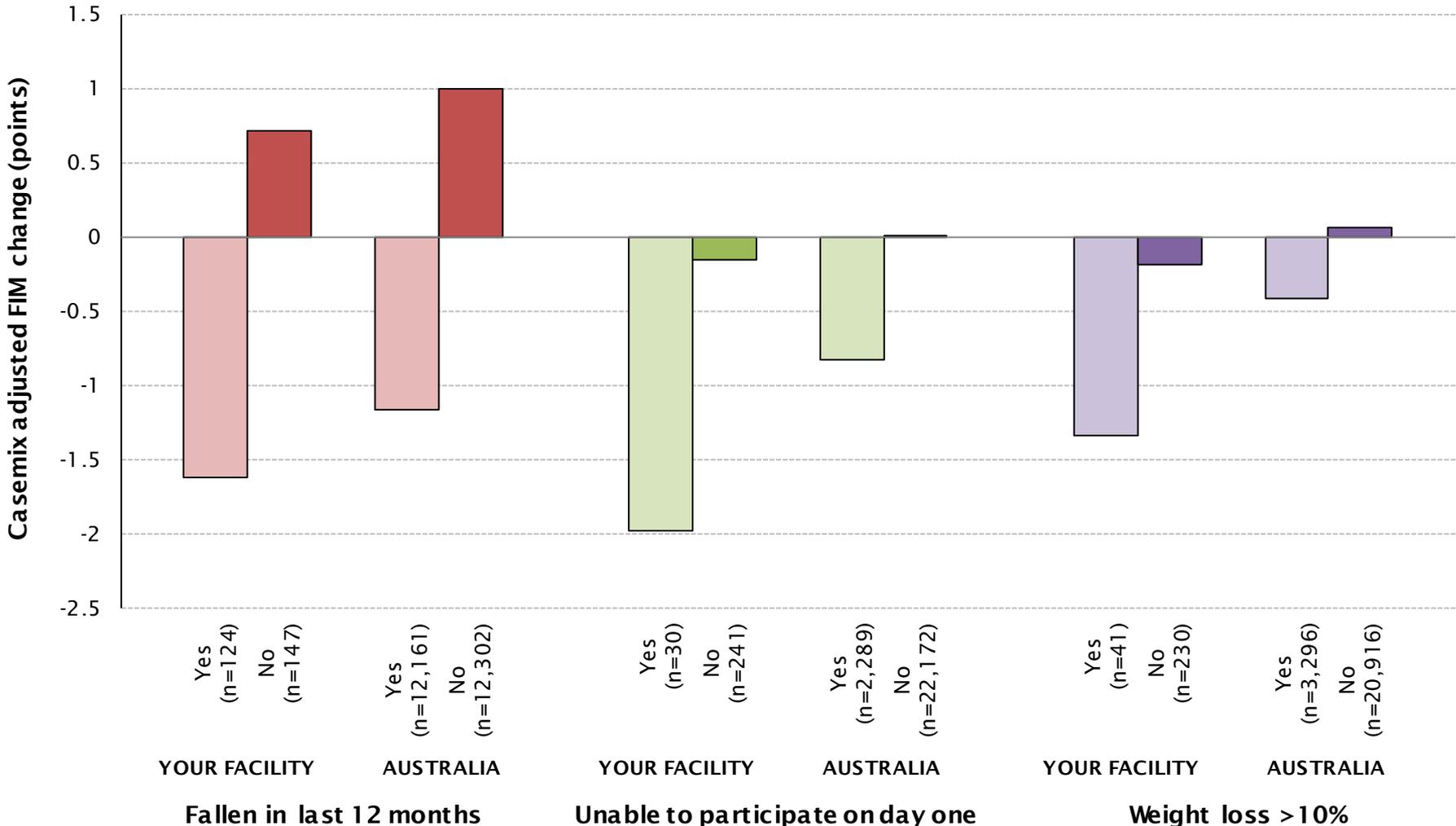
NOTE: Includes only completed episodes with valid FIM scores

Explanatory data

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

Number of comorbidities — **YOUR FACILITY**

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 and FIM change by number of comorbidities

aroc

- Casemix adjusted relative mean length of stay
- Casemix adjusted relative mean FIM change

Number of comorbidities — AUSTRALIA

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

	CARMI LOS — YOUR FACILITY	Comorbidity	CARMI LOS — AUSTRALIA
(n=69)		Cardiac disease (n=6,648)	
(n=47)		Other (n=5,133)	
(n=34)		Diabetes mellitus (n=2,678)	
(n=28)		Respiratory disease (n=2,605)	
(n=19)		Cancer (n=2,262)	
(n=29)		Osteoarthritis (n=2,240)	
(n=10)		Dementia (n=1,469)	
(n=13)		Mental health problem (n=1,454)	
(n=18)		Chronic pain (n=1,209)	
(n=9)		Stroke (n=1,088)	
(n=9)		Osteoporosis (n=1,047)	
(n=8)		Renal failure NO dialysis (n=848)	
(n=5)		Visual impairment (n=751)	
(n=10)		Parkinsons disease (n=732)	
(n=6)		Hearing impairment (n=658)	
(n=7)		Delirium, pre-existing (n=545)	
(n=11)		Morbid obesity (n=541)	
(n<5)		Drug and alcohol abuse (n=363)	
(n<5)		Renal failure with dialysis (n=313)	
(n<5)		Pressure ulcer, pre-existing (n=310)	
(n=6)		Inflammatory arthritis (n=282)	
(n<5)		Spinal cord injury/disease (n=249)	
(n<5)		Epilepsy (n=179)	
(n<5)		Brain injury (n=160)	
(n<5)		Multiple sclerosis (n=80)	

CARMI LOS — YOUR FACILITY (axis: -10, -5, 0, 5)

CARMI LOS — AUSTRALIA (axis: -2, -1, 0, 1, 2, 3, 4, 5)

* 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

(n=69)
(n=47)
(n=34)
(n=28)
(n=19)
(n=29)
(n=10)
(n=13)
(n=18)
(n=9)
(n=9)
(n=8)
(n=5)
(n=10)
(n=6)
(n=7)
(n=11)
(n<5)
(n<5)
(n<5)
(n=6)
(n<5)
(n<5)
(n<5)
(n<5)

Cardiac disease (n=6,645)
Other (n=5,135)
Diabetes mellitus (n=2,678)
Respiratory disease (n=2,603)
Cancer (n=2,261)
Osteoarthritis (n=2,239)
Dementia (n=1,468)
Mental health problem (n=1,454)
Chronic pain (n=1,210)
Stroke (n=1,088)
Osteoporosis (n=1,047)
Renal failure NO dialysis (n=847)
Visual impairment (n=751)
Parkinsons disease (n=733)
Hearing impairment (n=657)
Delirium, pre-existing (n=545)
Morbid obesity (n=541)
Drug and alcohol abuse (n=363)
Renal failure with dialysis (n=313)
Pressure ulcer, pre-existing (n=310)
Inflammatory arthritis (n=282)
Spinal cord injury/disease (n=249)
Epilepsy (n=179)
Brain injury (n=160)
Multiple sclerosis (n=80)

CARMI FIM change — YOUR FACILITY

CARMI FIM change — AUSTRALIA

* No data included where number of episodes <5

NOTE: Includes only completed episodes with valid FIM score

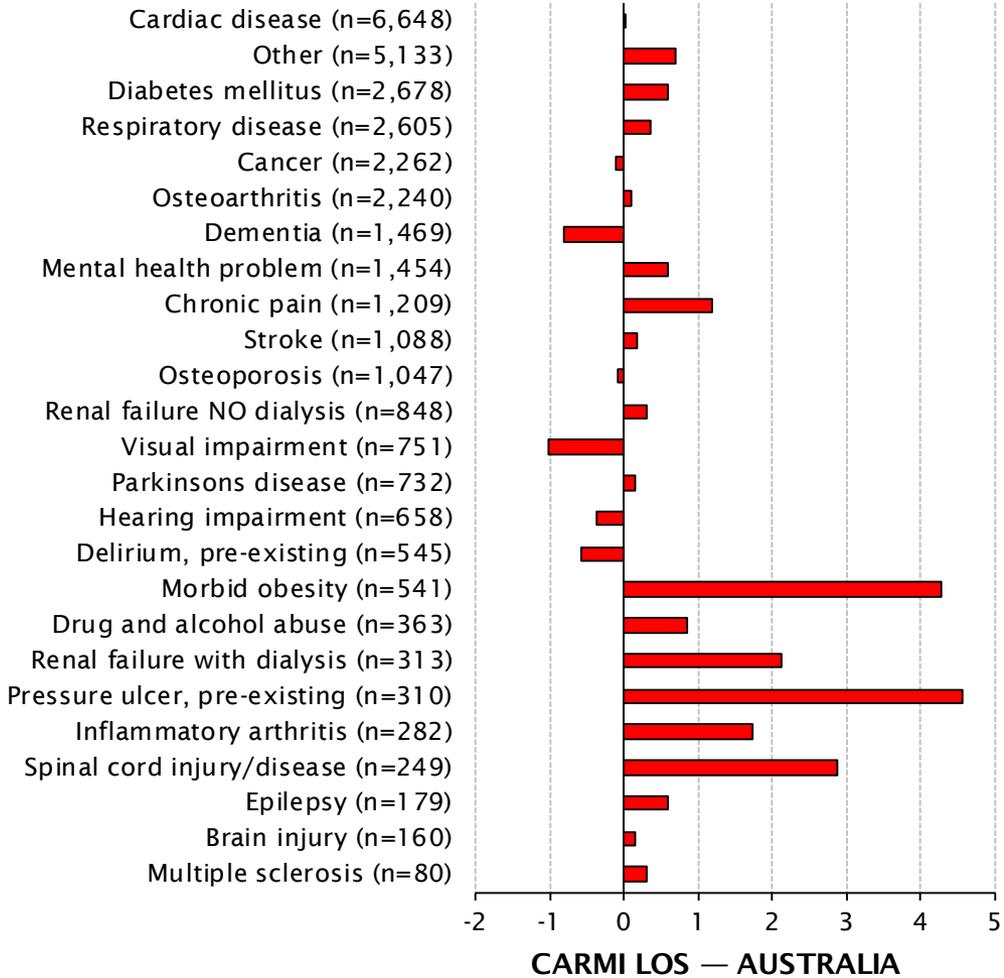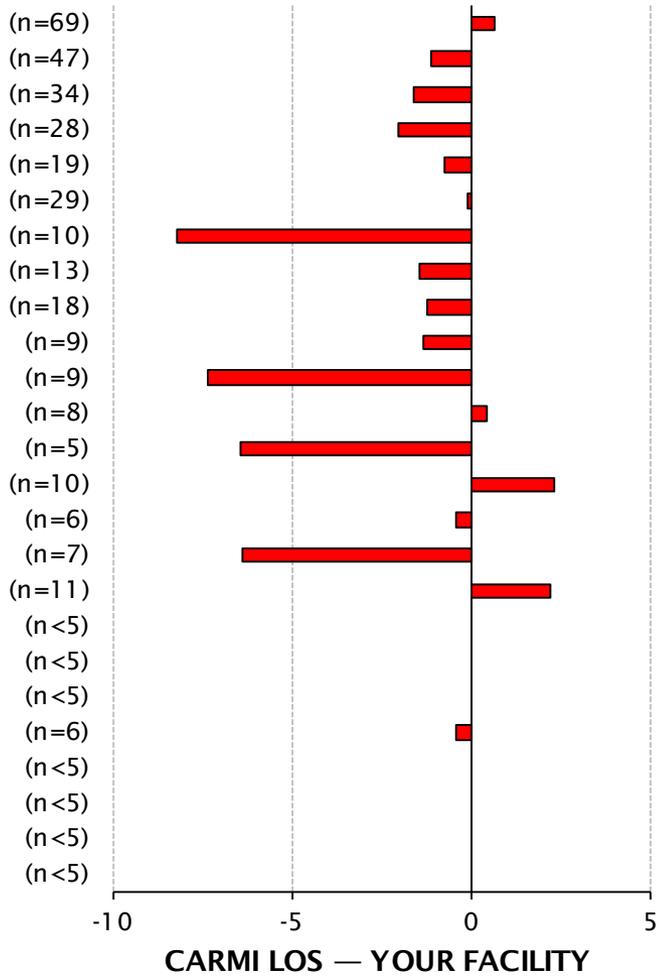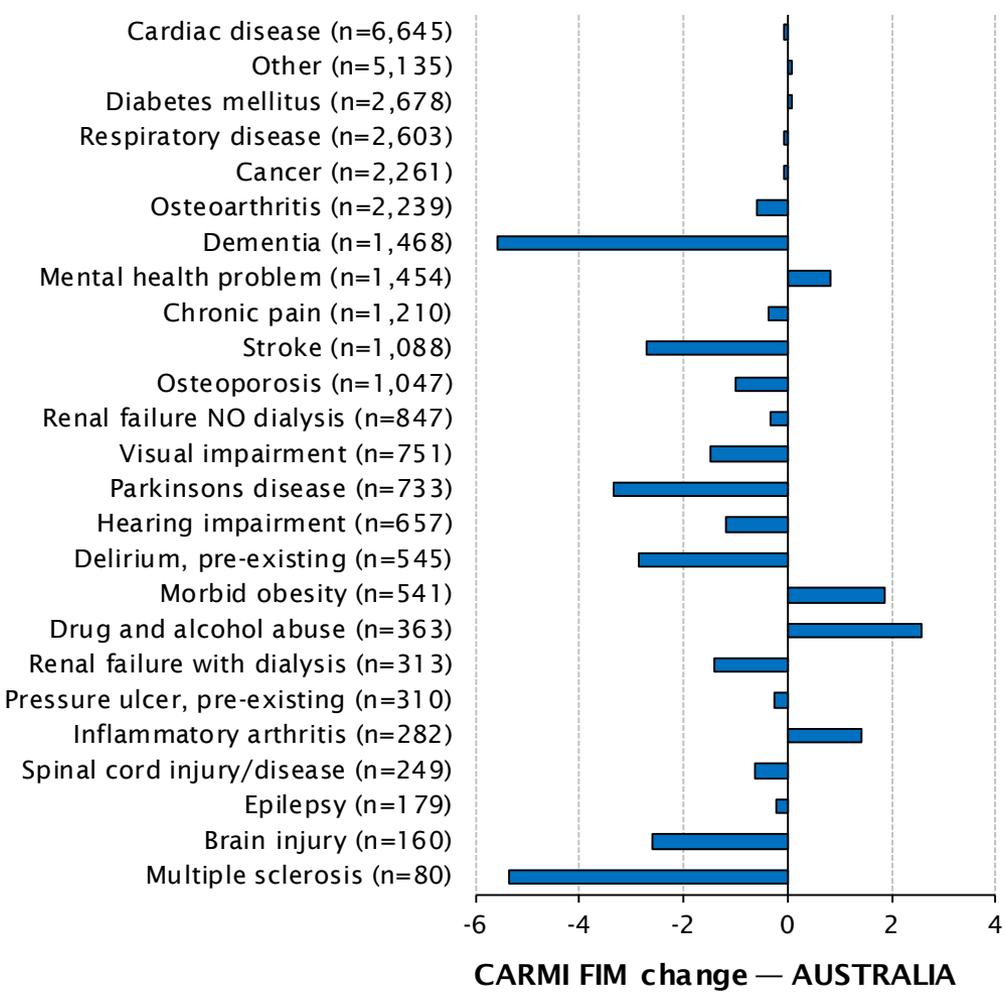# Casemix-adjusted relative mean length of stay and FIM change by number of complications
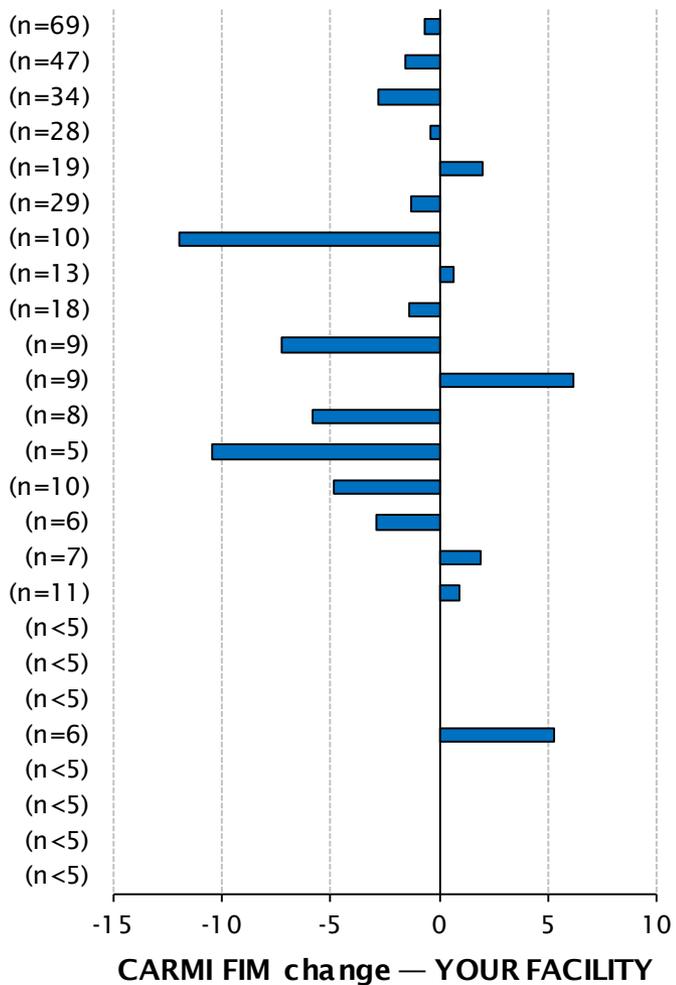

