

# AROC Impairment Specific Report

## Stroke Report

### INPATIENT – PATHWAY 3

July 2019 – June 2020

Anywhere Hospital



**Australasian  
Faculty of  
Rehabilitation  
Medicine**

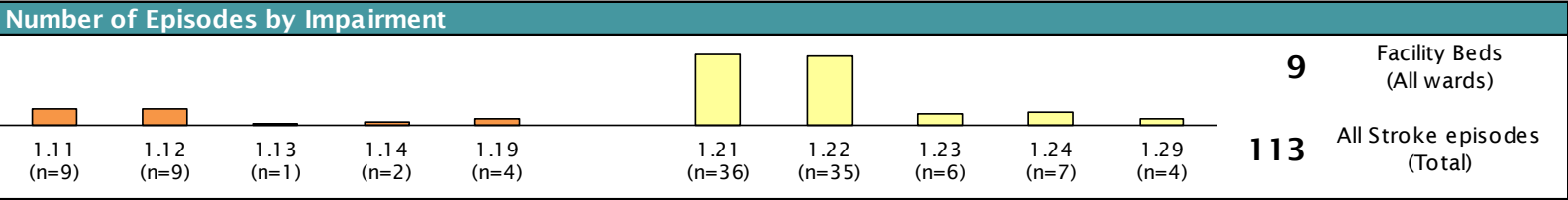
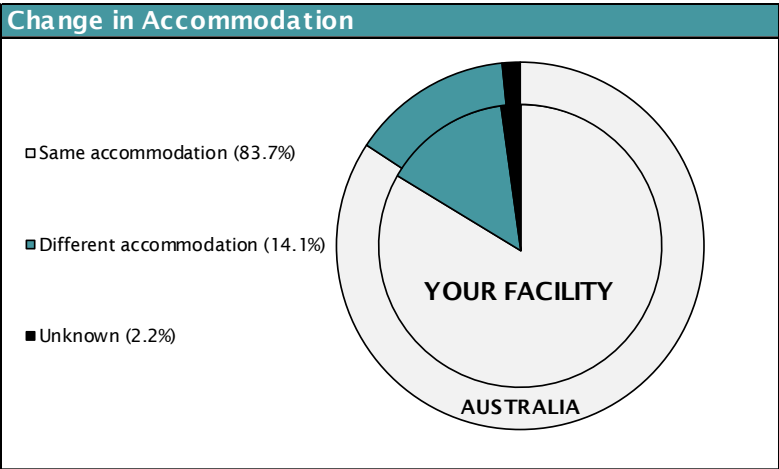
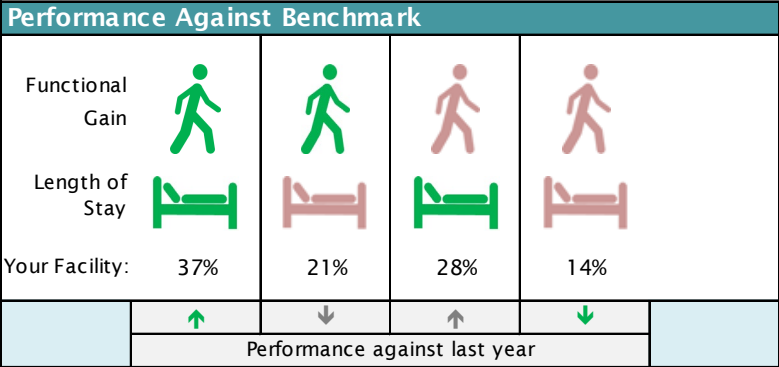
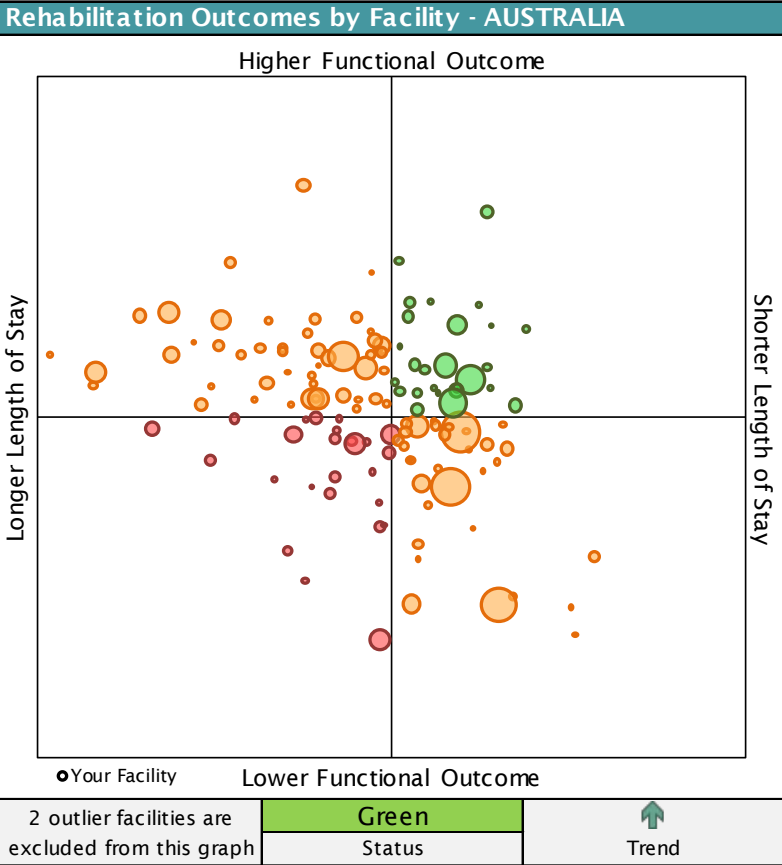


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AUSTRALIA**

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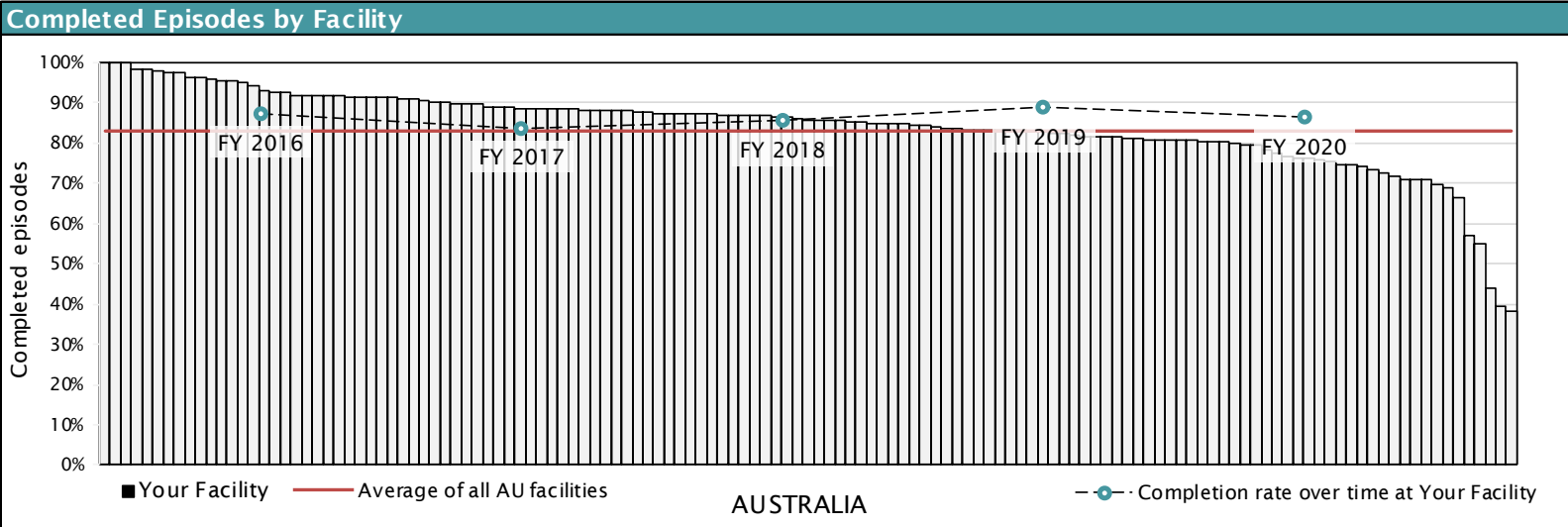


Key Indicators*	
YOUR FACILITY	AUSTRALIA
Average Age: <b>72.4</b>	Average Age: 73.2
Mortality Rate: <b>0.0%</b>	Mortality Rate: 0.3%
% with at least one comorbidity: <b>54%</b>	% with at least one comorbidity: 53%
% with at least one complication: <b>28%</b>	% with at least one complication: 32%
% episodes with start delays: <b>19%</b>	% episodes with start delays: 16%
Days between onset and rehab episode: <b>10.5</b>	Days between onset and rehab episode: 12.4
Days between clinically rehab ready & start date: <b>0.6</b>	Days between clinically rehab ready & start date: 0.7

\* Mean value provided unless otherwise specified

Facility FIM Training*	
FIM Credentialed Staff per 100 Episodes	FIM Credentialed Facility Trainers
7.1 Your Facility	<b>3</b> Your Facility
6.9 AUSTRALIA (Mean)	<b>2</b> AROC Suggested Minimum

\*This includes all impairments from all wards



- Stroke 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 stroke 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.

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

- 1.11 — Haemorrhagic — Left body involvement
- 1.12 — Haemorrhagic — Right body involvement
- 1.13 — Haemorrhagic — Bilateral involvement
- 1.14 — Haemorrhagic — No paresis
- 1.19 — Haemorrhagic — Other stroke
  
- 1.21 — Ischaemic — Left body involvement (right brain)
- 1.22 — Ischaemic — Right body involvement (left brain)
- 1.23 — Ischaemic — Bilateral involvement
- 1.24 — Ischaemic — No paresis
- 1.29 — Ischaemic — Other stroke

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

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

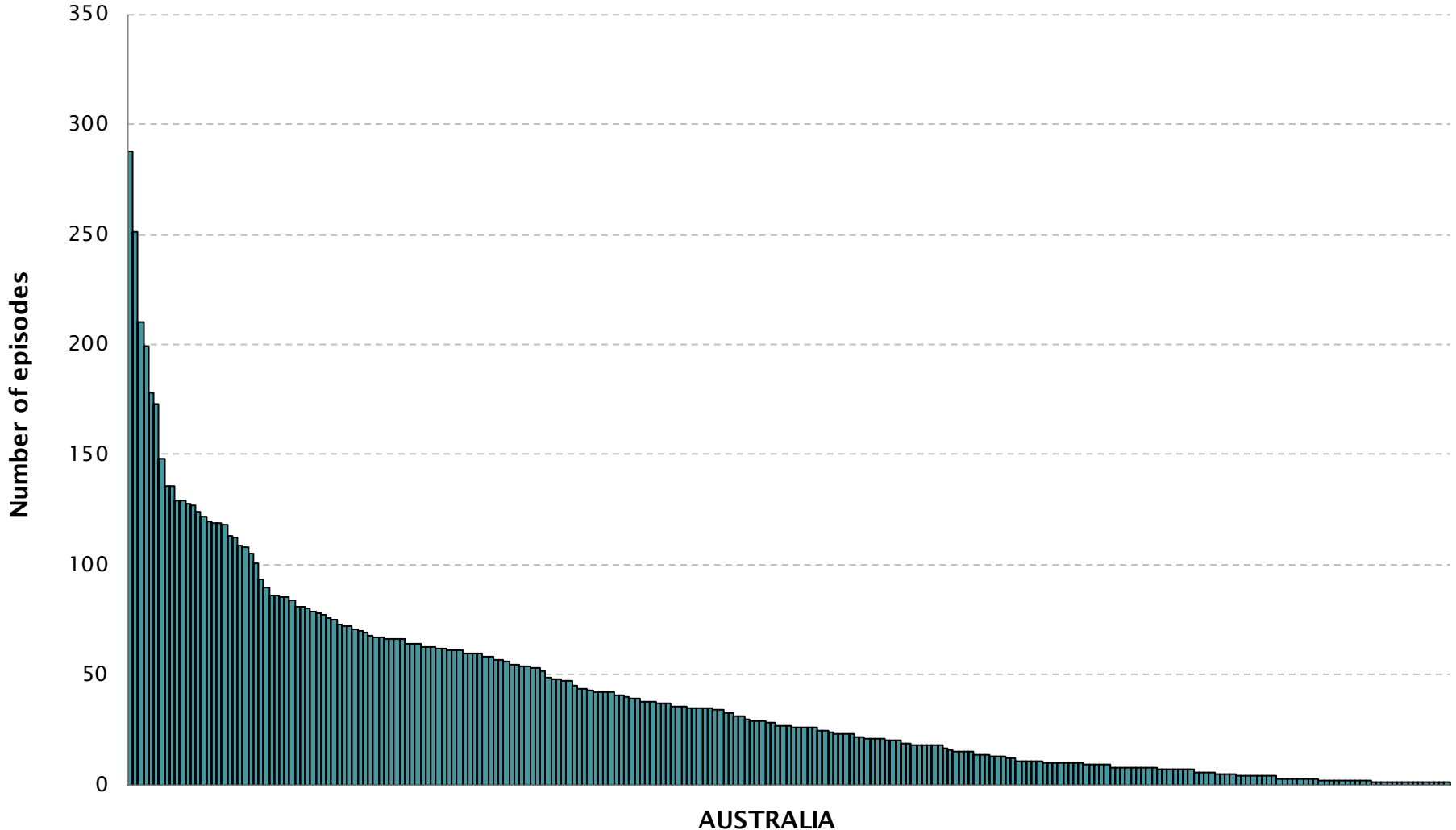
- 4AA1           Stroke, weighted FIM motor 51-91, FIM cognition 29-35
- 4AA2           Stroke, weighted FIM motor 51-91, FIM cognition 19-28
- 4AA3           Stroke, weighted FIM motor 51-91, FIM cognition 5-18
- 4AA4           Stroke, weighted FIM motor 36-50, Age  $\geq$  68
- 4AA5           Stroke, weighted FIM motor 36-50, Age  $\leq$  67
- 4AA6           Stroke, weighted FIM motor 19-35, Age  $\geq$  68
- 4AA7           Stroke, weighted FIM motor 19-35, Age  $\leq$  67
- 4AZ3           Weighted FIM motor score 13-18, All other impairments, Age  $\geq$  65
- 4AZ4           Weighted FIM motor score 13-18, All other impairments, Age  $\leq$  64

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

# The BIG picture

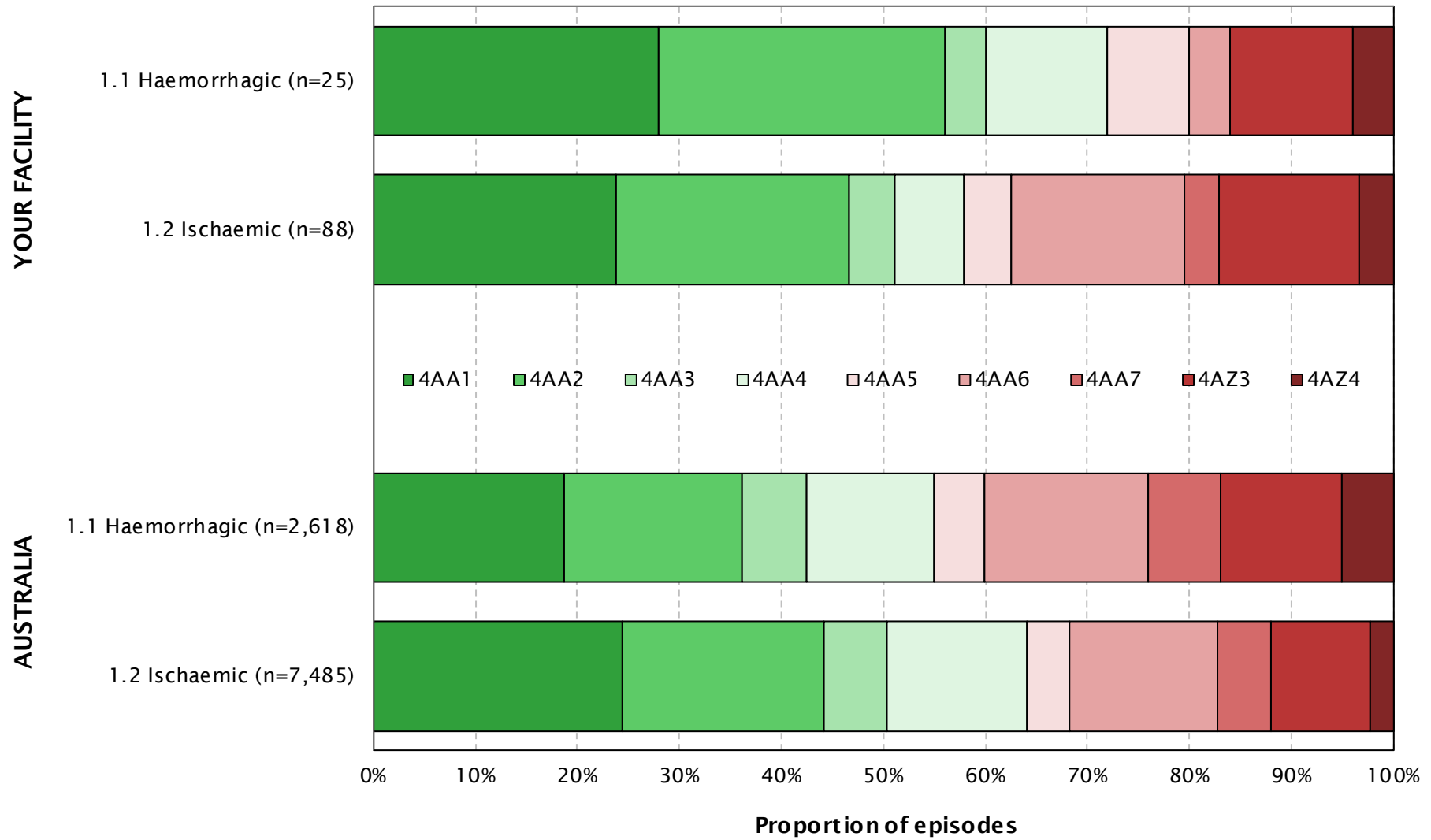


# Volume of stroke episodes by facility



NOTE: 253 facilities reported at least one stroke episode, with 148 facilities reporting between 20 and 288 episodes in this reporting period

# Proportion of episodes by impairment and AN-SNAP class



# Episodes by impairment and AN-SNAP class

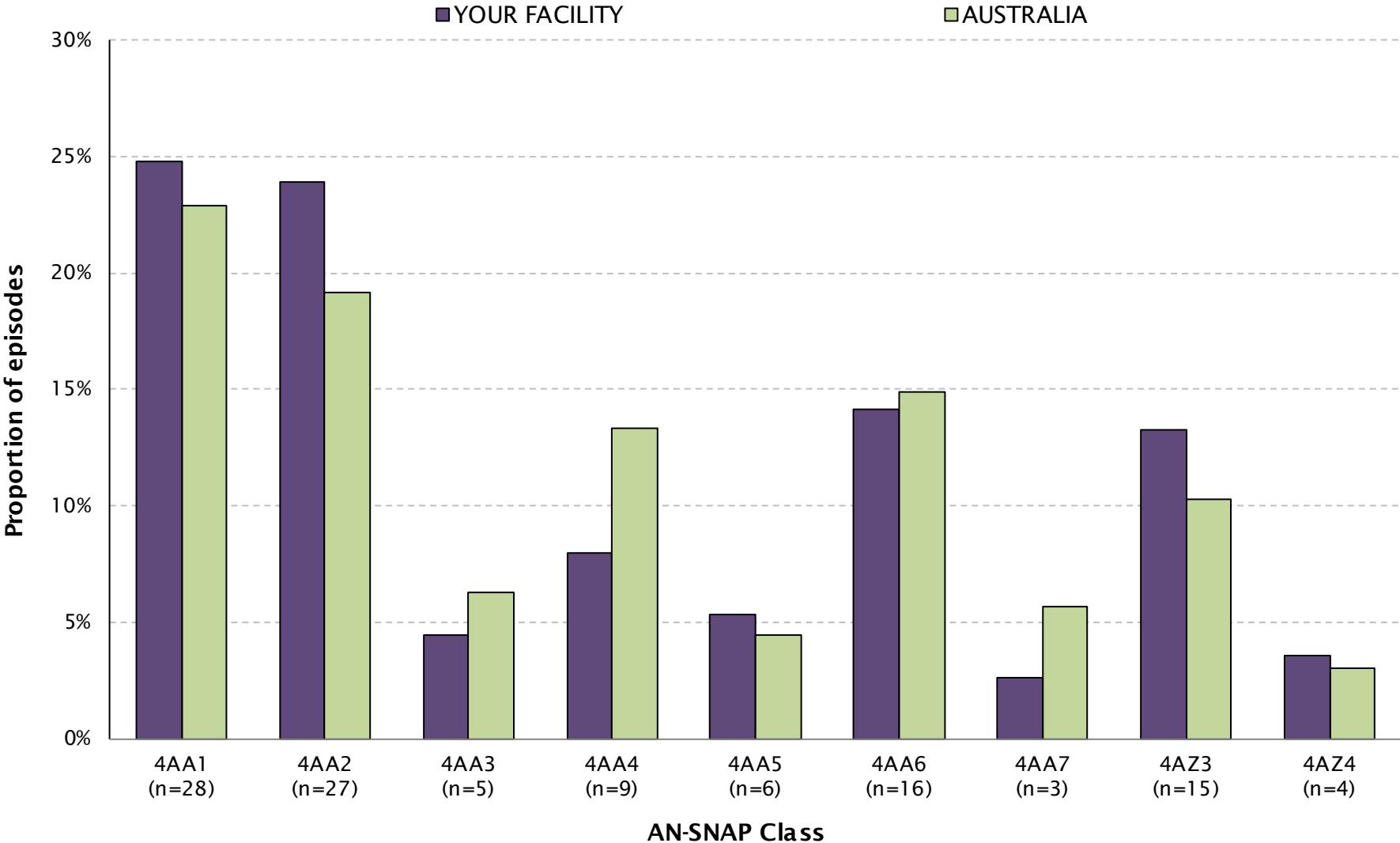


AN-SNAP class V4	YOUR FACILITY					
	1.1 Haemorrhagic		1.2 Ischaemic		All Stroke	
	No.	%	No.	%	No.	%
4AA1 (motor 51-91, cognition 29-35)	7	28.0	21	23.9	28	24.8
4AA2 (motor 51-91, cognition 19-28)	7	28.0	20	22.7	27	23.9
4AA3 (motor 51-91, cognition 5-18)	1	4.0	4	4.5	5	4.4
4AA4 (motor 36-50, Age ≥ 68)	3	12.0	6	6.8	9	8.0
4AA5 (motor 36-50, Age ≤ 67)	2	8.0	4	4.5	6	5.3
4AA6 (motor 19-35, Age ≥ 68)	1	4.0	15	17.0	16	14.2
4AA7 (motor 19-35, Age ≤ 67)	0	0.0	3	3.4	3	2.7
4AZ3 (motor 13-18, Age ≥ 65)	3	12.0	12	13.6	15	13.3
4AZ4 (motor 13-18, Age ≤ 64)	1	4.0	3	3.4	4	3.5
<b>All Stroke AN-SNAP Classes**</b>	<b>25</b>	<b>100.0</b>	<b>88</b>	<b>100.0</b>	<b>113</b>	<b>100.0</b>

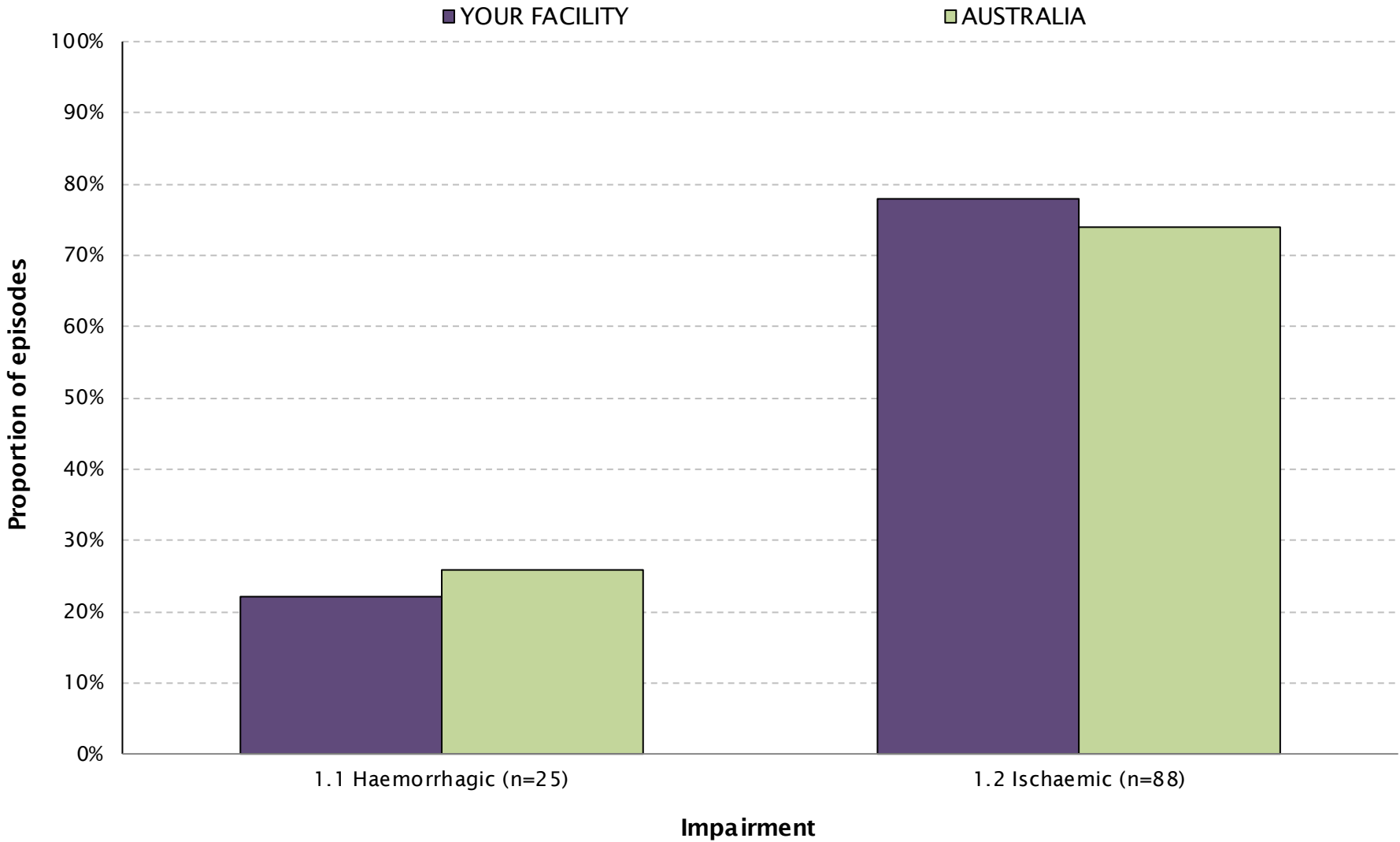
AN-SNAP class V4	AUSTRALIA					
	1.1 Haemorrhagic		1.2 Ischaemic		All Stroke	
	No.	%	No.	%	No.	%
4AA1 (motor 51-91, cognition 29-35)	490	18.7	1,825	24.4	2,315	22.9
4AA2 (motor 51-91, cognition 19-28)	456	17.4	1,479	19.7	1,935	19.1
4AA3 (motor 51-91, cognition 5-18)	167	6.4	467	6.2	634	6.3
4AA4 (motor 36-50, Age ≥ 68)	326	12.4	1,022	13.6	1,348	13.3
4AA5 (motor 36-50, Age ≤ 67)	129	4.9	319	4.3	448	4.4
4AA6 (motor 19-35, Age ≥ 68)	422	16.1	1,081	14.4	1,503	14.9
4AA7 (motor 19-35, Age ≤ 67)	185	7.1	391	5.2	576	5.7
4AZ3 (motor 13-18, Age ≥ 65)	311	11.9	726	9.7	1,037	10.3
4AZ4 (motor 13-18, Age ≤ 64)	132	5.0	175	2.3	307	3.0
<b>All Stroke AN-SNAP Classes**</b>	<b>2,622</b>	<b>100.0</b>	<b>7,493</b>	<b>100.0</b>	<b>10,115</b>	<b>100.0</b>

\*\*There were 0 episodes in YOUR FACILITY and 12 episodes in AUSTRALIA with AN-SNAP class 499A

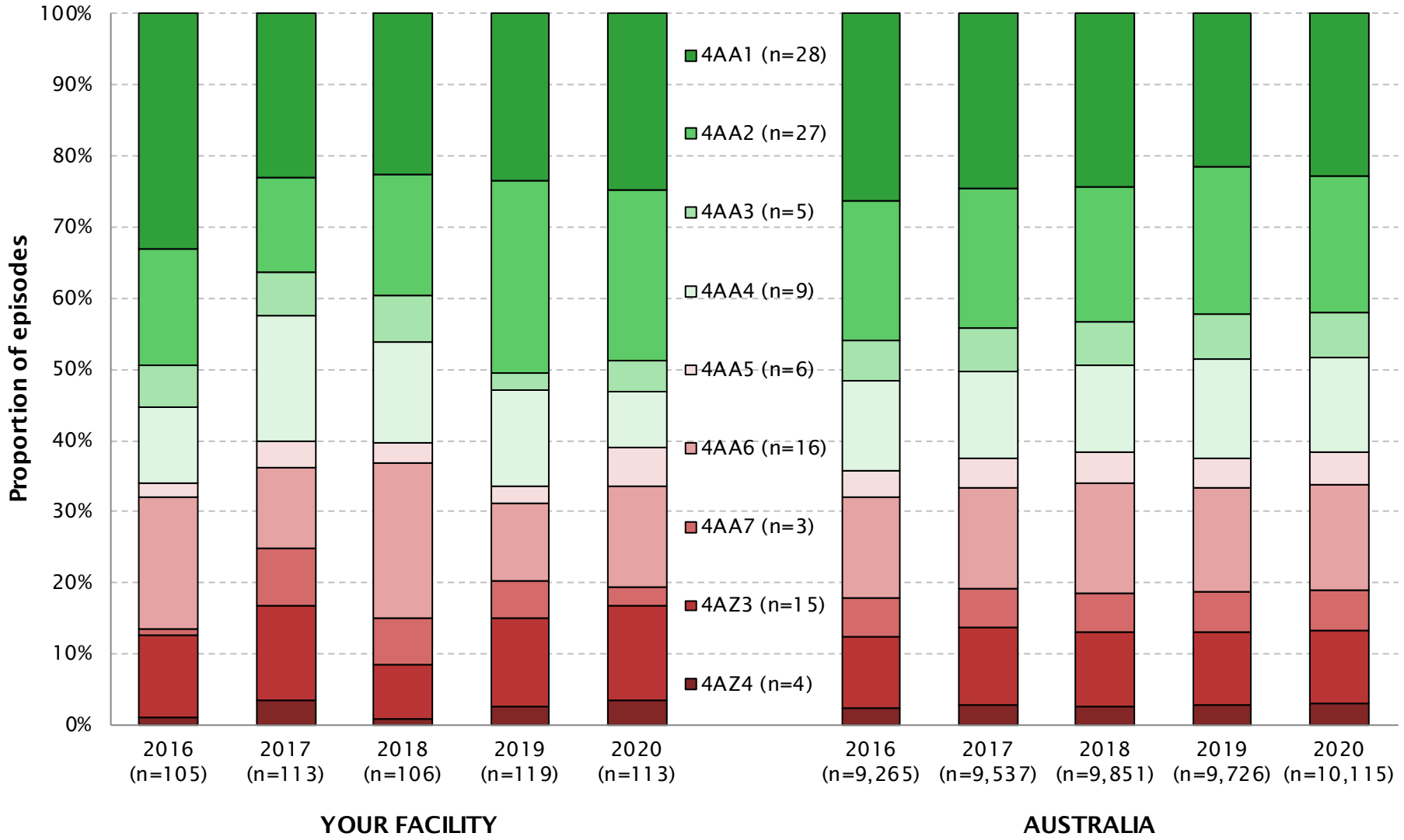
# Proportion of episodes by AN-SNAP class



# Proportion of episodes by impairment



# Proportion of episodes by AN-SNAP class over time



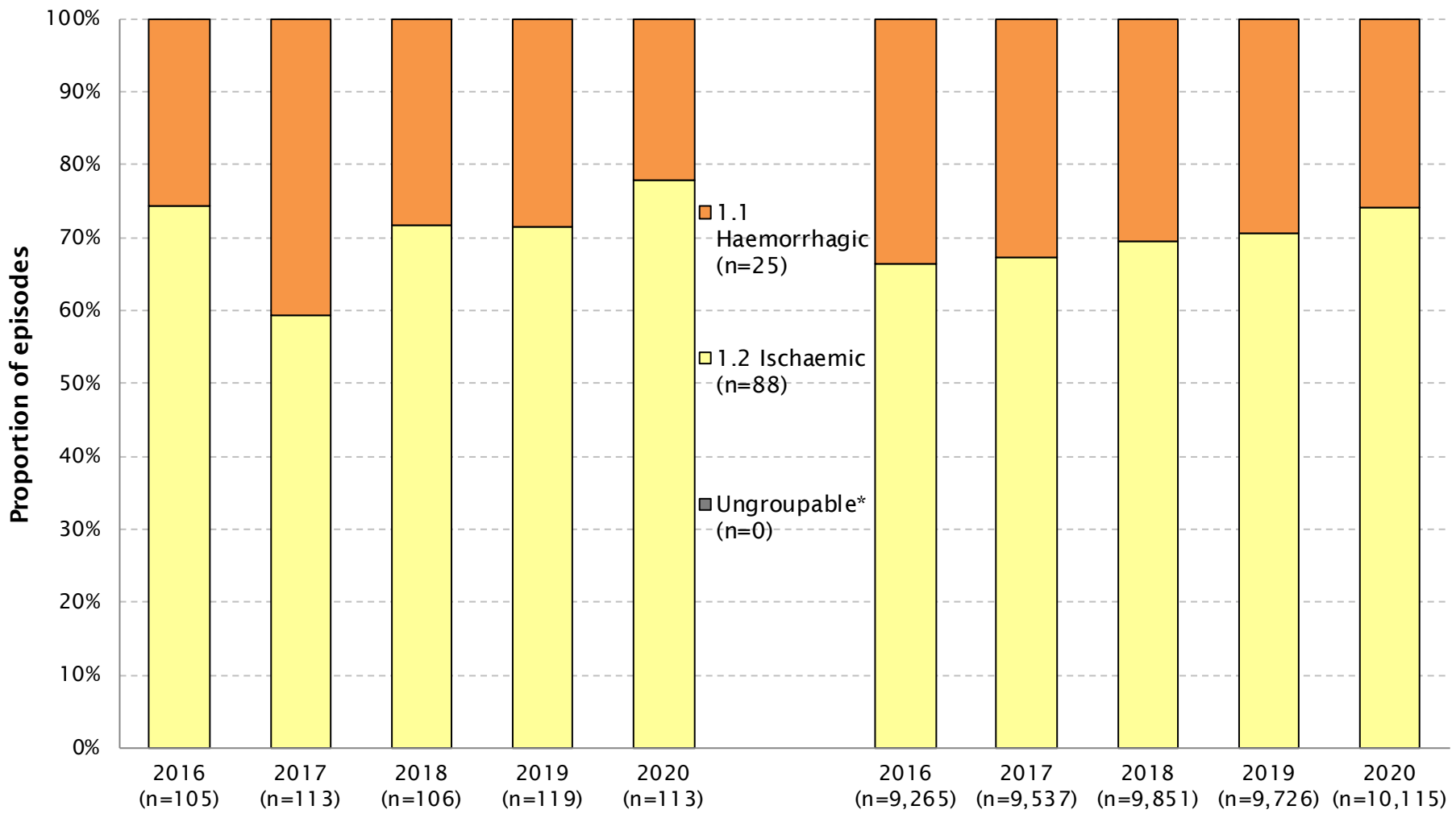
# Episodes by AN-SNAP class over time



AN-SNAP class V4	YOUR FACILITY — No.					AUSTRALIA — No.				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
4AA1 (motor 51-91, cognition 29-35)	34	26	24	28	28	2,439	2,341	2,386	2,089	2,315
4AA2 (motor 51-91, cognition 19-28)	17	15	18	32	27	1,812	1,866	1,879	1,998	1,935
4AA3 (motor 51-91, cognition 5-18)	6	7	7	3	5	515	572	589	620	634
4AA4 (motor 36-50, Age ≥ 68)	11	20	15	16	9	1,165	1,173	1,218	1,348	1,348
4AA5 (motor 36-50, Age ≤ 67)	2	4	3	3	6	350	392	427	413	448
4AA6 (motor 19-35, Age ≥ 68)	19	13	23	13	16	1,317	1,357	1,517	1,413	1,503
4AA7 (motor 19-35, Age ≤ 67)	1	9	7	6	3	486	523	535	554	576
4AZ3 (motor 13-18, Age ≥ 65)	12	15	8	15	15	926	1,019	1,022	996	1,037
4AZ4 (motor 13-18, Age ≤ 64)	1	4	1	3	4	230	277	262	267	307
499A (Data error - ungroupable)	2	0	0	0	0	25	17	16	28	12
<b>All Stroke AN-SNAP Classes</b>	<b>105</b>	<b>113</b>	<b>106</b>	<b>119</b>	<b>113</b>	<b>9,265</b>	<b>9,537</b>	<b>9,851</b>	<b>9,726</b>	<b>10,115</b>