NOTE: Includes only completed episodes with valid FIM scores and LOS; where n<5 the casemix-adjusted relative mean will not be shown

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

Legend: —○— Casemix adjusted relative mean length of stay   —◇— Casemix adjusted relative mean FIM change

Y-axis: Casemix adjusted relative mean

X-axis: Number of complications — AUSTRALIA
- None (n=19,747)
- One (n=4,305)
- Two (n=1,469)
- Three (n=517)
- Four or more (n=248)

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

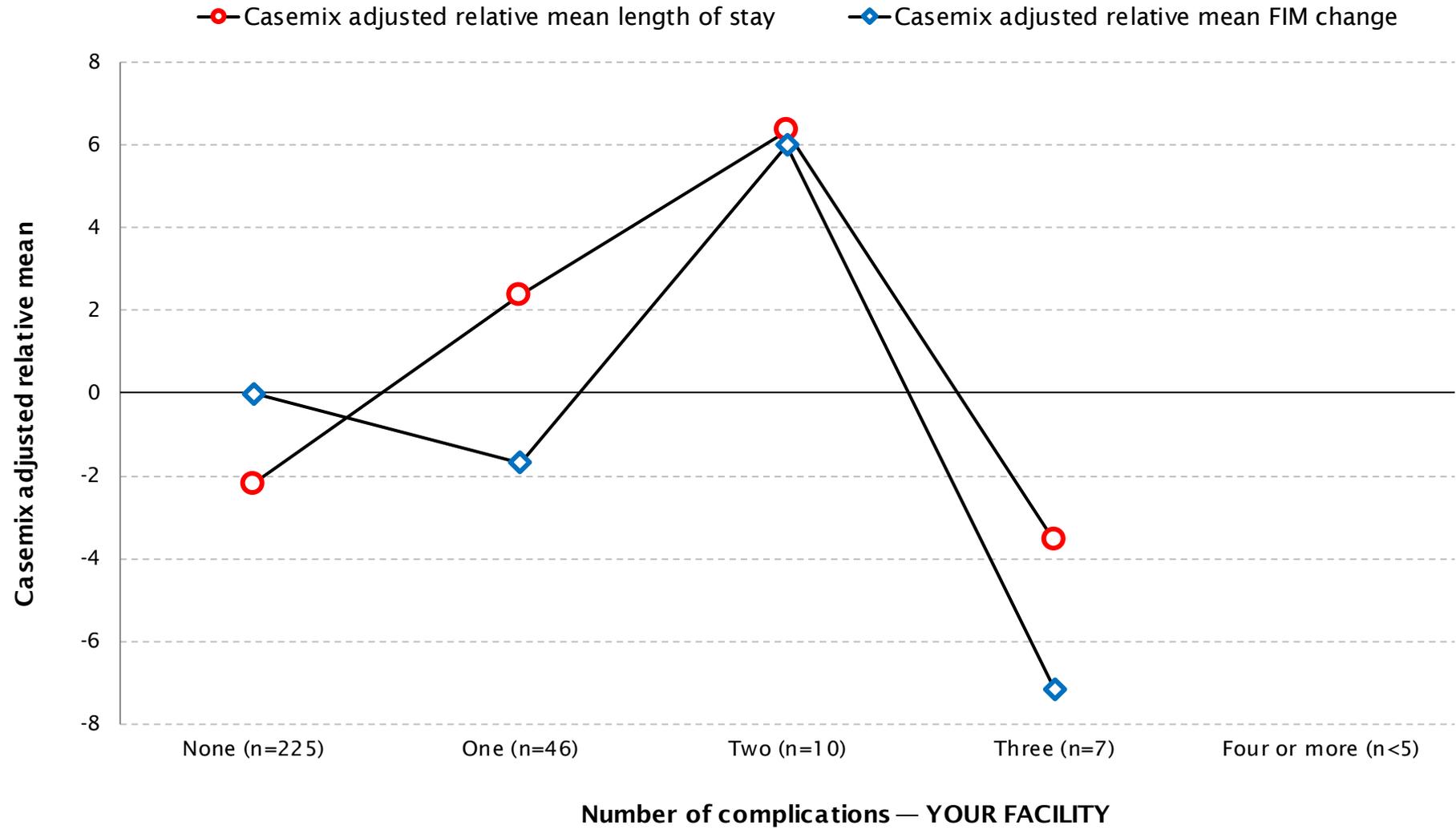# Casemix-adjusted relative mean length of stay by type of complication

CARMI LOS — YOUR FACILITY

Label	
(n=40)	
(n=11)	
(n=7)	
(n=7)	
(n=6)	
(n=7)	
(n=7)	
(n=9)	
(n=6)	
(n<5)	
(n<5)	
(n<5)	
(n<5)	

CARMI LOS — AUSTRALIA

- Other (n=3,394)
- UTI (n=1,079)
- Incontinence urinary (n=963)
- Fall (n=845)
- Delirium (n=695)
- Significant electrolyte imbalance (n=615)
- Incontinence faecal (n=578)
- Chest infection (n=565)
- Wound infection (n=536)
- Pressure ulcer (n=282)
- Faecal impaction (n=236)
- Fracture (n=143)
- DVT/PE (n=140)

* No data included where number of episodes <5

NOTE: Includes only completed episodes with valid LOS
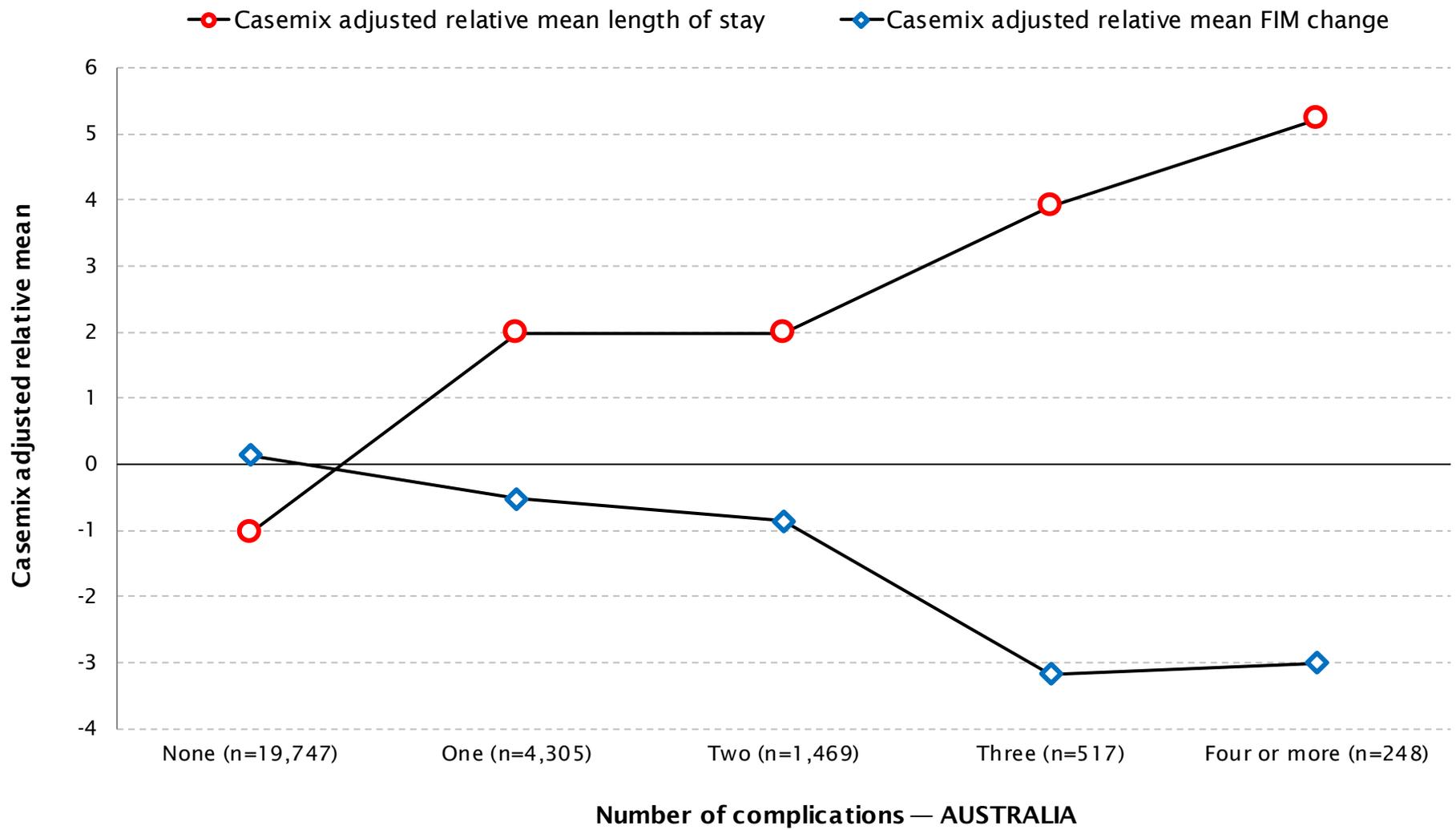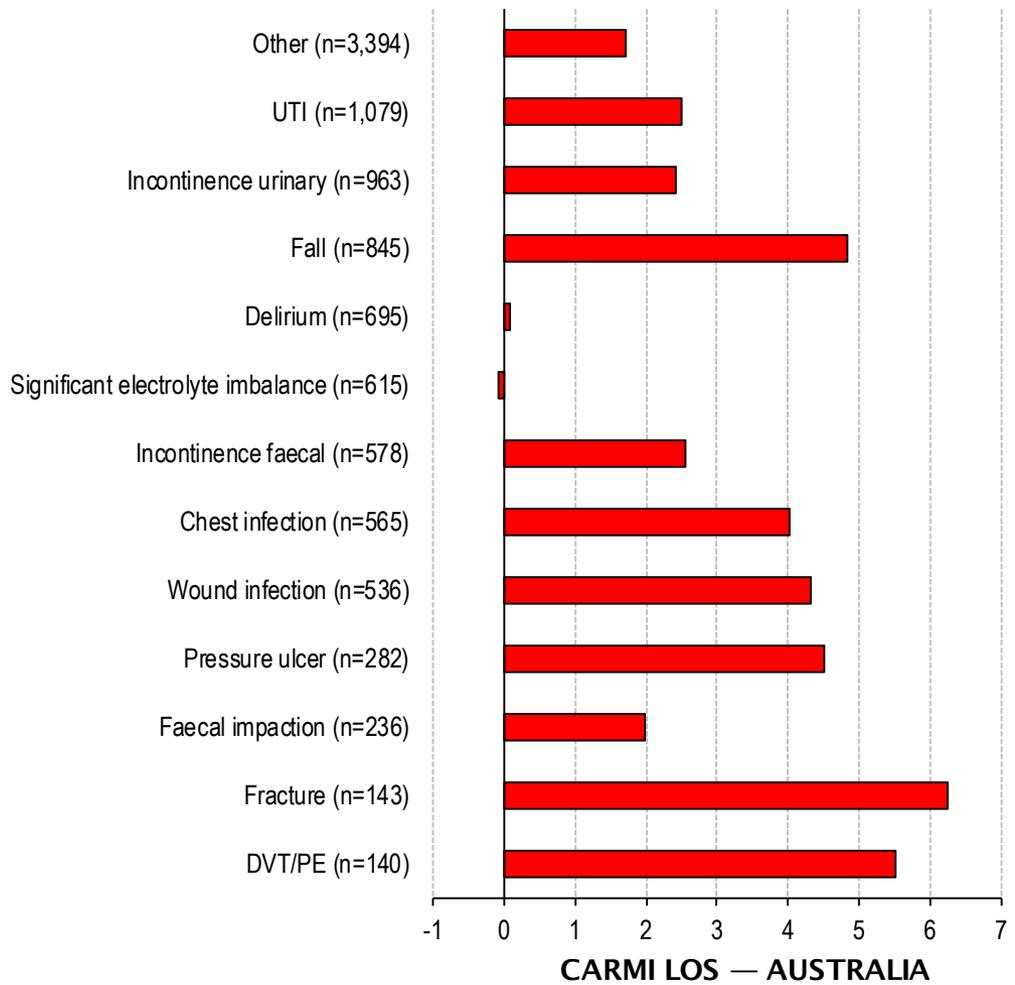
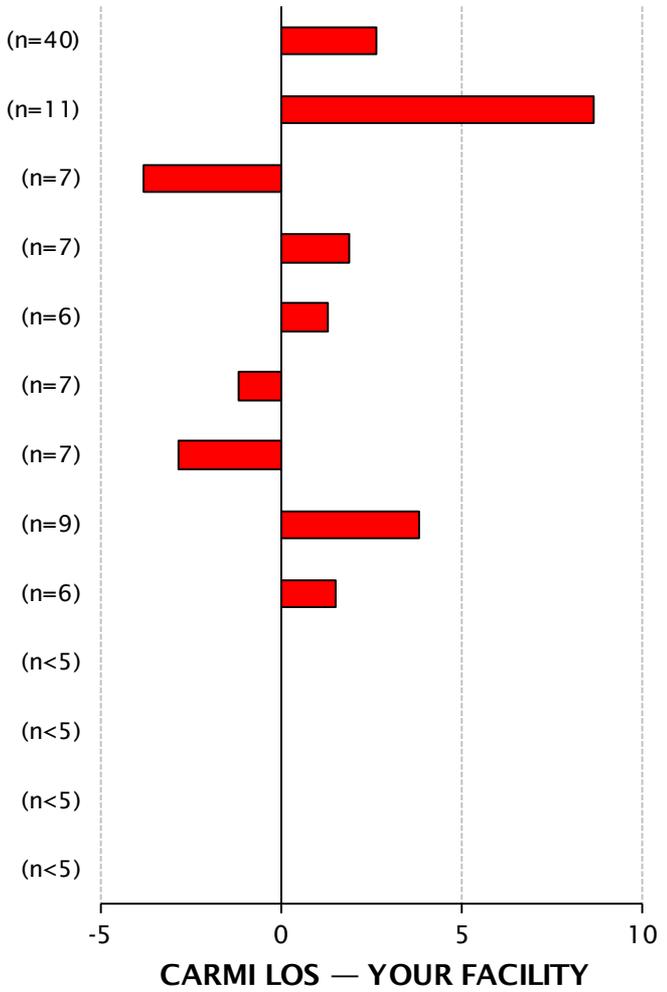# Casemix-adjusted relative mean FIM change by type of complication