AN-SNAP class V4	YOUR FACILITY — %					AUSTRALIA — %				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
4AA1 (motor 51-91, cognition 29-35)	32.4	23.0	22.6	23.5	24.8	26.3	24.5	24.2	21.5	22.9
4AA2 (motor 51-91, cognition 19-28)	16.2	13.3	17.0	26.9	23.9	19.6	19.6	19.1	20.5	19.1
4AA3 (motor 51-91, cognition 5-18)	5.7	6.2	6.6	2.5	4.4	5.6	6.0	6.0	6.4	6.3
4AA4 (motor 36-50, Age ≥ 68)	10.5	17.7	14.2	13.4	8.0	12.6	12.3	12.4	13.9	13.3
4AA5 (motor 36-50, Age ≤ 67)	1.9	3.5	2.8	2.5	5.3	3.8	4.1	4.3	4.2	4.4
4AA6 (motor 19-35, Age ≥ 68)	18.1	11.5	21.7	10.9	14.2	14.2	14.2	15.4	14.5	14.9
4AA7 (motor 19-35, Age ≤ 67)	1.0	8.0	6.6	5.0	2.7	5.2	5.5	5.4	5.7	5.7
4AZ3 (motor 13-18, Age ≥ 65)	11.4	13.3	7.5	12.6	13.3	10.0	10.7	10.4	10.2	10.3
4AZ4 (motor 13-18, Age ≤ 64)	1.0	3.5	0.9	2.5	3.5	2.5	2.9	2.7	2.7	3.0
499A (Data error - ungroupable)	1.9	0.0	0.0	0.0	0.0	0.3	0.2	0.2	0.3	0.1
<b>All Stroke AN-SNAP Classes</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

# Proportion of episodes by impairment over time



**YOUR FACILITY**

**AUSTRALIA**

\*Ungroupable are the episodes captured using V3 data, which had no distinction for Haemorrhagic/Ischaemic



# Episodes by impairment over time



Impairment	YOUR FACILITY — No.					AUSTRALIA — No.				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
1.1 Haemorrhagic	27	46	30	34	25	3,121	3,113	3,004	2,855	2,622
1.2 Ischaemic	78	67	76	85	88	6,144	6,424	6,847	6,871	7,493
Ungroupable*	0	0	0	0	0	0	0	0	0	0
<b>All Stroke</b>	<b>105</b>	<b>113</b>	<b>106</b>	<b>119</b>	<b>113</b>	<b>9,265</b>	<b>9,537</b>	<b>9,851</b>	<b>9,726</b>	<b>10,115</b>

Impairment	YOUR FACILITY — %					AUSTRALIA — %				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
1.1 Haemorrhagic	25.7	40.7	28.3	28.6	22.1	33.7	32.6	30.5	29.4	25.9
1.2 Ischaemic	74.3	59.3	71.7	71.4	77.9	66.3	67.4	69.5	70.6	74.1
Ungroupable*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>All Stroke</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

\*Ungroupable are the episodes captured using V3 data, which had no distinction for Haemorrhagic/Ischaemic

# Summary of your incomplete episodes



Complete episode analysis	YOUR FACILITY		AUSTRALIA	
	No.	(%)	No.	(%)
Total reporting episodes	113		10,115	
Incomplete episodes	15	(13.3)	1,716	(17.0)

## Reason for incomplete:

Discharged home with end FIM=18	1	(6.7)	28	(1.6)
Discharged home with no end FIM	2	(13.3)	23	(1.3)
Discharged to another hospital	7	(46.7)	765	(44.6)
Discharged back to acute	5	(33.3)	664	(38.7)
Discharged at own risk	0	(0.0)	77	(4.5)
Change of care type (LOS<1 week)	0	(0.0)	9	(0.5)
Died	0	(0.0)	35	(2.0)
Other/Unknown Discharge	0	(0.0)	115	(6.7)

Impairment Group:	YOUR FACILITY			
	Incomplete Episodes	Complete episodes		

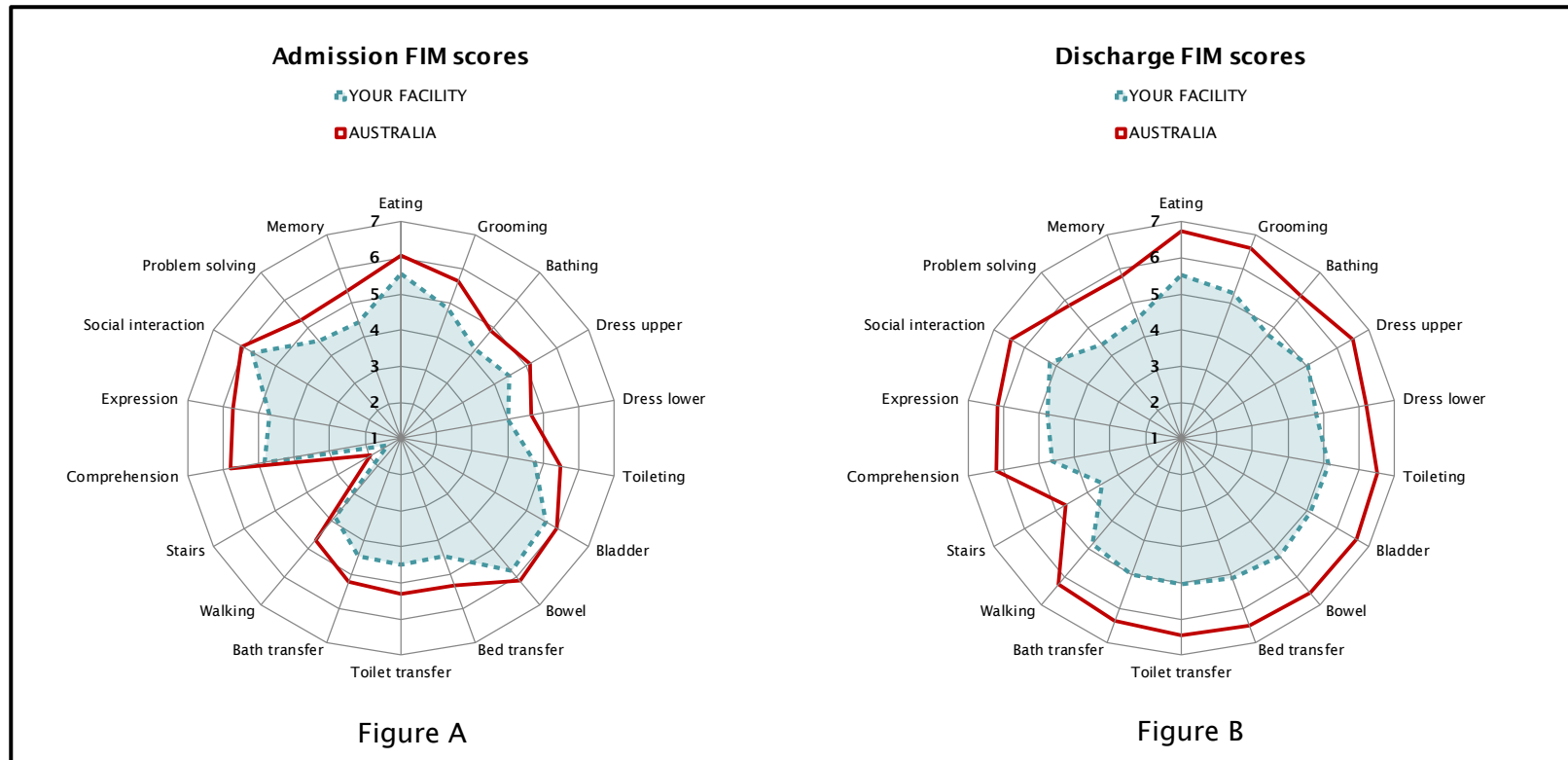
1.1 Haemorrhagic	4	(26.7)	21	(21.4)
1.2 Ischaemic	11	(73.3)	77	(78.6)

## AN-SNAP Class:

4AA1 (motor 51-91, cognition 29-35)	3	(20.0)	25	(25.5)
4AA2 (motor 51-91, cognition 19-28)	2	(13.3)	25	(25.5)
4AA3 (motor 51-91, cognition 5-18)	0	(0.0)	5	(5.1)
4AA4 (motor 36-50, Age ≥ 68)	2	(13.3)	7	(7.1)
4AA5 (motor 36-50, Age ≤ 67)	2	(13.3)	4	(4.1)
4AA6 (motor 19-35, Age ≥ 68)	2	(13.3)	14	(14.3)
4AA7 (motor 19-35, Age ≤ 67)	0	(0.0)	3	(3.1)
4AZ3 (motor 13-18, Age ≥ 65)	3	(20.0)	12	(12.2)
4AZ4 (motor 13-18, Age ≤ 64)	1	(6.7)	3	(3.1)

# Review of FIM item scoring by AN-SNAP class

# Interpreting the comparative FIM item scoring charts



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

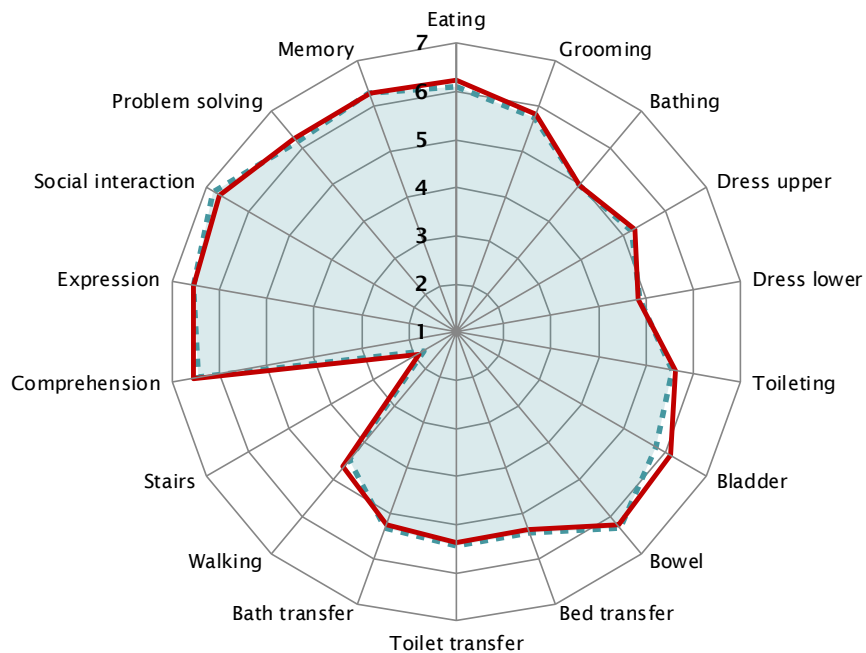
# Comparative FIM item scoring

## AN-SNAP class 4AA1



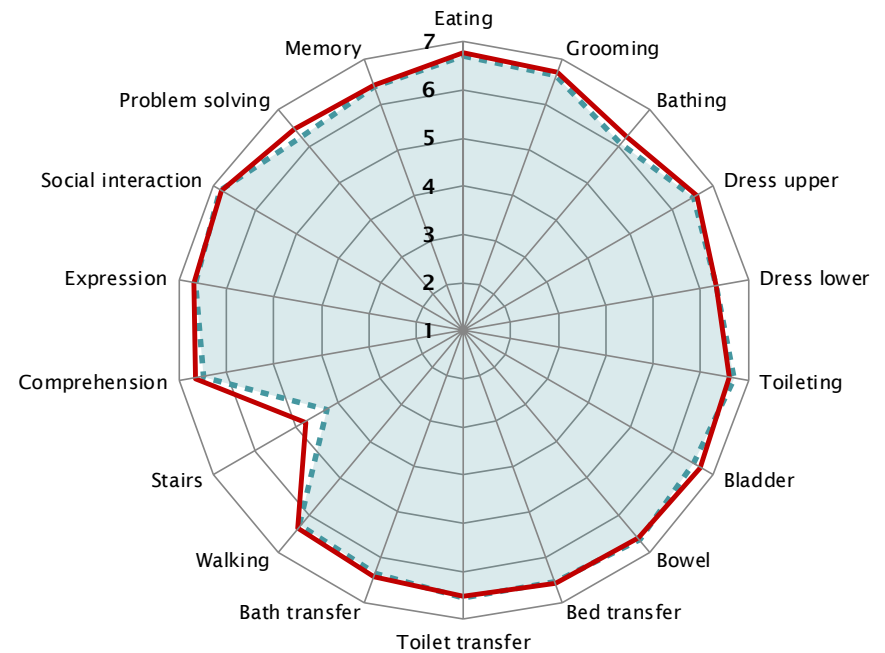
### 4AA1 Admission FIM scores

- YOUR FACILITY (n=25)
- AUSTRALIA (n=2,164)



### 4AA1 Discharge FIM scores

- YOUR FACILITY (n=25)
- AUSTRALIA (n=2,164)



NOTE: Includes only completed episodes with valid FIM scores

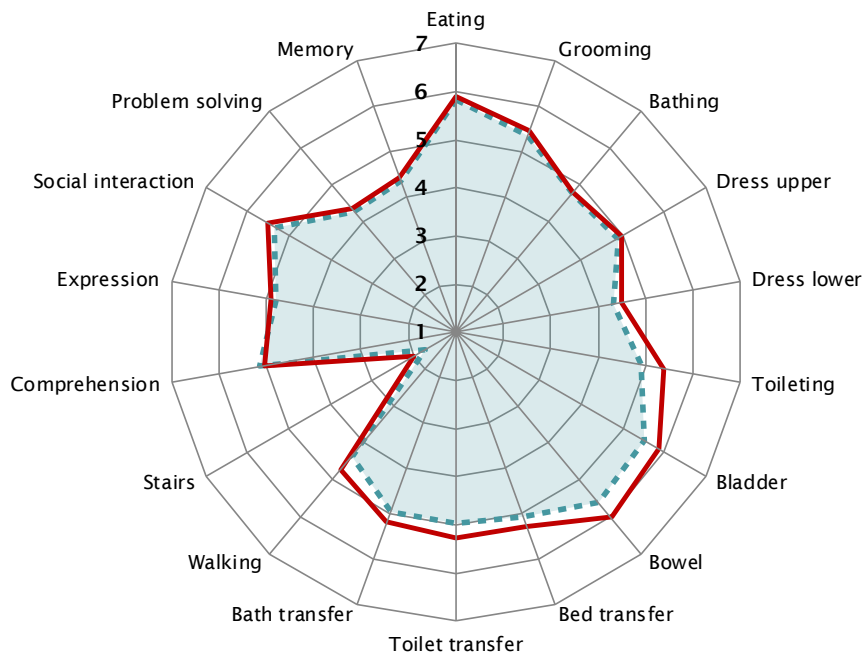
# Comparative FIM item scoring

## AN-SNAP class 4AA2



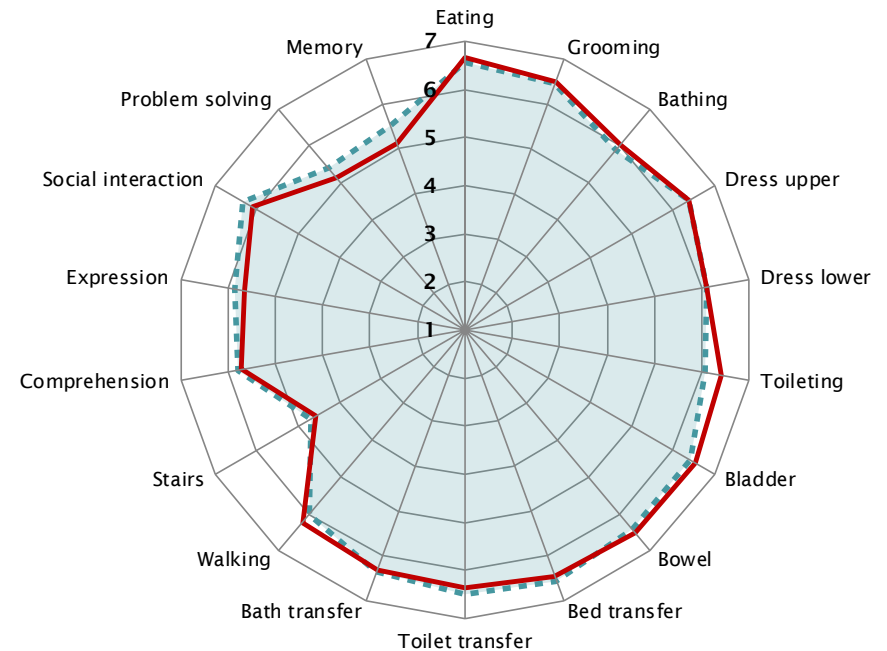
### 4AA2 Admission FIM scores

- YOUR FACILITY (n=25)
- AUSTRALIA (n=1,759)



### 4AA2 Discharge FIM scores

- YOUR FACILITY (n=25)
- AUSTRALIA (n=1,759)



NOTE: Includes only completed episodes with valid FIM scores

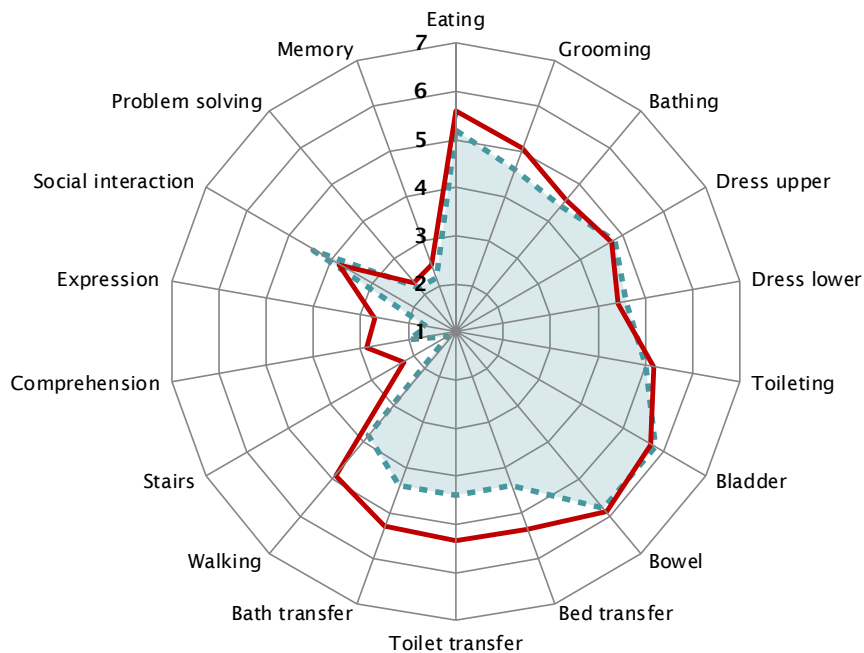
# Comparative FIM item scoring

## AN-SNAP class 4AA3



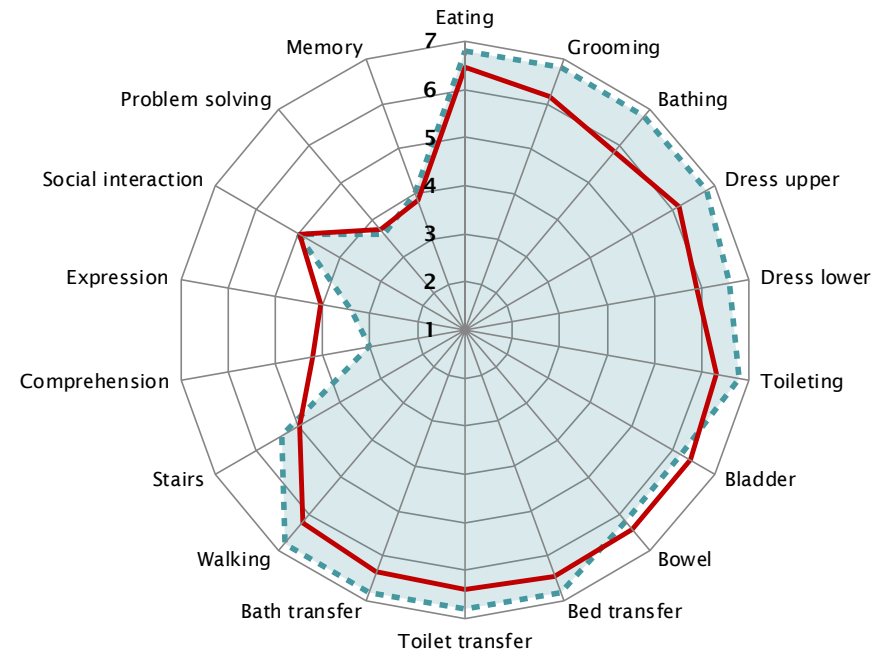
### 4AA3 Admission FIM scores

- YOUR FACILITY (n=5)
- AUSTRALIA (n=532)



### 4AA3 Discharge FIM scores

- YOUR FACILITY (n=5)
- AUSTRALIA (n=532)



NOTE: Includes only completed episodes with valid FIM scores

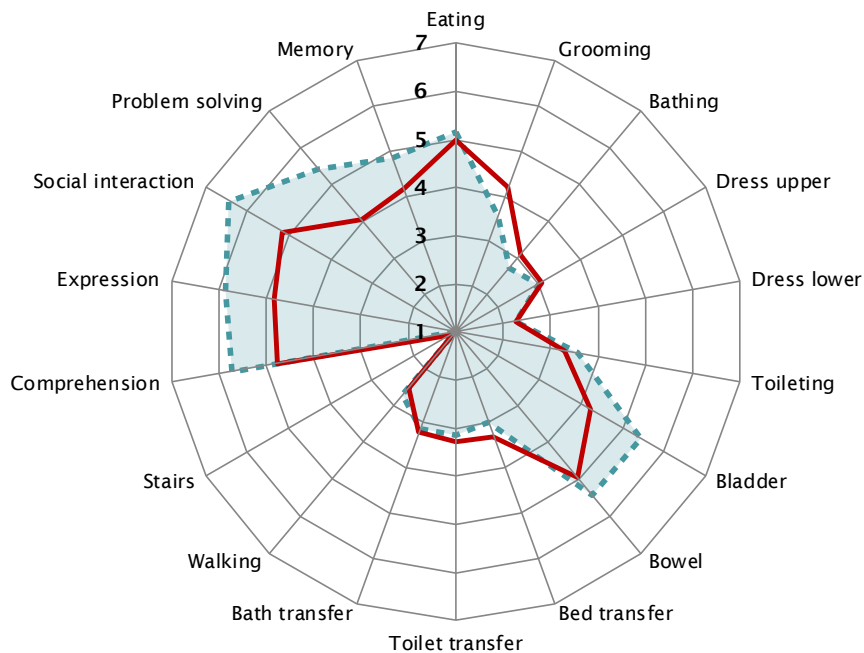
# Comparative FIM item scoring

## AN-SNAP class 4AA4



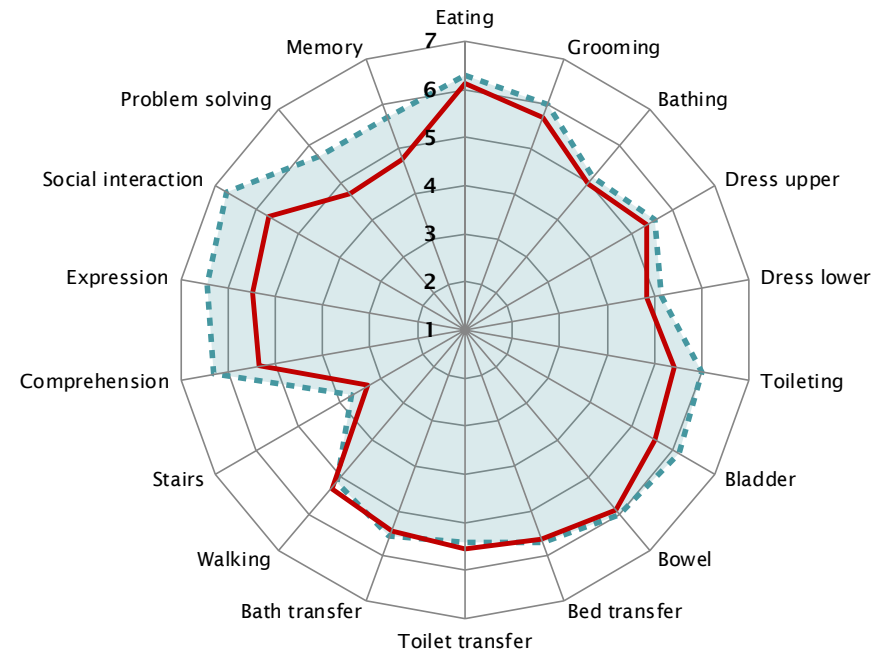
### 4AA4 Admission FIM scores

- YOUR FACILITY (n=7)
- AUSTRALIA (n=1,120)



### 4AA4 Discharge FIM scores

- YOUR FACILITY (n=7)
- AUSTRALIA (n=1,120)



NOTE: Includes only completed episodes with valid FIM scores



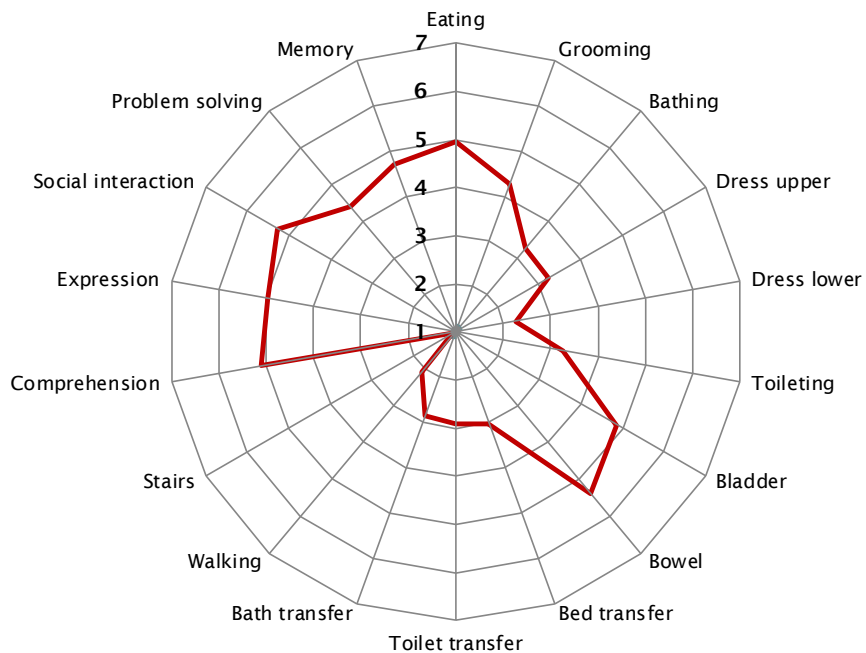
# Comparative FIM item scoring

## AN-SNAP class 4AA5



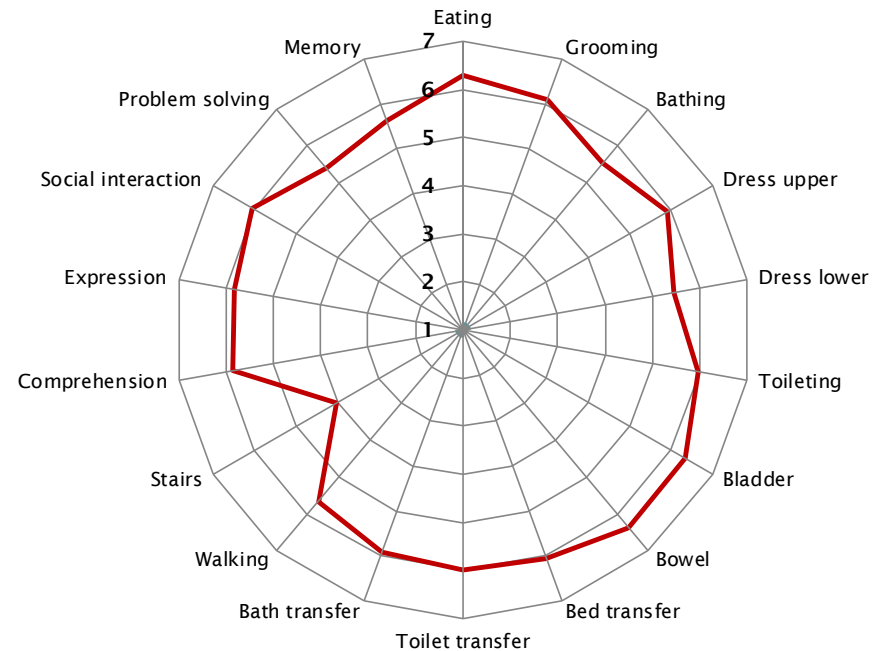
### 4AA5 Admission FIM scores

- YOUR FACILITY (n<5)
- AUSTRALIA (n=381)



### 4AA5 Discharge FIM scores

- YOUR FACILITY (n<5)
- AUSTRALIA (n=381)



NOTE: Includes only completed episodes with valid FIM scores

# Comparative FIM item scoring

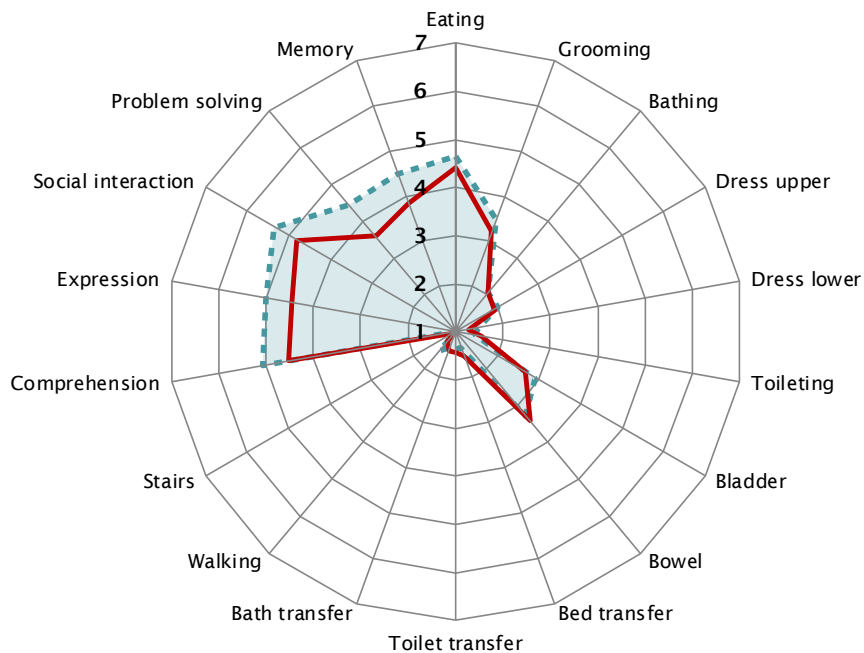
## AN-SNAP class 4AA6



### 4AA6 Admission FIM scores

YOUR FACILITY (n=14)

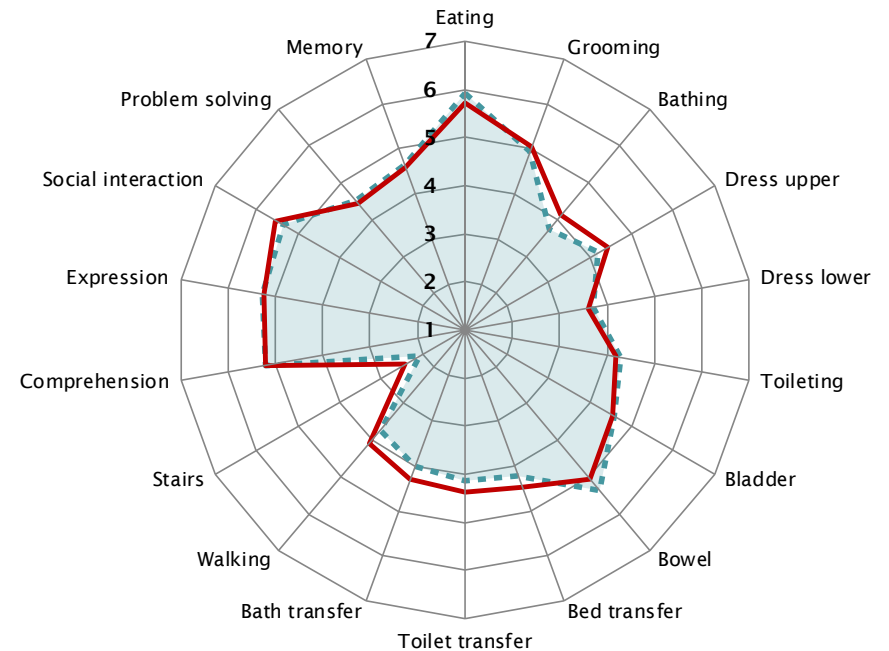
AUSTRALIA (n=1,127)



### 4AA6 Discharge FIM scores

YOUR FACILITY (n=14)

AUSTRALIA (n=1,127)