CARMI FIM change — YOUR FACILITY

CARMI FIM change — AUSTRALIA

|	
(n=40)	Other (n=3,396)
(n=11)	UTI (n=1,079)
(n=7)	Incontinence urinary (n=962)
(n=7)	Fall (n=844)
(n=6)	Delirium (n=694)
(n=7)	Significant electrolyte imbalance (n=615)
(n=7)	Incontinence faecal (n=577)
(n=9)	Chest infection (n=565)
(n=6)	Wound infection (n=536)
(n<5)	Pressure ulcer (n=282)
(n<5)	Faecal impaction (n=236)
(n<5)	Fracture (n=143)
(n<5)	DVT/PE (n=140)

* No data included where number of episodes <5

NOTE: Includes only completed episodes with valid FIM score

Type of accommodation prior to impairment by AN-SNAP
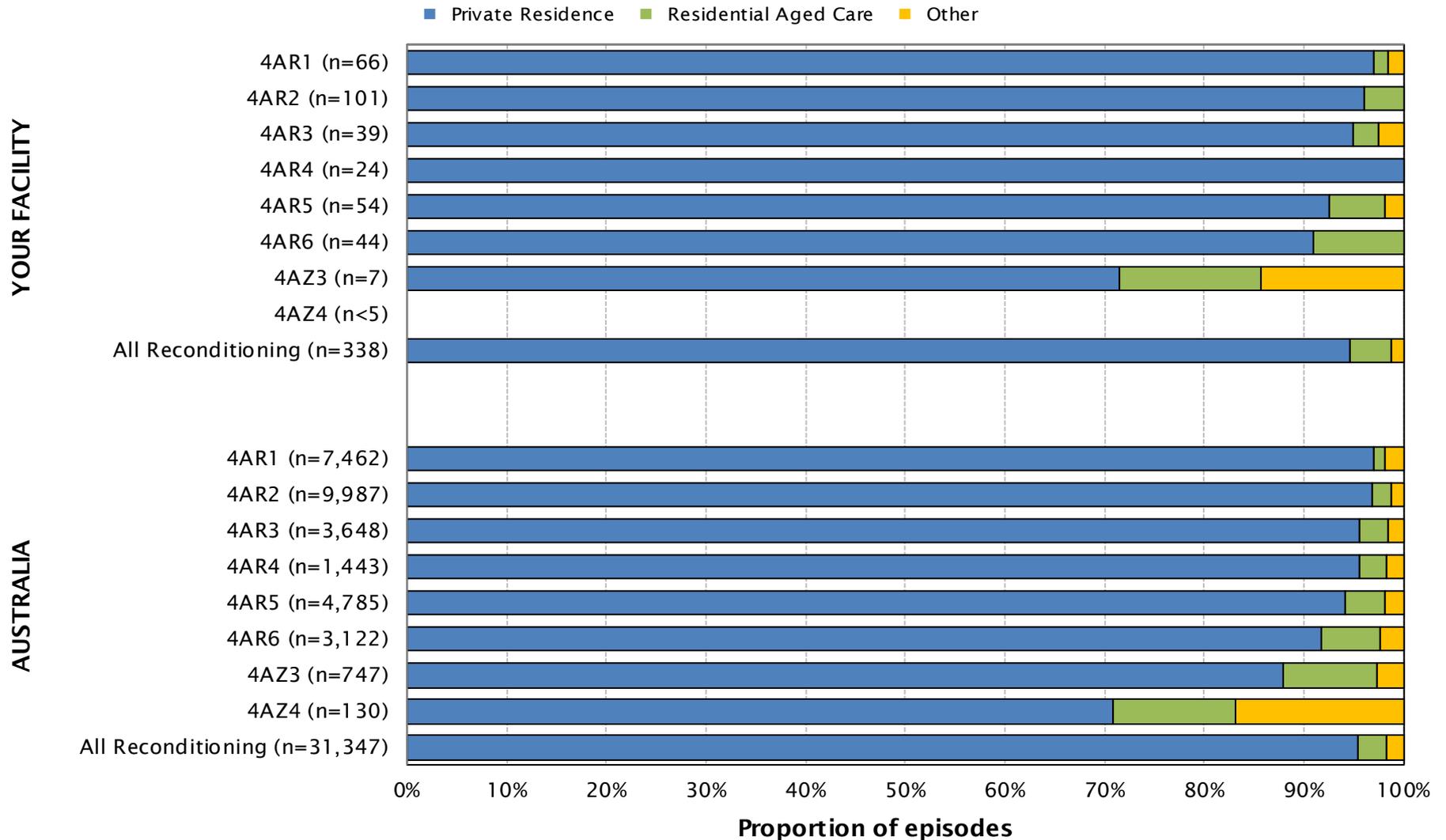
Carer status prior to impairment
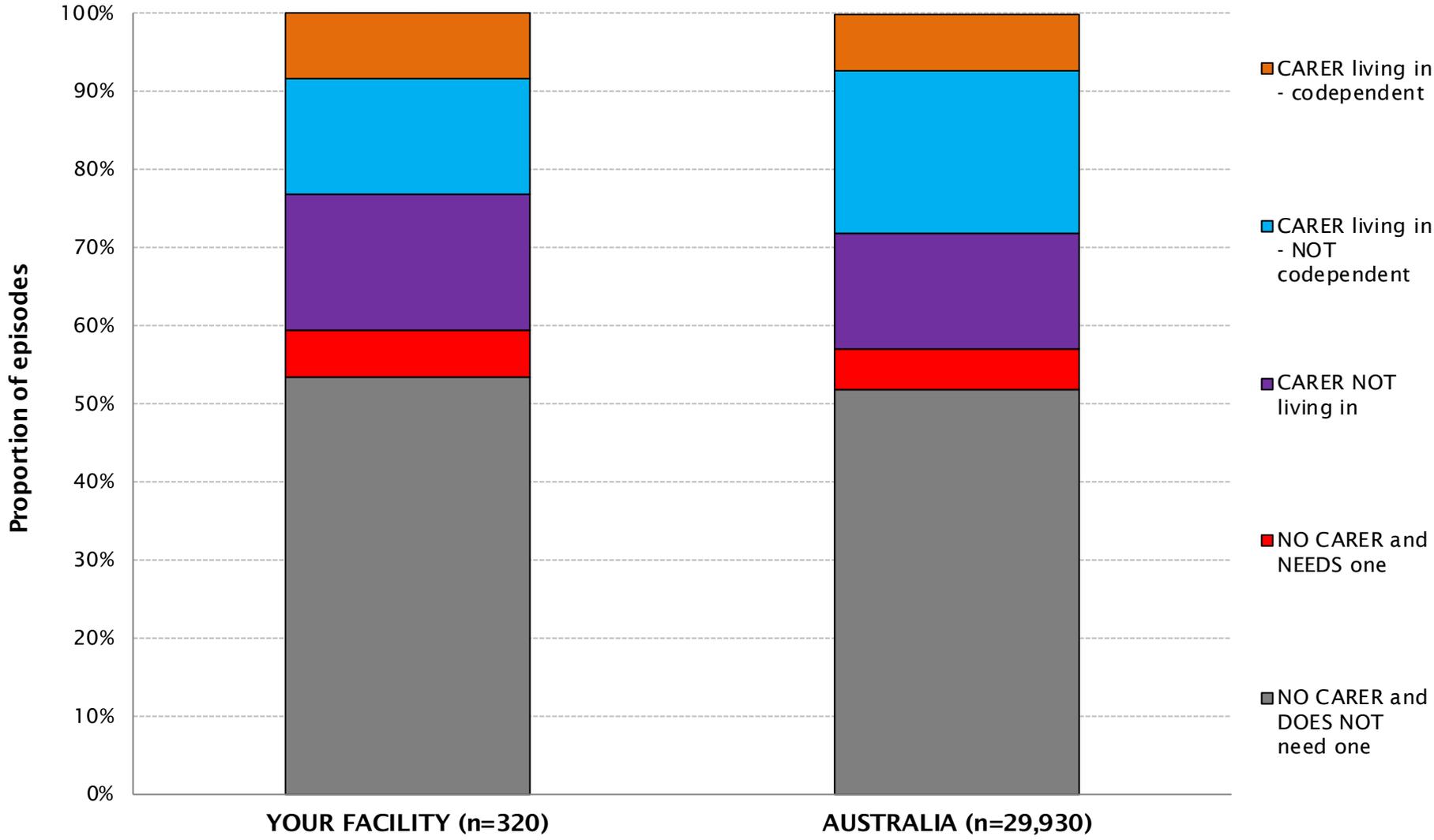
NOTE: Includes only those episodes coming from private residence

Any services received prior to impairment by carer status

Services received □ No services received ■

YOUR FACILITY (n=320)

AUSTRALIA (n=29,884)

- NO CARER and DOES NOT need one (n=171)
- NO CARER and NEEDS one (n=19)
- CARER NOT living in (n=56)
- CARER living in - NOT codependent (n=47)
- CARER living in - codependent (n=27)
- All episodes in private residence (n=320)
- NO CARER and DOES NOT need one (n=15,535)
- NO CARER and NEEDS one (n=1,510)
- CARER NOT living in (n=4,454)
- CARER living in - NOT codependent (n=6,207)
- CARER living in - codependent (n=2,178)
- All episodes in private residence (n=29,884)
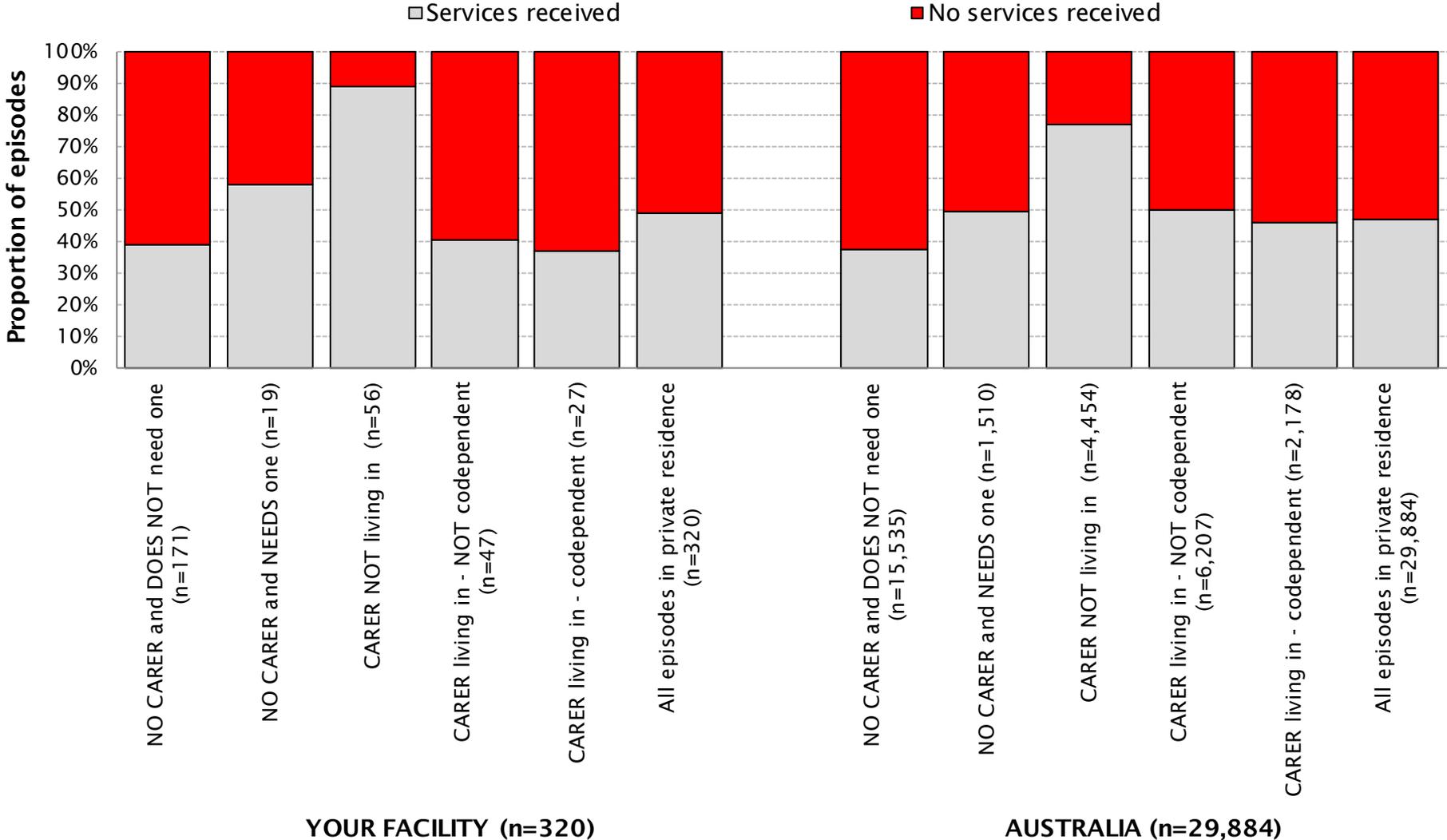
NOTE: Includes only those episodes coming from private residence and with known carer status and known services status

Carer status and any services received prior to impairment

Carer status prior to this impairment	YOUR FACILITY		AUSTRALIA	
	No.	%	No.	%
NO CARER and DOES NOT need one	171	53.4	15,536	52.0
NO CARER and NEEDS one	19	5.9	1,510	5.1
CARER NOT living in	56	17.5	4,454	14.9
CARER living in - NOT codependent	47	14.7	6,209	20.8
CARER living in - codependent	27	8.4	2,178	7.3
Missing	0		43	
All episodes in private residence	**320**	**100.0**	**29,930**	**100.0**