NOTE: Includes only completed episodes with valid FIM scores

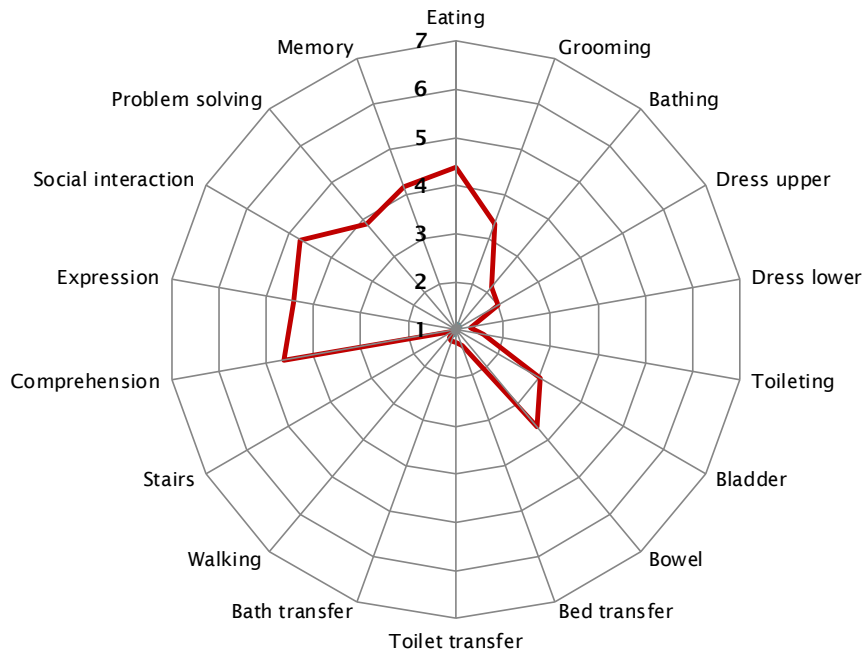
# Comparative FIM item scoring

## AN-SNAP class 4AA7



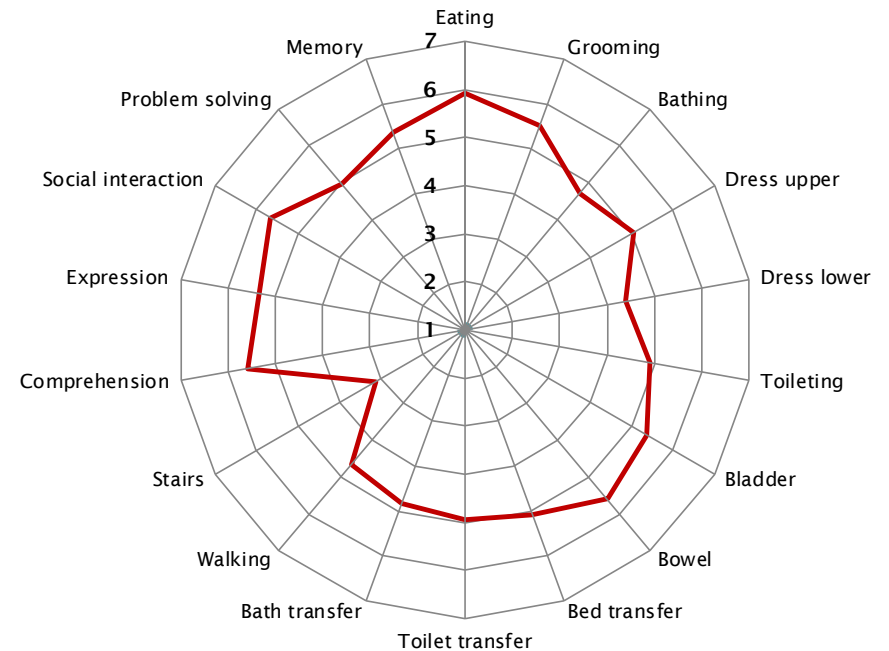
### 4AA7 Admission FIM scores

- YOUR FACILITY (n<5)
- AUSTRALIA (n=437)



### 4AA7 Discharge FIM scores

- YOUR FACILITY (n<5)
- AUSTRALIA (n=437)



NOTE: Includes only completed episodes with valid FIM scores

# Comparative FIM item scoring

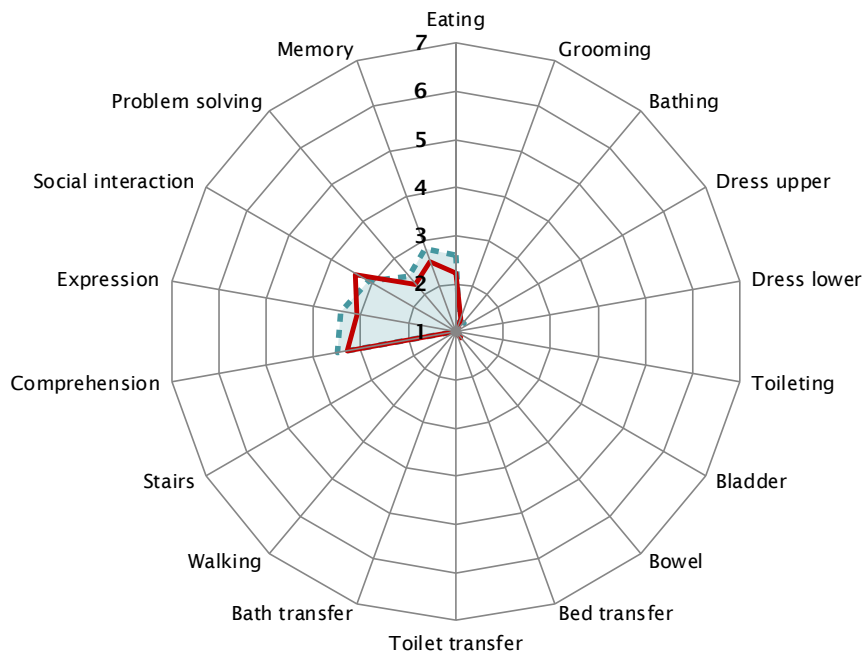
## AN-SNAP class 4AZ3



### 4AZ3 Admission FIM scores

YOUR FACILITY (n=12)

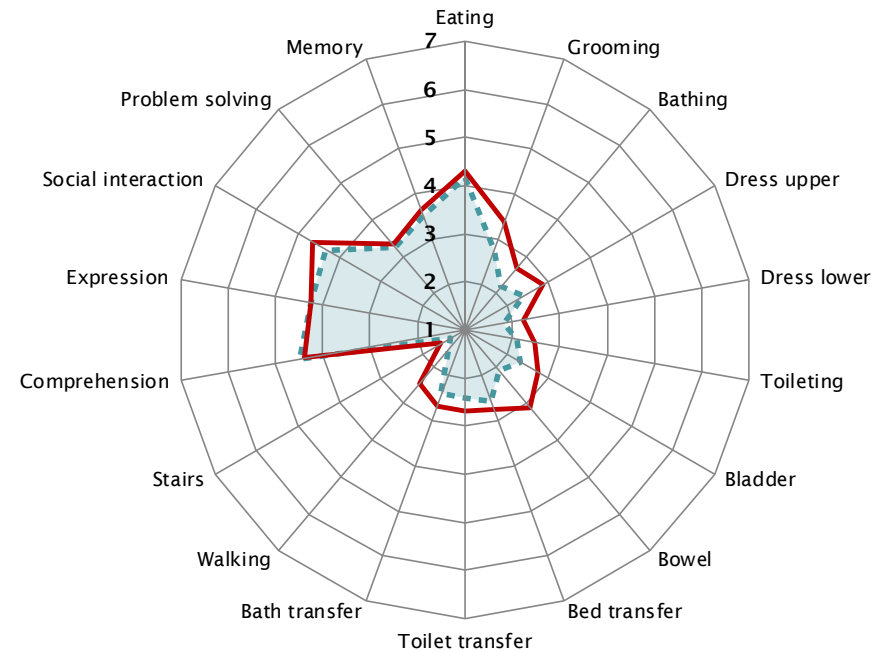
AUSTRALIA (n=674)



### 4AZ3 Discharge FIM scores

YOUR FACILITY (n=12)

AUSTRALIA (n=674)



NOTE: Includes only completed episodes with valid FIM scores

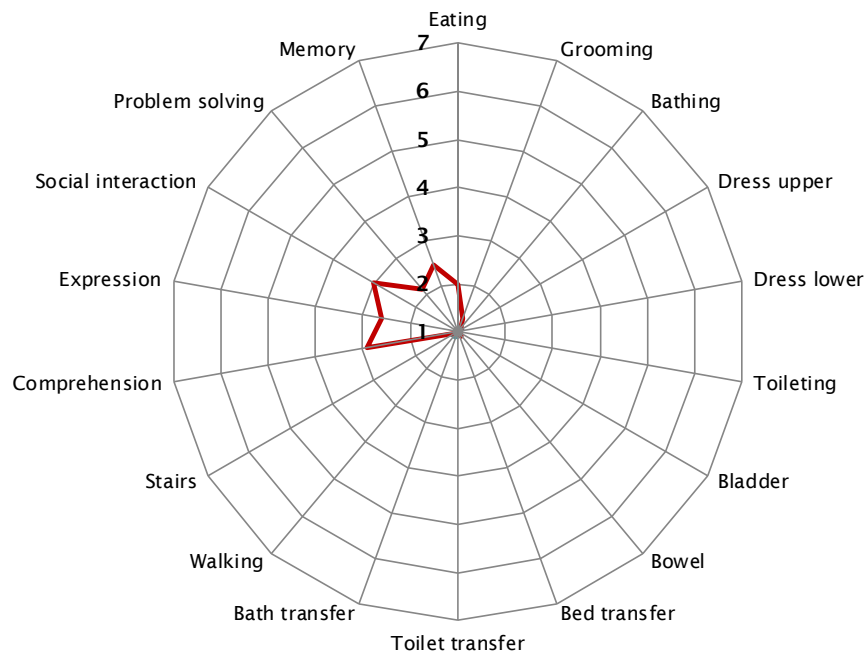
# Comparative FIM item scoring

## AN-SNAP class 4AZ4



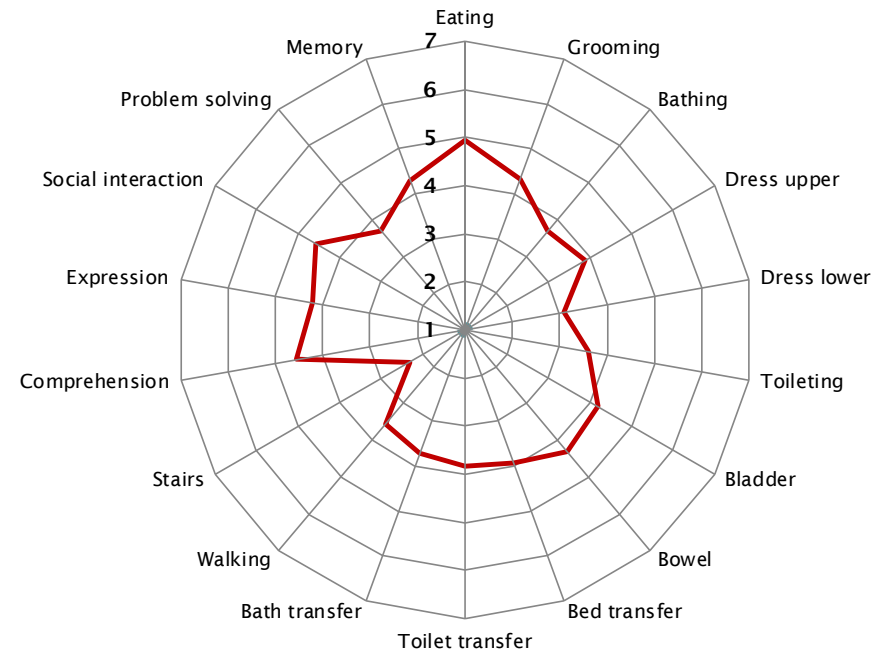
### 4AZ4 Admission FIM scores

- YOUR FACILITY (n<5)
- AUSTRALIA (n=1 90)



### 4AZ4 Discharge FIM scores

- YOUR FACILITY (n<5)
- AUSTRALIA (n=1 90)



NOTE: Includes only completed episodes with valid FIM scores

# Outcomes Analysis

# Completed episodes by AN-SNAP class and impairment

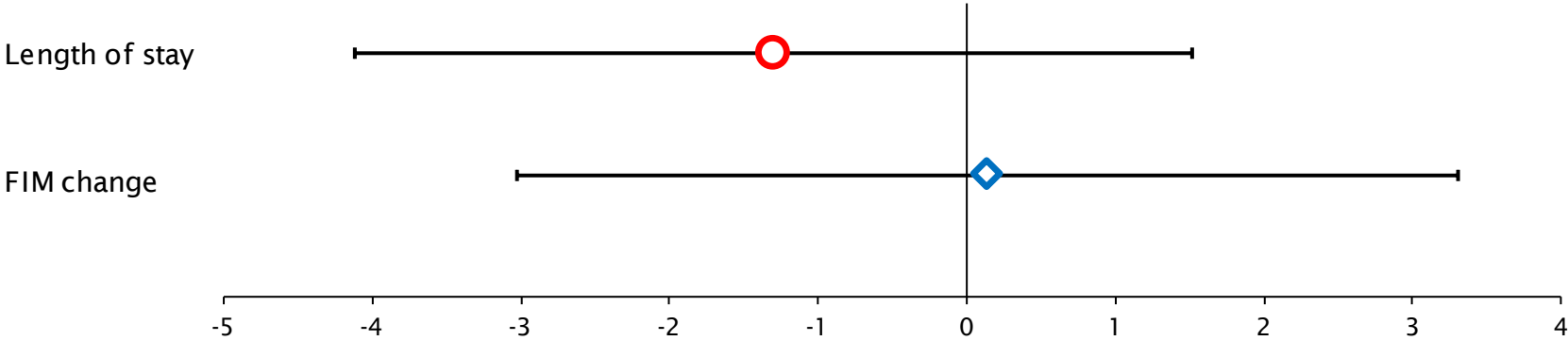


AN-SNAP class V4	YOUR FACILITY			AUSTRALIA		
	All episodes	Completed episodes	% Complete	All episodes	Completed episodes	% Complete
4AA1 (motor 51-91, cognition 29-35)	28	25	89.3	2,315	2,164	93.5
4AA2 (motor 51-91, cognition 19-28)	27	25	92.6	1,935	1,759	90.9
4AA3 (motor 51-91, cognition 5-18)	5	5	100.0	634	532	83.9
4AA4 (motor 36-50, Age ≥ 68)	9	7	77.8	1,348	1,120	83.1
4AA5 (motor 36-50, Age ≤ 67)	6	4	66.7	448	381	85.0
4AA6 (motor 19-35, Age ≥ 68)	16	14	87.5	1,503	1,128	75.0
4AA7 (motor 19-35, Age ≤ 67)	3	3	100.0	576	437	75.9
4AZ3 (motor 13-18, Age ≥ 65)	15	12	80.0	1,037	680	65.6
4AZ4 (motor 13-18, Age ≤ 64)	4	3	75.0	307	192	62.5
<b>All Stroke AN-SNAP Classes</b>	<b>113</b>	<b>98</b>	<b>86.7</b>	<b>10,103</b>	<b>8,393</b>	<b>83.1</b>

Impairment	YOUR FACILITY			AUSTRALIA		
	All episodes	Completed episodes	% Complete	All episodes	Completed episodes	% Complete
1.1 Haemorrhagic	25	21	84.0	2,622	2,119	80.8
1.2 Ischaemic	88	77	87.5	7,493	6,280	83.8
<b>All Stroke</b>	<b>113</b>	<b>98</b>	<b>86.7</b>	<b>10,115</b>	<b>8,399</b>	<b>83.0</b>

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

# Casemix-adjusted\* relative means



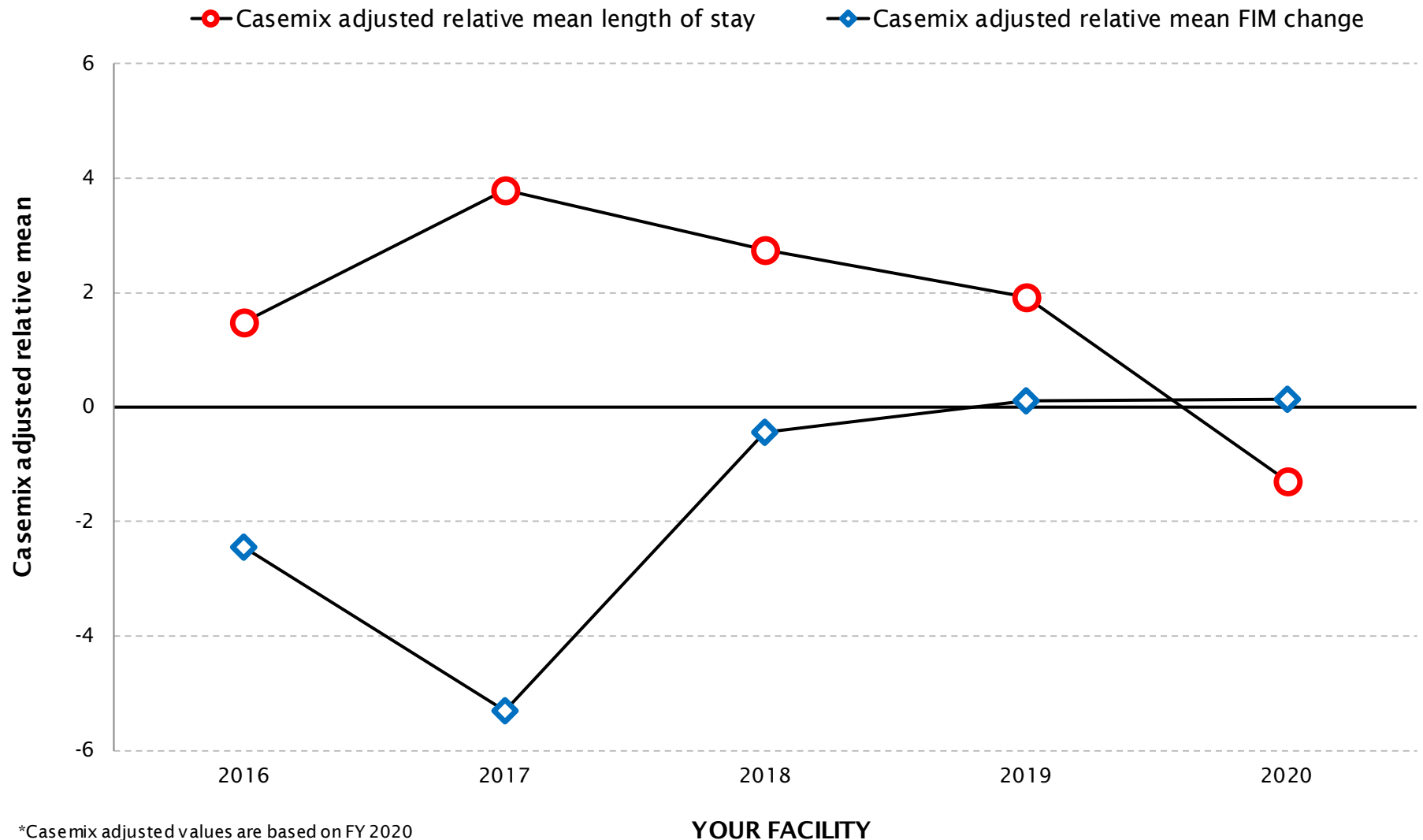
Casemix-adjusted relative means with 95% confidence intervals

Out come measure	YOUR FACILITY		AUSTRALIA
	Casemix-adjust ed* relat ive mean	95% CI	Nat ional IQR
Length of stay	-1.3	-4.1 to 1.5	-8.7 to 6.5
FIM change	0.1	-3.0 to 3.3	-9.7 to 9.7

\*Includes only completed episodes with valid FIM scores and LOS



# Casemix-adjusted\* relative means over time



\*Casemix adjusted values are based on FY 2020

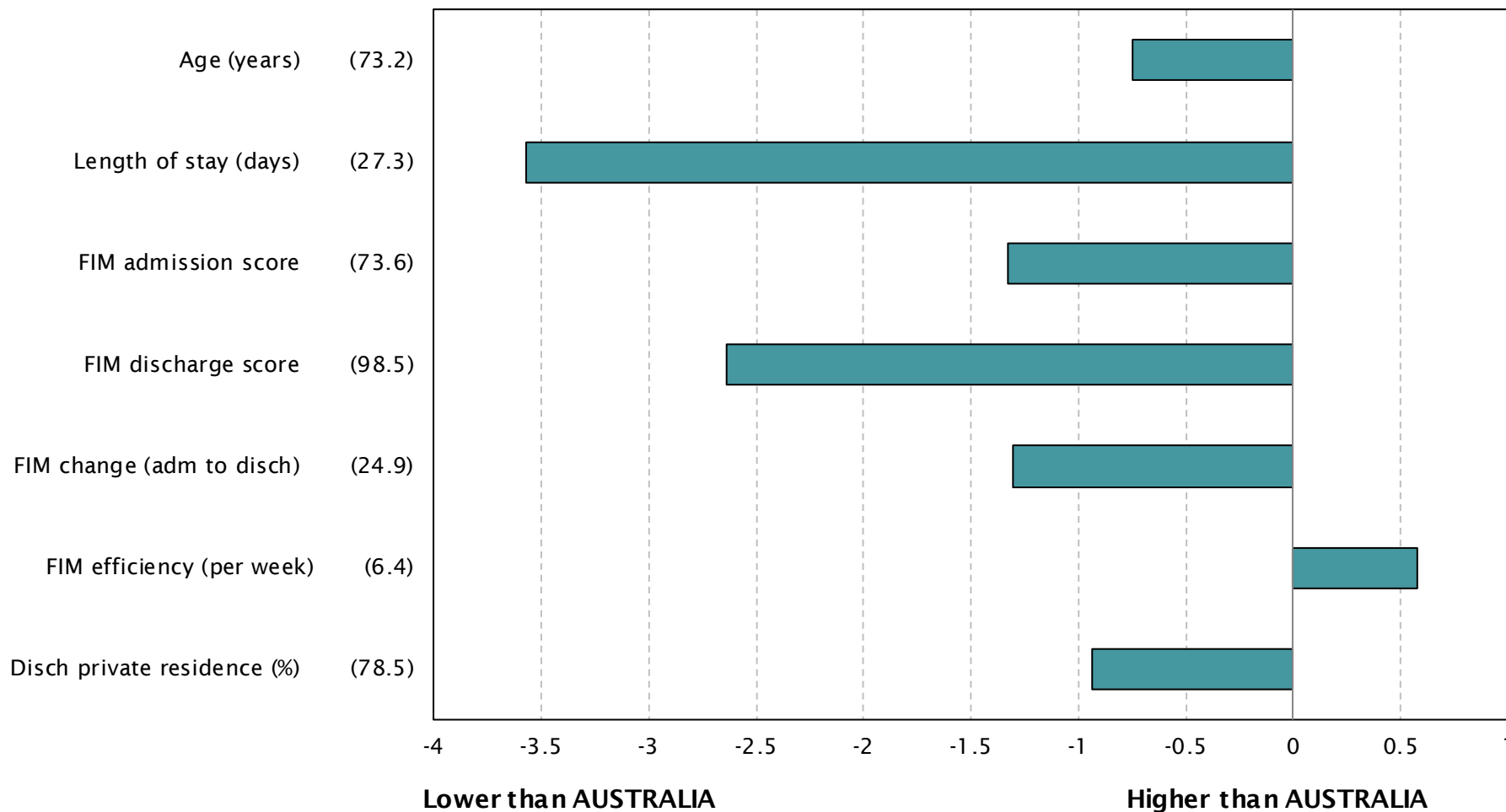
NOTE: Includes only completed episodes with valid FIM scores and LOS; where n<5 the casemix-adjusted relative mean will not be shown

# Outcome measures – difference from National



## How YOUR FACILITY is different to AUSTRALIA

AUSTRALIA



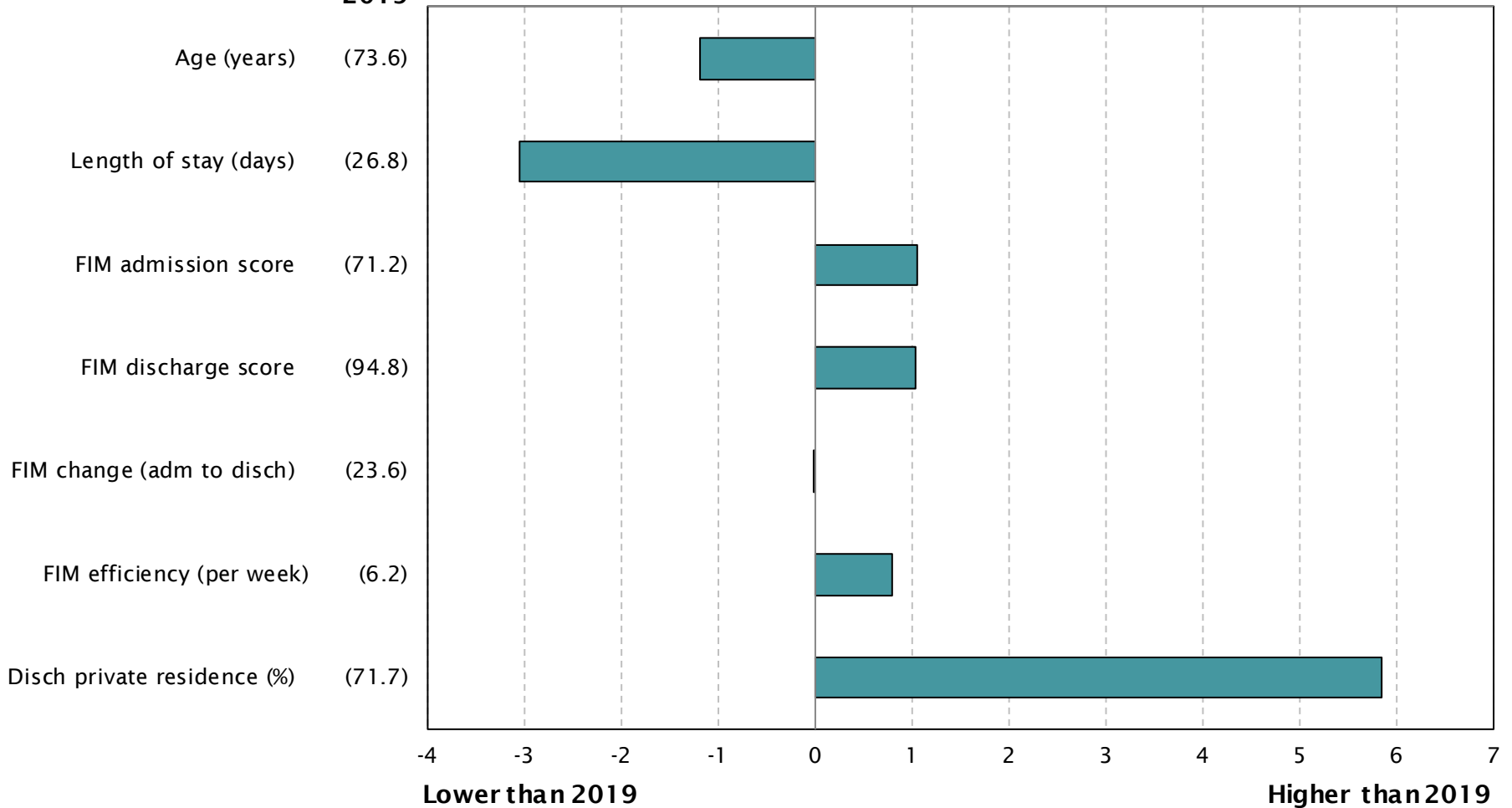
NOTE: Includes only completed episodes with valid FIM scores and LOS

# Outcome measures – difference from last year



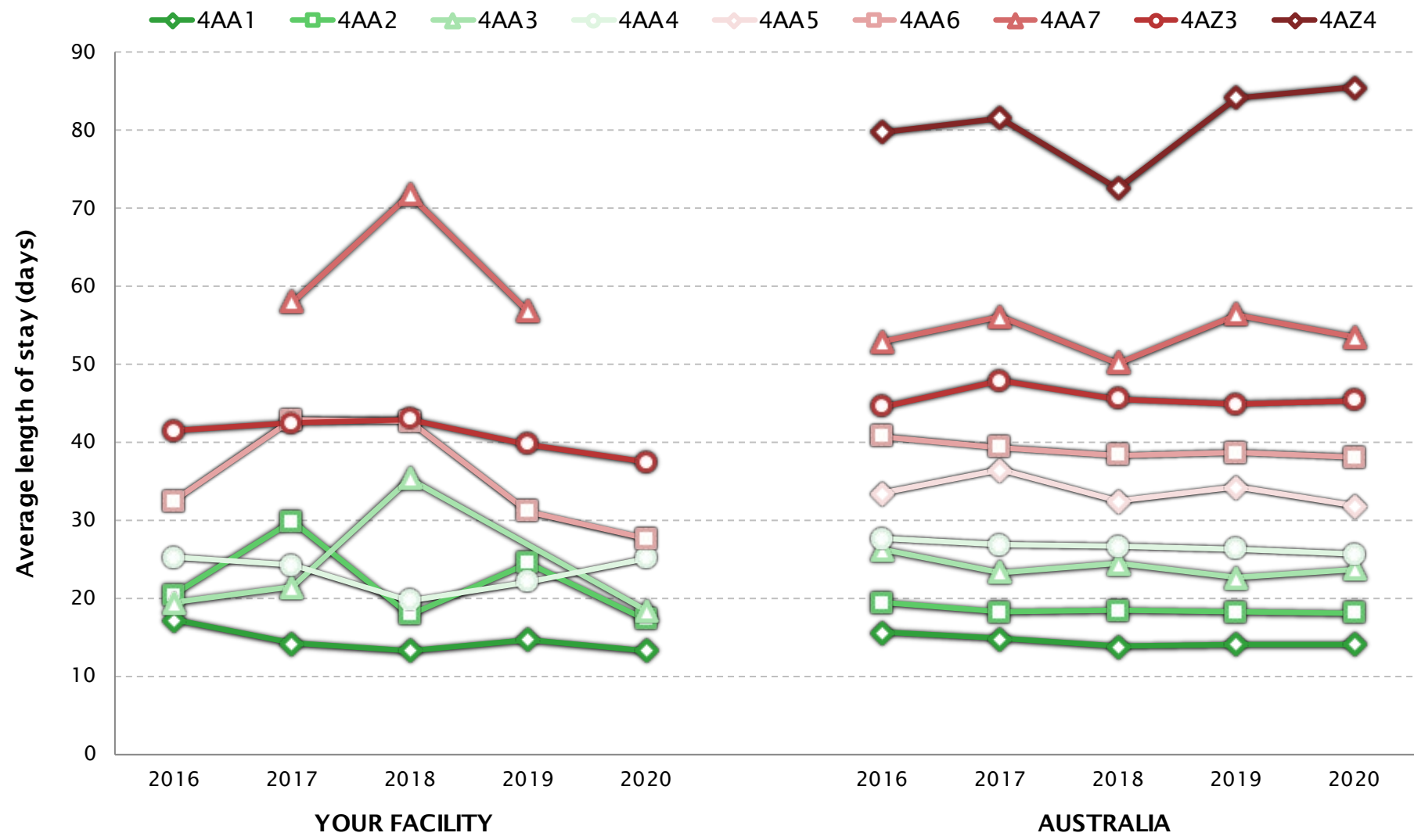
## How YOUR FACILITY has changed since 2019

2019



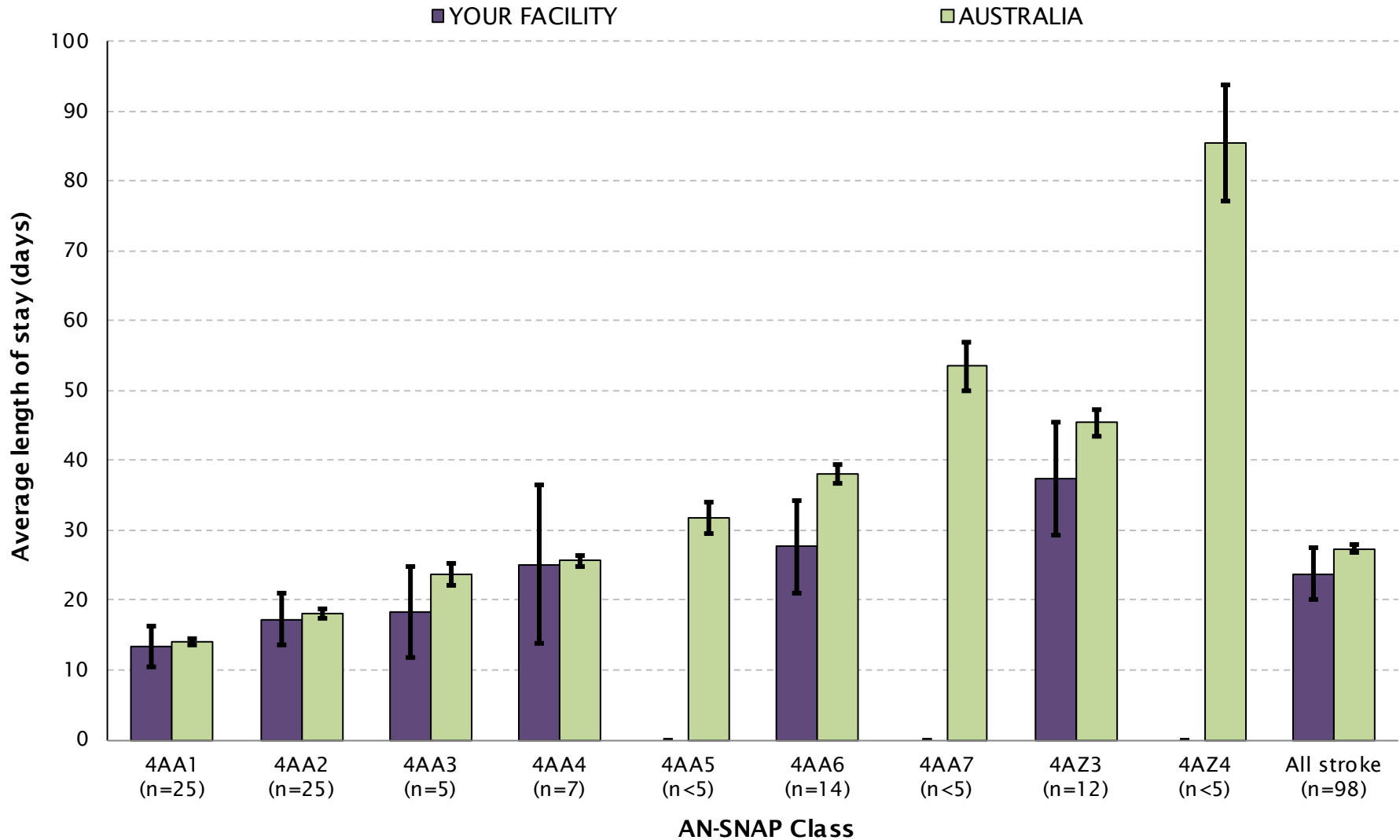
NOTE: Includes only completed episodes with valid FIM scores and LOS

# Average length of stay by AN-SNAP class over time



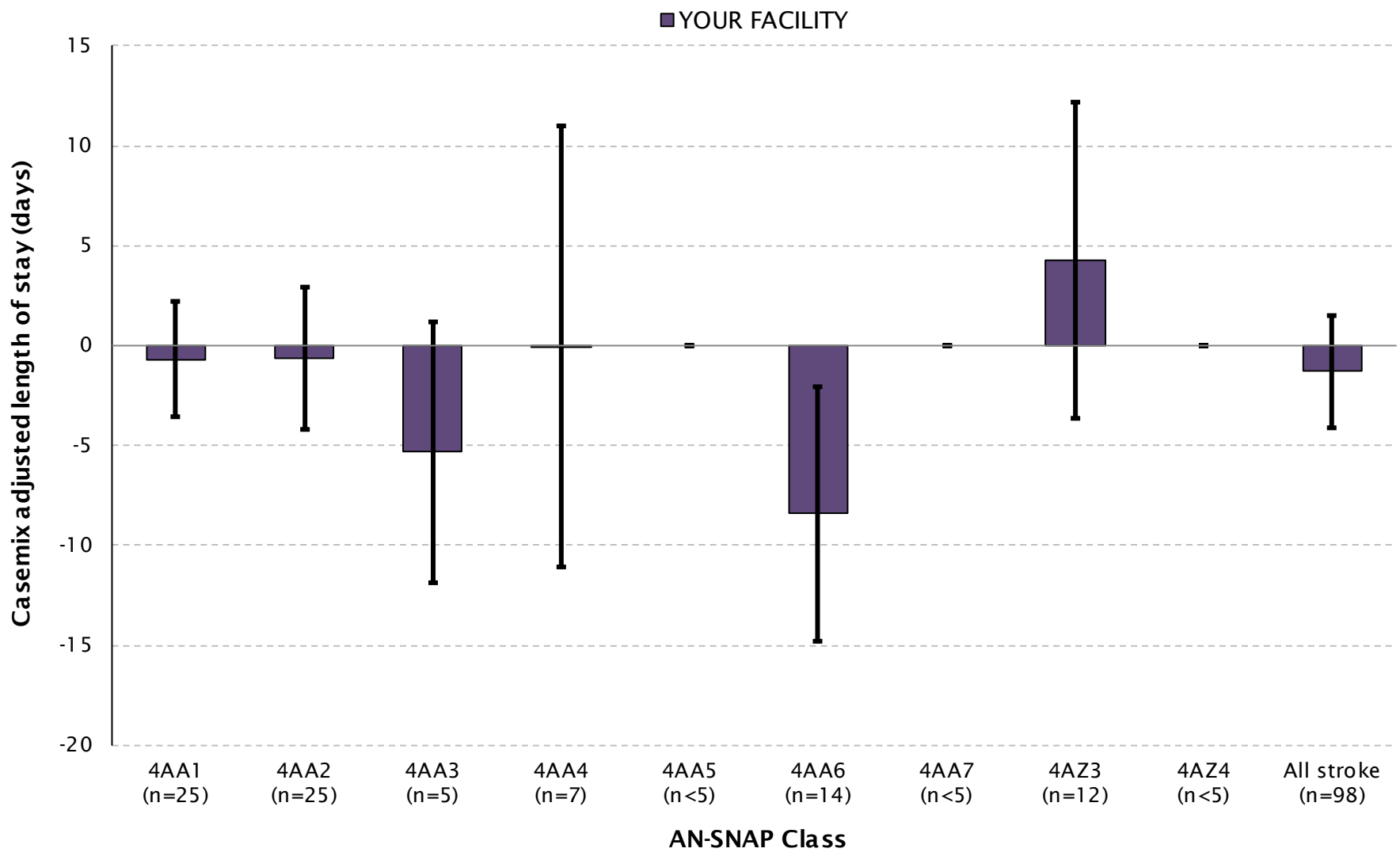
NOTE: Includes only completed episodes with valid LOS; where n<5 ALOS will not be shown