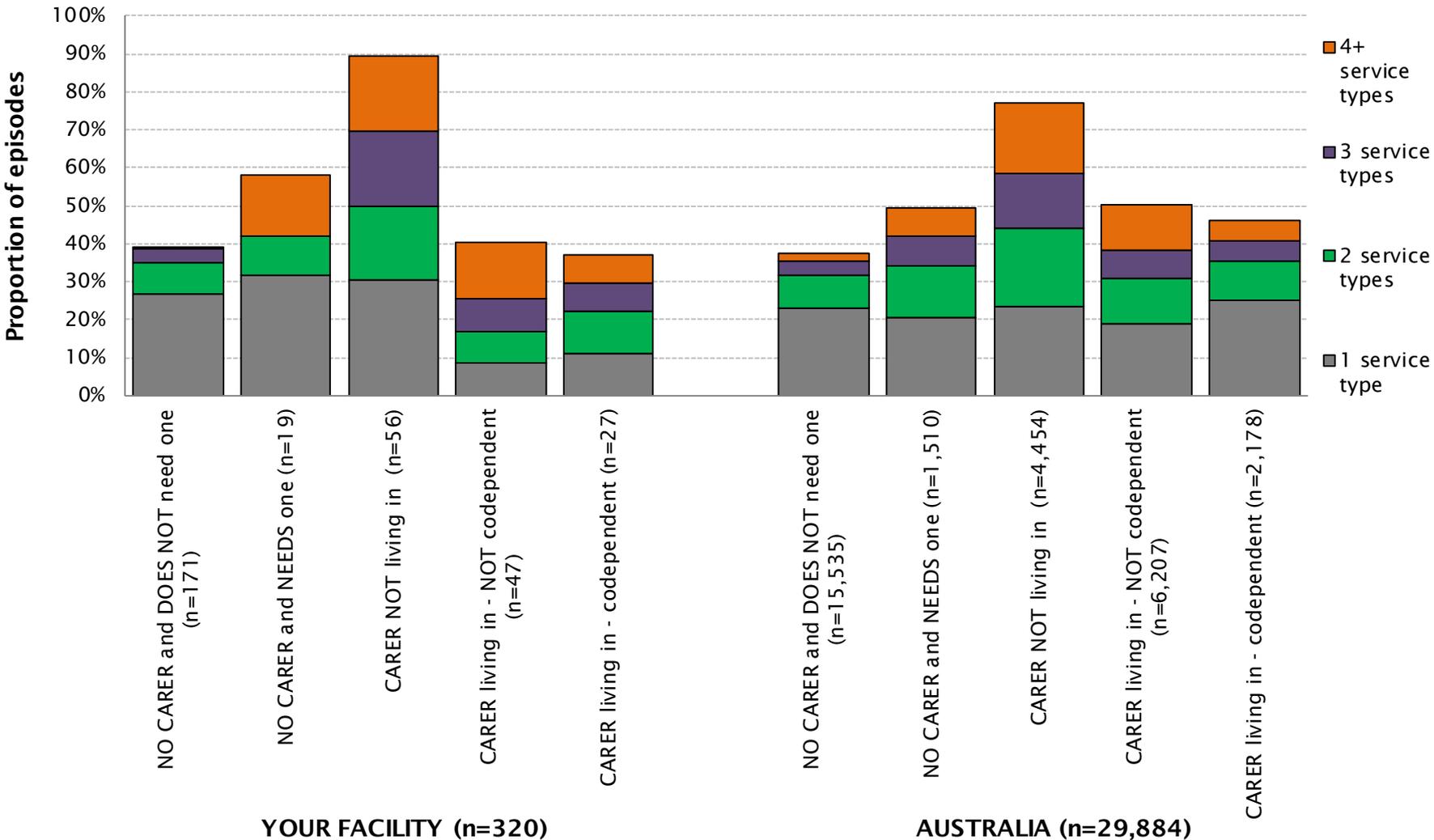|	Any services received prior to this impairment?			
	YOUR FACILITY		AUSTRALIA	
Carer status prior to this impairment	Yes (%)	No (%)	Yes (%)	No (%)
NO CARER and DOES NOT need one	39.2	60.8	37.5	62.5
NO CARER and NEEDS one	57.9	42.1	49.5	50.5
CARER NOT living in	89.3	10.7	77.3	22.7
CARER living in - NOT codependent	40.4	59.6	50.1	49.9
CARER living in - codependent	37.0	63.0	46.3	53.7
All episodes in private residence	**49.1**	**50.9**	**47.3**	**52.7**

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

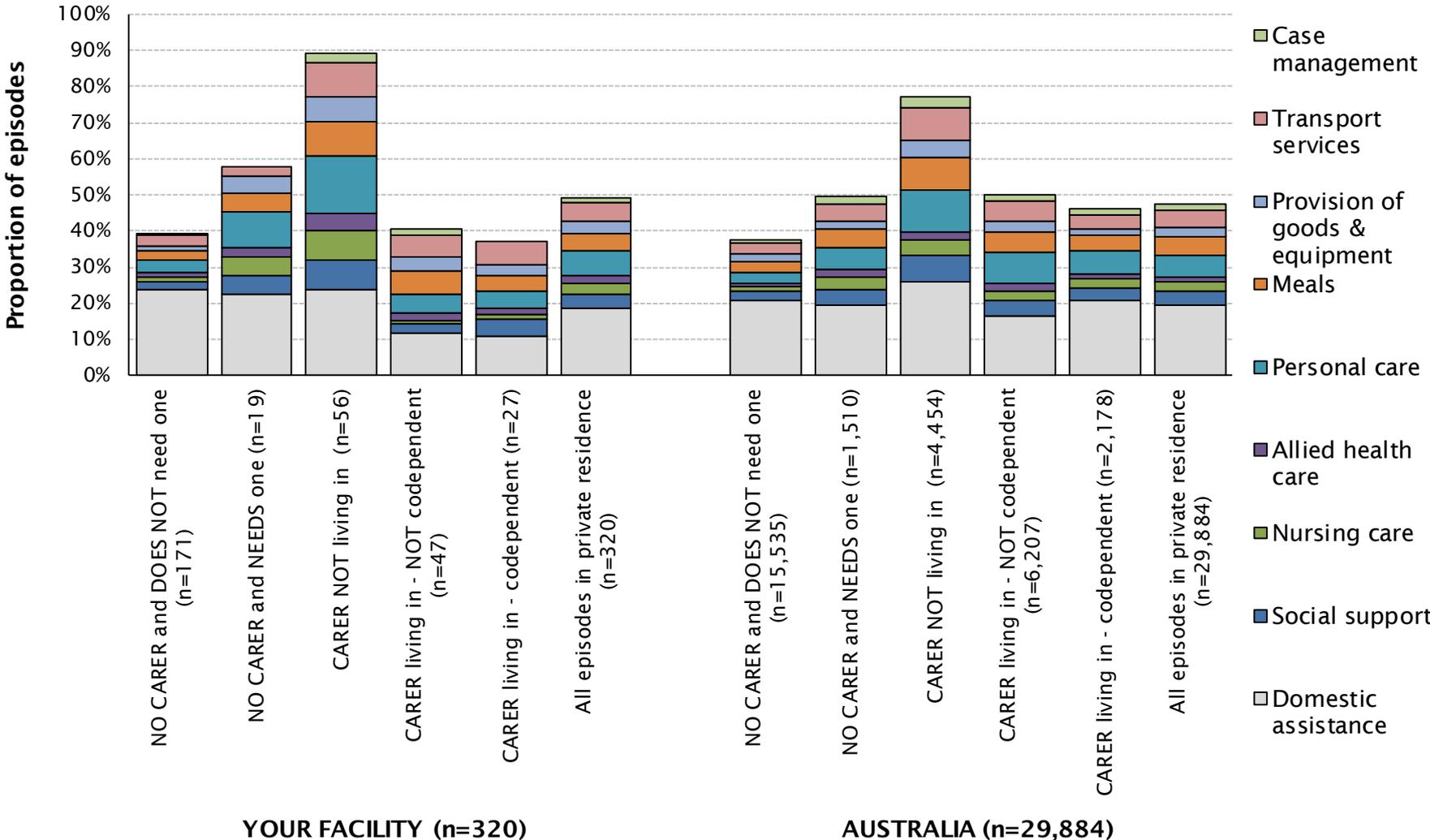

NOTE: Includes only those episodes coming from private residence and with known carer status and known services status

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	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	171	19	56	47	27	**320**
Percent of episodes receiving:						
No services	60.8	42.1	10.7	59.6	63.0	**50.9**
1 service type	26.9	31.6	30.4	8.5	11.1	**23.8**
2 service types	8.2	10.5	19.6	8.5	11.1	**10.6**
3 service types	3.5	0.0	19.6	8.5	7.4	**7.2**
4 or more service types	0.6	15.8	19.6	14.9	7.4	**7.5**
Service Type received						
Domestic assistance	33.9	47.4	62.5	36.2	25.9	**39.4**
Social support	3.5	10.5	21.4	8.5	11.1	**8.4**
Nursing care	1.8	10.5	21.4	2.1	3.7	**5.9**
Allied health care	1.8	5.3	12.5	6.4	3.7	**4.7**
Personal care	4.7	21.1	41.1	17.0	11.1	**14.4**
Meals	4.1	10.5	25.0	19.1	11.1	**10.9**
Provision of goods & equipment	1.8	10.5	17.9	12.8	7.4	**7.2**
Transport services	4.1	5.3	25.0	19.1	14.8	**10.9**
Case management	0.6	0.0	7.1	4.3	0.0	**2.2**

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

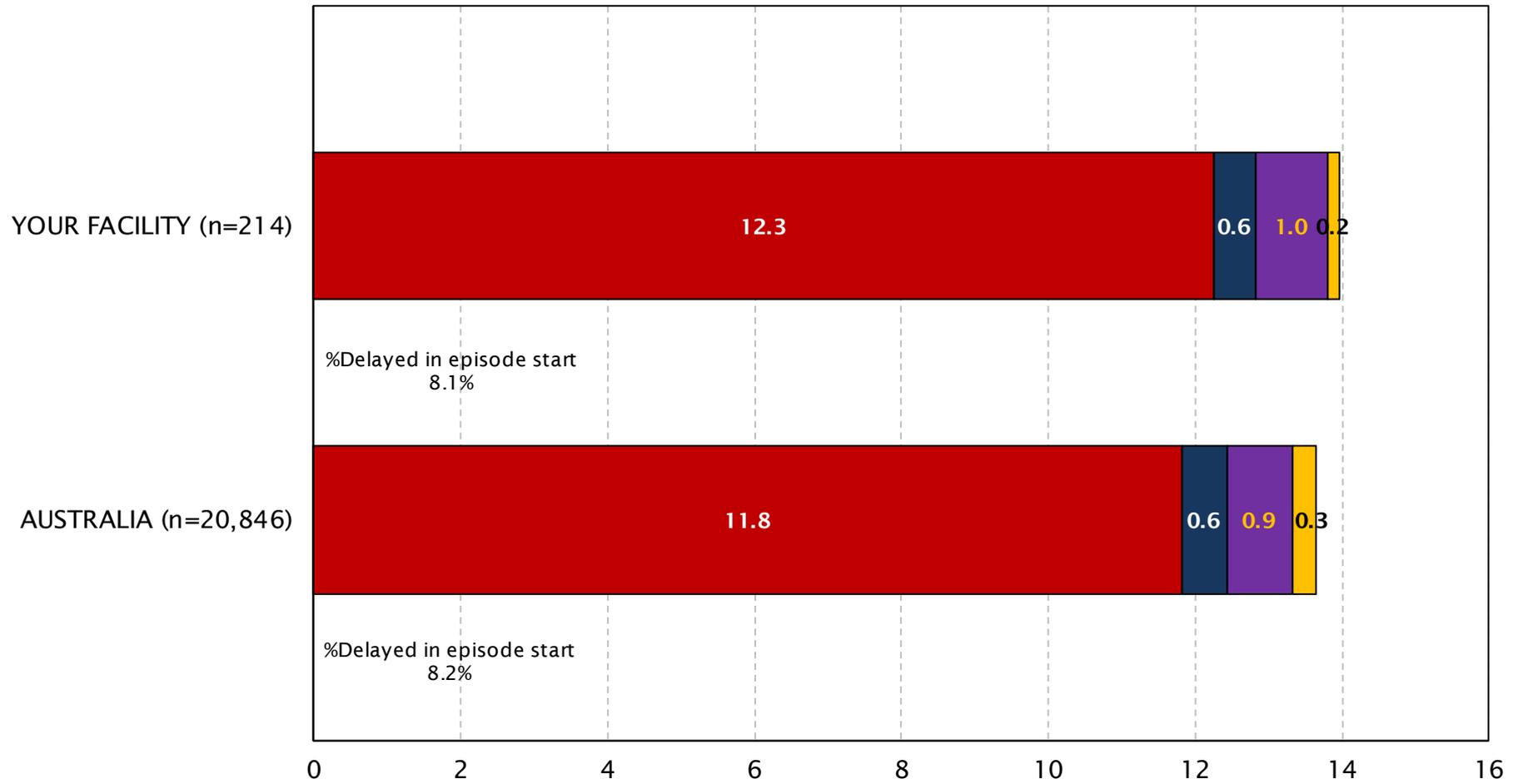# Number and type of services received prior to impairment by carer status

Services received prior to this impairment	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	15,535	1,510	4,454	6,207	2,178	29,884
Percent of episodes receiving:						
No services	62.5	50.5	22.7	49.9	53.7	52.7
1 service type	23.2	20.4	23.5	18.7	24.9	22.3
2 service types	8.5	13.8	20.5	12.1	10.3	11.4
3 service types	3.7	7.8	14.4	7.5	5.3	6.4
4 or more service types	2.1	7.4	18.8	11.8	5.6	7.2
Service Type received						
Domestic assistance	33.8	42.4	68.7	41.1	39.6	41.4
Social support	4.2	9.9	18.9	11.8	6.3	8.4
Nursing care	2.3	7.7	11.4	6.7	5.1	5.1
Allied health care	1.5	3.9	5.4	5.0	2.5	3.0
Personal care	4.7	13.8	30.2	22.0	12.3	13.1
Meals	5.1	11.5	24.0	13.8	7.7	10.2
Provision of goods & equipment	3.1	4.6	12.6	7.5	4.0	5.6
Transport services	4.9	10.6	23.6	14.4	7.3	10.1
Case management	1.5	4.2	8.5	4.4	3.2	3.4

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

Days from referral to rehabilitation episode start

■ Injury to Referral
■ Referral to assessment
■ Assessment to clinically rehab ready
■ Clinically rehab ready to rehab episode start

YOUR FACILITY (n=214)

12.3   0.6   1.0   0.2

%Delayed in episode start
8.1%

AUSTRALIA (n=20,846)