# Average length of stay by AN-SNAP class



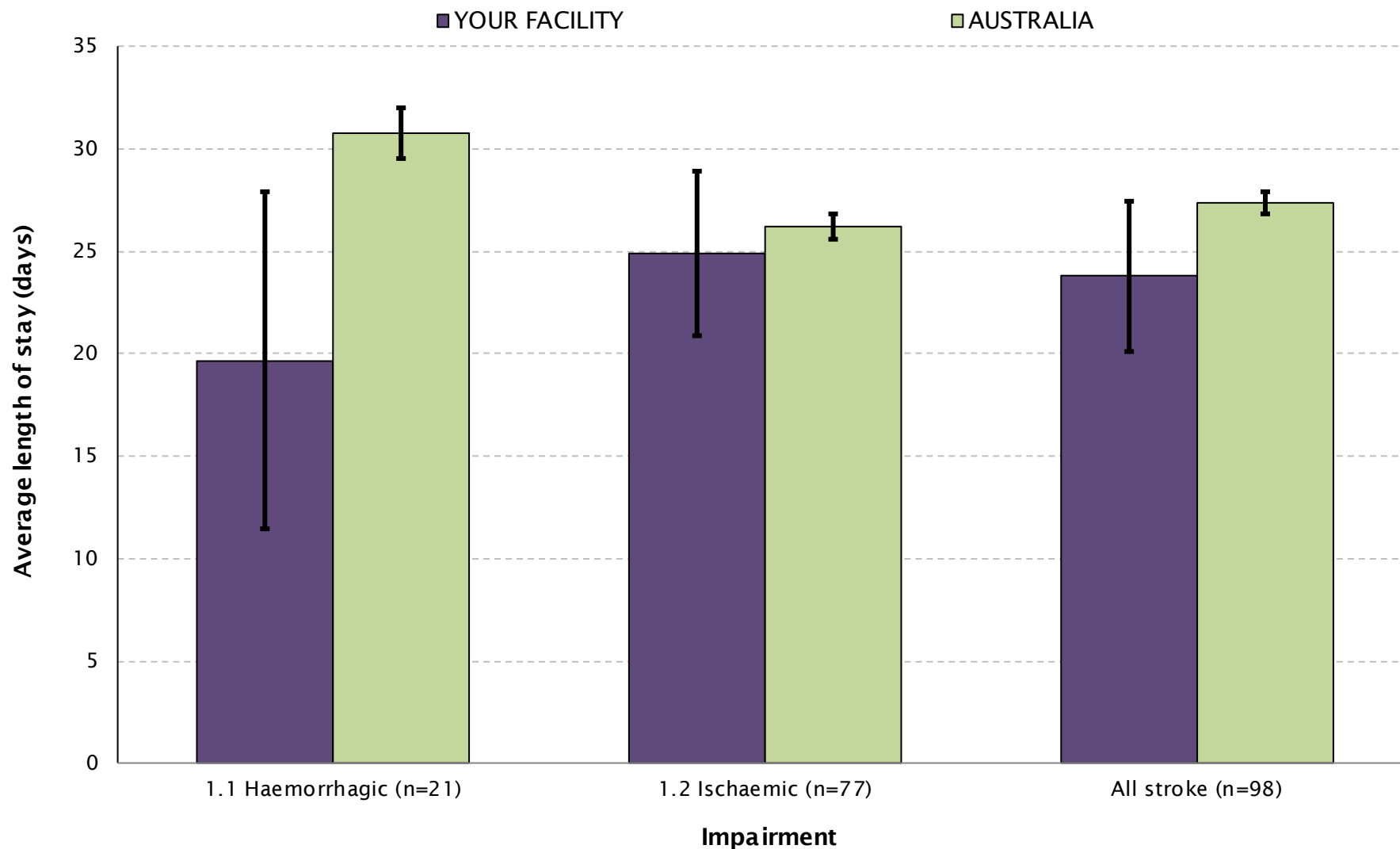
NOTE: Includes only completed episodes with valid LOS; where n<5 ALOS will not be shown

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



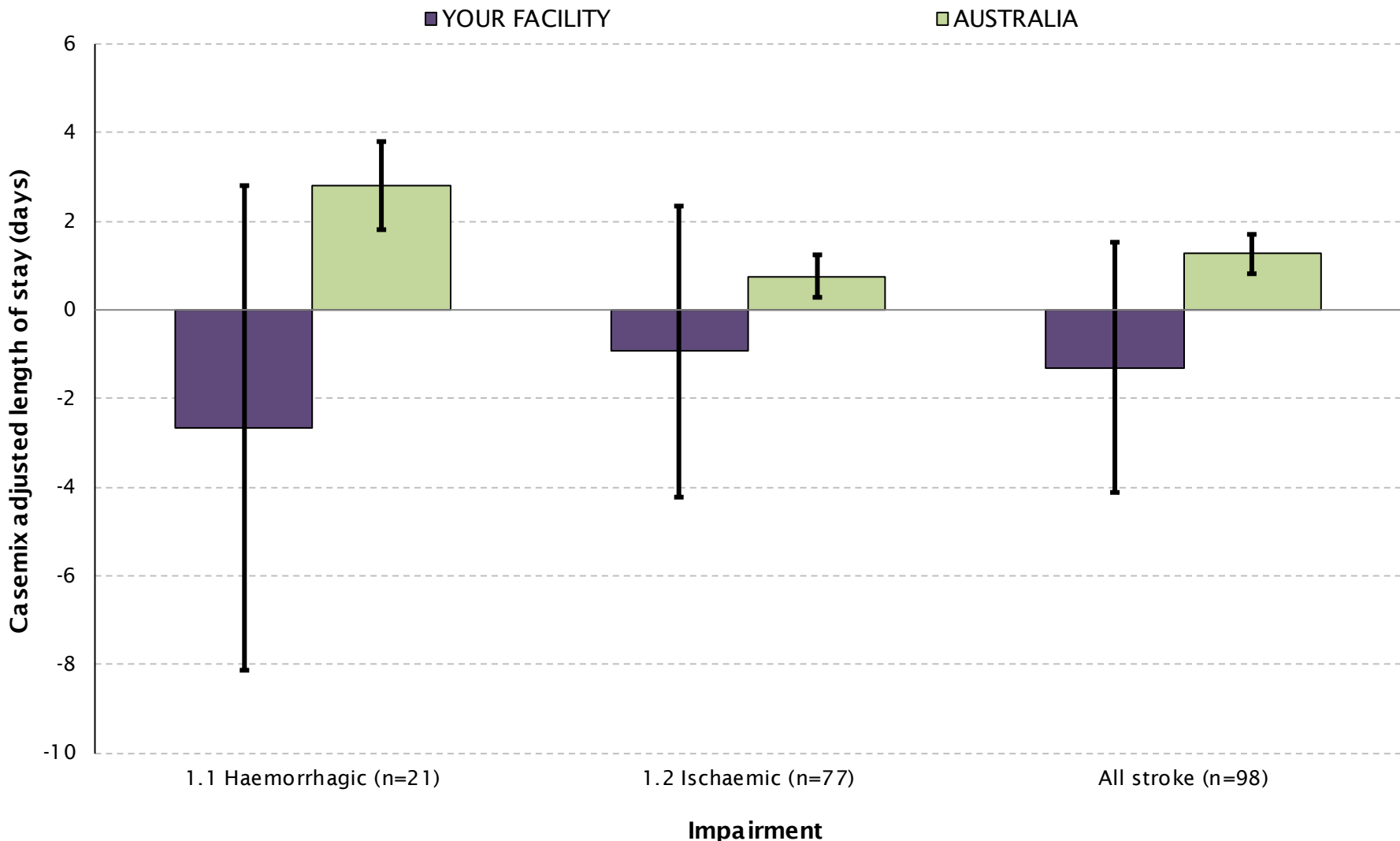
NOTE: Includes only completed episodes with valid LOS; where n<5 CARMi LOS will not be shown

# Average length of stay by impairment



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

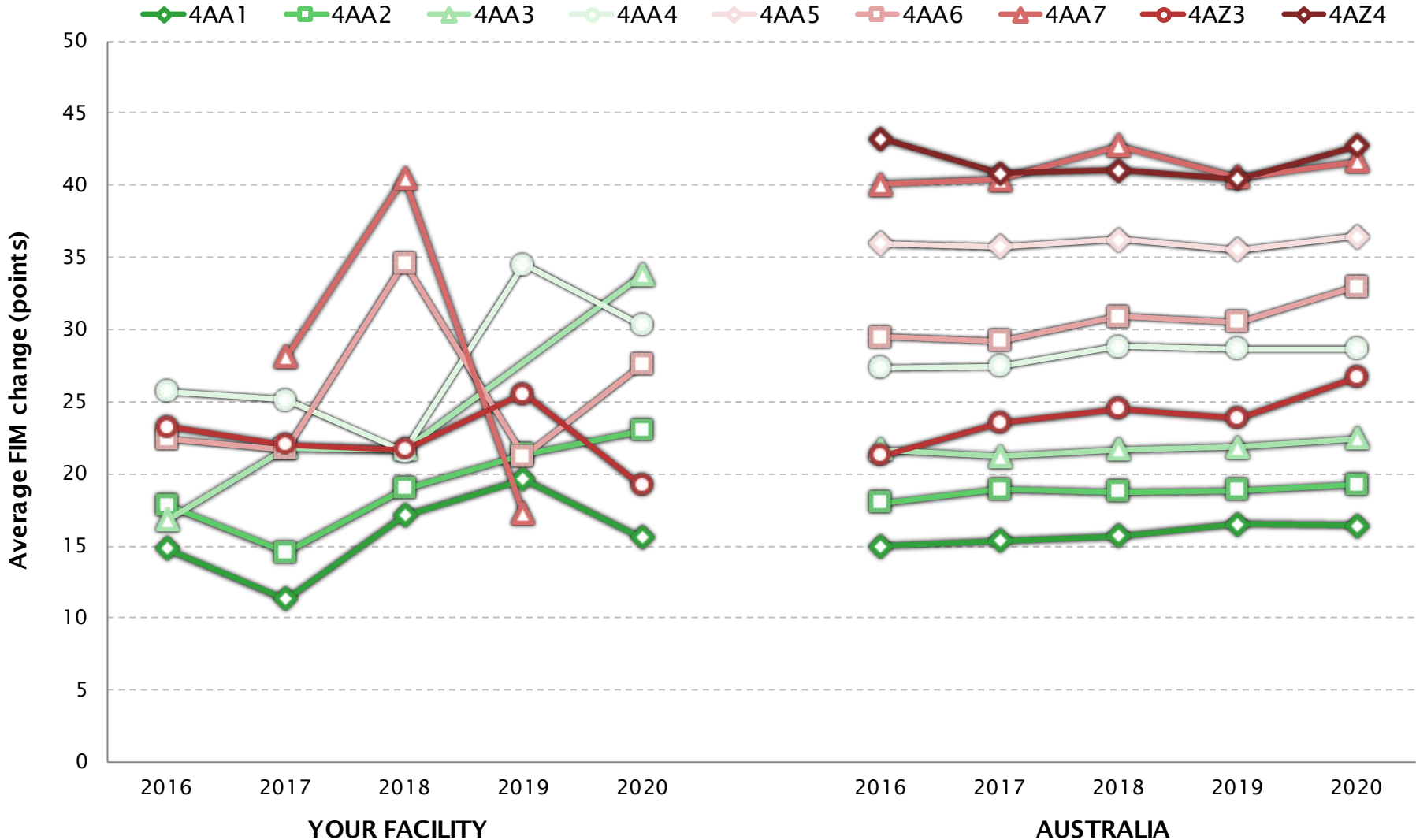
# Casemix-adjusted relative mean length of stay by impairment



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

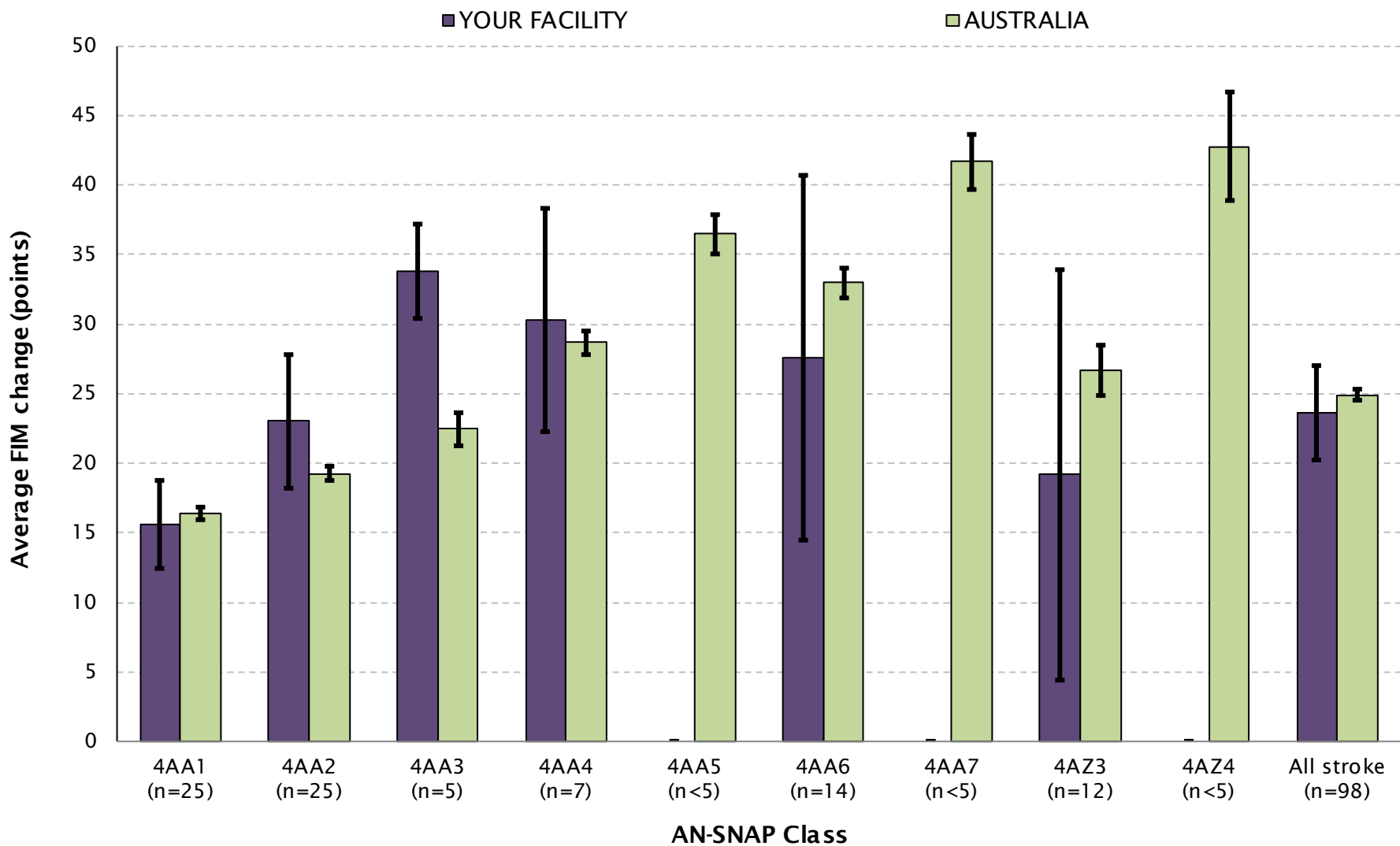


# Average FIM change by AN-SNAP class over time



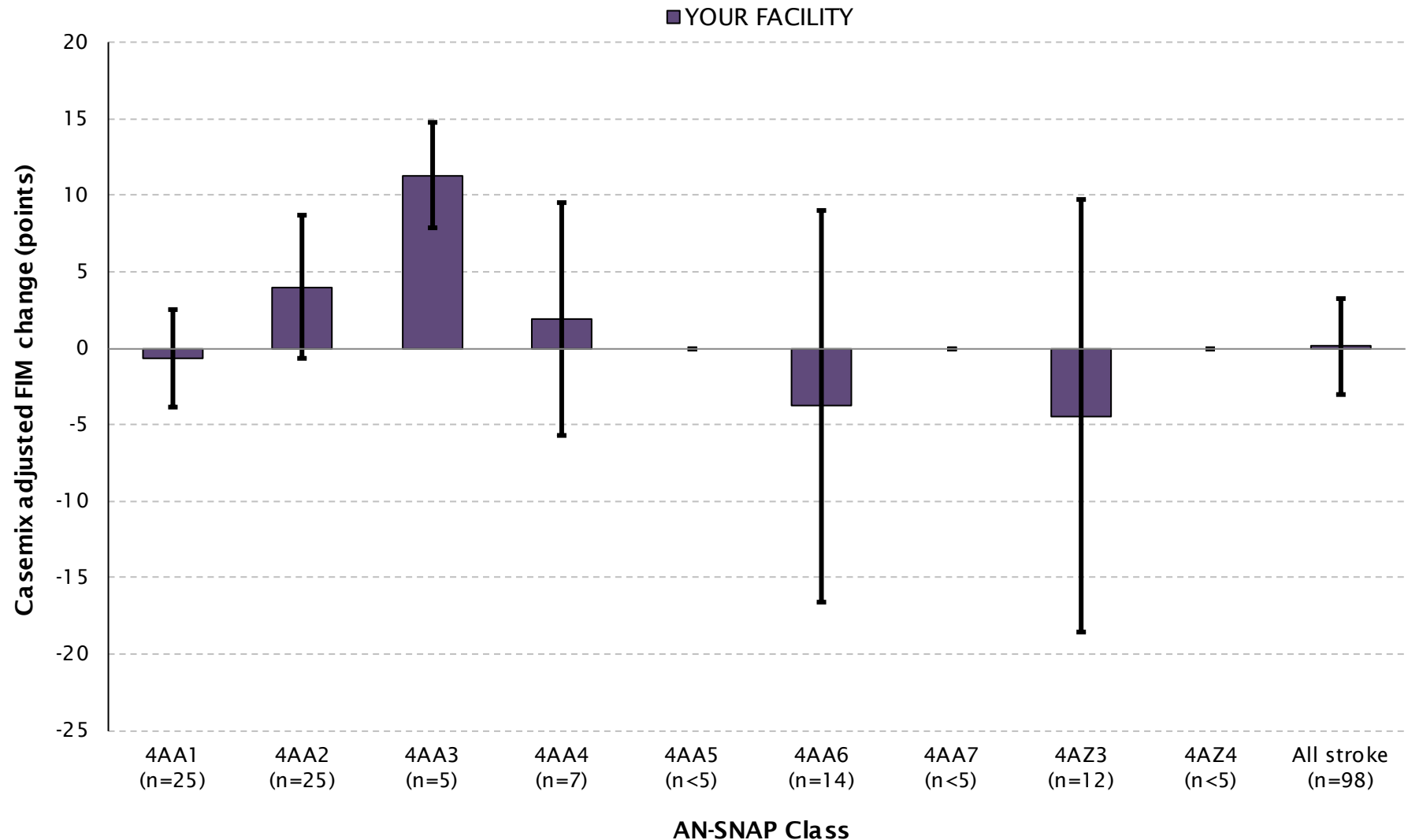
NOTE: Includes only completed episodes with valid FIM scores; where n<5 average FIM change will not be shown

# Average FIM change by AN-SNAP class



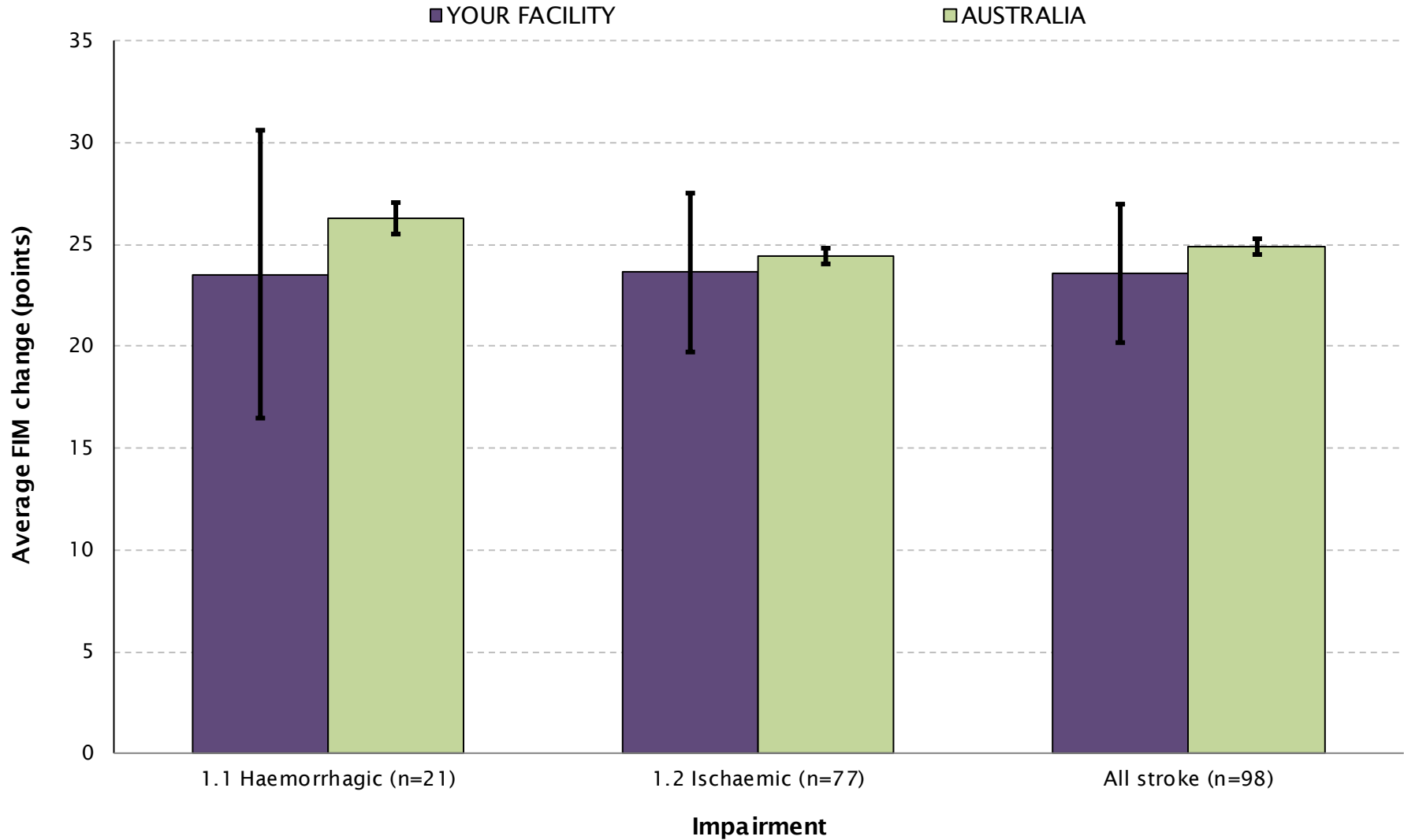
NOTE: Includes only completed episodes with valid FIM scores; where n<5 average FIM change will not be shown

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



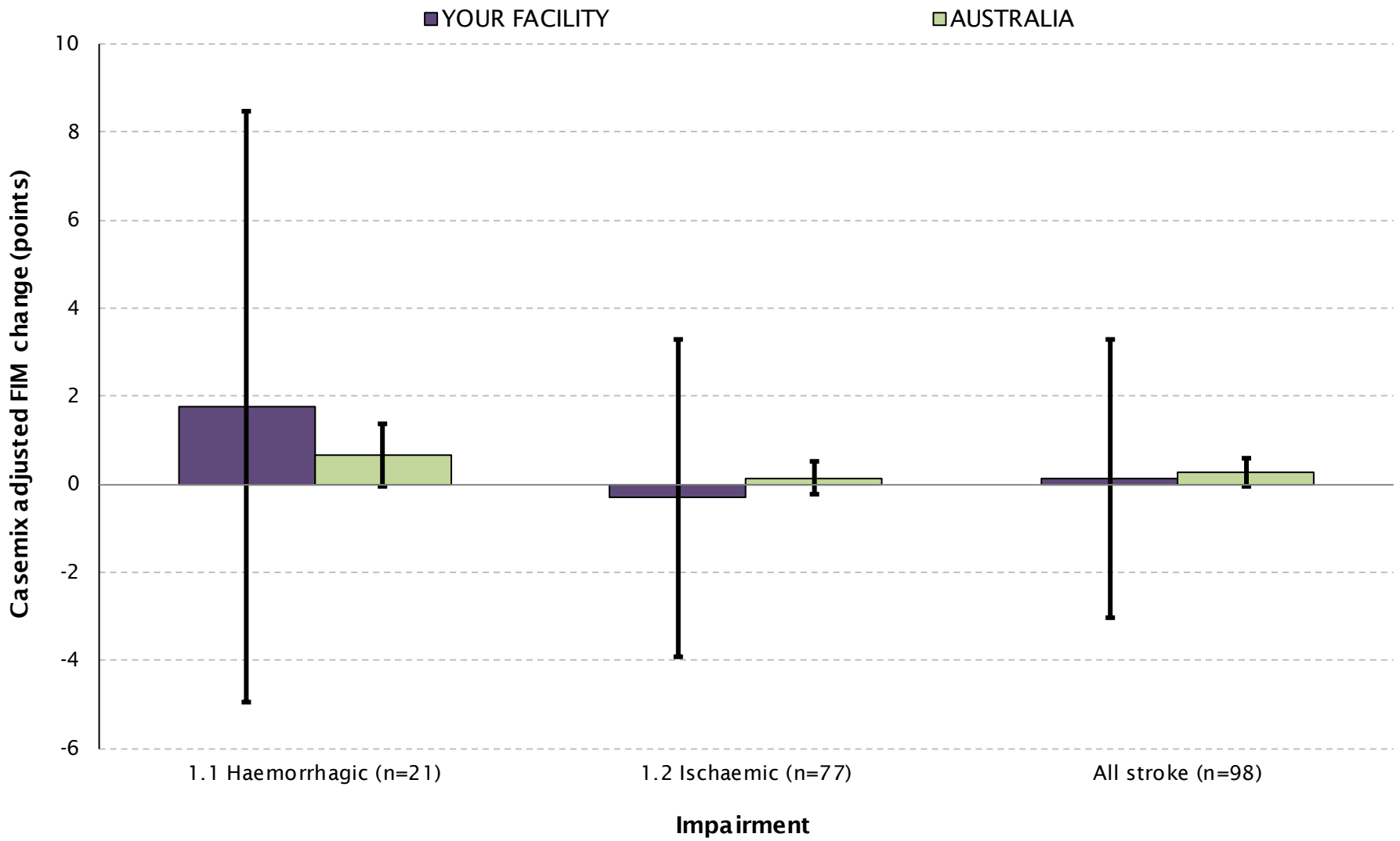
NOTE: Includes only completed episodes with valid FIM scores; where n<5 CARMI FIM change will not be shown

# Average FIM change by impairment



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

# Casemix-adjusted relative mean FIM change by impairment



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

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

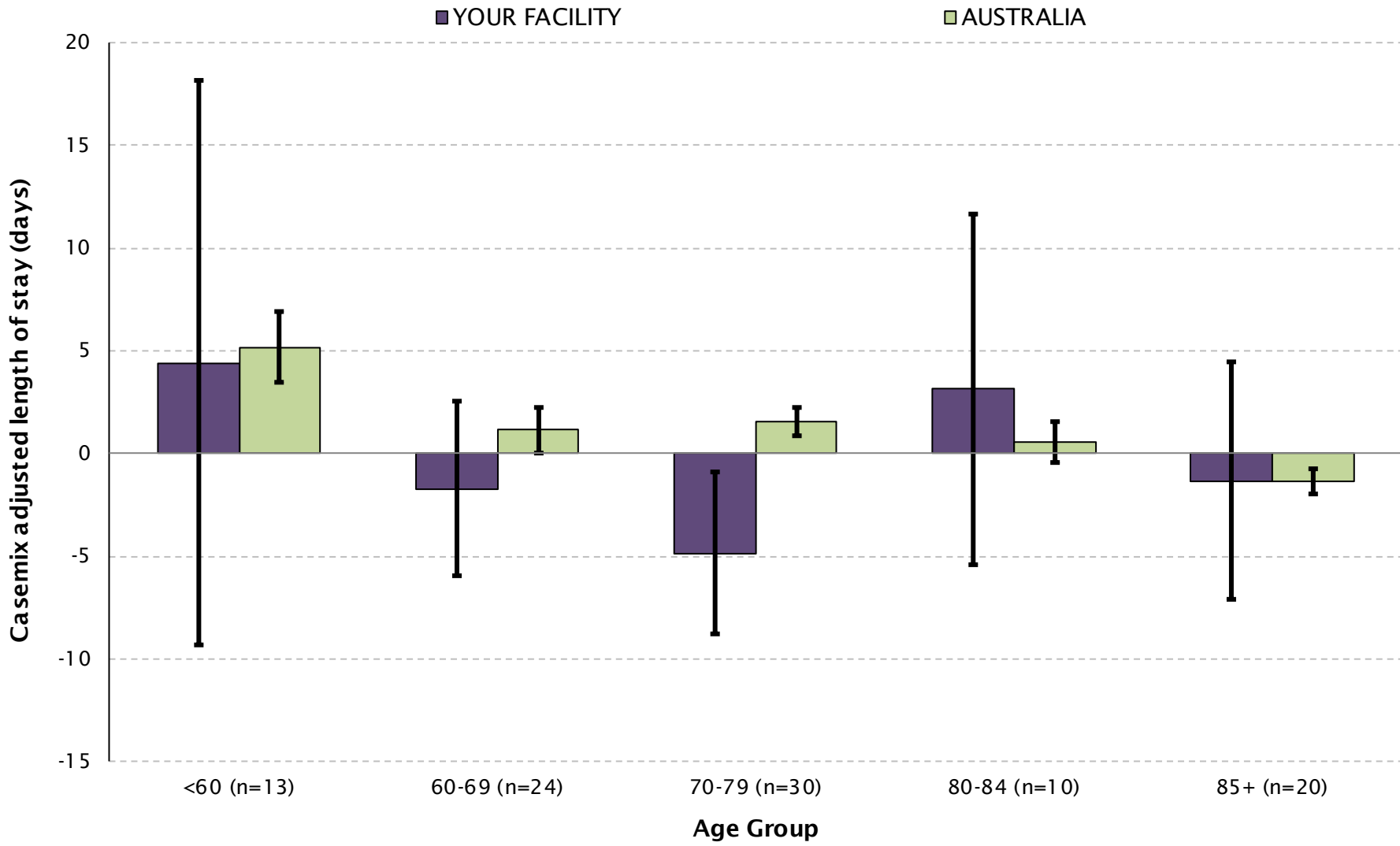


AN-SNAP class V4	YOUR FACILITY						AUSTRALIA					
	CARMi (95%CI)			Average (95%CI)			CARMi (95%CI)			Average (95%CI)		
	LOS	FIM change		LOS	FIM change		LOS	FIM change		LOS	FIM change	
4AA1 (motor 51-91, cognition 29-35)	-0.7	(-3.6 - 2.2)	-0.7	(-3.9 - 2.5)	13.3	(10.4 - 16.3)	15.6	(12.4 - 18.7)	14.1	(13.6 - 14.6)	16.4	(16.0 - 16.8)
4AA2 (motor 51-91, cognition 19-28)	-0.6	(-4.2 - 3.0)	4.0	(-0.7 - 8.7)	17.3	(13.6 - 20.9)	23.0	(18.2 - 27.8)	18.2	(17.5 - 18.8)	19.3	(18.7 - 19.8)
4AA3 (motor 51-91, cognition 5-18)	-5.3	(-11.8 - 1.2)	11.3	(7.9 - 14.7)	18.4	(11.9 - 24.9)	33.8	(30.4 - 37.2)	23.7	(22.2 - 25.2)	22.4	(21.2 - 23.6)
4AA4 (motor 36-50, Age ≥ 68)	-0.1	(-11.1 - 11.0)	1.9	(-5.7 - 9.6)	25.1	(13.8 - 36.5)	30.3	(22.3 - 38.3)	25.7	(24.8 - 26.5)	28.7	(27.8 - 29.5)
4AA5 (motor 36-50, Age ≤ 67)	—		—		—		—		31.8	(29.6 - 34.1)	36.5	(35.1 - 37.9)
4AA6 (motor 19-35, Age ≥ 68)	-8.4	(-14.8 - -2.0)	-3.8	(-16.6 - 9.0)	27.6	(21.1 - 34.2)	27.6	(14.5 - 40.6)	38.0	(36.7 - 39.3)	32.9	(31.8 - 34.1)
4AA7 (motor 19-35, Age ≤ 67)	—		—		—		—		53.5	(50.1 - 56.9)	41.7	(39.7 - 43.7)
4AZ3 (motor 13-18, Age ≥ 65)	4.3	(-3.6 - 12.2)	-4.4	(-18.6 - 9.7)	37.4	(29.3 - 45.5)	19.2	(4.5 - 33.9)	45.4	(43.5 - 47.4)	26.7	(24.9 - 28.5)
4AZ4 (motor 13-18, Age ≤ 64)	—		—		—		—		85.5	(77.3 - 93.8)	42.7	(38.8 - 46.6)
<b>All Stroke AN-SNAP Classes</b>	<b>-1.3</b>	<b>(-4.1 - 1.5)</b>	<b>0.1</b>	<b>(-3.0 - 3.3)</b>	<b>23.8</b>	<b>(20.1 - 27.4)</b>	<b>23.6</b>	<b>(20.2 - 27.0)</b>	<b>27.3</b>	<b>(26.8 - 27.9)</b>	<b>24.9</b>	<b>(24.5 - 25.3)</b>

Impairment	YOUR FACILITY						AUSTRALIA					
	CARMi (95%CI)			Average (95%CI)			CARMi (95%CI)			Average (95%CI)		
	LOS	FIM change		LOS	FIM change		LOS	FIM change		LOS	FIM change	
1.1 Haemorrhagic	-2.7	(-8.1 - 2.8)	1.8	(-5.0 - 8.5)	19.7	(11.4 - 27.9)	23.5	(16.5 - 30.6)	30.8	(29.6 - 32.0)	26.3	(25.5 - 27.1)
1.2 Ischaemic	-0.9	(-4.2 - 2.3)	-0.3	(-3.9 - 3.3)	24.9	(20.8 - 28.9)	23.6	(19.7 - 27.5)	26.2	(25.6 - 26.8)	24.4	(24.0 - 24.9)
<b>All Stroke</b>	<b>-1.3</b>	<b>(-4.1 - 1.5)</b>	<b>0.1</b>	<b>(-3.0 - 3.3)</b>	<b>23.8</b>	<b>(20.1 - 27.4)</b>	<b>23.6</b>	<b>(20.2 - 27.0)</b>	<b>27.3</b>	<b>(26.8 - 27.9)</b>	<b>24.9</b>	<b>(24.5 - 25.3)</b>

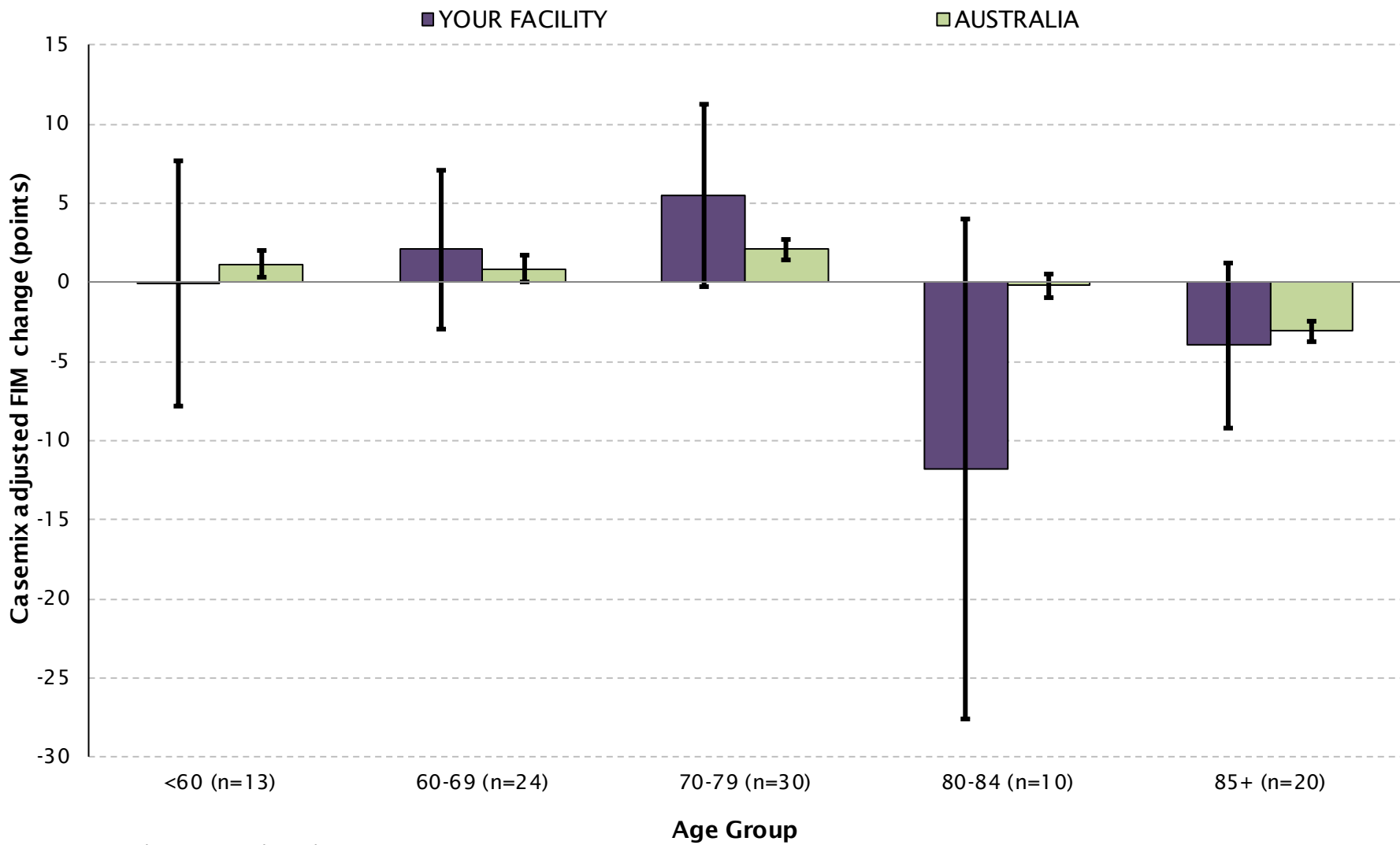
NOTE: Includes only completed episodes with valid FIM scores and LOS, where n<5 scores will not be shown.

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



\* Approximately 20% national population per age group  
 NOTE: Includes only completed episodes with valid LOS; where n<5 CARMi LOS will not be shown

# Casemix-adjusted relative mean FIM change by age group\*



\* Approximately 20% national population per age group  
 NOTE: Includes only completed episodes with valid FIM scores; 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				AUSTRALIA			
	Mean LOS	(95% CI)	FIM change	(95% CI)	Mean LOS	(95% CI)	FIM change	(95% CI)
<60	33.1	(16.6 - 49.6)	25.9	(15.9 - 36.0)	35.5	(33.4 - 37.7)	28.1	(27.0 - 29.2)
60-69	22.0	(14.5 - 29.5)	25.0	(19.5 - 30.4)	29.4	(28.0 - 30.7)	26.7	(25.8 - 27.7)
70-79	18.1	(14.0 - 22.2)	28.0	(21.7 - 34.4)	25.7	(24.9 - 26.5)	25.5	(24.8 - 26.2)
80-84	34.8	(24.8 - 44.8)	15.2	(-0.7 - 31.1)	25.0	(23.9 - 26.2)	23.5	(22.6 - 24.3)
85+	23.6	(17.2 - 30.0)	18.6	(13.0 - 24.1)	23.7	(23.0 - 24.4)	21.2	(20.5 - 21.9)

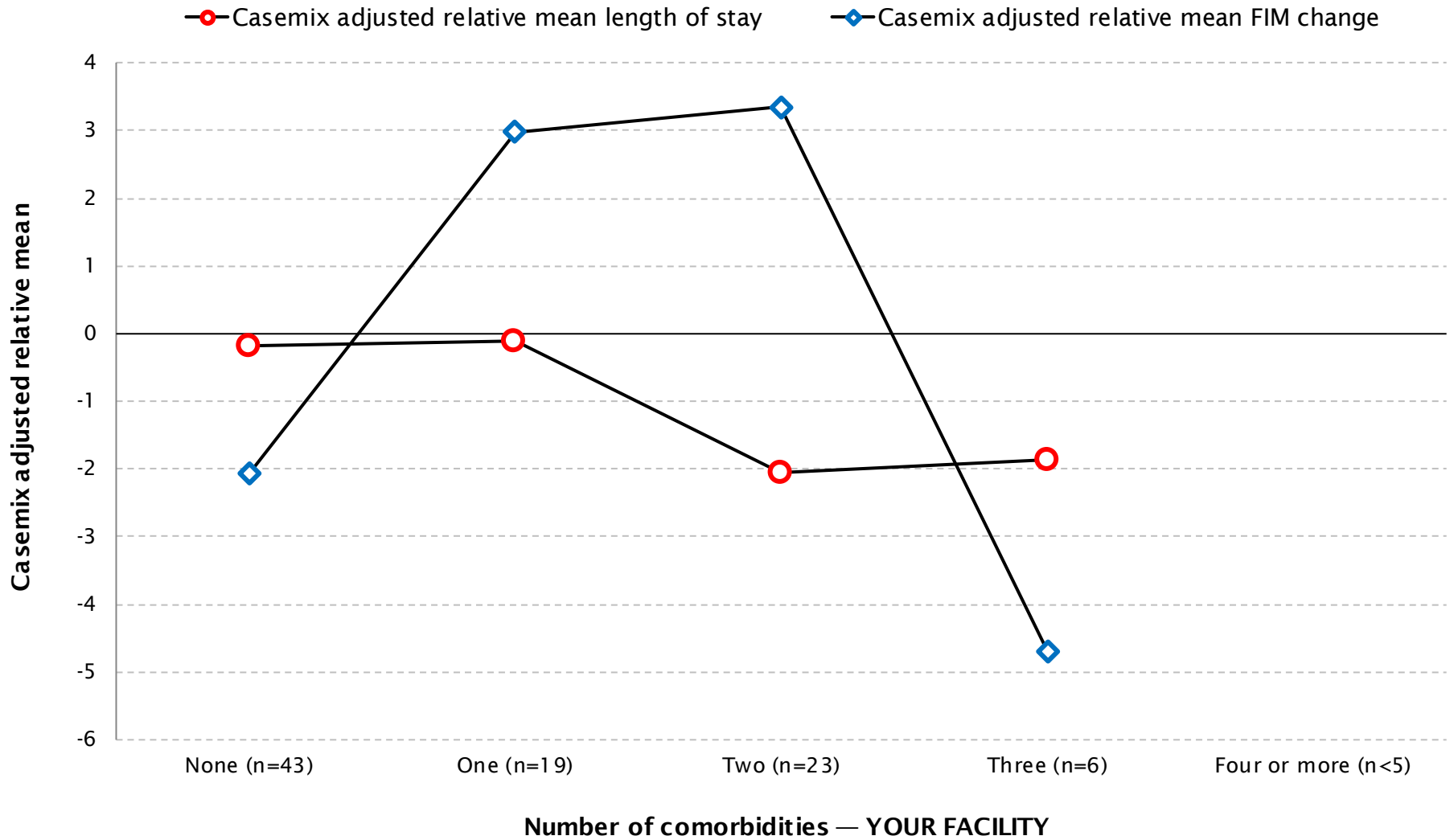
Age group	YOUR FACILITY				AUSTRALIA			
	CARMi LOS	(95% CI)	CARMi FIM change	(95% CI)	CARMi LOS	(95% CI)	CARMi FIM change	(95% CI)
<60	4.4	(-9.3 - 18.2)	0.0	(-7.8 - 7.7)	5.2	(3.4 - 6.9)	1.2	(0.3 - 2.0)
60-69	-1.7	(-5.9 - 2.5)	2.1	(-3.0 - 7.1)	1.2	(0.1 - 2.2)	0.9	(0.1 - 1.7)
70-79	-4.8	(-8.8 - -0.9)	5.5	(-0.3 - 11.2)	1.6	(0.9 - 2.3)	2.1	(1.5 - 2.7)
80-84	3.1	(-5.4 - 11.7)	-11.8	(-27.6 - 4.0)	0.5	(-0.5 - 1.5)	-0.2	(-1.0 - 0.6)
85+	-1.3	(-7.1 - 4.4)	-4.0	(-9.2 - 1.2)	-1.3	(-2.0 - -0.7)	-3.1	(-3.7 - -2.4)

\*Approximately 20% national population per age group

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

## Explanatory data

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

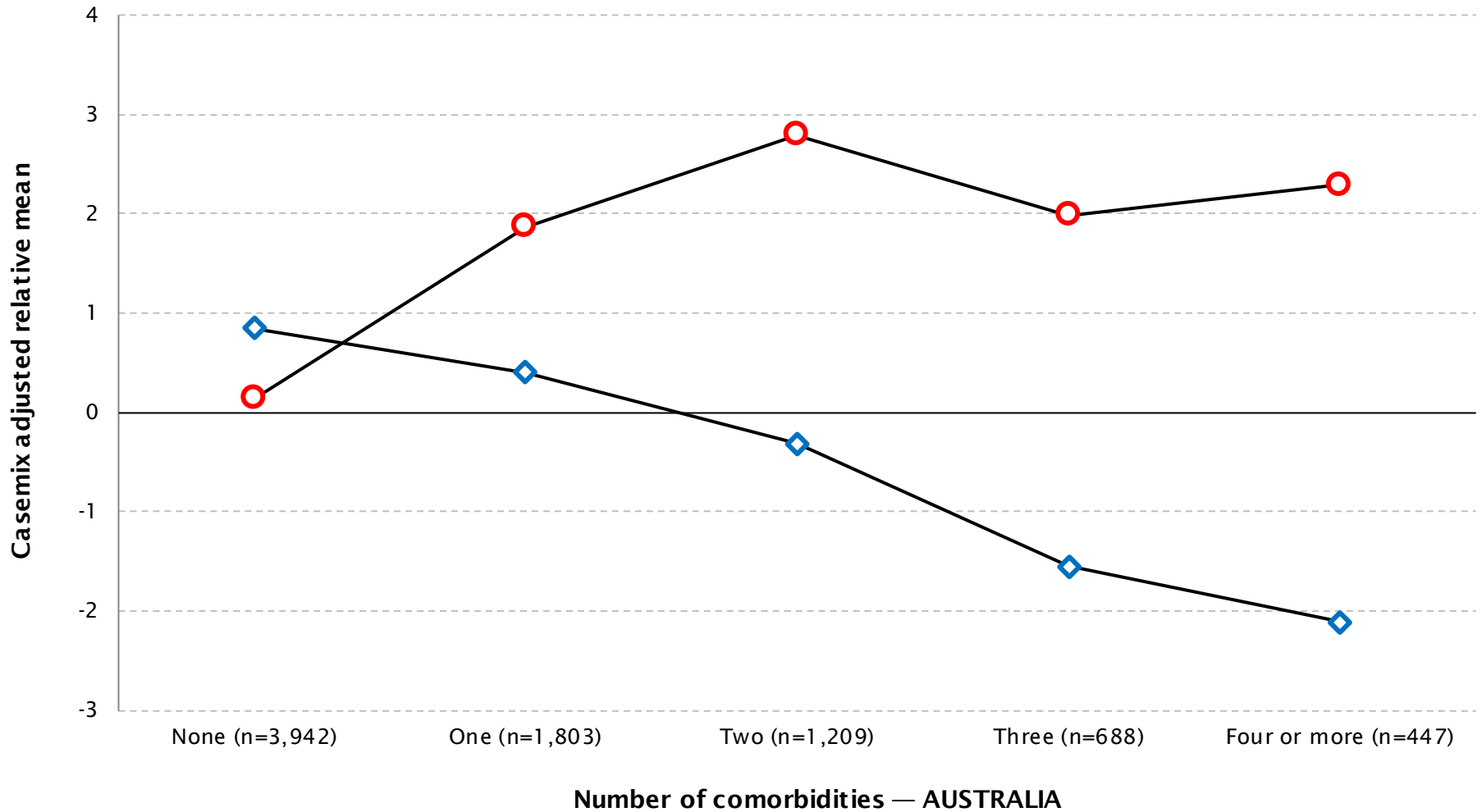


NOTE: Includes only completed episodes with valid FIM scores and LOS; where n<5 the casemix-adjusted relative mean will not be shown

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

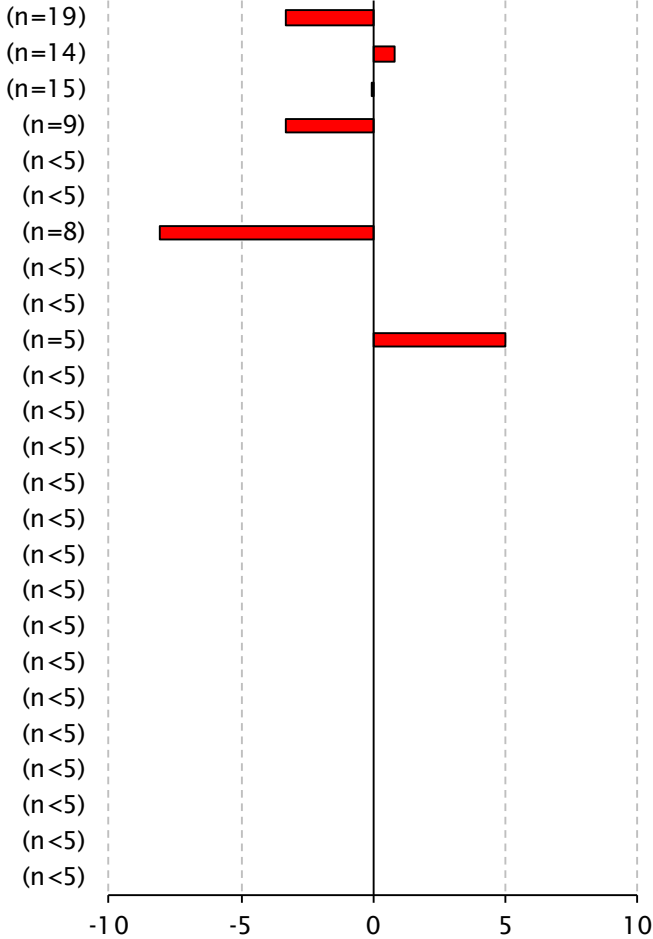


—○— Casemix adjusted relative mean length of stay    —◇— Casemix adjusted relative mean FIM change

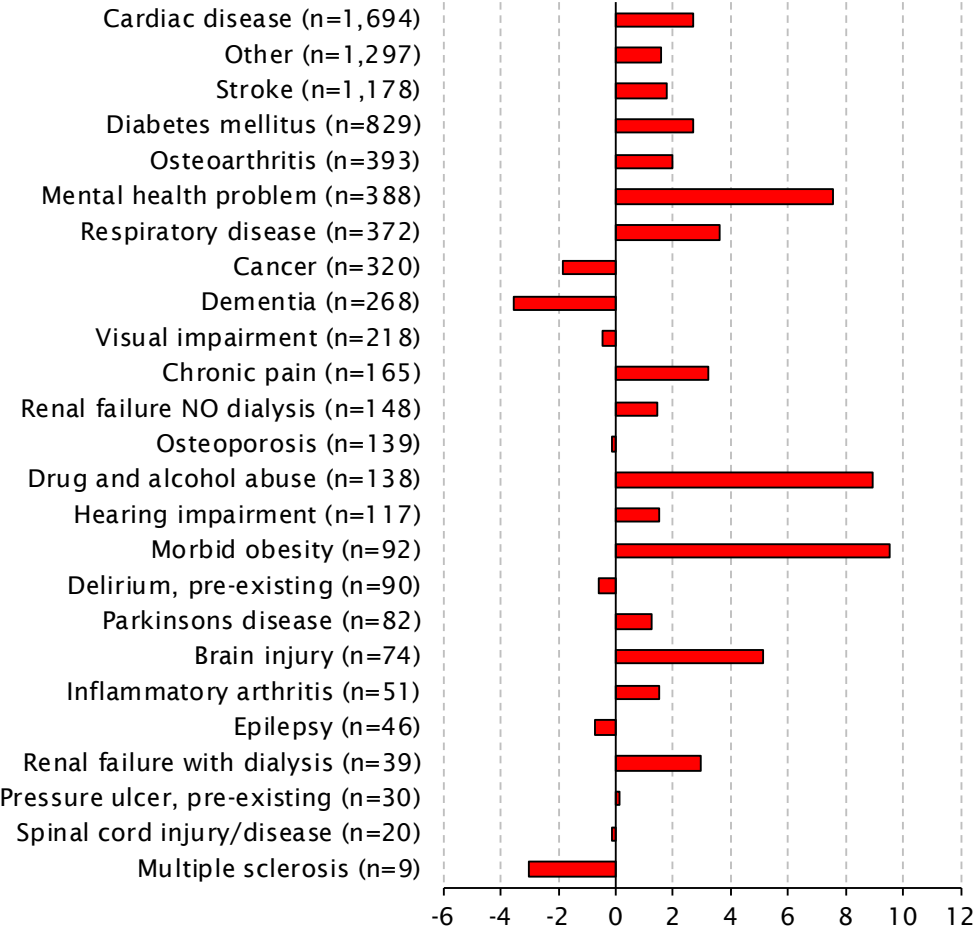


NOTE: Includes only completed episodes with valid FIM scores and LOS; where n<5 the casemix-adjusted relative mean will not be shown

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



**CARMi LOS — YOUR FACILITY**



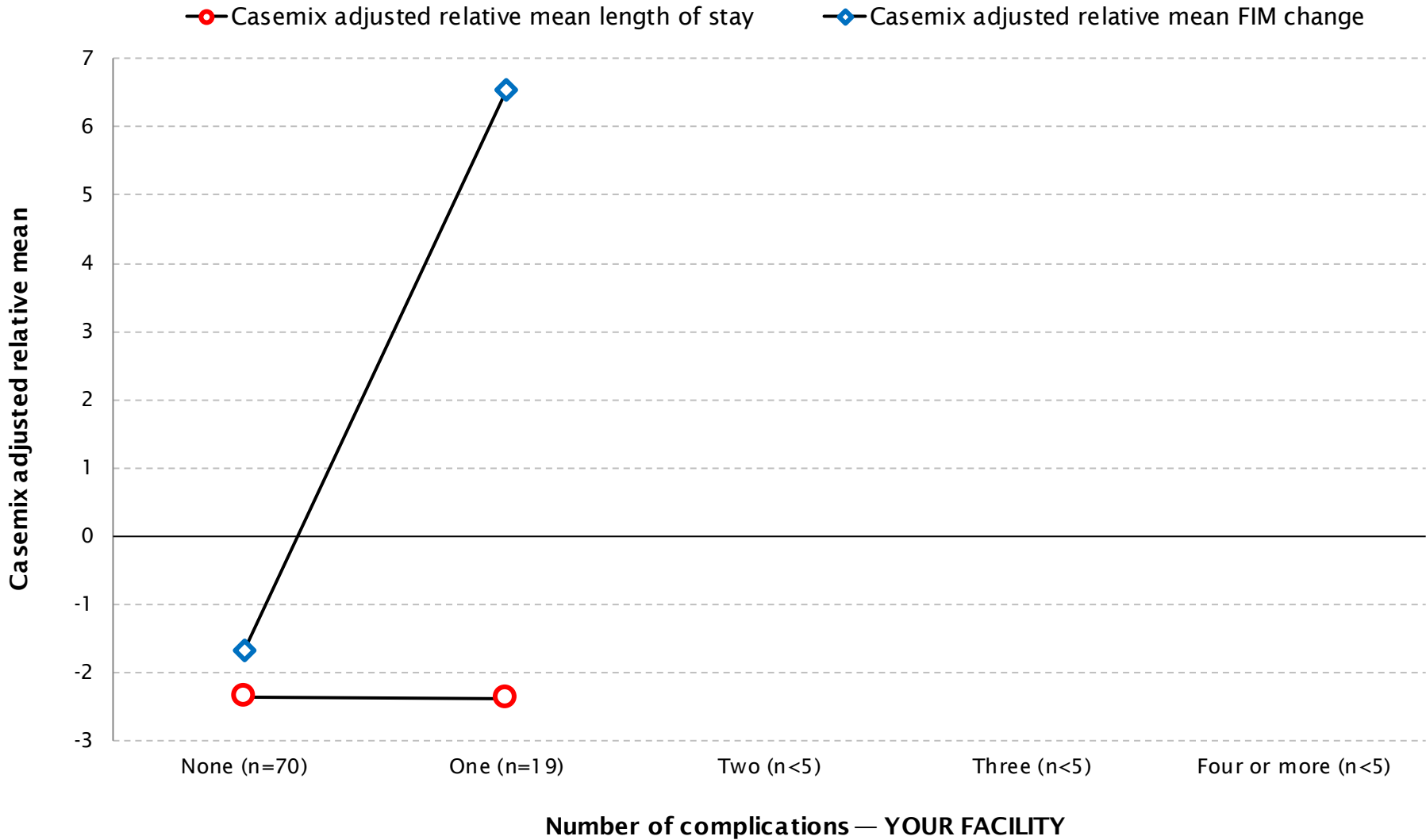
**CARMi LOS — AUSTRALIA**

\* No data included where number of episodes <5

NOTE: Includes only completed episodes with valid LOS

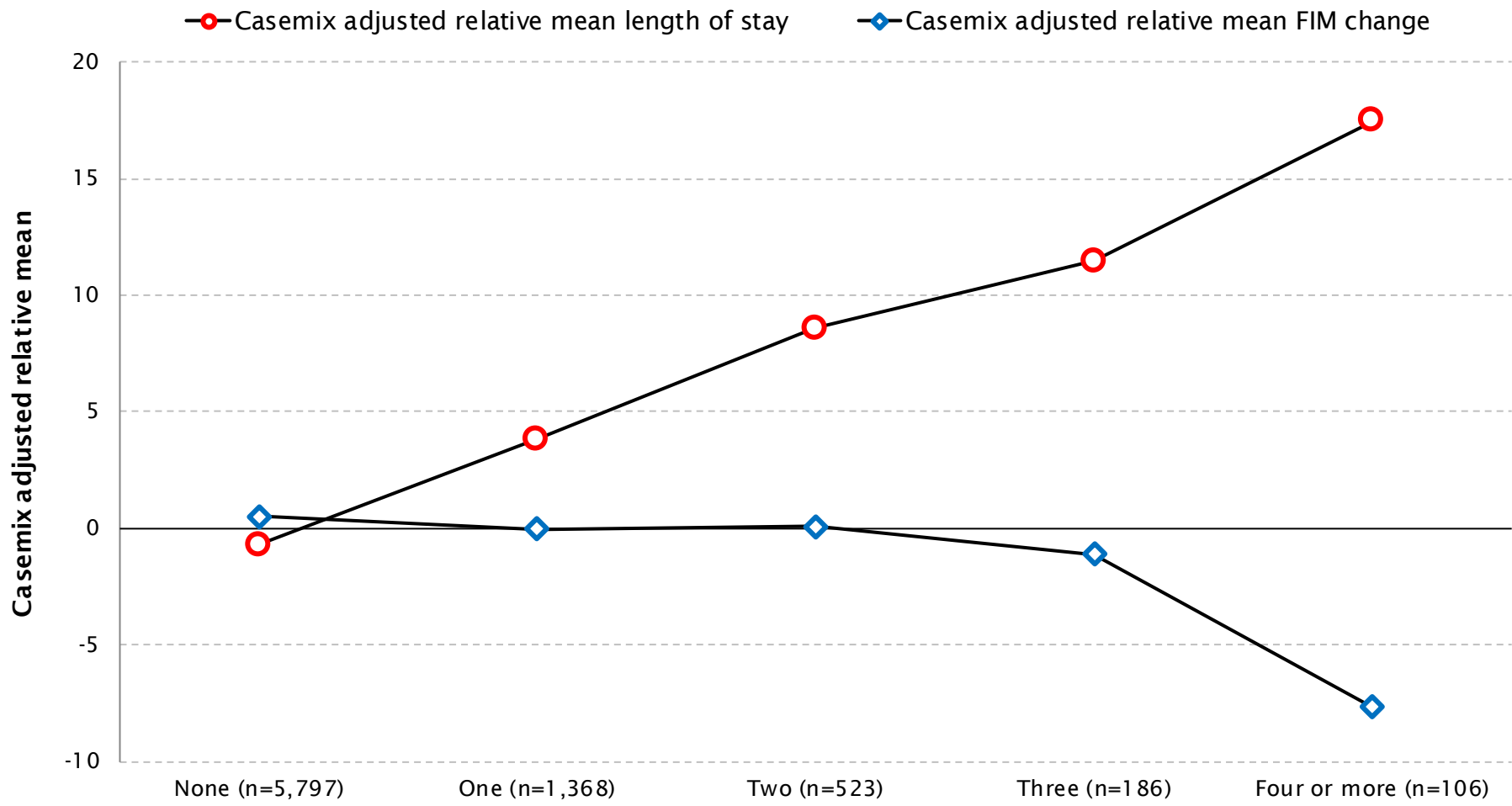


# Casemix-adjusted relative mean length of stay and FIM change by number of complications



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

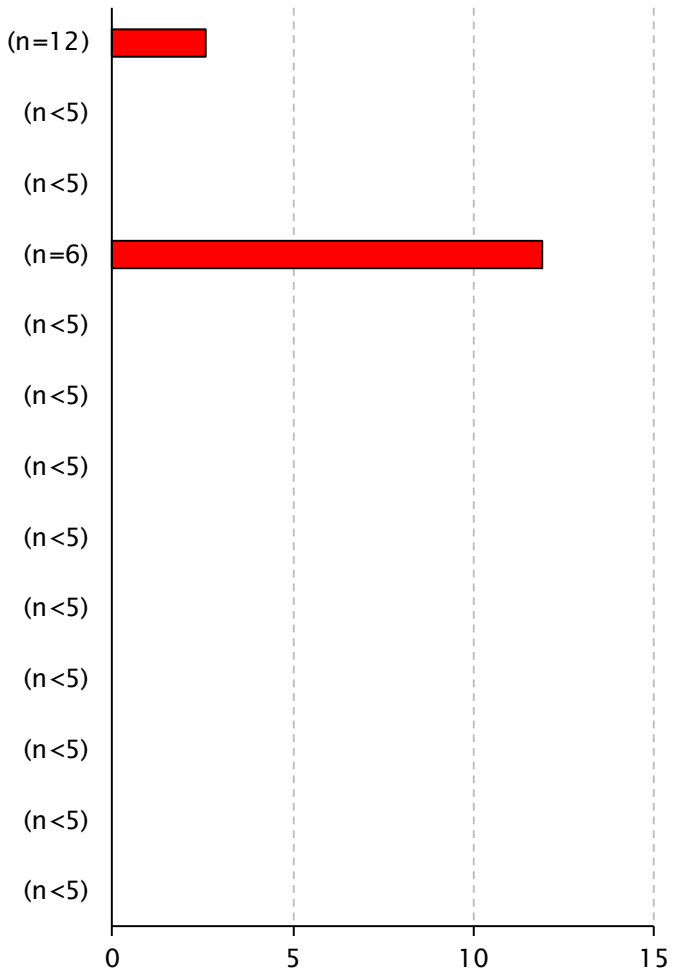


Number of complications — AUSTRALIA

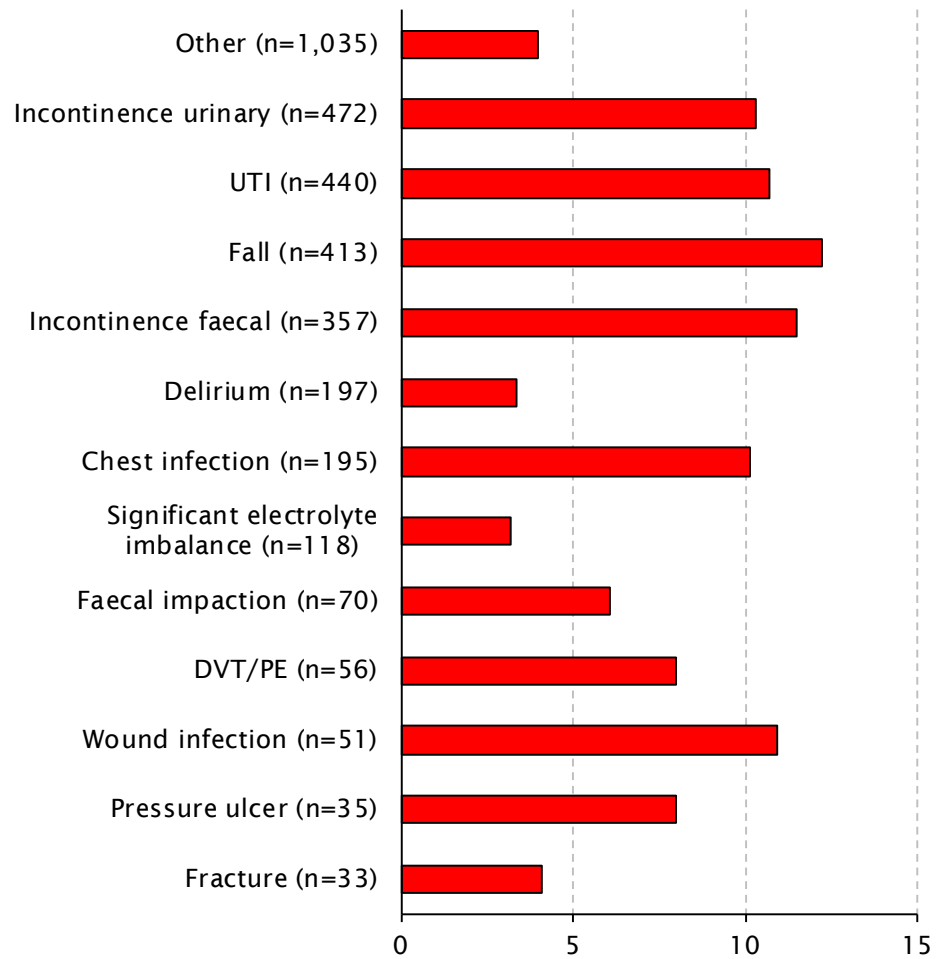
NOTE: Includes only completed episodes with valid FIM scores and LOS; where n<5 the casemix-adjusted relative mean will not be shown



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



**CARMi LOS — YOUR FACILITY**

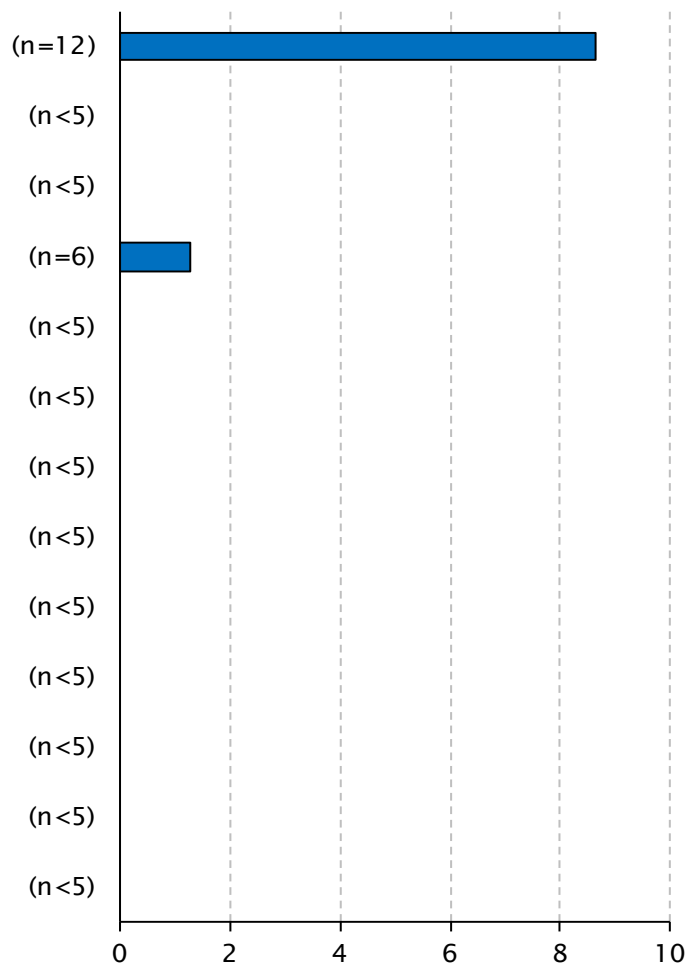


**CARMi LOS — AUSTRALIA**

\* No data included where number of episodes <5

NOTE: Includes only completed episodes with valid LOS

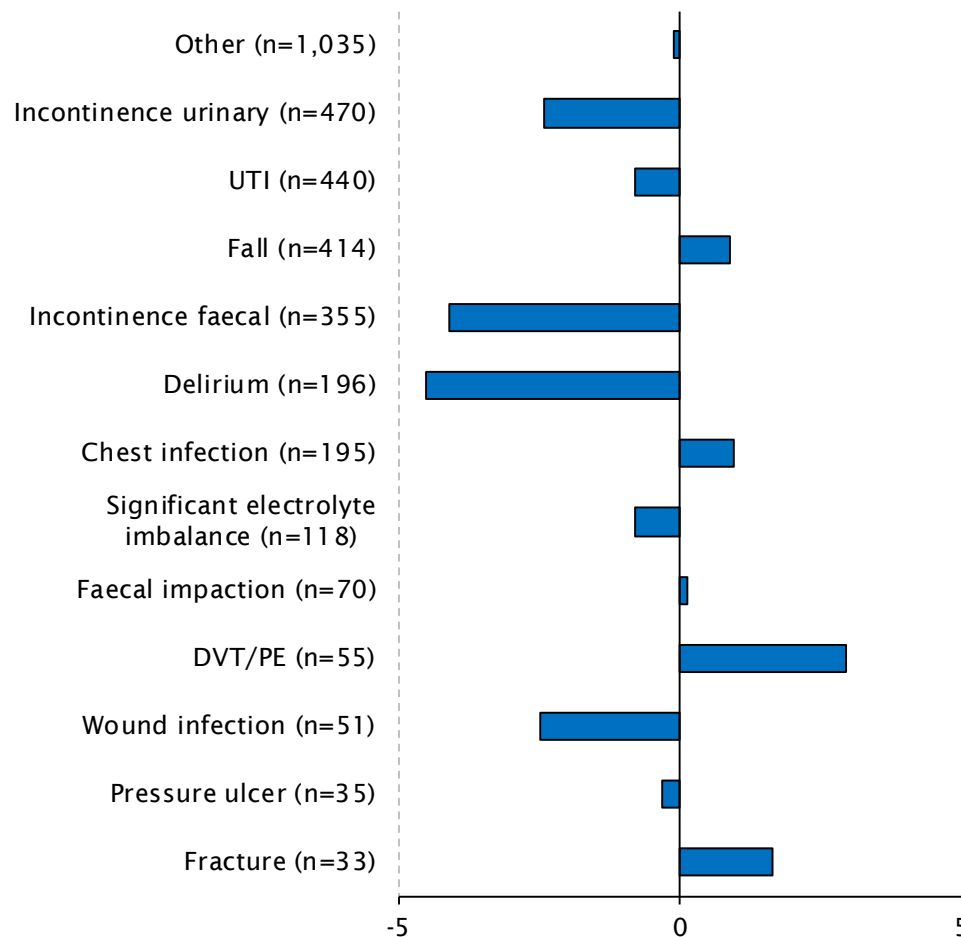
# Casemix-adjusted relative mean FIM change by type of complication