11.8   0.6   0.9   0.3

%Delayed in episode start
8.2%

0   2   4   6   8   10   12   14   16

Average number of days between dates
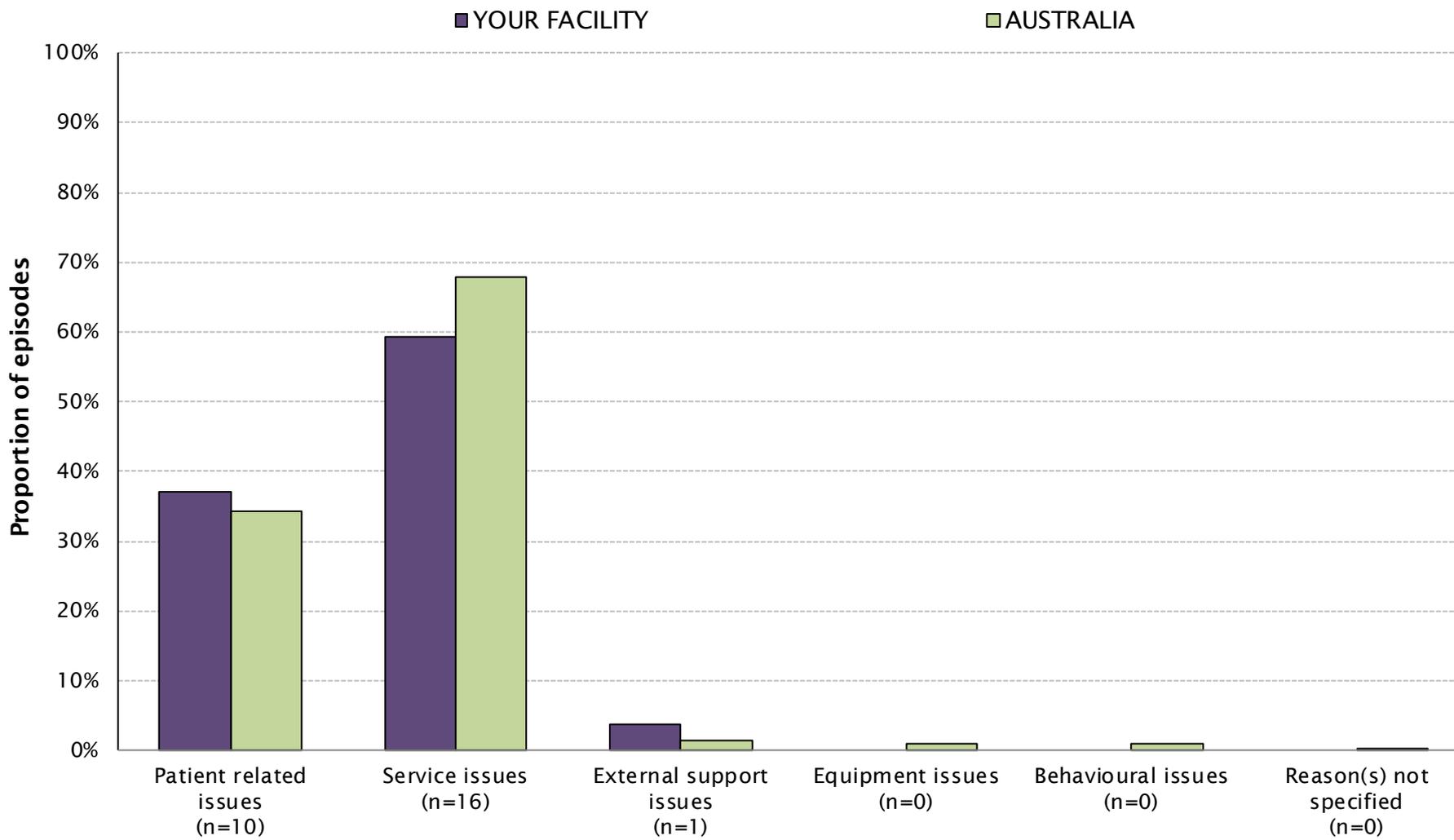
*No data provided when less than 5 episodes have dates

NOTE: Includes first admission episodes where all dates have been entered

Type of delay in episode start

Delays in episode start

Delay in episode start	YOUR FACILITY No.	YOUR FACILITY %	AUSTRALIA No.	AUSTRALIA %
No delay	306	91.9	28,423	91.8
Delay in episode start	27	8.1	2,554	8.2
Missing	7		495	
All episodes	**340**	**100.0**	**31,472**	**100.0**

Reasons for delay in episode start	YOUR FACILITY No.	YOUR FACILITY %	AUSTRALIA No.	AUSTRALIA %
Patient related issues	10	37.0	875	34.3
Service issues	16	59.3	1,731	67.8
External support issues	1	3.7	38	1.5
Equipment issues	0	0.0	27	1.1
Behavioural issues	0	0.0	28	1.1
Reason(s) not specified	0	0.0	1	0.0

Type of delay in episode end
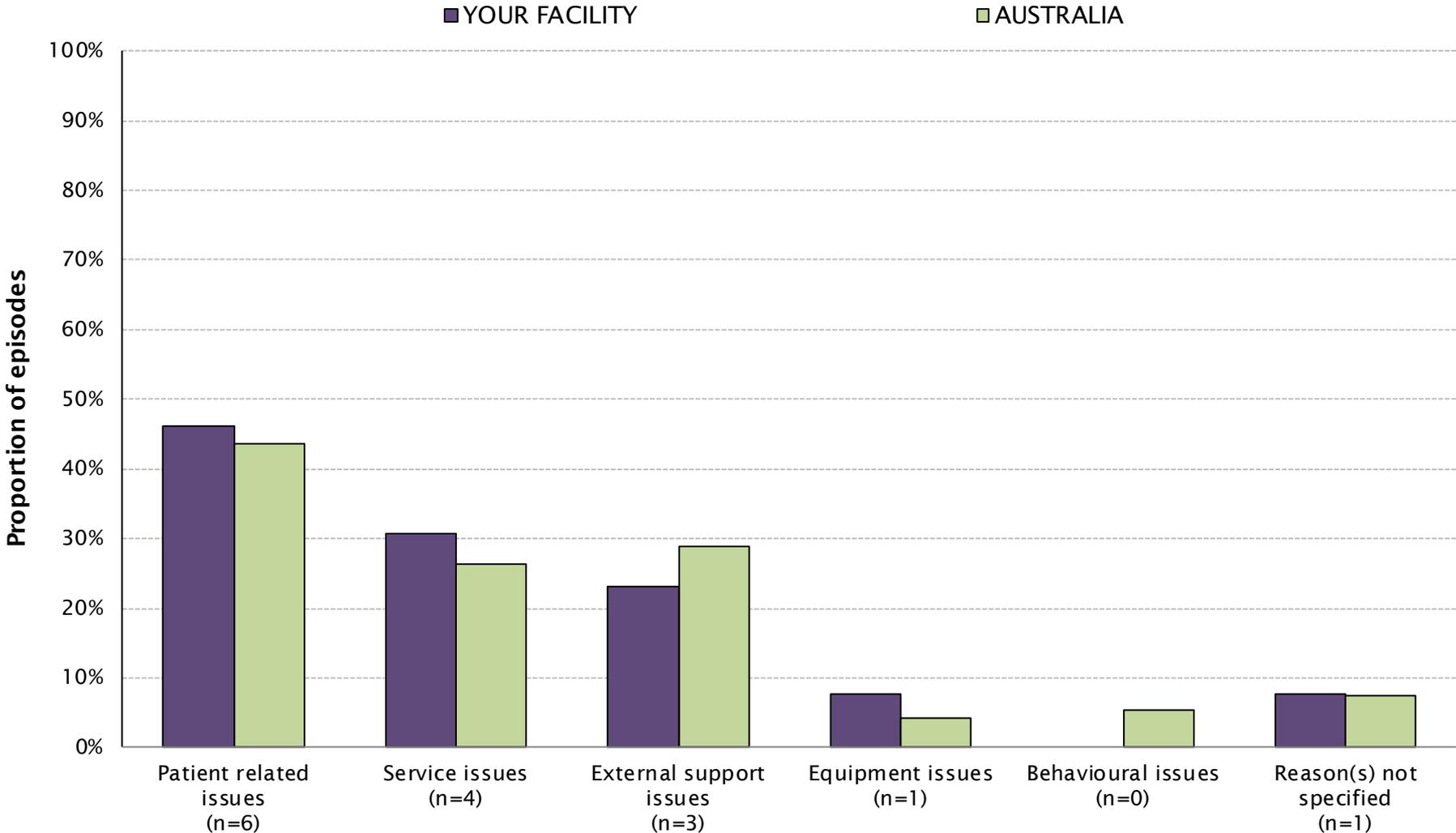
Delays in episode end

Delay in episode end	YOUR FACILITY		AUSTRALIA	
	No.	%	No.	%
No delay	277	95.5	24,578	94.1
Delay in episode end	13	4.5	1,552	5.9
Missing	3		338	
All episodes	**293**	**100.0**	**26,468**	**100.0**

Reasons for delay in episode end	YOUR FACILITY		AUSTRALIA	
	No.	%	No.	%
Patient related issues	6	46.2	678	43.7
Service issues	4	30.8	409	26.4
External support issues	3	23.1	448	28.9
Equipment issues	1	7.7	65	4.2
Behavioural issues	0	0.0	82	5.3
Reason(s) not specified	1	7.7	117	7.5

NOTE: Includes completed episodes only.

Discharge destination by AN-SNAP class

Legend: Final Accommodation · Interim Accommodation · Remaining in Hospital · Other · Unknown

YOUR FACILITY
- 4AR1 (n=66)
- 4AR2 (n=101)
- 4AR3 (n=39)
- 4AR4 (n=25)
- 4AR5 (n=54)
- 4AR6 (n=45)
- 4AZ3 (n=7)
- 4AZ4 (n<5)
- All Reconditioning (n=338)

AUSTRALIA
- 4AR1 (n=7,470)
- 4AR2 (n=10,027)
- 4AR3 (n=3,653)
- 4AR4 (n=1,452)
- 4AR5 (n=4,810)
- 4AR6 (n=3,148)
- 4AZ3 (n=755)
- 4AZ4 (n=130)
- All Reconditioning (n=31,445)

X-axis: 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Proportion of episodes
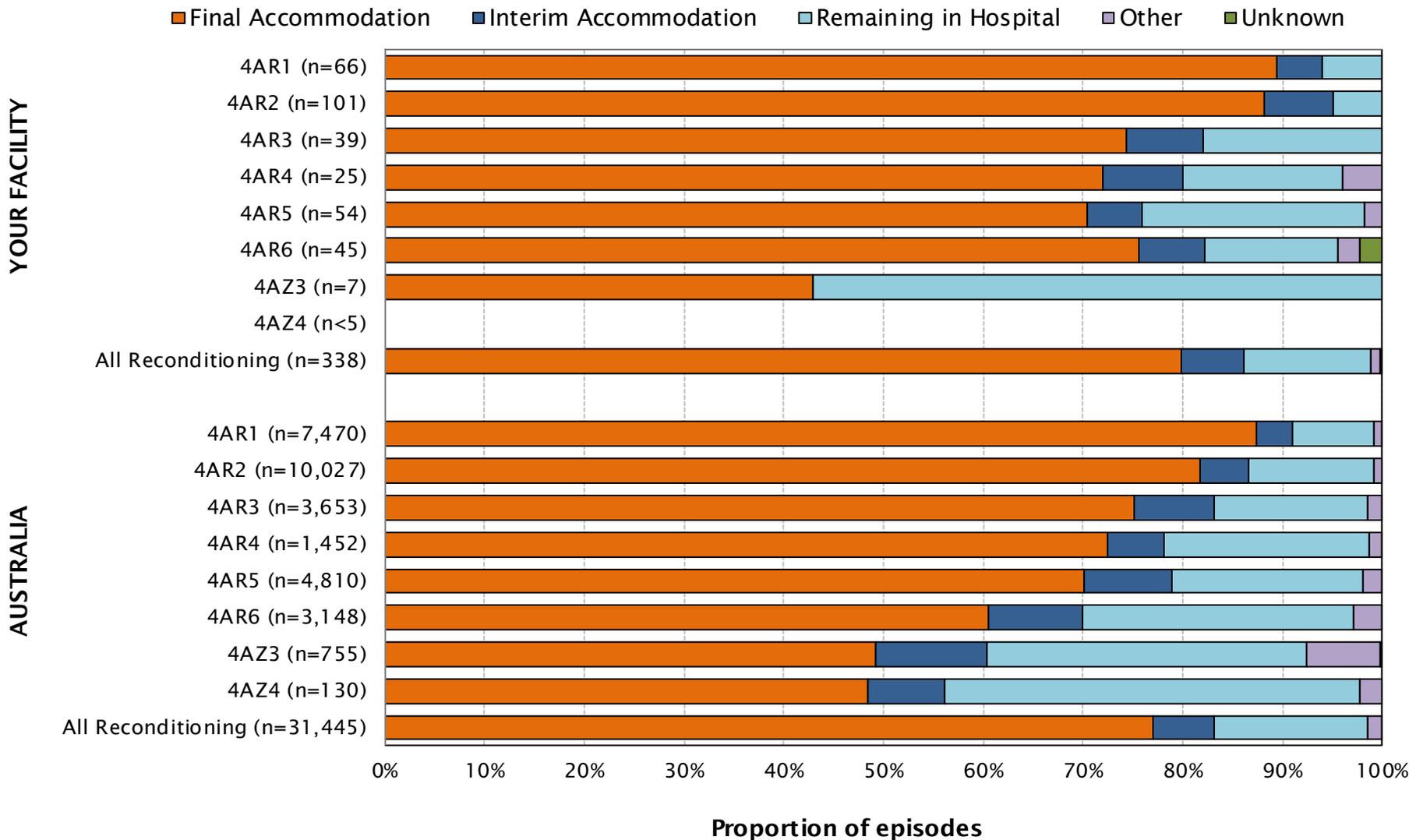
Discharge destination by AN-SNAP class

AN-SNAP class V4	YOUR FACILITY — N					AUSTRALIA — N				
	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown
4AR1 (motor 67-91)	59	3	4	0	0	6,522	269	611	65	3
4AR2 (motor 50-66, cognition 26-35)	89	7	5	0	0	8,194	481	1,265	87	0
4AR3 (motor 50-66, cognition 5-25)	29	3	7	0	0	2,742	294	562	53	2
4AR4 (motor 34-49, cognition 31-35)	18	2	4	1	0	1,053	80	300	18	1
4AR5 (motor 34-49, cognition 5-30)	38	3	12	1	0	3,369	426	919	94	2
4AR6 (motor 19-33)	34	3	6	1	1	1,905	298	855	87	3
4AZ3 (motor 13-18, Age ≥ 65)	3	0	4	0	0	371	85	242	55	2
4AZ4 (motor 13-18, Age ≤ 64)	0	0	1	0	0	63	10	54	3	0
All Reconditioning AN-SNAP Classes	270	21	43	3	1	24,219	1,943	4,808	462	13

AN-SNAP class V4	YOUR FACILITY — %					AUSTRALIA — %				
	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown
4AR1 (motor 67-91)	89.4	4.5	6.1	0.0	0.0	87.3	3.6	8.2	0.9	0.0
4AR2 (motor 50-66, cognition 26-35)	88.1	6.9	5.0	0.0	0.0	81.7	4.8	12.6	0.9	0.0
4AR3 (motor 50-66, cognition 5-25)	74.4	7.7	17.9	0.0	0.0	75.1	8.0	15.4	1.5	0.1
4AR4 (motor 34-49, cognition 31-35)	72.0	8.0	16.0	4.0	0.0	72.5	5.5	20.7	1.2	0.1
4AR5 (motor 34-49, cognition 5-30)	70.4	5.6	22.2	1.9	0.0	70.0	8.9	19.1	2.0	0.0
4AR6 (motor 19-33)	75.6	6.7	13.3	2.2	2.2	60.5	9.5	27.2	2.8	0.1
4AZ3 (motor 13-18, Age ≥ 65)	42.9	0.0	57.1	0.0	0.0	49.1	11.3	32.1	7.3	0.3
4AZ4 (motor 13-18, Age ≤ 64)	0.0	0.0	100.0	0.0	0.0	48.5	7.7	41.5	2.3	0.0
All Reconditioning AN-SNAP Classes	79.9	6.2	12.7	0.9	0.3	77.0	6.2	15.3	1.5	0.0

Discharge destination

Interim accommodation post discharge by AN-SNAP class
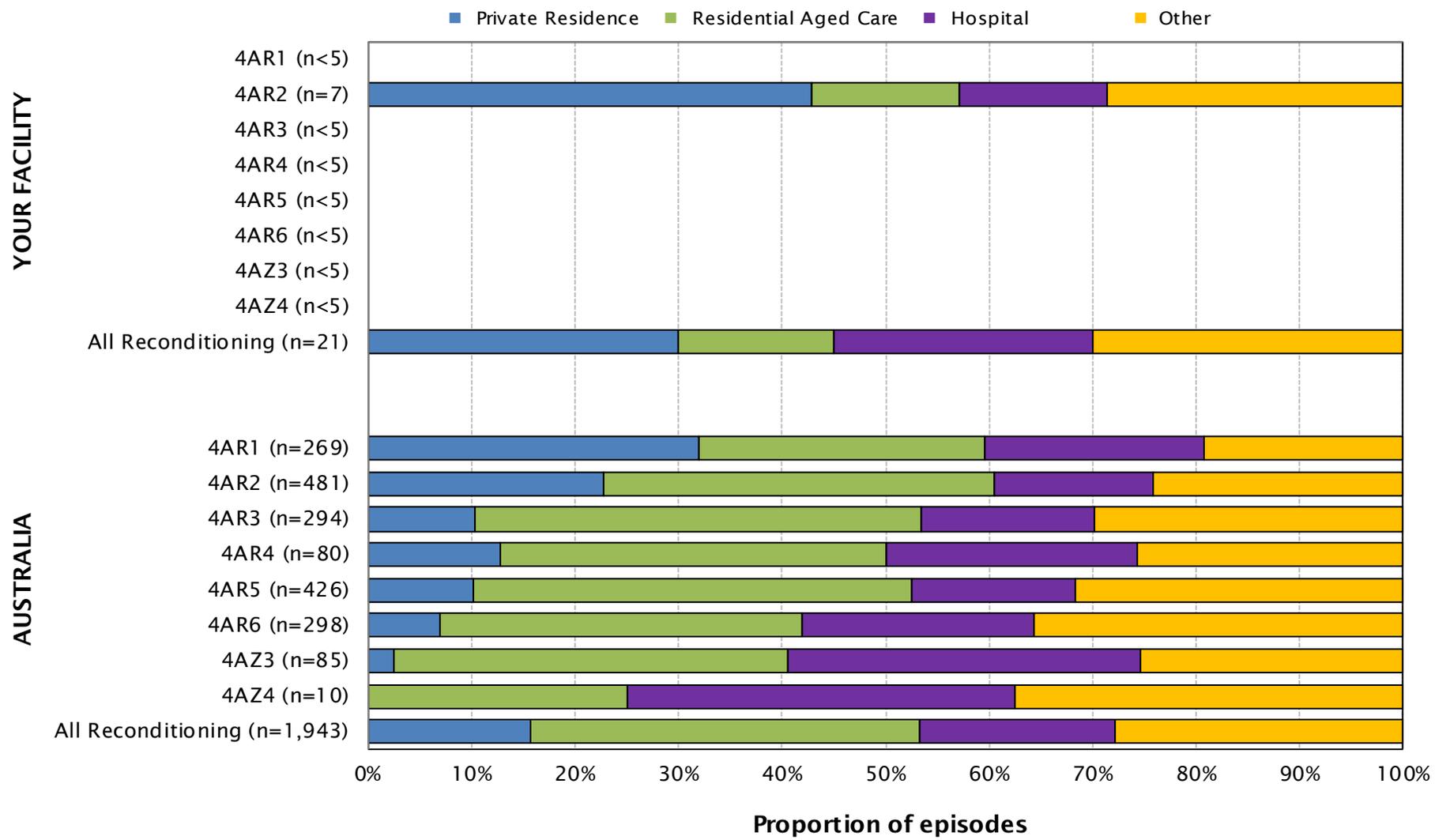
Proportion of episodes

Legend: ■ Private Residence ■ Residential Aged Care ■ Hospital ■ Other

YOUR FACILITY:
- 4AR1 (n<5)
- 4AR2 (n=7)
- 4AR3 (n<5)
- 4AR4 (n<5)
- 4AR5 (n<5)
- 4AR6 (n<5)
- 4AZ3 (n<5)
- 4AZ4 (n<5)
- All Reconditioning (n=21)

AUSTRALIA:
- 4AR1 (n=269)
- 4AR2 (n=481)
- 4AR3 (n=294)
- 4AR4 (n=80)
- 4AR5 (n=426)
- 4AR6 (n=298)
- 4AZ3 (n=85)
- 4AZ4 (n=10)
- All Reconditioning (n=1,943)

NOTE: Includes only those episodes with mode of episode end equal to interim accommodation
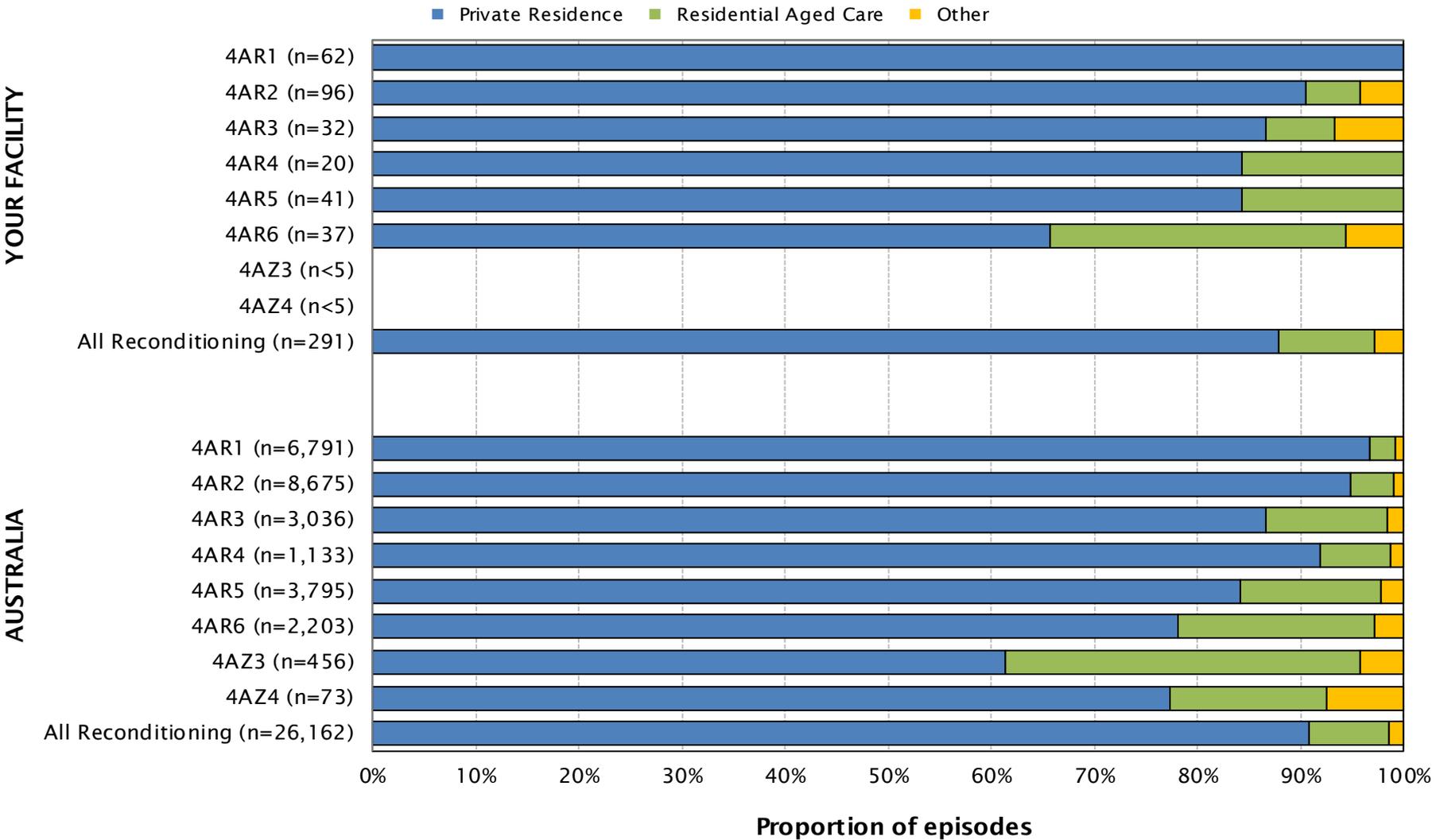
Interim accommodation post discharge by AN-SNAP class

YOUR FACILITY — N (%)					
AN-SNAP class V4	**Private residence**	**Residential Aged Care**	**Hospital**	**Other**	**All episodes****
4AR1 (motor 67-91)	3 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)	3 (100.0)
4AR2 (motor 50-66, cognition 26-35)	3 (42.9)	1 (14.3)	1 (14.3)	2 (28.6)	7 (100.0)
4AR3 (motor 50-66, cognition 5-25)	0 (0.0)	1 (33.3)	1 (33.3)	0 (0.0)	3 (100.0)
4AR4 (motor 34-49, cognition 31-35)	0 (0.0)	0 (0.0)	1 (50.0)	1 (50.0)	2 (100.0)
4AR5 (motor 34-49, cognition 5-30)	0 (0.0)	1 (33.3)	0 (0.0)	2 (66.7)	3 (100.0)
4AR6 (motor 19-33)	0 (0.0)	0 (0.0)	2 (66.7)	1 (33.3)	3 (100.0)
4AZ3 (motor 13-18, Age ≥ 65)	0 —	0 —	0 —	0 —	0 —
4AZ4 (motor 13-18, Age ≤ 64)	0 —	0 —	0 —	0 —	0 —
All Reconditioning AN-SNAP Classes	**6 (28.6)**	**3 (14.3)**	**5 (23.8)**	**6 (28.6)**	**21 (100.0)**

AUSTRALIA — N (%)					
AN-SNAP class V4	**Private residence**	**Residential Aged Care**	**Hospital**	**Other**	**All episodes****
4AR1 (motor 67-91)	83 (30.9)	72 (26.8)	55 (20.4)	50 (18.6)	269 (100.0)
4AR2 (motor 50-66, cognition 26-35)	107 (22.2)	178 (37.0)	72 (15.0)	114 (23.7)	481 (100.0)
4AR3 (motor 50-66, cognition 5-25)	29 (9.9)	121 (41.2)	47 (16.0)	84 (28.6)	294 (100.0)
4AR4 (motor 34-49, cognition 31-35)	10 (12.5)	29 (36.3)	19 (23.8)	20 (25.0)	80 (100.0)
4AR5 (motor 34-49, cognition 5-30)	42 (9.9)	174 (40.8)	65 (15.3)	130 (30.5)	426 (100.0)
4AR6 (motor 19-33)	20 (6.7)	100 (33.6)	64 (21.5)	102 (34.2)	298 (100.0)
4AZ3 (motor 13-18, Age ≥ 65)	2 (2.4)	30 (35.3)	27 (31.8)	20 (23.5)	85 (100.0)
4AZ4 (motor 13-18, Age ≤ 64)	0 (0.0)	2 (20.0)	3 (30.0)	3 (30.0)	10 (100.0)
All Reconditioning AN-SNAP Classes	**293 (15.1)**	**706 (36.3)**	**352 (18.1)**	**523 (26.9)**	**1,943 (100.0)**

** There were 1 episode(s) in YOUR FACILITY and 69 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

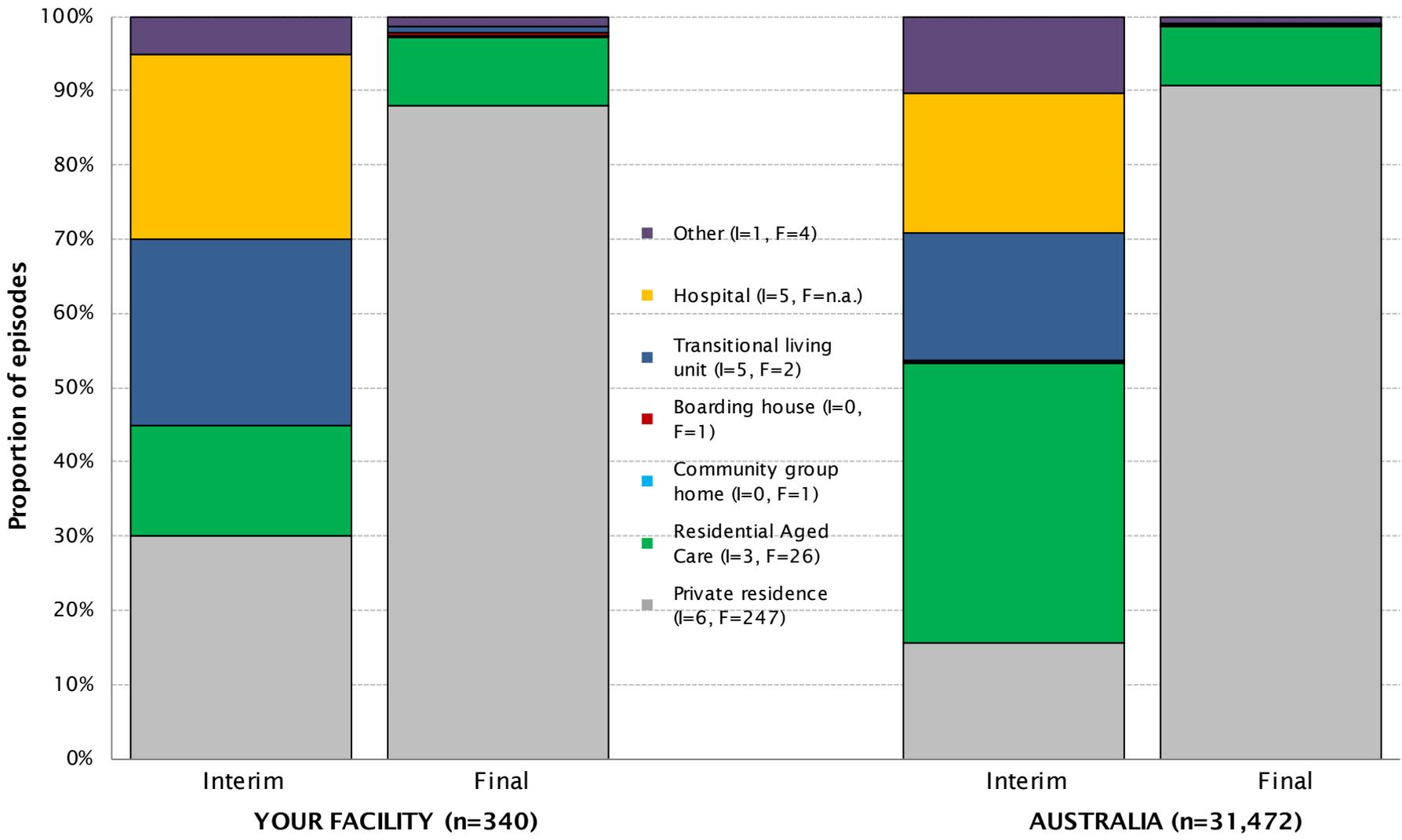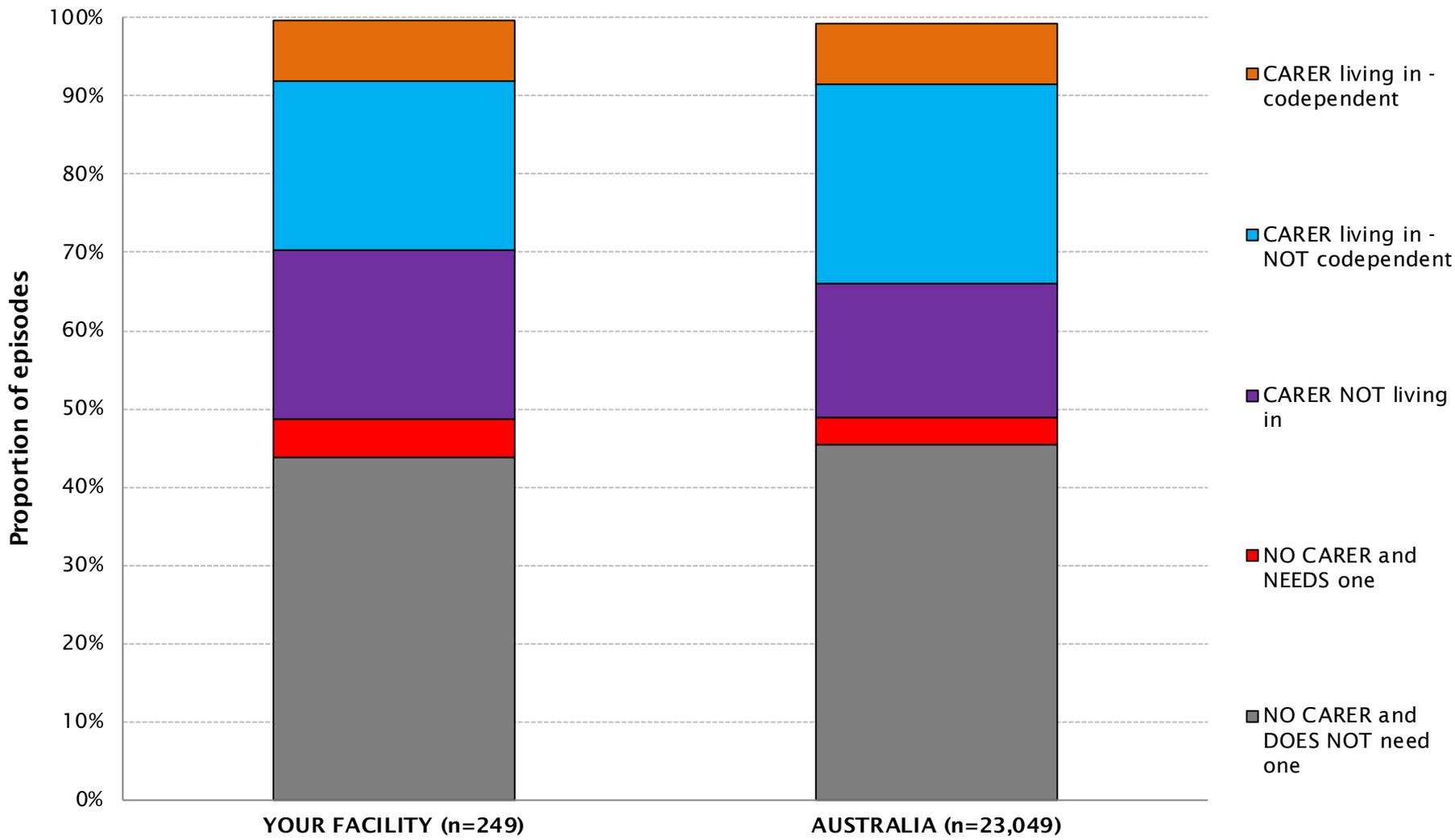# Final accommodation post discharge by AN-SNAP class