**CARMi FIM change — YOUR FACILITY**

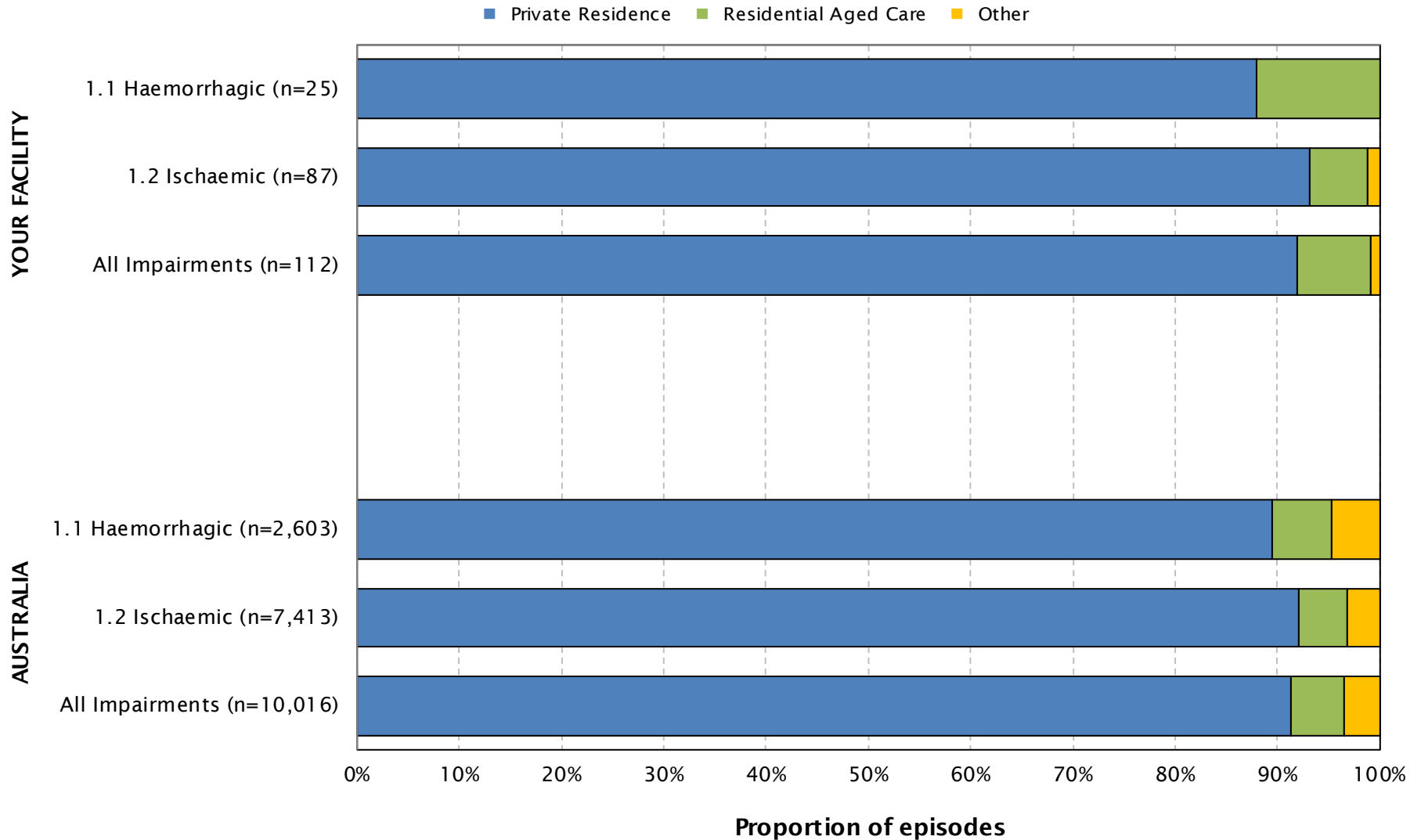
\* No data included where number of episodes <5

NOTE: Includes only completed episodes with valid FIM scores



**CARMi FIM change — AUSTRALIA**

# Type of accommodation prior to impairment



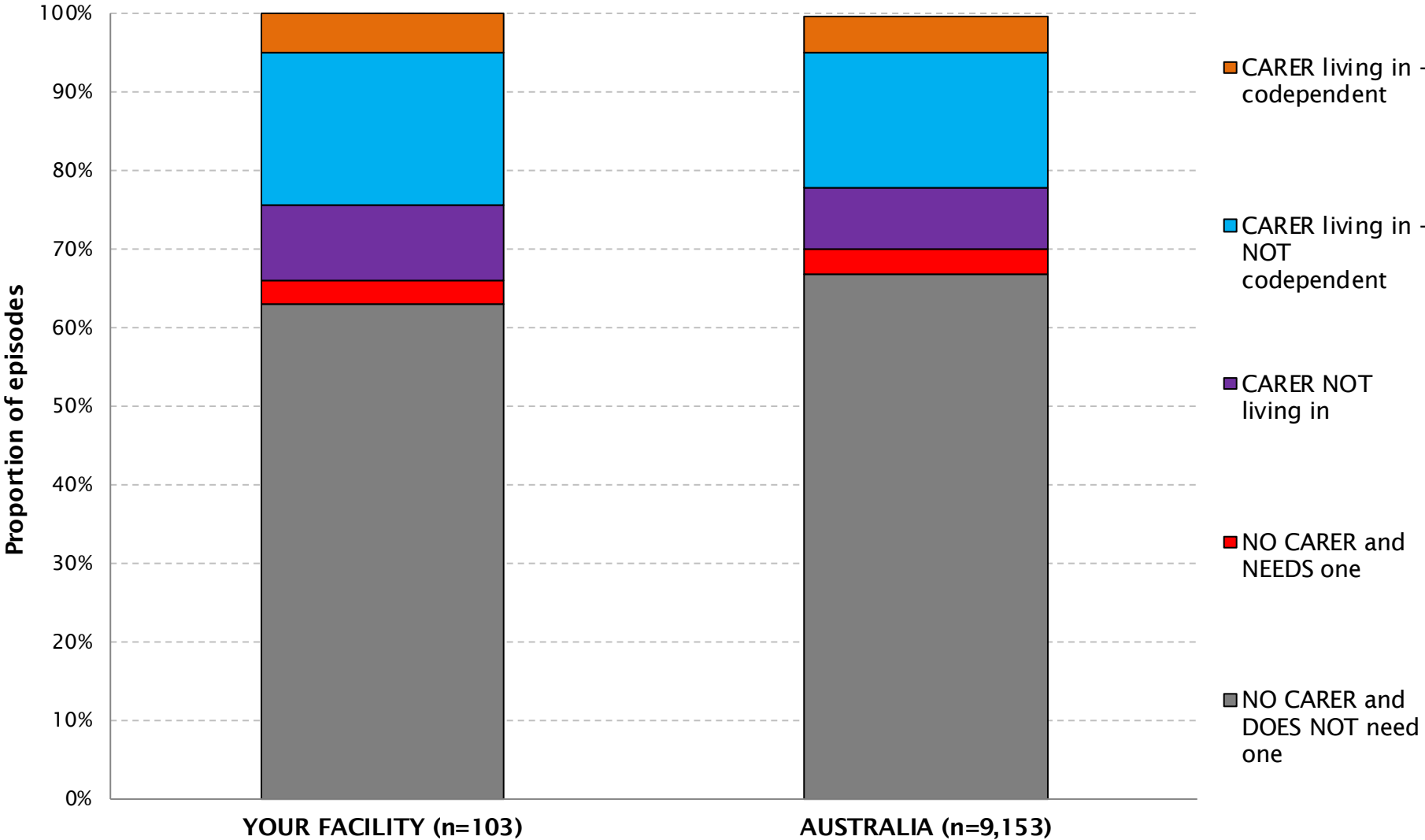
# Type of accommodation prior to impairment



Impairment	YOUR FACILITY — N (%)				
	Private residence	Residential Aged Care	Other	Unknown	All episodes
1.1 Haemorrhagic	22 (88.0)	3 (12.0)	0 (0.0)	0	25 (100.0)
1.2 Ischaemic	81 (92.0)	5 (5.7)	1 (1.1)	1	88 (100.0)
<b>All Stroke</b>	<b>103 (91.2)</b>	<b>8 (7.1)</b>	<b>1 (0.9)</b>	<b>1</b>	<b>113 (100.0)</b>

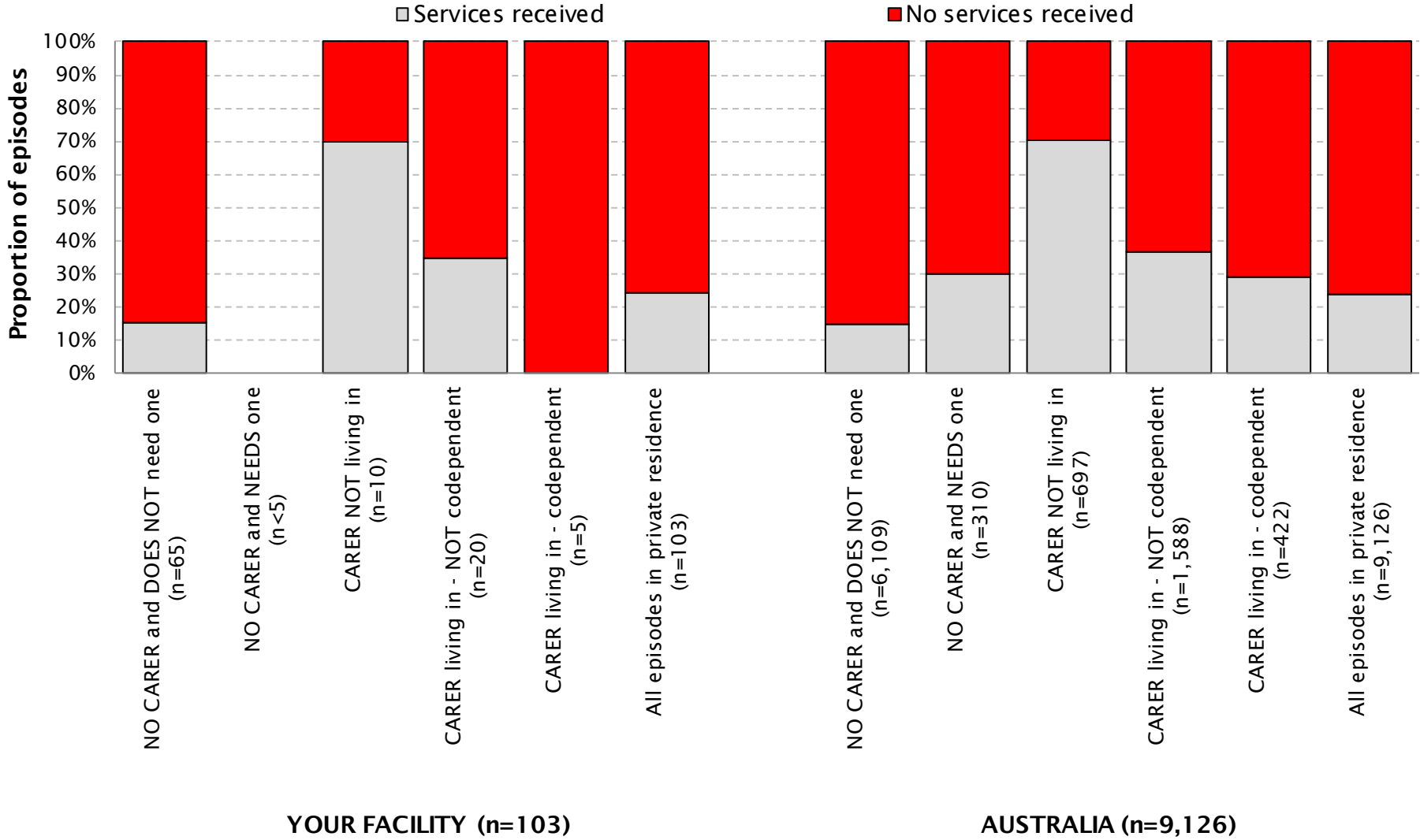
Impairment	AUSTRALIA — N (%)				
	Private residence	Residential Aged Care	Other	Unknown	All episodes
1.1 Haemorrhagic	2,331 (88.9)	149 (5.7)	123 (4.7)	19	2,622 (100.0)
1.2 Ischaemic	6,822 (91.0)	360 (4.8)	231 (3.1)	80	7,493 (100.0)
<b>All Stroke</b>	<b>9,153 (90.5)</b>	<b>509 (5.0)</b>	<b>354 (3.5)</b>	<b>99</b>	<b>10,115 (100.0)</b>

# Carer status prior to impairment



NOTE: Includes only those episodes coming from private residence

# Any services received prior to impairment by carer status



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

# Carer status and any services received prior to impairment

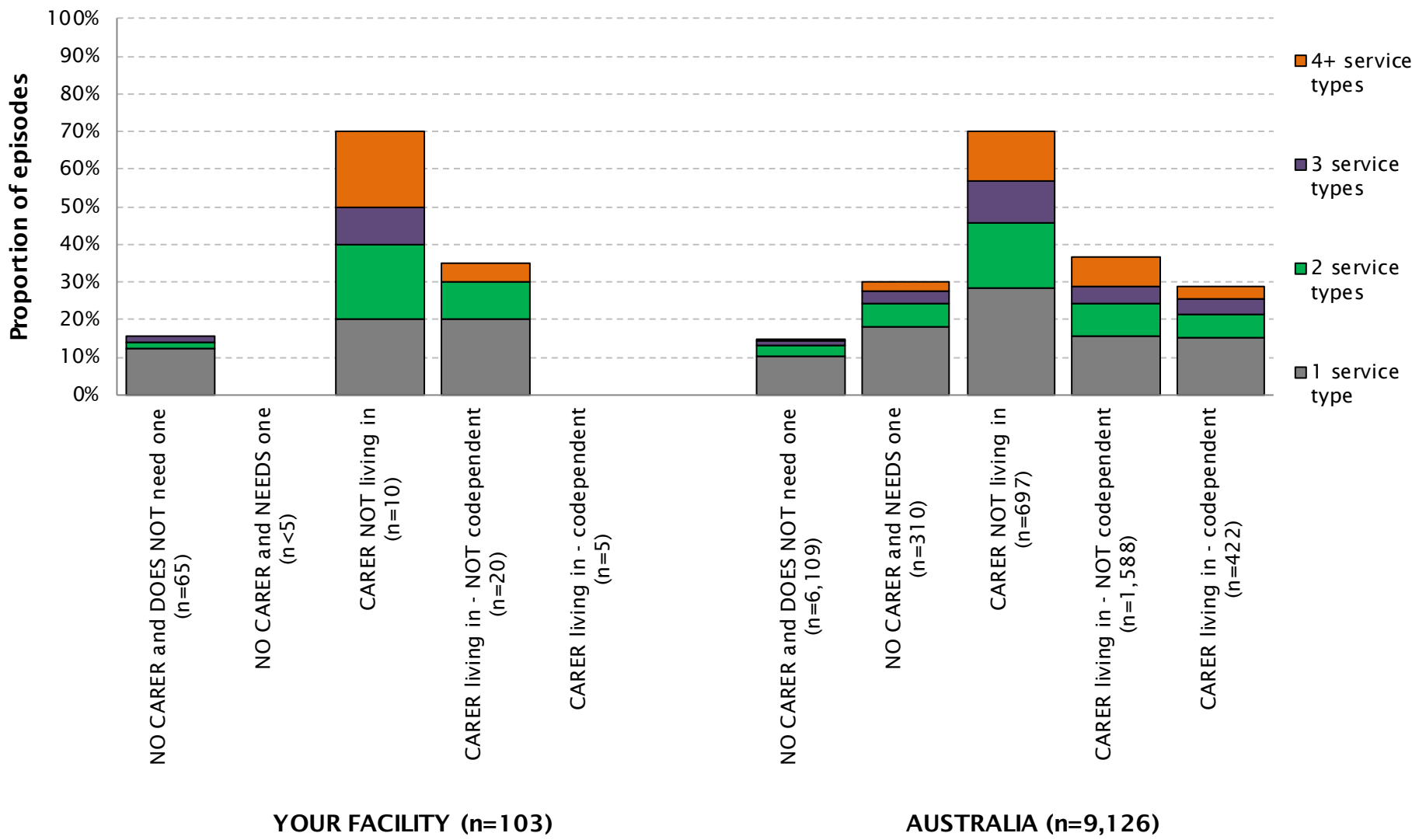


Carer status prior to this impairment	YOUR FACILITY		AUSTRALIA	
	No.	%	No.	%
NO CARER and DOES NOT need one	65	63.1	6,110	66.9
NO CARER and NEEDS one	3	2.9	310	3.4
CARER NOT living in	10	9.7	697	7.6
CARER living in - NOT codependent	20	19.4	1,588	17.4
CARER living in - codependent	5	4.9	422	4.6
Missing	0		26	
<b>All episodes in private residence</b>	<b>103</b>	<b>100.0</b>	<b>9,153</b>	<b>100.0</b>

Any services received prior to this impairment?				
Carer status prior to this impairment	YOUR FACILITY		AUSTRALIA	
	Yes (%)	No (%)	Yes (%)	No (%)
NO CARER and DOES NOT need one	15.4	84.6	14.8	85.2
NO CARER and NEEDS one	—	—	30.0	70.0
CARER NOT living in	70.0	30.0	70.2	29.8
CARER living in - NOT codependent	35.0	65.0	36.7	63.3
CARER living in - codependent	0.0	100.0	28.9	71.1
<b>All episodes in private residence</b>	<b>24.3</b>	<b>75.7</b>	<b>24.0</b>	<b>76.0</b>

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

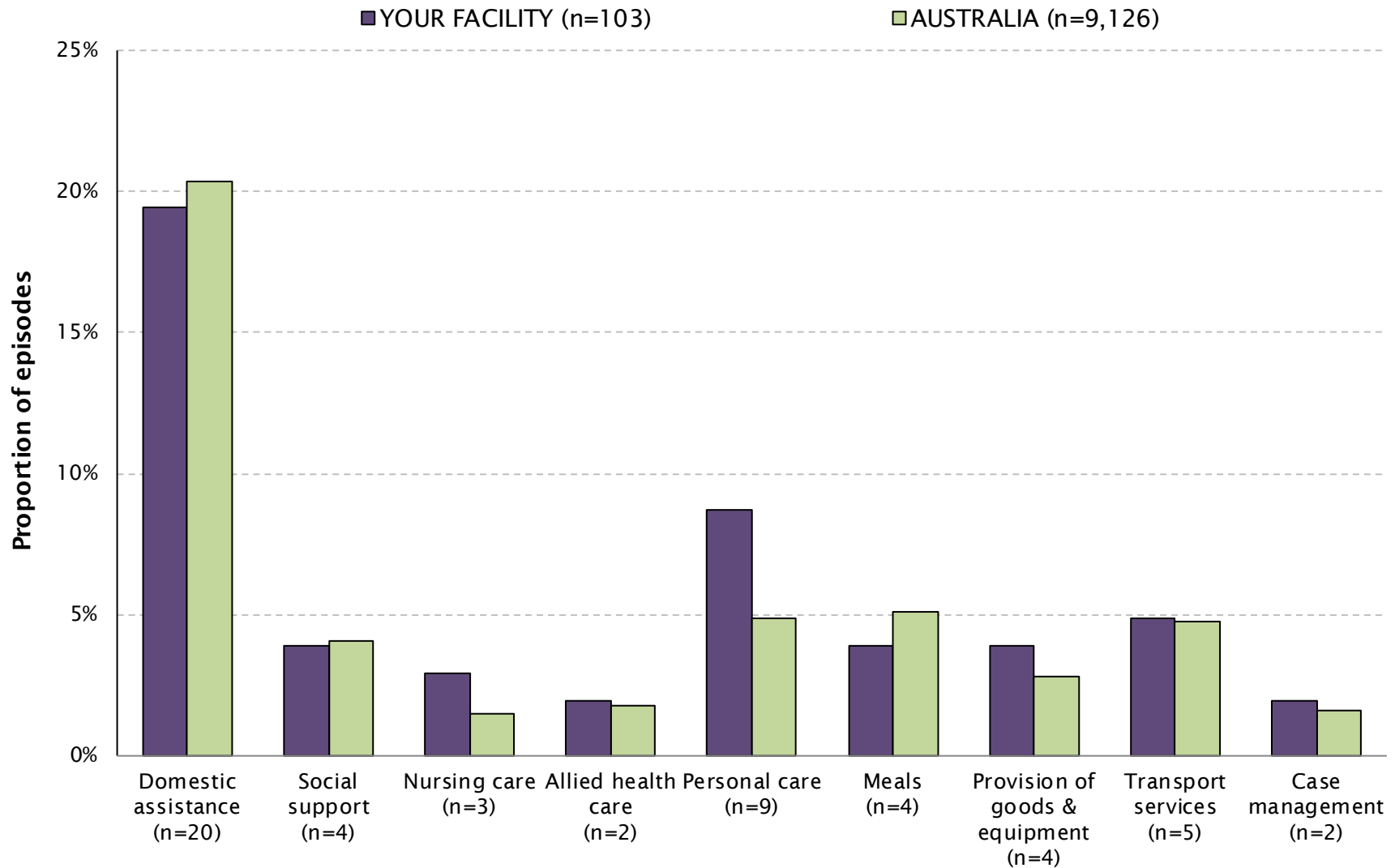
# Number of services received prior to impairment by carer status



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

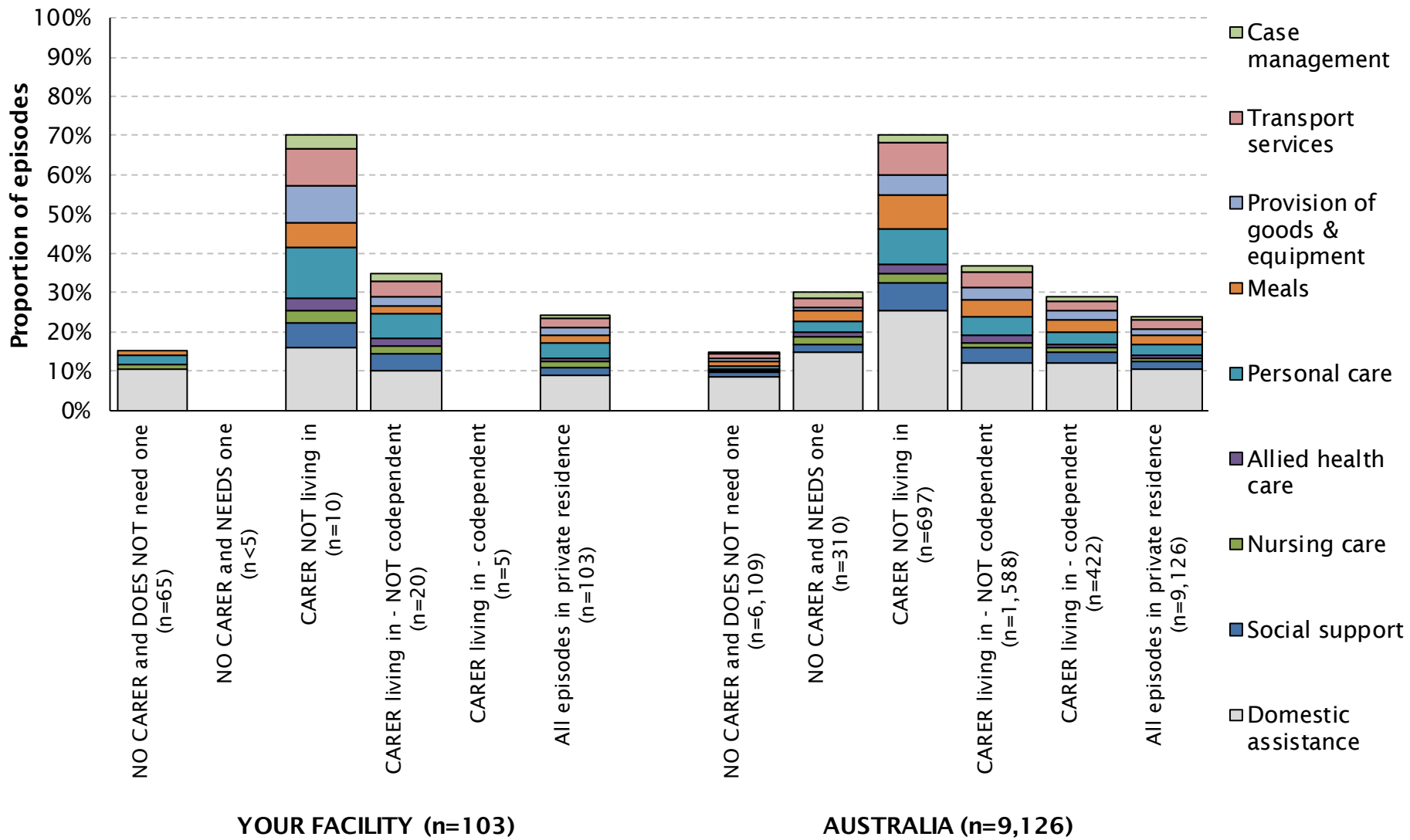


# Type of services received prior to impairment



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



Carer status prior to discharge - YOUR FACILITY							All episodes in private residence
Services received prior to this impairment	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		
Number of episodes in private residence	65	3	10	20	5	<b>103</b>	
<b>Percent of episodes receiving:</b>							
No services	84.6	66.7	30.0	65.0	100.0	<b>75.7</b>	
1 service type	12.3	33.3	20.0	20.0	0.0	<b>14.6</b>	
2 service types	1.5	0.0	20.0	10.0	0.0	<b>4.9</b>	
3 service types	1.5	0.0	10.0	0.0	0.0	<b>1.9</b>	
4 or more service types	0.0	0.0	20.0	5.0	0.0	<b>2.9</b>	
<b>Service Type received</b>							
Domestic assistance	13.8	33.3	50.0	25.0	0.0	<b>19.4</b>	
Social support	0.0	0.0	20.0	10.0	0.0	<b>3.9</b>	
Nursing care	1.5	0.0	10.0	5.0	0.0	<b>2.9</b>	
Allied health care	0.0	0.0	10.0	5.0	0.0	<b>1.9</b>	
Personal care	3.1	0.0	40.0	15.0	0.0	<b>8.7</b>	
Meals	1.5	0.0	20.0	5.0	0.0	<b>3.9</b>	
Provision of goods & equipment	0.0	0.0	30.0	5.0	0.0	<b>3.9</b>	
Transport services	0.0	0.0	30.0	10.0	0.0	<b>4.9</b>	
Case management	0.0	0.0	10.0	5.0	0.0	<b>1.9</b>	

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

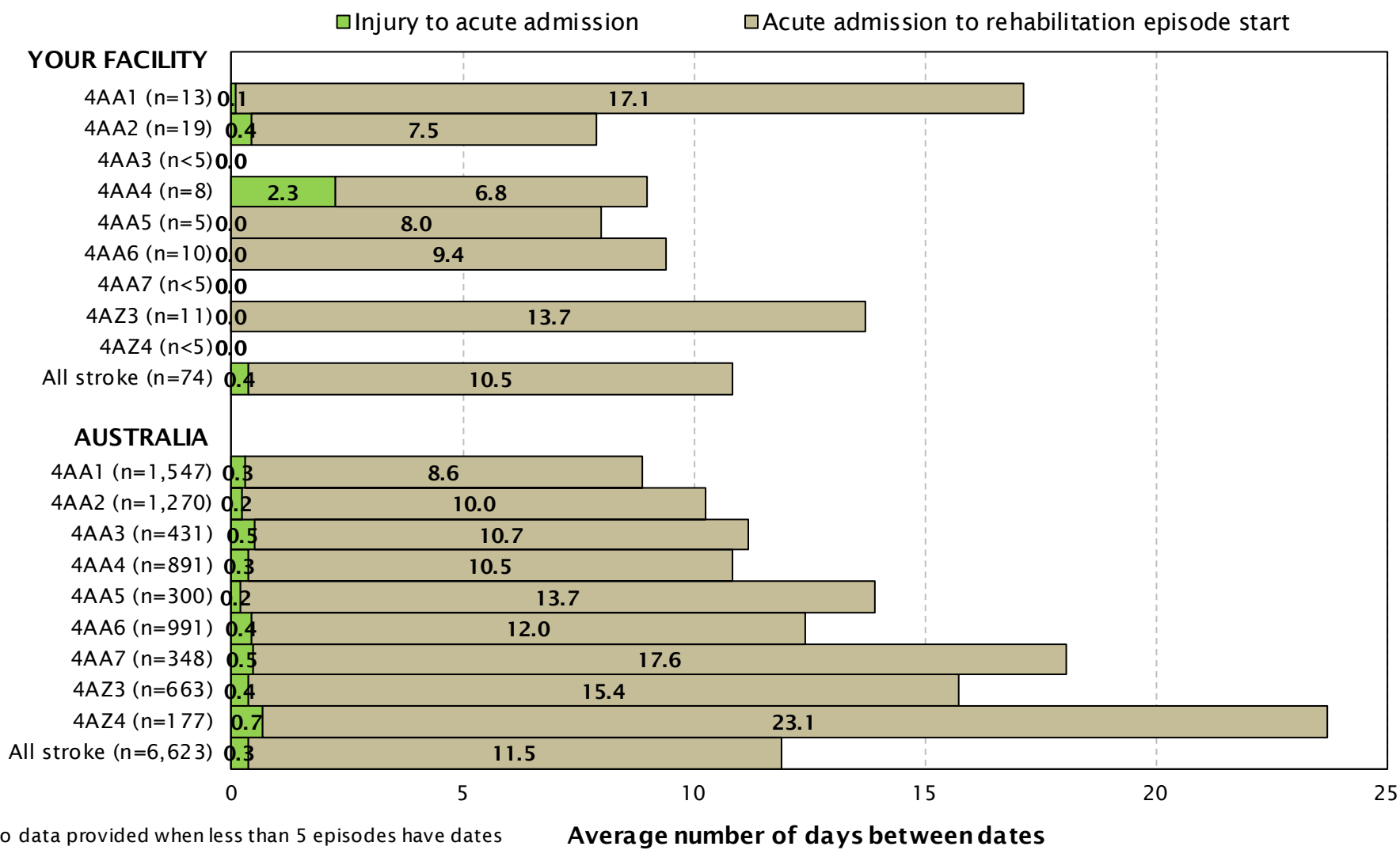
# Number and type of services received prior to impairment by carer status



Carer status prior to discharge - AUSTRALIA							
Services received prior to this impairment	NO CARER and DOES NOT need one	NO CARER and NEEDS one	CARER NOT living in	CARER living in - NOT codependent	CARER living in - codependent	All episodes in private residence	
Number of episodes in private residence	6,109	310	697	1,588	422	9,126	
<b>Percent of episodes receiving:</b>							
No services	85.2	70.0	29.8	63.3	71.1	76.0	
1 service type	10.4	18.1	28.4	15.5	15.2	13.2	
2 service types	2.6	6.1	17.2	8.8	6.4	5.1	
3 service types	1.2	3.2	11.2	4.6	3.8	2.7	
4 or more service types	0.6	2.6	13.3	7.7	3.3	3.0	
<b>Service Type received</b>							
Domestic assistance	12.9	26.5	60.8	28.7	24.2	20.3	
Social support	1.4	3.5	16.6	8.8	4.7	4.1	
Nursing care	0.6	3.2	5.0	2.6	2.4	1.5	
Allied health care	0.5	2.3	5.7	4.8	2.1	1.8	
Personal care	1.4	4.8	21.2	10.7	5.9	4.9	
Meals	1.9	4.5	20.9	10.5	6.4	5.1	
Provision of goods & equipment	0.7	1.6	12.2	6.8	4.0	2.8	
Transport services	1.9	3.9	19.1	9.4	4.7	4.7	
Case management	0.6	2.6	4.7	3.4	2.4	1.6	