AN-SNAP class V4	YOUR FACILITY — N (%)								
	Private residence		Residential Aged Care		Other		Unknown/Missing	All episodes	
4AR1 (motor 67-91)	62	(100.0)	0	(0.0)	0	(0.0)	0	62	(100.0)
4AR2 (motor 50-66, cognition 26-35)	85	(90.4)	5	(5.3)	4	(4.3)	0	94	(100.0)
4AR3 (motor 50-66, cognition 5-25)	26	(86.7)	2	(6.7)	2	(6.7)	0	30	(100.0)
4AR4 (motor 34-49, cognition 31-35)	16	(84.2)	3	(15.8)	0	(0.0)	0	19	(100.0)
4AR5 (motor 34-49, cognition 5-30)	32	(84.2)	6	(15.8)	0	(0.0)	0	38	(100.0)
4AR6 (motor 19-33)	23	(65.7)	10	(28.6)	2	(5.7)	0	35	(100.0)
4AZ3 (motor 13-18, Age ≥ 65)	3	(100.0)	0	(0.0)	0	(0.0)	0	3	(100.0)
4AZ4 (motor 13-18, Age ≤ 64)	0	—	0	—	0	—	0	0	—
All Reconditioning AN-SNAP Classes	247	(87.9)	26	(9.3)	8	(2.8)	0	281	(100.0)

AN-SNAP class V4	AUSTRALIA — N (%)								
	Private residence		Residential Aged Care		Other		Unknown/Missing	All episodes	
4AR1 (motor 67-91)	6,457	(95.1)	168	(2.5)	55	(0.8)	111	6,791	(100.0)
4AR2 (motor 50-66, cognition 26-35)	7,967	(91.8)	356	(4.1)	84	(1.0)	268	8,675	(100.0)
4AR3 (motor 50-66, cognition 5-25)	2,500	(82.3)	342	(11.3)	45	(1.5)	149	3,036	(100.0)
4AR4 (motor 34-49, cognition 31-35)	996	(87.9)	73	(6.4)	15	(1.3)	49	1,133	(100.0)
4AR5 (motor 34-49, cognition 5-30)	2,993	(78.9)	491	(12.9)	77	(2.0)	234	3,795	(100.0)
4AR6 (motor 19-33)	1,591	(72.2)	390	(17.7)	58	(2.6)	164	2,203	(100.0)
4AZ3 (motor 13-18, Age ≥ 65)	255	(55.9)	143	(31.4)	18	(3.9)	40	456	(100.0)
4AZ4 (motor 13-18, Age ≤ 64)	51	(69.9)	10	(13.7)	5	(6.8)	7	73	(100.0)
All Reconditioning AN-SNAP Classes	22,810	(87.2)	1,973	(7.5)	357	(1.4)	1,022	26,162	(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

Interim and final accommodation post discharge

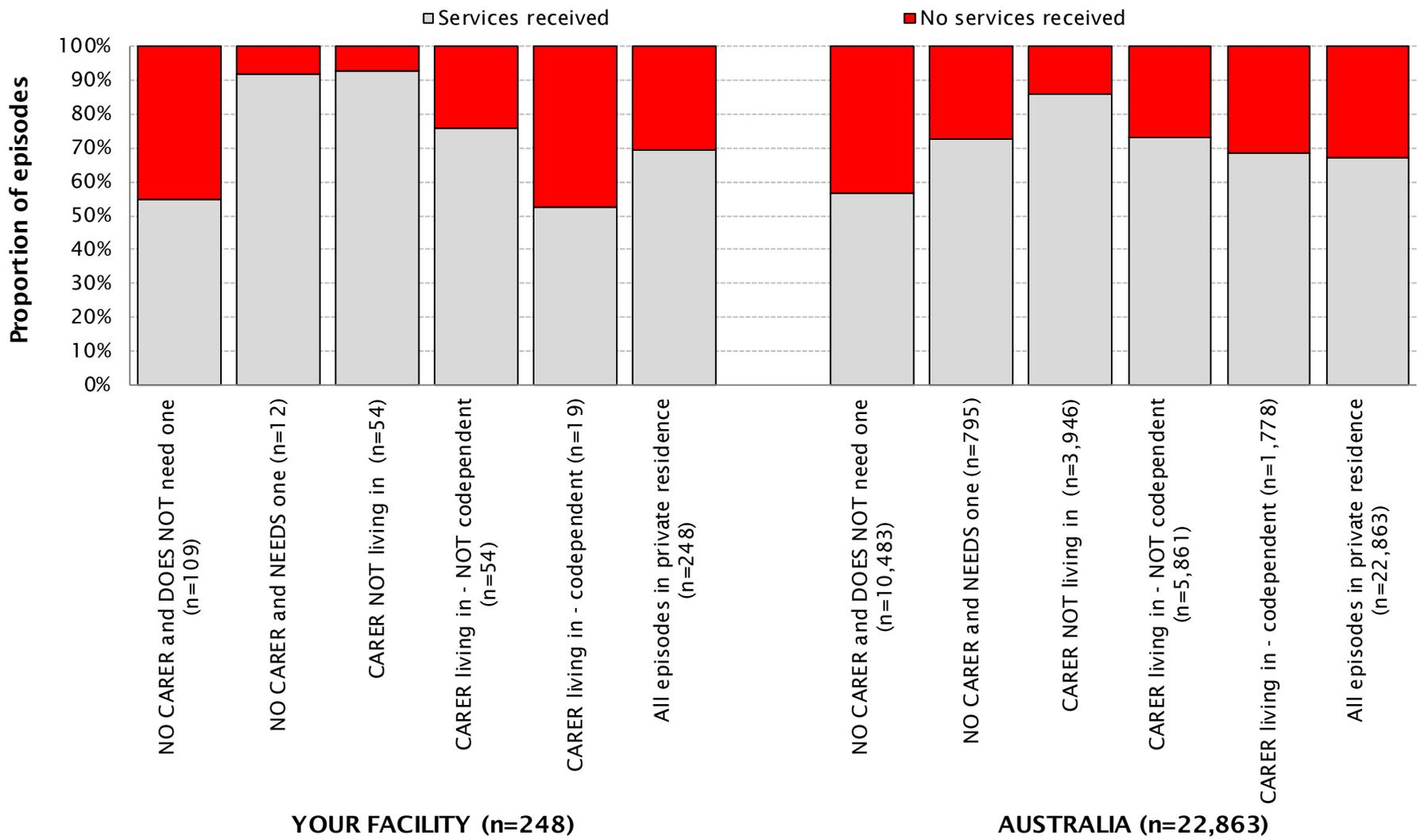| Accommodation	YOUR FACILITY				AUSTRALIA			
	Interim	(%)	Final	(%)	Interim	(%)	Final	(%)
Private residence	6	(30.0)	247	(87.9)	293	(15.6)	22,810	(90.7)
Residential Aged Care	3	(15.0)	26	(9.3)	706	(37.7)	1,973	(7.8)
Community group home	0	(0.0)	1	(0.4)	5	(0.3)	45	(0.2)
Boarding house	0	(0.0)	1	(0.4)	3	(0.2)	27	(0.1)
Transitional living unit	5	(25.0)	2	(0.7)	320	(17.1)	81	(0.3)
Hospital	5	(25.0)	n.a.		352	(18.8)	n.a.	
Other	1	(5.0)	4	(1.4)	195	(10.4)	204	(0.8)
Missing/Unknown	1		10		69		1,022	
All episodes	21	(100.0)	291	(100.0)	1,943	(100.0)	26,162	(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

Carer status and any services received post discharge

Carer status post discharge	YOUR FACILITY		AUSTRALIA	
	No.	%	No.	%
NO CARER and DOES NOT need one	109	44.0	10,485	45.9
NO CARER and NEEDS one	12	4.8	795	3.5
CARER NOT living in	54	21.8	3,947	17.3
CARER living in - NOT codependent	54	21.8	5,861	25.6
CARER living in - codependent	19	7.7	1,779	7.8
Missing	1		182	
All episodes in private residence	**249**	**100.0**	**23,049**	**100.0**

	Any services received post discharge?			
	YOUR FACILITY		AUSTRALIA	
Carer status post discharge	Yes (%)	No (%)	Yes (%)	No (%)
NO CARER and DOES NOT need one	55.0	45.0	56.6	43.4
NO CARER and NEEDS one	91.7	8.3	72.6	27.4
CARER NOT living in	92.6	7.4	85.8	14.2
CARER living in - NOT codependent	75.9	24.1	73.2	26.8
CARER living in - codependent	52.6	47.4	68.4	31.6
All episodes in private residence	**69.4**	**30.6**	**67.4**	**32.6**

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

Change in prior accommodation on post discharge
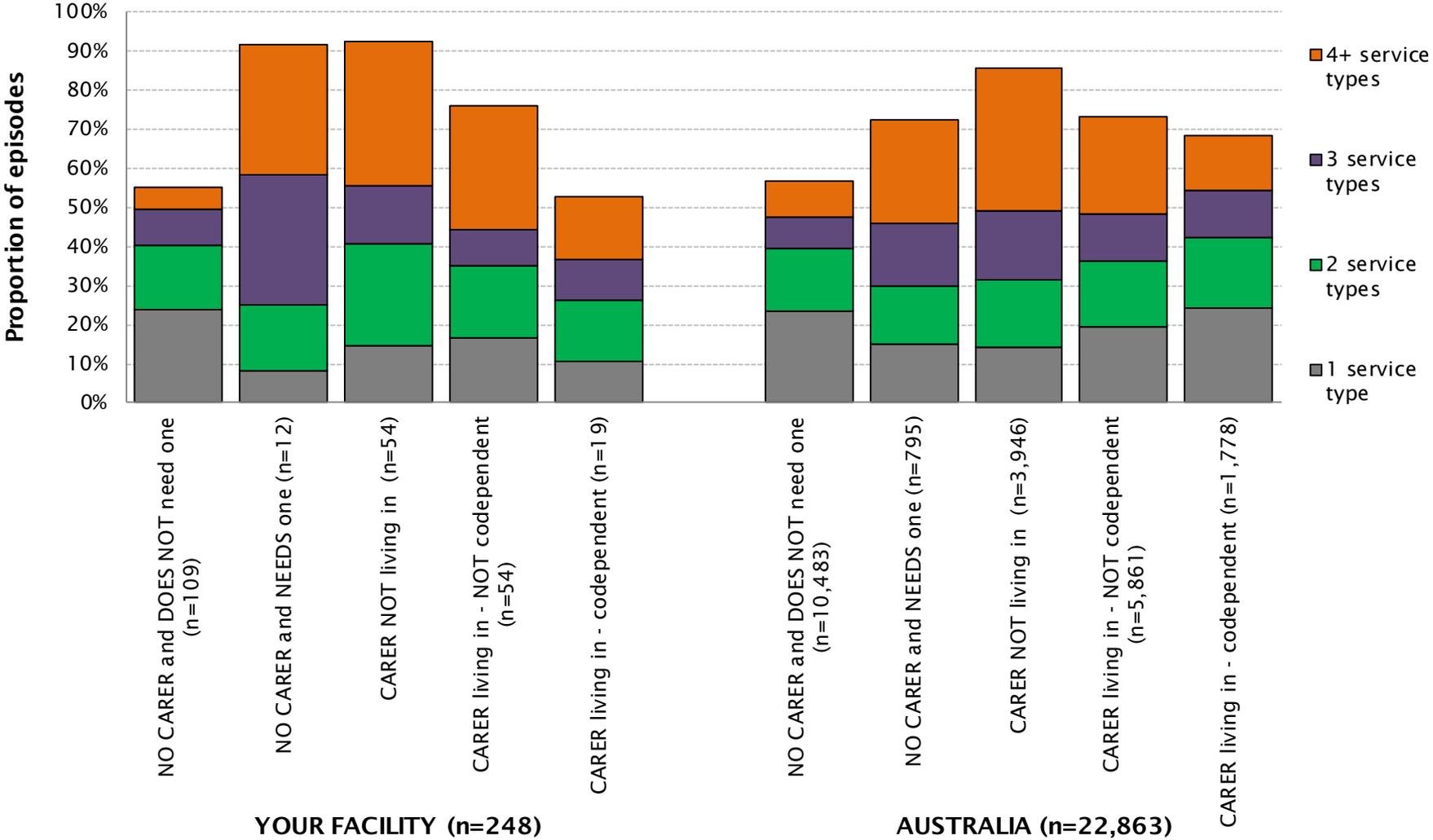
Proportion of episodes

Legend:
- Large improvement
- Small improvement
- Same
- Small decline
- Large decline

YOUR FACILITY
- Priv res - no carer req'd (n=150)
- Priv res - carer req'd (n=127)
- Other (n=4)
- Resi care - Hostel/Nursing home (n=8)

AUSTRALIA
- Priv res - no carer req'd (n=13,352)
- Priv res - carer req'd (n=11,617)
- Other (n=454)
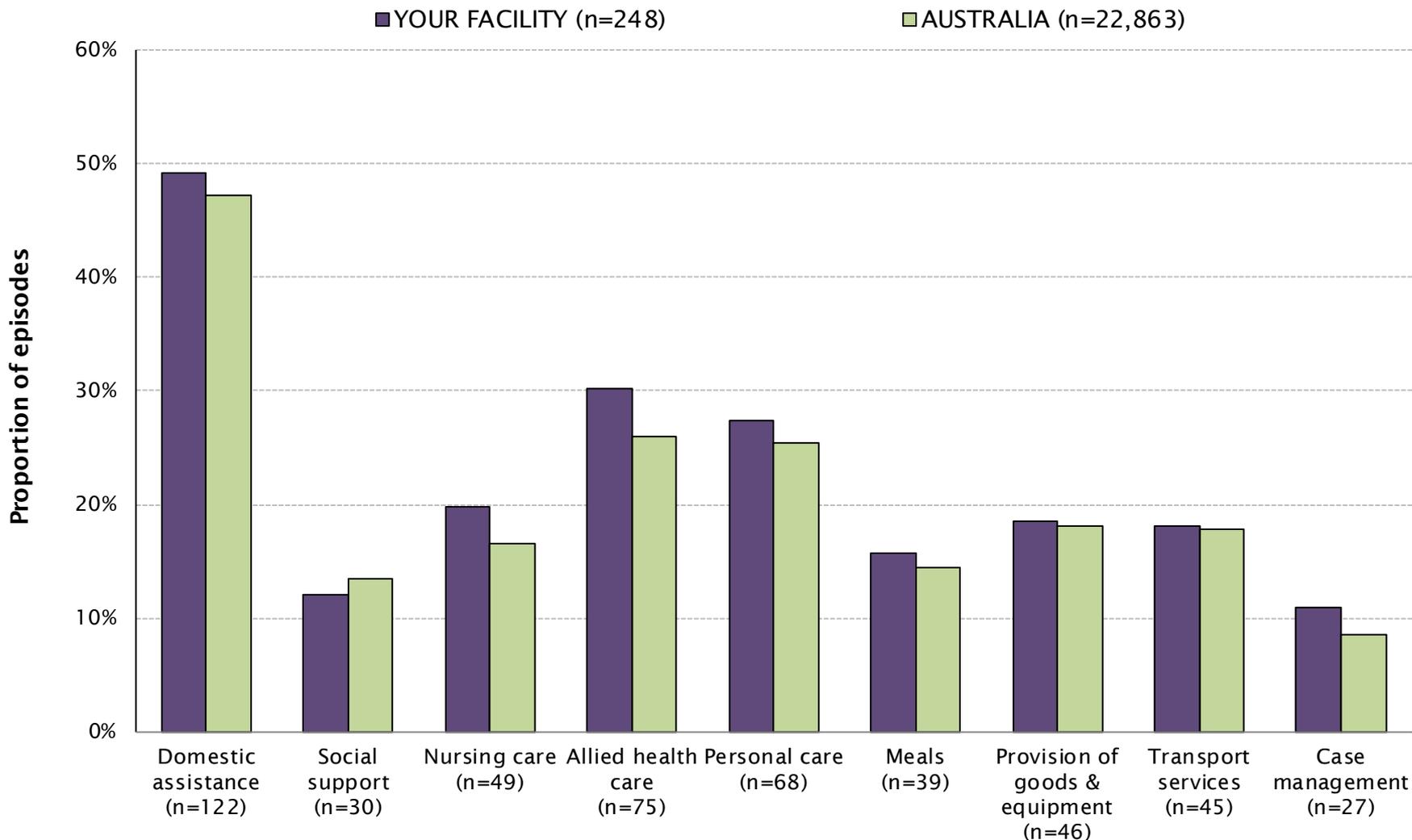- Resi care - Hostel/Nursing home (n=527)

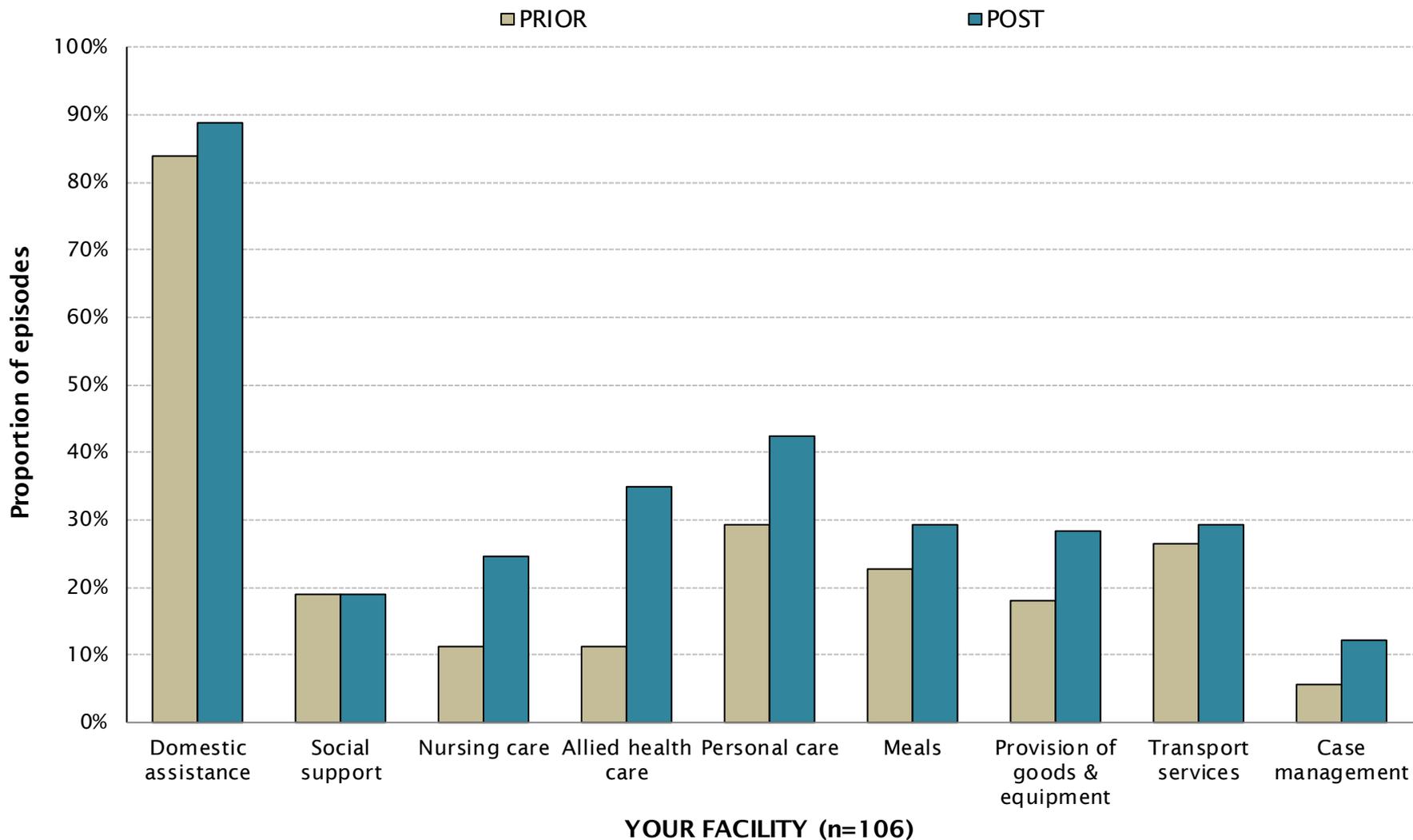# Number of services received post discharge by carer status

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

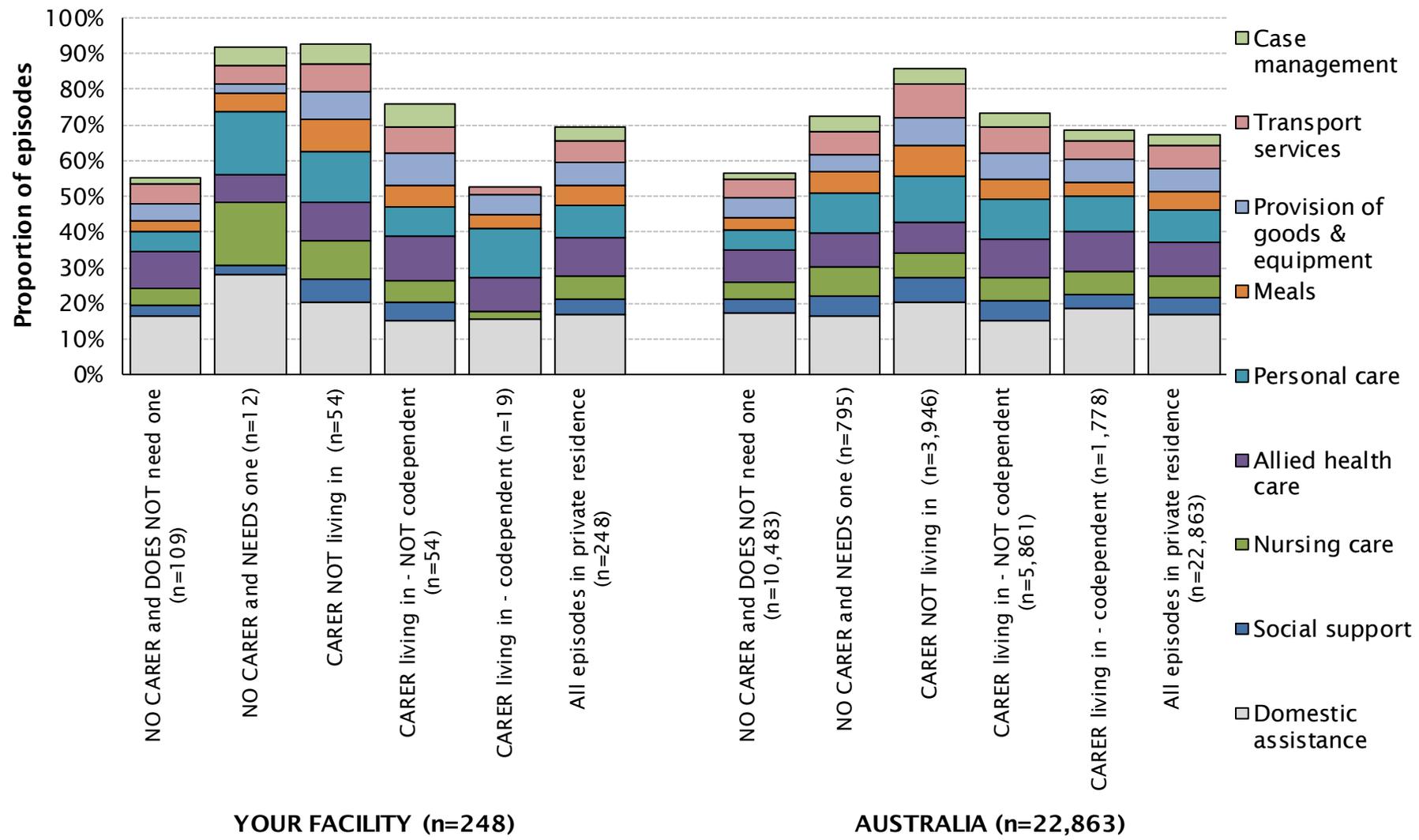# Type of services received post discharge

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 rehabilitation

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

Type of services received post discharge by carer status

Proportion of episodes (y-axis: 0% to 100%)

Legend:
- Case management
- Transport services
- Provision of goods & equipment
- Meals
- Personal care
- Allied health care
- Nursing care
- Social support
- Domestic assistance

YOUR FACILITY categories:
- NO CARER and DOES NOT need one (n=109)
- NO CARER and NEEDS one (n=12)
- CARER NOT living in (n=54)
- CARER living in - NOT codependent (n=54)
- CARER living in - codependent (n=19)
- All episodes in private residence (n=248)

AUSTRALIA categories:
- NO CARER and DOES NOT need one (n=10,483)
- NO CARER and NEEDS one (n=795)
- CARER NOT living in (n=3,946)
- CARER living in - NOT codependent (n=5,861)
- CARER living in - codependent (n=1,778)
- All episodes in private residence (n=22,863)

YOUR FACILITY (n=248)   **AUSTRALIA (n=22,863)**

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 – Your facility

Services received post discharge	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	109	12	54	54	19	**248**
Percent of episodes receiving:						
No services	45.0	8.3	7.4	24.1	47.4	**30.6**
1 service type	23.9	8.3	14.8	16.7	10.5	**18.5**
2 service types	16.5	16.7	25.9	18.5	15.8	**19.0**
3 service types	9.2	33.3	14.8	9.3	10.5	**11.7**
4 or more service types	5.5	33.3	37.0	31.5	15.8	**20.2**
Service Type received						
Domestic assistance	33.0	91.7	70.4	53.7	42.1	**49.2**
Social support	6.4	8.3	22.2	18.5	0.0	**12.1**
Nursing care	9.2	58.3	37.0	20.4	5.3	**19.8**
Allied health care	21.1	25.0	37.0	44.4	26.3	**30.2**
Personal care	11.0	58.3	48.1	29.6	36.8	**27.4**
Meals	6.4	16.7	31.5	20.4	10.5	**15.7**
Provision of goods & equipment	9.2	8.3	25.9	33.3	15.8	**18.5**
Transport services	11.9	16.7	27.8	25.9	5.3	**18.1**
Case management	2.8	16.7	18.5	22.2	0.0	**10.9**

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 - National

Services received post discharge	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	10,483	795	3,946	5,861	1,778	**22,863**
Percent of episodes receiving:						
No services	43.4	27.4	14.2	26.8	31.6	**32.6**
1 service type	23.5	14.8	14.3	19.5	24.4	**20.7**
2 service types	15.9	15.2	17.2	16.9	17.8	**16.5**
3 service types	8.0	15.7	17.7	11.8	12.4	**11.3**
4 or more service types	9.2	26.7	36.5	24.9	13.8	**18.9**
Service Type received						
Domestic assistance	38.7	52.6	70.6	46.3	45.2	**47.1**
Social support	7.8	18.0	24.0	16.9	9.4	**13.4**
Nursing care	11.2	25.3	23.6	20.0	16.5	**16.5**
Allied health care	20.2	30.3	29.7	33.0	26.8	**26.0**
Personal care	12.0	35.3	44.9	34.8	24.8	**25.3**
Meals	7.6	19.1	29.4	17.1	9.7	**14.4**
Provision of goods & equipment	12.8	14.7	26.8	22.8	15.7	**18.1**
Transport services	10.6	21.5	33.1	21.9	11.9	**17.9**
Case management	4.5	13.6	14.4	11.4	7.4	**8.5**

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 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, calculated separately for traumatic and non-traumatic episodes. The benchmark data set is all episodes during the reporting period in the AROC database.

Appendix 1: Glossary

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.

Appendix 1: Glossary

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 = recommended rehabilitation episode following suspension**

Appendix 1: Glossary

Data completeness score

The data completeness 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).

Appendix 1: Glossary

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.

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.

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.

Appendix 1: Glossary

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)

Appendix 2: AROC Impairment Codes

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

Acknowledgements

- **AROC wish to acknowledge the valuable contributions made by:**
  - Members of the Management Advisory Group of the Australasian Rehabilitation Outcomes Centre
  - Members of the Scientific and Clinical Advisory Committee of the Australasian Rehabilitation Outcomes Centre
  - The many staff from the rehabilitation facilities who have spent a great deal of time and care to collect, collate and correct the data, without whose considerable effort these reports would not be possible.

- **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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  Anywhere Hospital AROC Impairment Specific Report on Reconditioning (Inpatient - pathway 3), July 2019 – June 2020. Australasian Rehabilitation Outcomes Centre (2020).

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