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

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



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

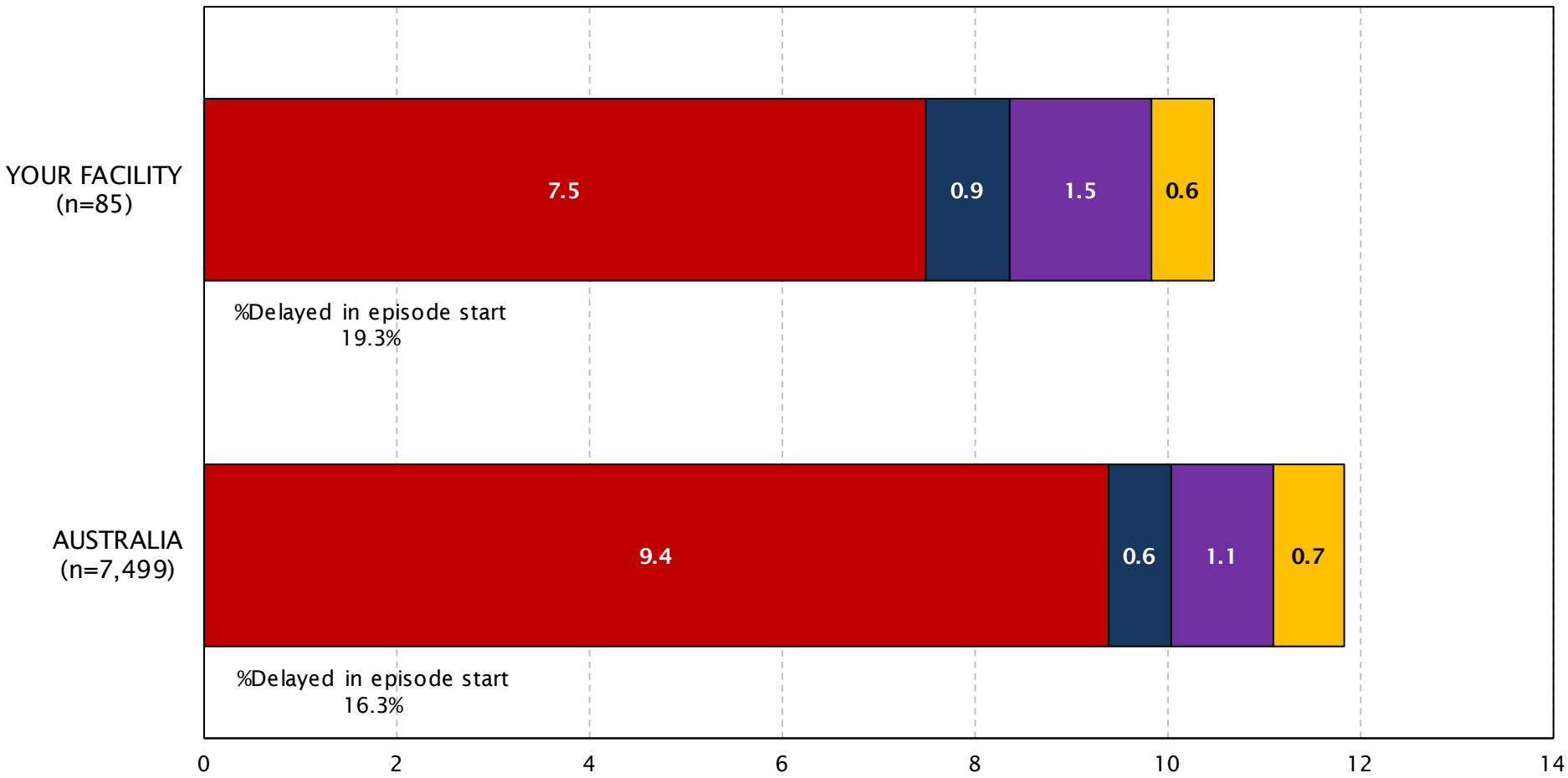
Average number of days between dates

NOTE: Includes first admissions where all dates have been entered

# 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

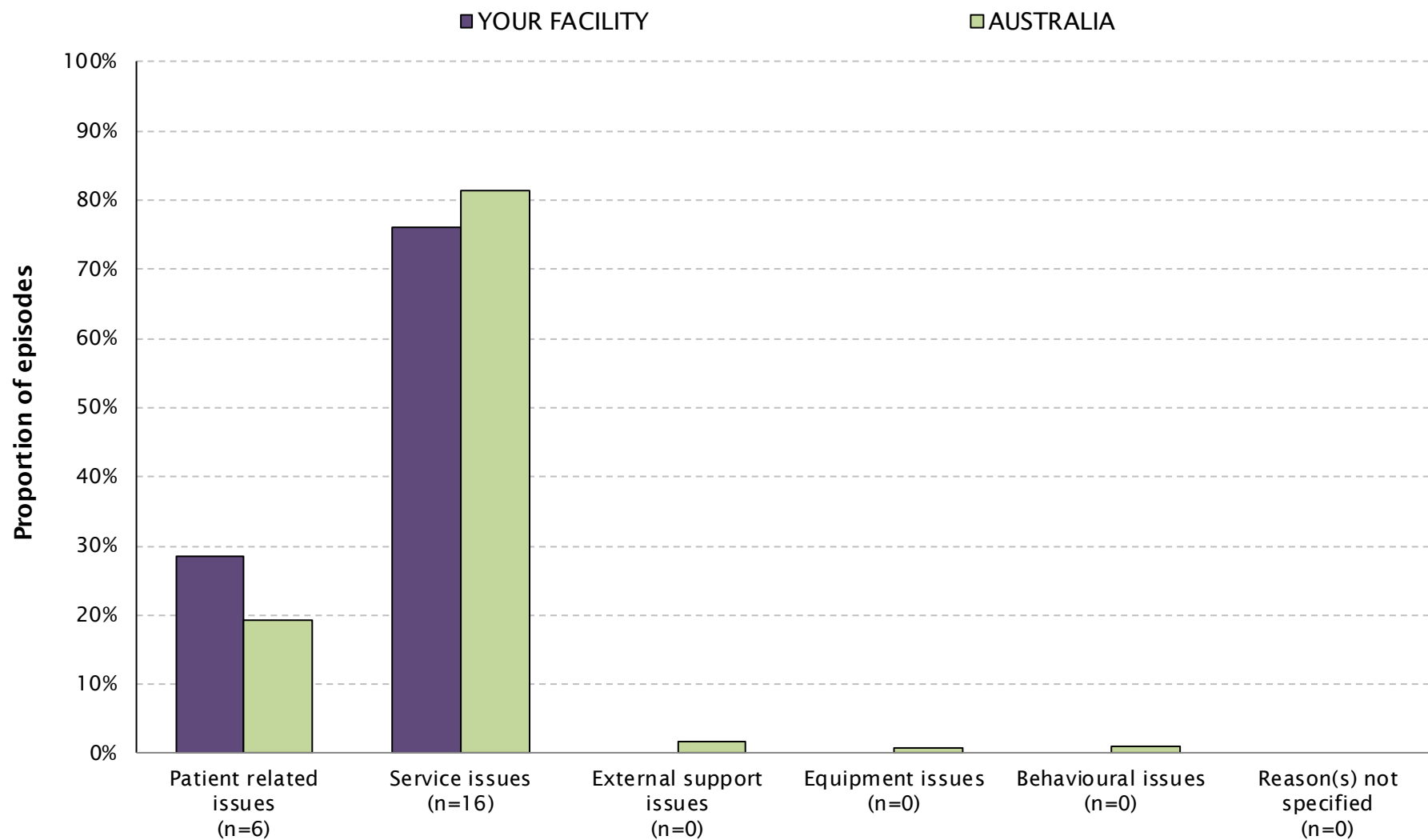


\*No data provided when less than 5 episodes have dates

**Average number of days between dates**

NOTE: Includes first admissions where all dates have been entered

# Type of delay in episode start



# Delays in episode start



Delay in episode start	YOUR FACILITY		AUSTRALIA	
	No.	%	No.	%
No delay	88	80.7	8,099	83.7
Delay in episode start	21	19.3	1,579	16.3
Missing	4		437	
<b>All episodes</b>	<b>113</b>	<b>100.0</b>	<b>10,115</b>	<b>100.0</b>

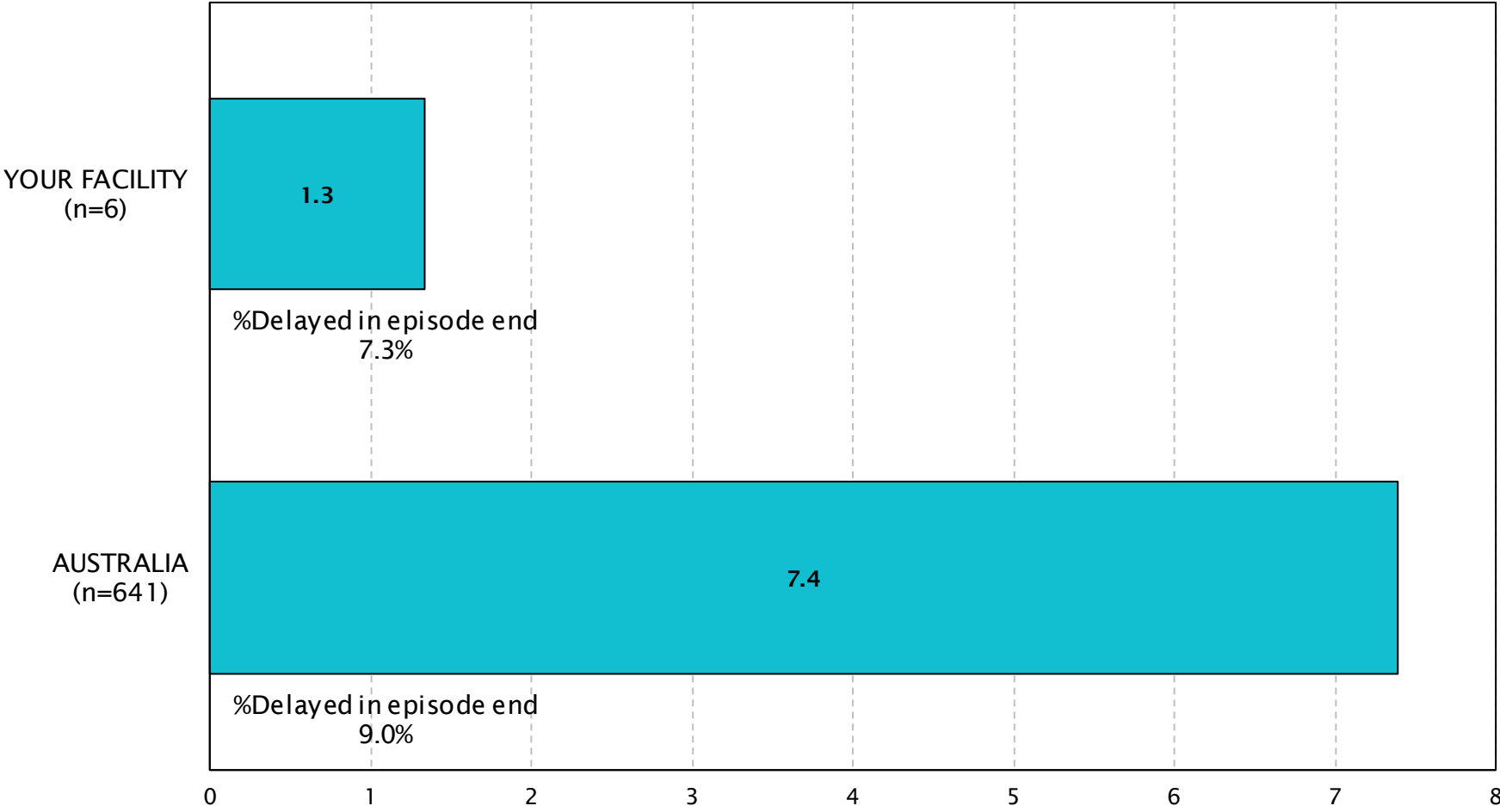
Reasons for delay in episode start	YOUR FACILITY		AUSTRALIA	
	No.	%	No.	%
Patient related issues	6	28.6	304	19.3
Service issues	16	76.2	1,285	81.4
External support issues	0	0.0	28	1.8
Equipment issues	0	0.0	13	0.8
Behavioural issues	0	0.0	15	0.9
Reason(s) not specified	0	0.0	0	0.0



# Days from clinically ready to discharge



■ Community to episode end (where a delay was reported)

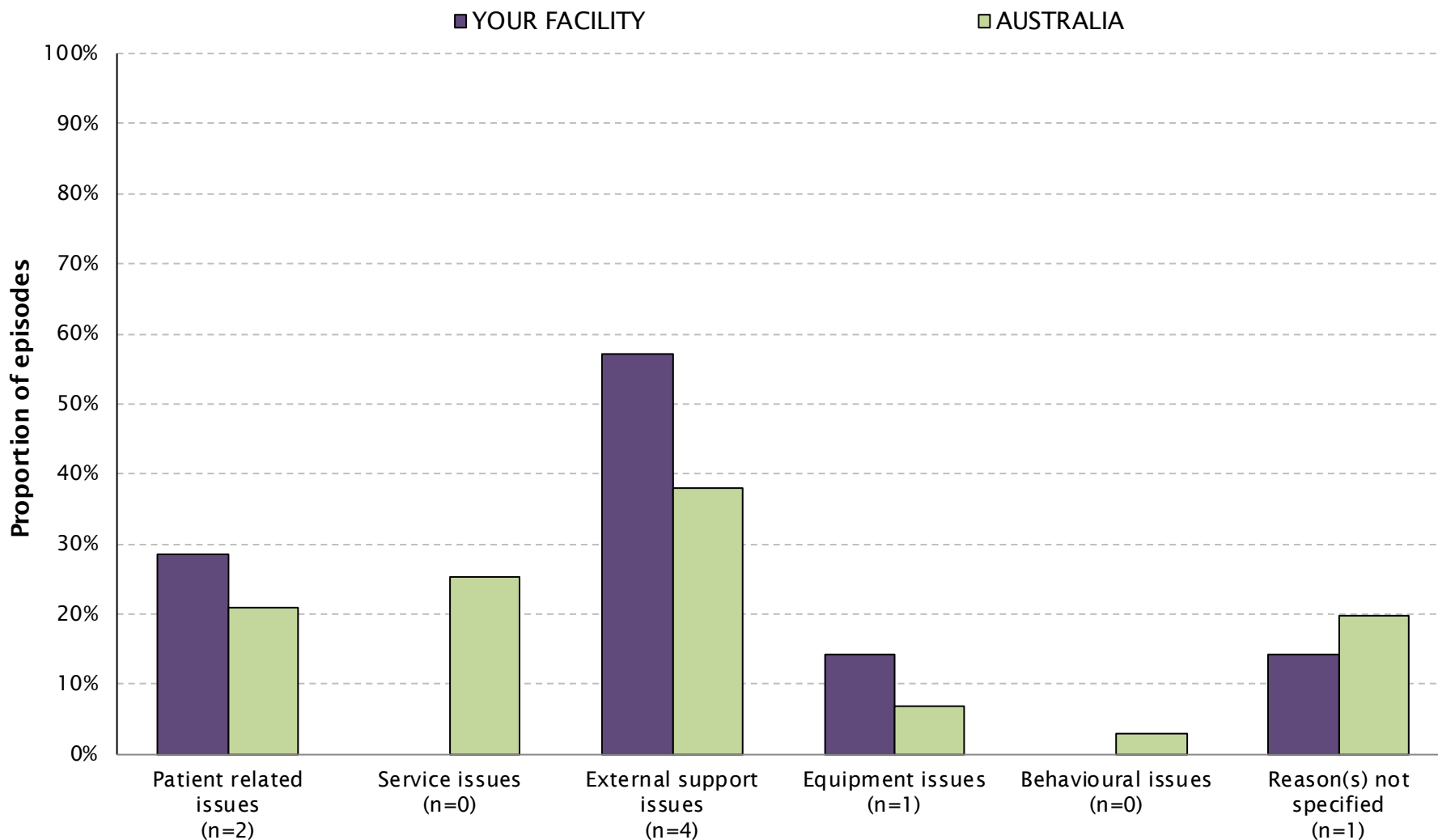


\*No data provided when less than 5 episodes have dates

NOTE: Includes completed episodes with a delay in discharge

Average number of days between dates

# Type of delay in episode end



NOTE: Includes completed episodes only

# Delays in episode end

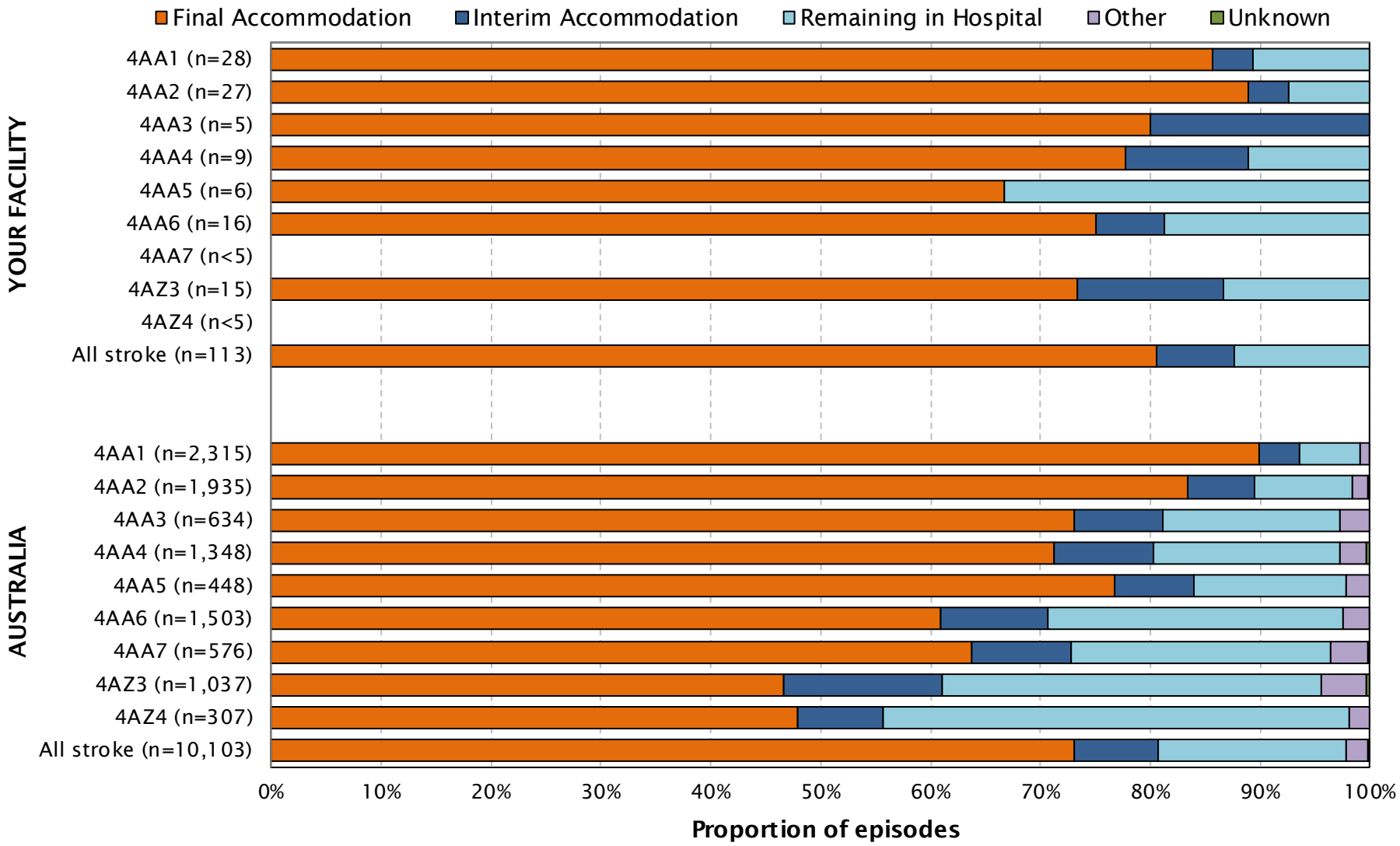


Delay in episode end	YOUR FACILITY		AUSTRALIA	
	No.	%	No.	%
No delay	89	92.7	7,379	91.0
Delay in episode end	7	7.3	726	9.0
Missing	2		192	
<b>All episodes</b>	<b>98</b>	<b>100.0</b>	<b>8,297</b>	<b>100.0</b>

Reasons for delay in episode end	YOUR FACILITY		AUSTRALIA	
	No.	%	No.	%
Patient related issues	2	28.6	152	20.9
Service issues	0	0.0	183	25.2
External support issues	4	57.1	275	37.9
Equipment issues	1	14.3	49	6.7
Behavioural issues	0	0.0	21	2.9
Reason(s) not specified	1	14.3	143	19.7

NOTE: Includes completed episodes only.

# Discharge destination by AN-SNAP class



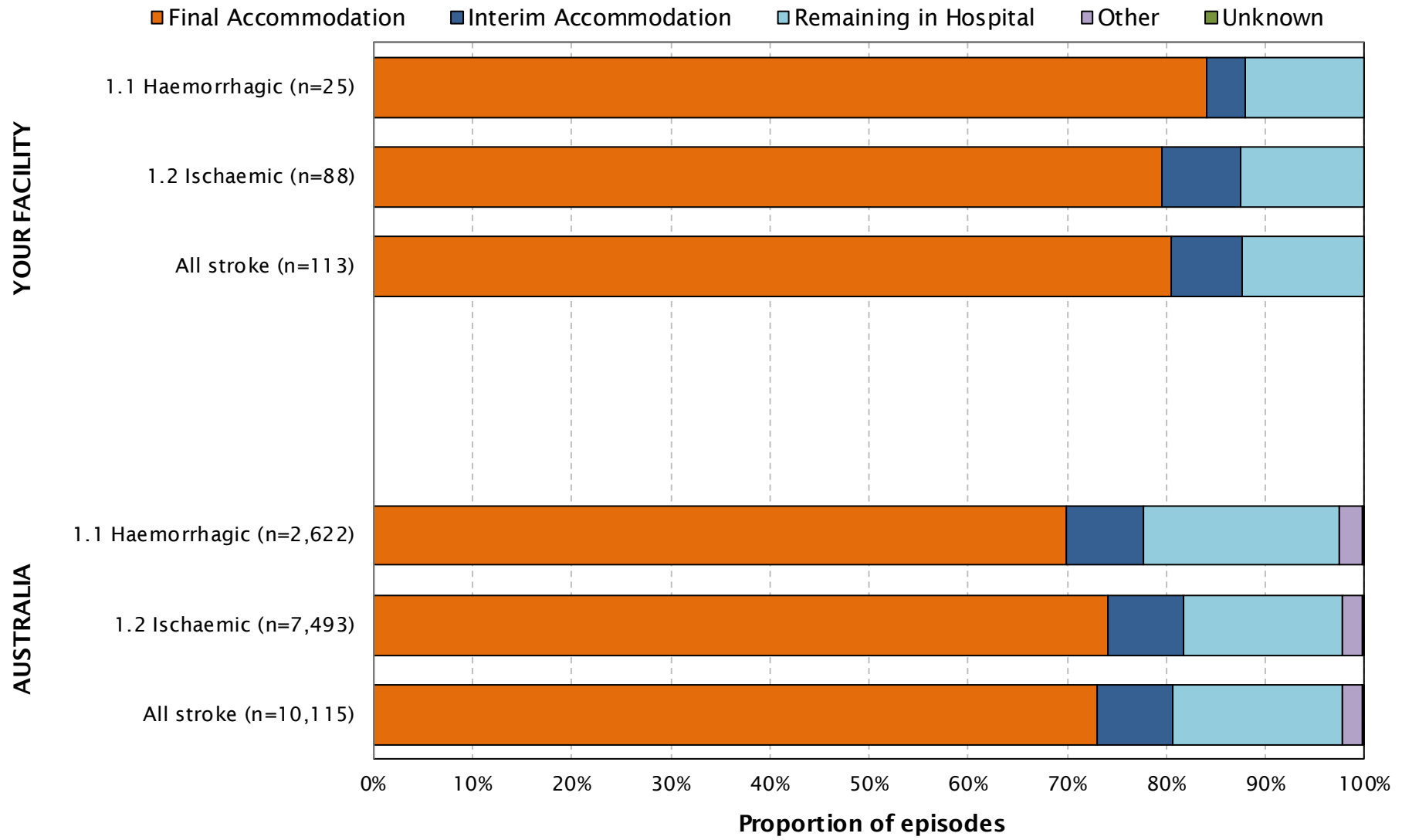
# Discharge destination by AN-SNAP class



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
4AA1 (motor 51-91, cognition 29-35)	24	1	3	0	0	2,080	85	128	20	2
4AA2 (motor 51-91, cognition 19-28)	24	1	2	0	0	1,615	116	174	27	3
4AA3 (motor 51-91, cognition 5-18)	4	1	0	0	0	463	51	103	17	0
4AA4 (motor 36-50, Age ≥ 68)	7	1	1	0	0	961	122	228	33	4
4AA5 (motor 36-50, Age ≤ 67)	4	0	2	0	0	344	32	62	10	0
4AA6 (motor 19-35, Age ≥ 68)	12	1	3	0	0	916	147	403	36	1
4AA7 (motor 19-35, Age ≤ 67)	3	0	0	0	0	367	52	136	20	1
4AZ3 (motor 13-18, Age ≥ 65)	11	2	2	0	0	483	150	358	42	4
4AZ4 (motor 13-18, Age ≤ 64)	2	1	1	0	0	147	24	130	6	0
<b>All Stroke AN-SNAP Classes</b>	<b>91</b>	<b>8</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>7,376</b>	<b>779</b>	<b>1,722</b>	<b>211</b>	<b>15</b>

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
4AA1 (motor 51-91, cognition 29-35)	85.7	3.6	10.7	0.0	0.0	89.8	3.7	5.5	0.9	0.1
4AA2 (motor 51-91, cognition 19-28)	88.9	3.7	7.4	0.0	0.0	83.5	6.0	9.0	1.4	0.2
4AA3 (motor 51-91, cognition 5-18)	80.0	20.0	0.0	0.0	0.0	73.0	8.0	16.2	2.7	0.0
4AA4 (motor 36-50, Age ≥ 68)	77.8	11.1	11.1	0.0	0.0	71.3	9.1	16.9	2.4	0.3
4AA5 (motor 36-50, Age ≤ 67)	66.7	0.0	33.3	0.0	0.0	76.8	7.1	13.8	2.2	0.0
4AA6 (motor 19-35, Age ≥ 68)	75.0	6.3	18.8	0.0	0.0	60.9	9.8	26.8	2.4	0.1
4AA7 (motor 19-35, Age ≤ 67)	100.0	0.0	0.0	0.0	0.0	63.7	9.0	23.6	3.5	0.2
4AZ3 (motor 13-18, Age ≥ 65)	73.3	13.3	13.3	0.0	0.0	46.6	14.5	34.5	4.1	0.4
4AZ4 (motor 13-18, Age ≤ 64)	50.0	25.0	25.0	0.0	0.0	47.9	7.8	42.3	2.0	0.0
<b>All Stroke AN-SNAP Classes</b>	<b>80.5</b>	<b>7.1</b>	<b>12.4</b>	<b>0.0</b>	<b>0.0</b>	<b>73.0</b>	<b>7.7</b>	<b>17.0</b>	<b>2.1</b>	<b>0.1</b>

# Discharge destination by impairment code



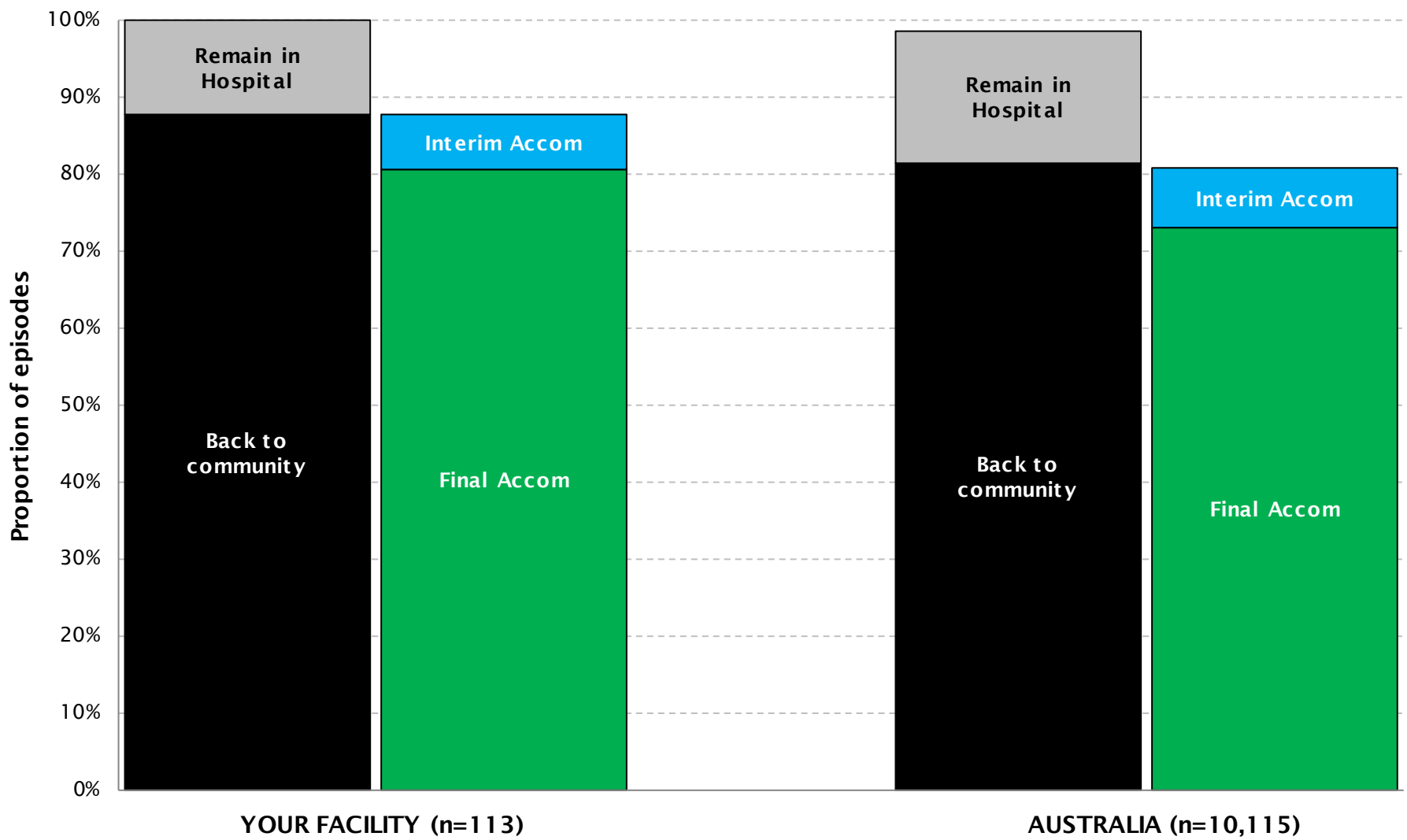
# Discharge destination by impairment



Impairment	YOUR FACILITY — N					AUSTRALIA — N				
	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown
1.1 Haemorrhagic	21	1	3	0	0	1,832	203	522	61	4
1.2 Ischaemic	70	7	11	0	0	5,551	576	1,204	150	12
<b>All Stroke</b>	<b>91</b>	<b>8</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>7,383</b>	<b>779</b>	<b>1,726</b>	<b>211</b>	<b>16</b>

Impairment	YOUR FACILITY — %					AUSTRALIA — %				
	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown	Final Accom	Interim Accom	Remaining in Hospital	Other	Unknown
1.1 Haemorrhagic	84.0	4.0	12.0	0.0	0.0	69.9	7.7	19.9	2.3	0.2
1.2 Ischaemic	79.5	8.0	12.5	0.0	0.0	74.1	7.7	16.1	2.0	0.2
<b>All Stroke</b>	<b>80.5</b>	<b>7.1</b>	<b>12.4</b>	<b>0.0</b>	<b>0.0</b>	<b>73.0</b>	<b>7.7</b>	<b>17.1</b>	<b>2.1</b>	<b>0.2</b>

# Discharge destination

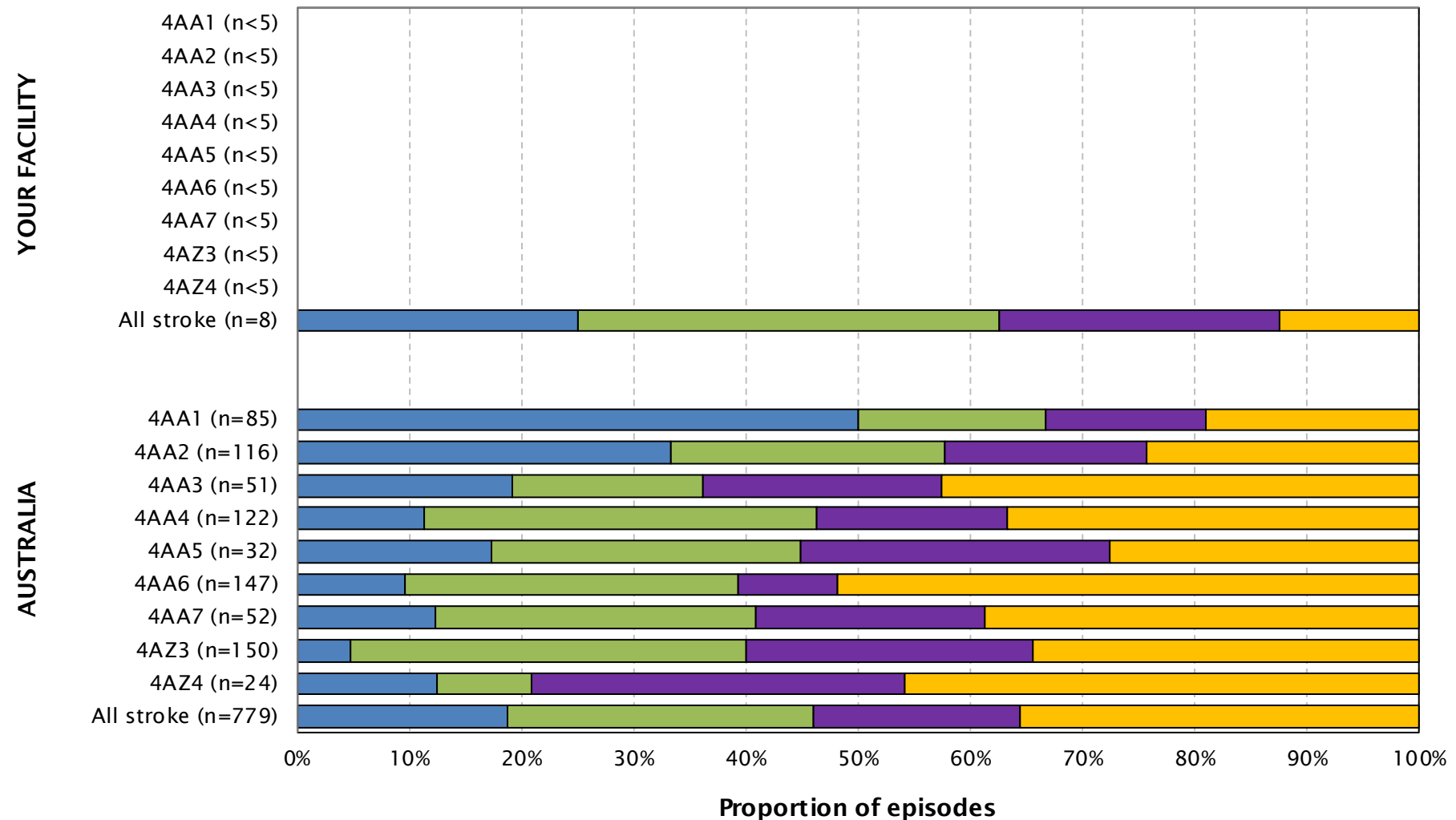




# Interim accommodation post discharge by AN-SNAP class



■ Private Residence ■ Residential Aged Care ■ Hospital ■ Other



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

# Interim accommodation post discharge by AN-SNAP class



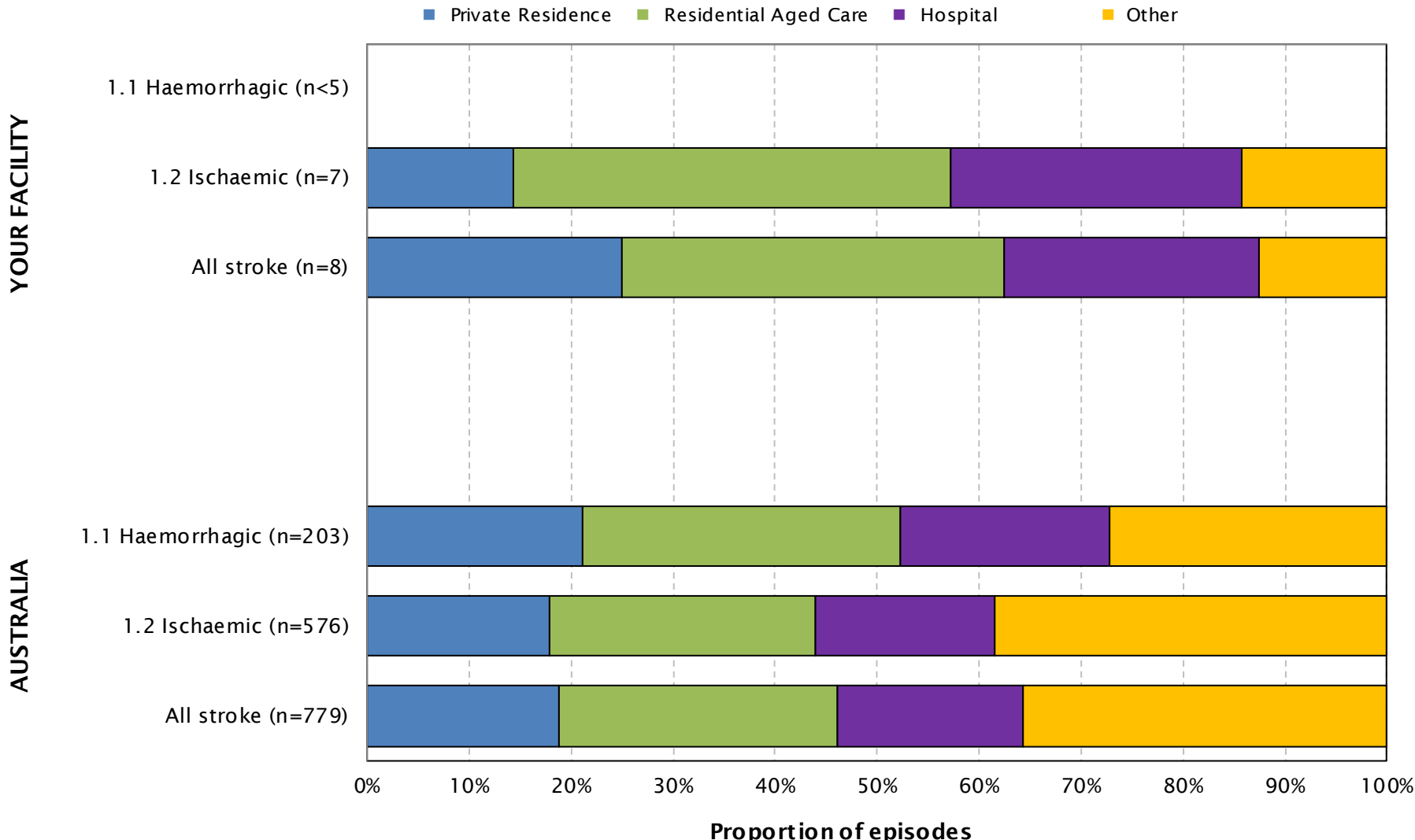
AN-SNAP class V4	YOUR FACILITY — N (%)				
	Private residence	Residential Aged Care	Hospital	Other	All episodes**
4AA1 (motor 51-91, cognition 29-35)	1 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (100.0)
4AA2 (motor 51-91, cognition 19-28)	0 (0.0)	1 (100.0)	0 (0.0)	0 (0.0)	1 (100.0)
4AA3 (motor 51-91, cognition 5-18)	1 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (100.0)
4AA4 (motor 36-50, Age ≥ 68)	0 (0.0)	0 (0.0)	1 (100.0)	0 (0.0)	1 (100.0)
4AA5 (motor 36-50, Age ≤ 67)	0 —	0 —	0 —	0 —	0 —
4AA6 (motor 19-35, Age ≥ 68)	0 (0.0)	1 (100.0)	0 (0.0)	0 (0.0)	1 (100.0)
4AA7 (motor 19-35, Age ≤ 67)	0 —	0 —	0 —	0 —	0 —
4AZ3 (motor 13-18, Age ≥ 65)	0 (0.0)	1 (50.0)	1 (50.0)	0 (0.0)	2 (100.0)
4AZ4 (motor 13-18, Age ≤ 64)	0 (0.0)	0 (0.0)	0 (0.0)	1 (100.0)	1 (100.0)
<b>All Stroke AN-SNAP Classes</b>	<b>2 (25.0)</b>	<b>3 (37.5)</b>	<b>2 (25.0)</b>	<b>1 (12.5)</b>	<b>8 (100.0)</b>

AN-SNAP class V4	AUSTRALIA — N (%)				
	Private residence	Residential Aged Care	Hospital	Other	All episodes**
4AA1 (motor 51-91, cognition 29-35)	42 (49.4)	14 (16.5)	12 (14.1)	16 (18.8)	85 (100.0)
4AA2 (motor 51-91, cognition 19-28)	37 (31.9)	27 (23.3)	20 (17.2)	27 (23.3)	116 (100.0)
4AA3 (motor 51-91, cognition 5-18)	9 (17.6)	8 (15.7)	10 (19.6)	20 (39.2)	51 (100.0)
4AA4 (motor 36-50, Age ≥ 68)	12 (9.8)	37 (30.3)	18 (14.8)	39 (32.0)	122 (100.0)
4AA5 (motor 36-50, Age ≤ 67)	5 (15.6)	8 (25.0)	8 (25.0)	8 (25.0)	32 (100.0)
4AA6 (motor 19-35, Age ≥ 68)	13 (8.8)	40 (27.2)	12 (8.2)	70 (47.6)	147 (100.0)
4AA7 (motor 19-35, Age ≤ 67)	6 (11.5)	14 (26.9)	10 (19.2)	19 (36.5)	52 (100.0)
4AZ3 (motor 13-18, Age ≥ 65)	6 (4.0)	44 (29.3)	32 (21.3)	43 (28.7)	150 (100.0)
4AZ4 (motor 13-18, Age ≤ 64)	3 (12.5)	2 (8.3)	8 (33.3)	11 (45.8)	24 (100.0)
<b>All Stroke AN-SNAP Classes</b>	<b>133 (17.1)</b>	<b>194 (24.9)</b>	<b>130 (16.7)</b>	<b>253 (32.5)</b>	<b>779 (100.0)</b>

\*\* There was 0 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

# Interim accommodation post discharge by impairment



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

# Interim accommodation post discharge by impairment



YOUR FACILITY — N (%)					
Impairment	Private residence	Residential Aged Care	Hospital	Other	All episodes**
1.1 Haemorrhagic	1 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (100.0)
1.2 Ischaemic	1 (14.3)	3 (42.9)	2 (28.6)	1 (14.3)	7 (100.0)
<b>All Stroke</b>	<b>2 (25.0)</b>	<b>3 (37.5)</b>	<b>2 (25.0)</b>	<b>1 (12.5)</b>	<b>8 (100.0)</b>

AUSTRALIA — N (%)					
Impairment	Private residence	Residential Aged Care	Hospital	Other	All episodes**
1.1 Haemorrhagic	38 (18.7)	56 (27.6)	37 (18.2)	49 (24.1)	203 (100.0)
1.2 Ischaemic	95 (16.5)	138 (24.0)	93 (16.1)	204 (35.4)	576 (100.0)
<b>All Stroke</b>	<b>133 (17.1)</b>	<b>194 (24.9)</b>	<b>130 (16.7)</b>	<b>253 (32.5)</b>	<b>779 (100.0)</b>

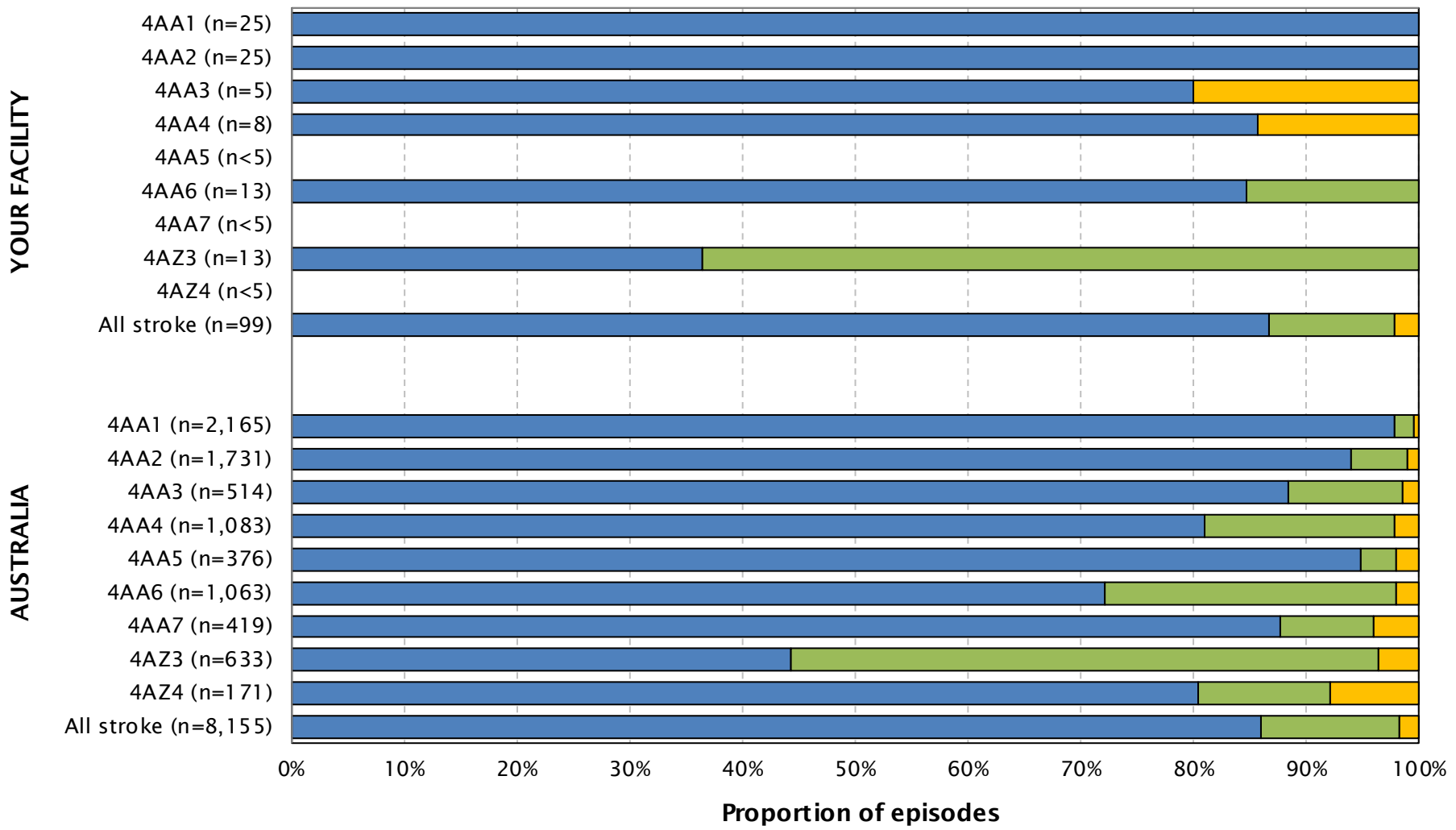
\*\* There was 0 episode(s) in YOUR FACILITY and 69 episodes in AUSTRALIA with unknown interim accommodation

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

# Final accommodation post discharge by AN-SNAP class



■ Private Residence ■ Residential Aged Care ■ Other



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

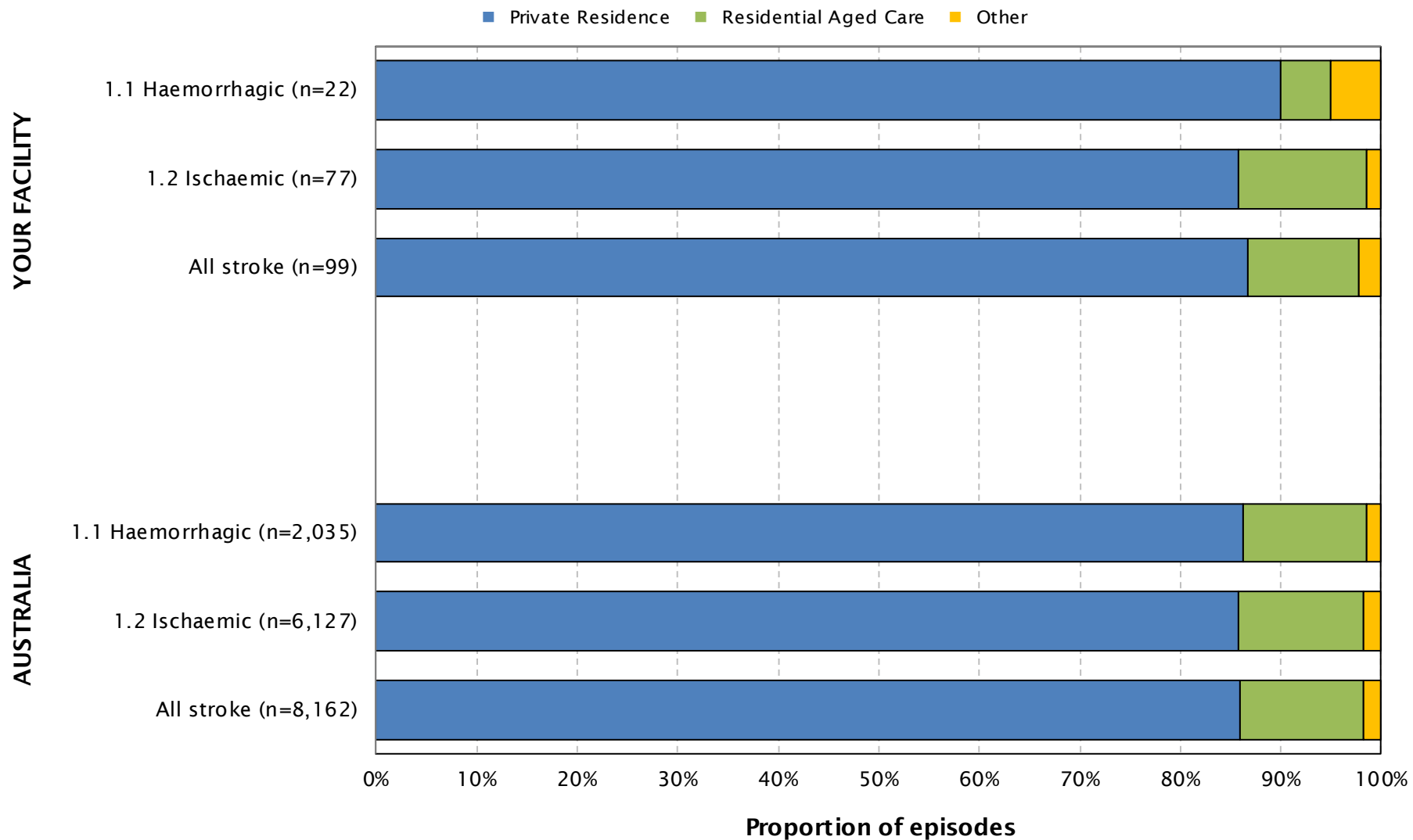


AN-SNAP class V4	YOUR FACILITY — N (%)				
	Private residence	Residential Aged Care	Other	Missing	All episodes
4AA1 (motor 51-91, cognition 29-35)	22 (100.0)	0 (0.0)	0 (0.0)	3	22 (100.0)
4AA2 (motor 51-91, cognition 19-28)	24 (100.0)	0 (0.0)	0 (0.0)	1	24 (100.0)
4AA3 (motor 51-91, cognition 5-18)	4 (80.0)	0 (0.0)	1 (20.0)	0	5 (100.0)
4AA4 (motor 36-50, Age ≥ 68)	6 (85.7)	0 (0.0)	1 (14.3)	1	7 (100.0)
4AA5 (motor 36-50, Age ≤ 67)	3 (100.0)	0 (0.0)	0 (0.0)	1	3 (100.0)
4AA6 (motor 19-35, Age ≥ 68)	11 (84.6)	2 (15.4)	0 (0.0)	0	13 (100.0)
4AA7 (motor 19-35, Age ≤ 67)	3 (100.0)	0 (0.0)	0 (0.0)	0	3 (100.0)
4AZ3 (motor 13-18, Age ≥ 65)	4 (33.3)	7 (58.3)	1 (8.3)	1	12 (100.0)
4AZ4 (motor 13-18, Age ≤ 64)	1 (33.3)	1 (33.3)	1 (33.3)	0	3 (100.0)
<b>All Stroke AN-SNAP Classes</b>	<b>78 (84.8)</b>	<b>10 (10.9)</b>	<b>4 (4.3)</b>	<b>7</b>	<b>92 (100.0)</b>

AN-SNAP class V4	AUSTRALIA — N (%)				
	Private residence	Residential Aged Care	Other	Missing	All episodes
4AA1 (motor 51-91, cognition 29-35)	2,041 (94.3)	37 (1.7)	26 (1.2)	61	2,165 (100.0)
4AA2 (motor 51-91, cognition 19-28)	1,559 (90.1)	83 (4.8)	37 (2.1)	52	1,731 (100.0)
4AA3 (motor 51-91, cognition 5-18)	433 (84.2)	50 (9.7)	13 (2.5)	18	514 (100.0)
4AA4 (motor 36-50, Age ≥ 68)	816 (75.3)	170 (15.7)	42 (3.9)	55	1,083 (100.0)
4AA5 (motor 36-50, Age ≤ 67)	325 (86.4)	11 (2.9)	15 (4.0)	25	376 (100.0)
4AA6 (motor 19-35, Age ≥ 68)	716 (67.4)	255 (24.0)	41 (3.9)	51	1,063 (100.0)
4AA7 (motor 19-35, Age ≤ 67)	346 (82.6)	33 (7.9)	23 (5.5)	17	419 (100.0)
4AZ3 (motor 13-18, Age ≥ 65)	248 (39.2)	292 (46.1)	38 (6.0)	55	633 (100.0)
4AZ4 (motor 13-18, Age ≤ 64)	123 (71.9)	18 (10.5)	20 (11.7)	10	171 (100.0)
<b>All Stroke AN-SNAP Classes</b>	<b>6,607 (81.0)</b>	<b>949 (11.6)</b>	<b>255 (3.1)</b>	<b>344</b>	<b>8,155 (100.0)</b>

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

# Final accommodation post discharge by impairment



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

# Final accommodation post discharge by impairment



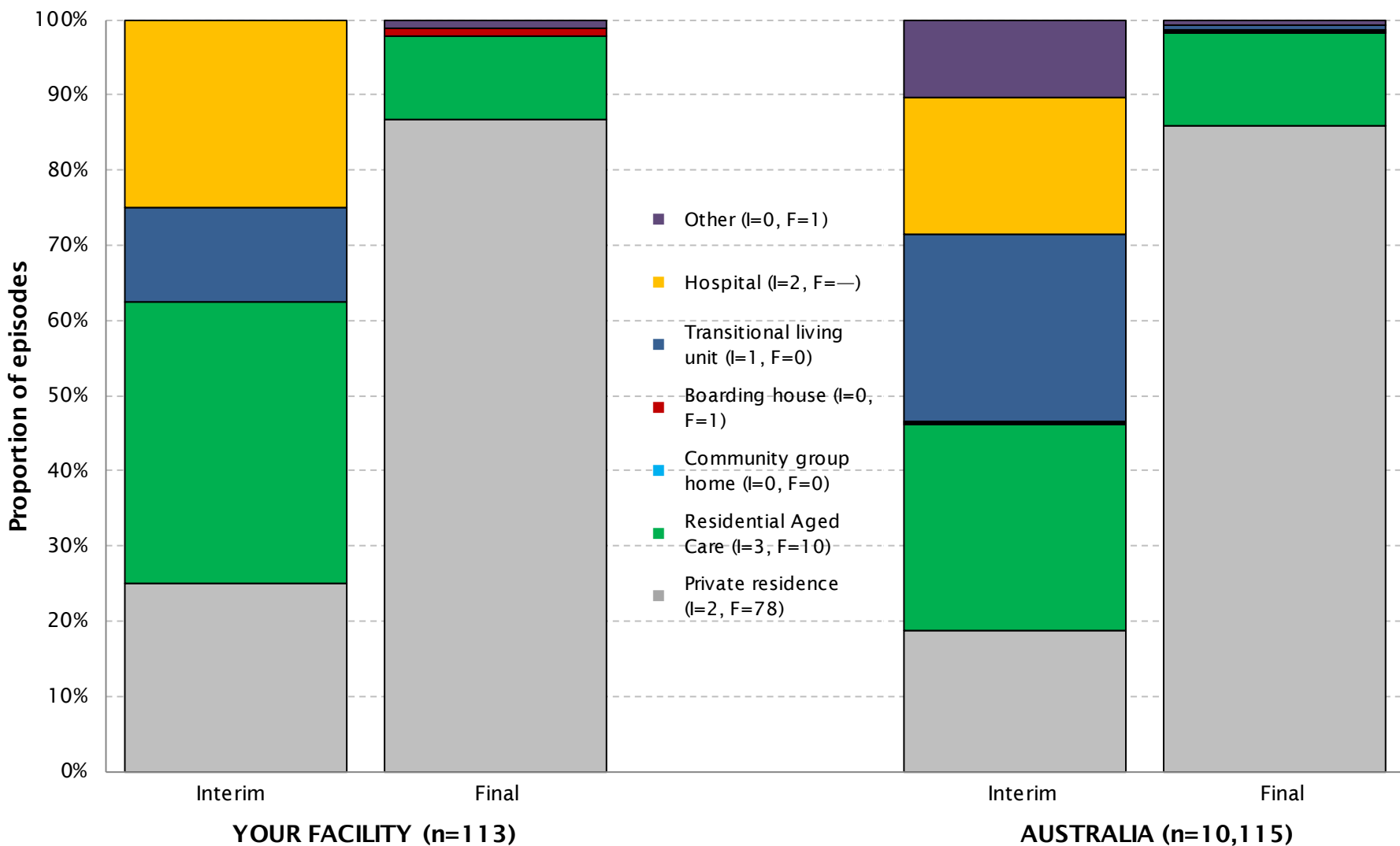
YOUR FACILITY — N (%)						
Impairment	Private residence	Residential Aged Care	Other	Missing	All episodes	
1.1 Haemorrhagic	18 (90.0)	1 (5.0)	1 (5.0)	2	20 (100.0)	
1.2 Ischaemic	60 (83.3)	9 (12.5)	3 (4.2)	5	72 (100.0)	
<b>All Stroke</b>	<b>78 (84.8)</b>	<b>10 (10.9)</b>	<b>4 (4.3)</b>	<b>7</b>	<b>92 (100.0)</b>	

AUSTRALIA — N (%)						
Impairment	Private residence	Residential Aged Care	Other	Missing	All episodes	
1.1 Haemorrhagic	1,634 (80.3)	231 (11.4)	68 (3.3)	102	2,035 (100.0)	
1.2 Ischaemic	4,977 (81.2)	719 (11.7)	187 (3.1)	244	6,127 (100.0)	
<b>All Stroke</b>	<b>6,611 (81.0)</b>	<b>950 (11.6)</b>	<b>255 (3.1)</b>	<b>346</b>	<b>8,162 (100.0)</b>	

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



# Interim and final accommodation post discharge



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

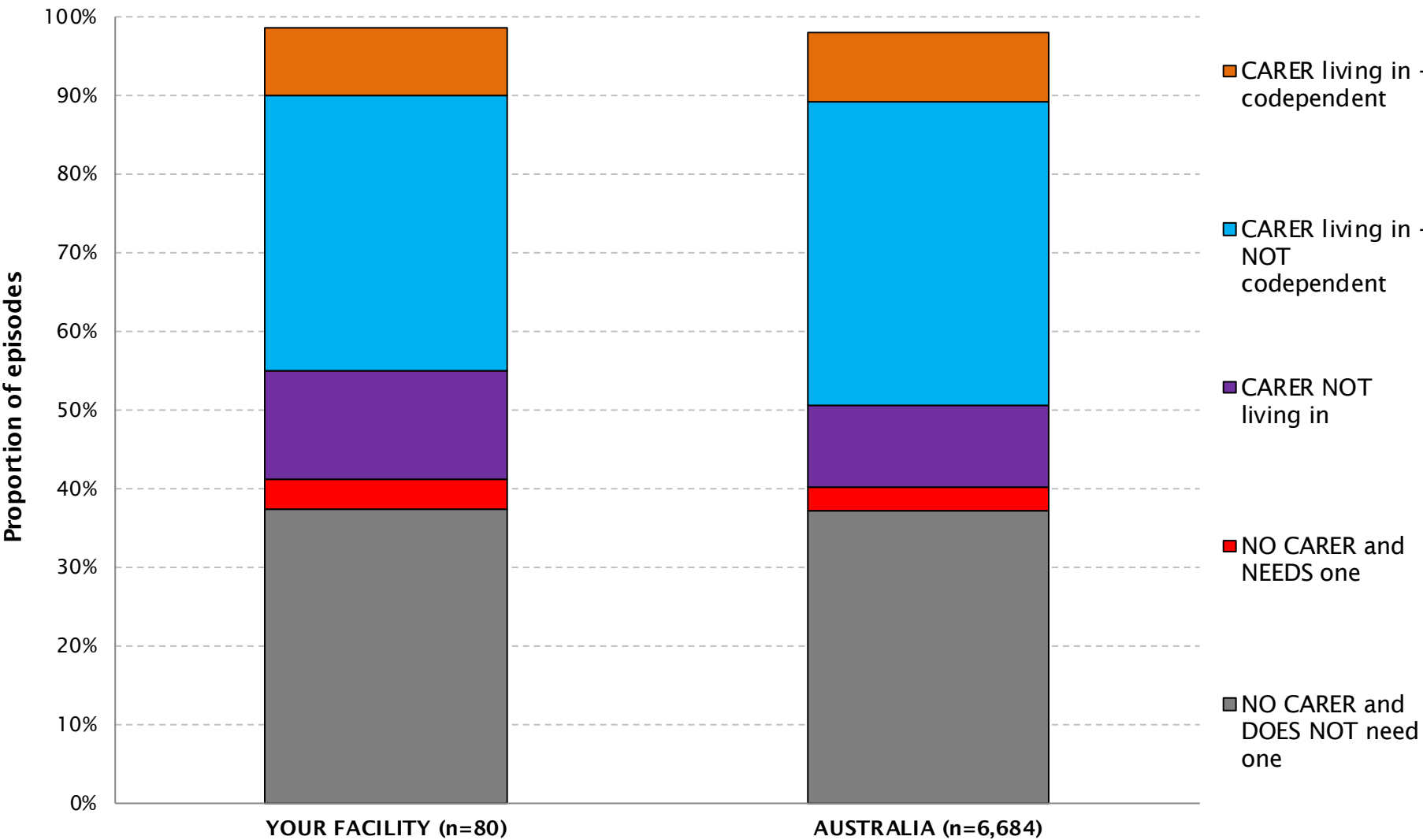
# Interim and final accommodation post discharge



Accommodation	YOUR FACILITY				AUSTRALIA			
	Interim	(%)	Final	(%)	Interim	(%)	Final	(%)
Private residence	2	(25.0%)	78	(86.7%)	133	(18.7%)	6,607	(85.9%)
Residential Aged Care	3	(37.5%)	10	(11.1%)	194	(27.3%)	949	(12.3%)
Community group home	0	(0.0%)	0	(0.0%)	2	(0.3%)	21	(0.3%)
Boarding house	0	(0.0%)	1	(1.1%)	1	(0.1%)	14	(0.2%)
Transitional living unit	1	(12.5%)	0	(0.0%)	177	(24.9%)	36	(0.5%)
Hospital	2	(25.0%)	—		130	(18.3%)	—	
Other	0	(0.0%)	1	(1.1%)	73	(10.3%)	61	(0.8%)
Missing/Unknown	0		9		69		467	
<b>All episodes</b>	<b>8</b>	<b>(100.0)</b>	<b>99</b>	<b>(100.0)</b>	<b>779</b>	<b>(100.0)</b>	<b>8,155</b>	<b>(100.0)</b>

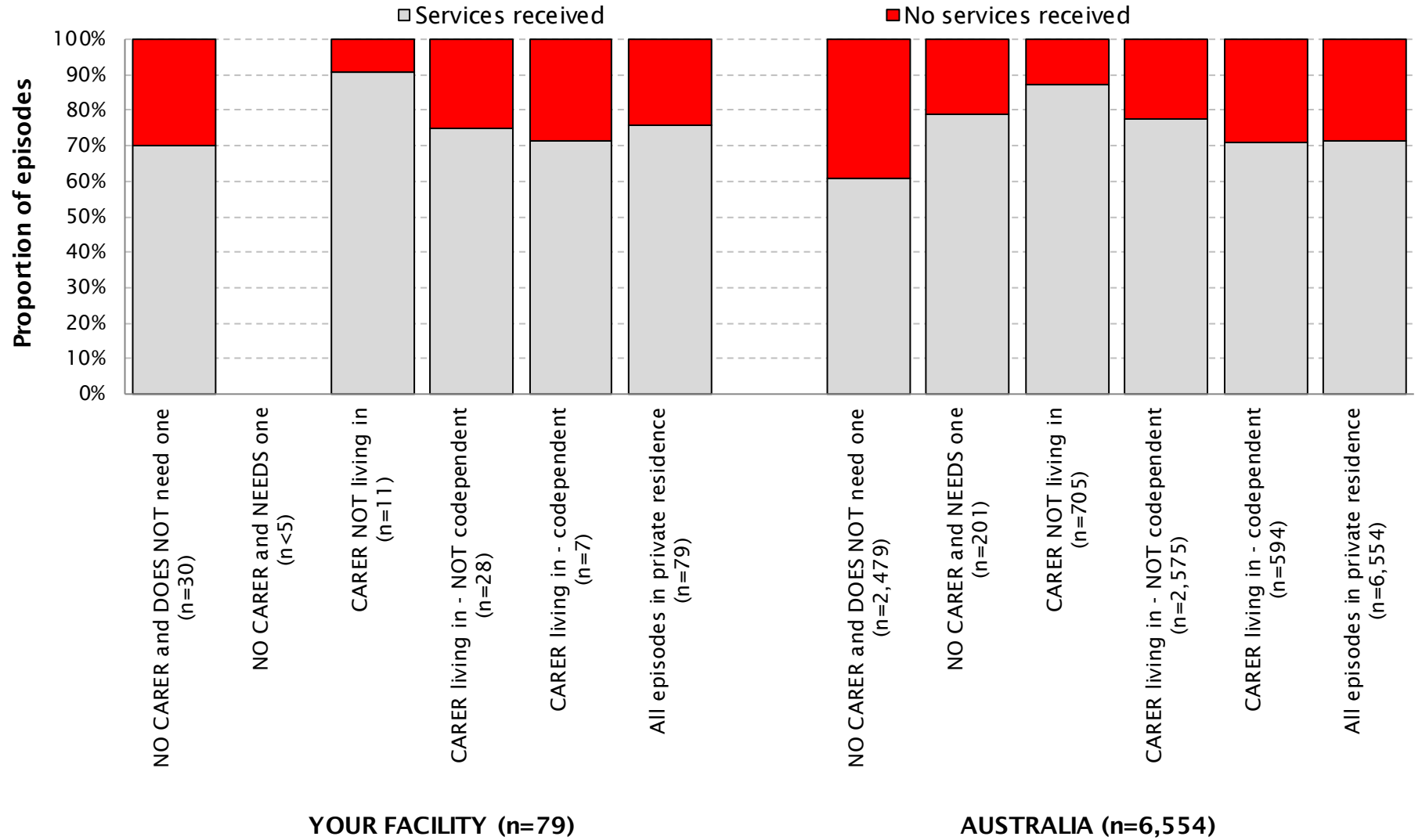
NOTE: Includes only those episodes with mode of episode end equal to either final or interim accommodation

# Carer status post discharge



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

# Any services received post discharge by carer status



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

# Carer status and any services received post discharge

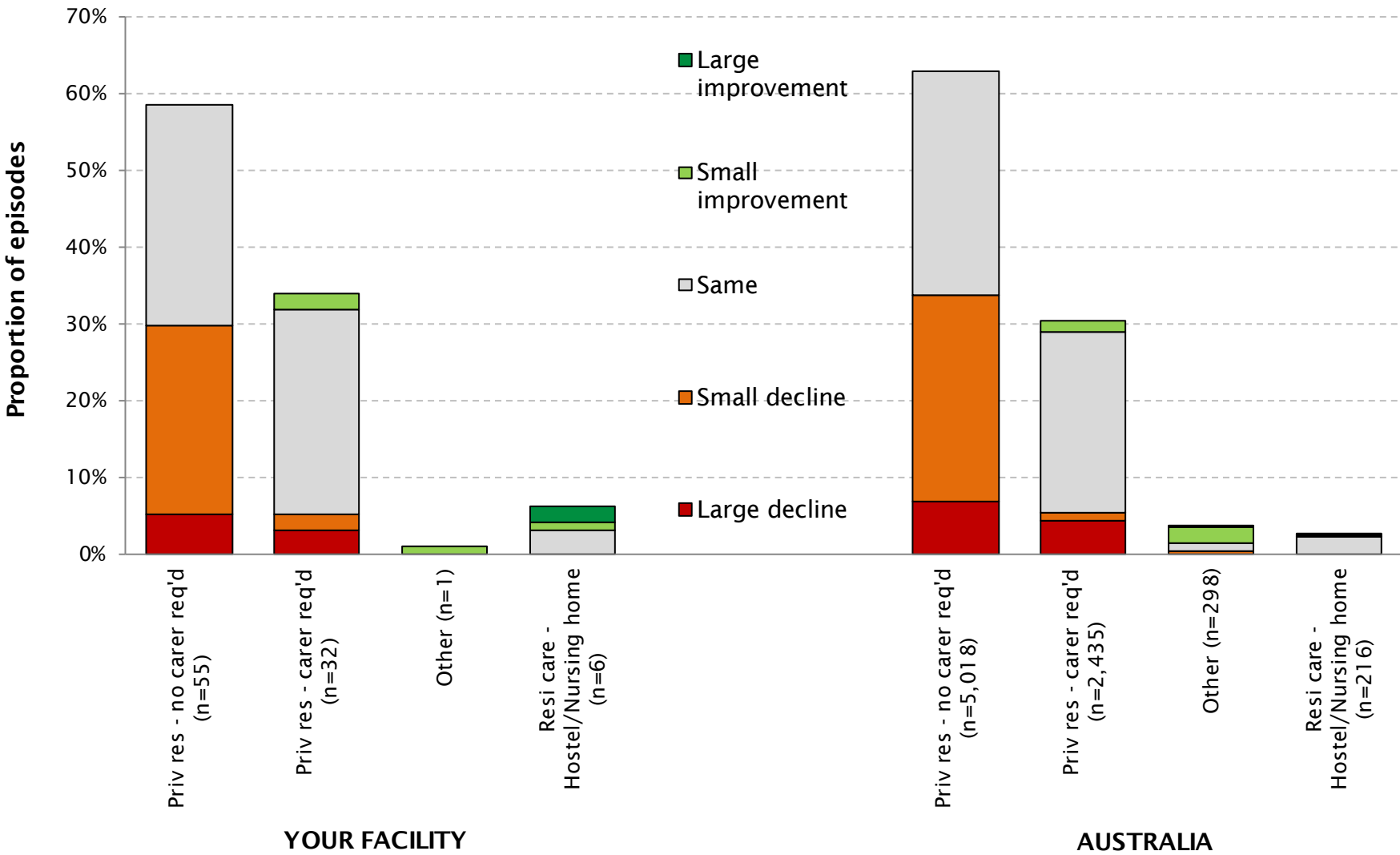


Carer status post discharge	YOUR FACILITY		AUSTRALIA	
	No.	%	No.	%
NO CARER and DOES NOT need one	30	38.0	2,484	37.9
NO CARER and NEEDS one	3	3.8	201	3.1
CARER NOT living in	11	13.9	706	10.8
CARER living in - NOT codependent	28	35.4	2,575	39.3
CARER living in - codependent	7	8.9	594	9.1
Missing	1		124	
<b>All episodes in private residence</b>	<b>80</b>	<b>100.0</b>	<b>6,684</b>	<b>100.0</b>

Carer status post discharge	Any services received post discharge?			
	YOUR FACILITY		AUSTRALIA	
	Yes (%)	No (%)	Yes (%)	No (%)
NO CARER and DOES NOT need one	70.0	30.0	60.7	39.3
NO CARER and NEEDS one	—	—	79.1	20.9
CARER NOT living in	90.9	9.1	87.1	12.9
CARER living in - NOT codependent	75.0	25.0	77.5	22.5
CARER living in - codependent	71.4	28.6	71.0	29.0
<b>All episodes in private residence</b>	<b>75.9</b>	<b>24.1</b>	<b>71.6</b>	<b>28.4</b>

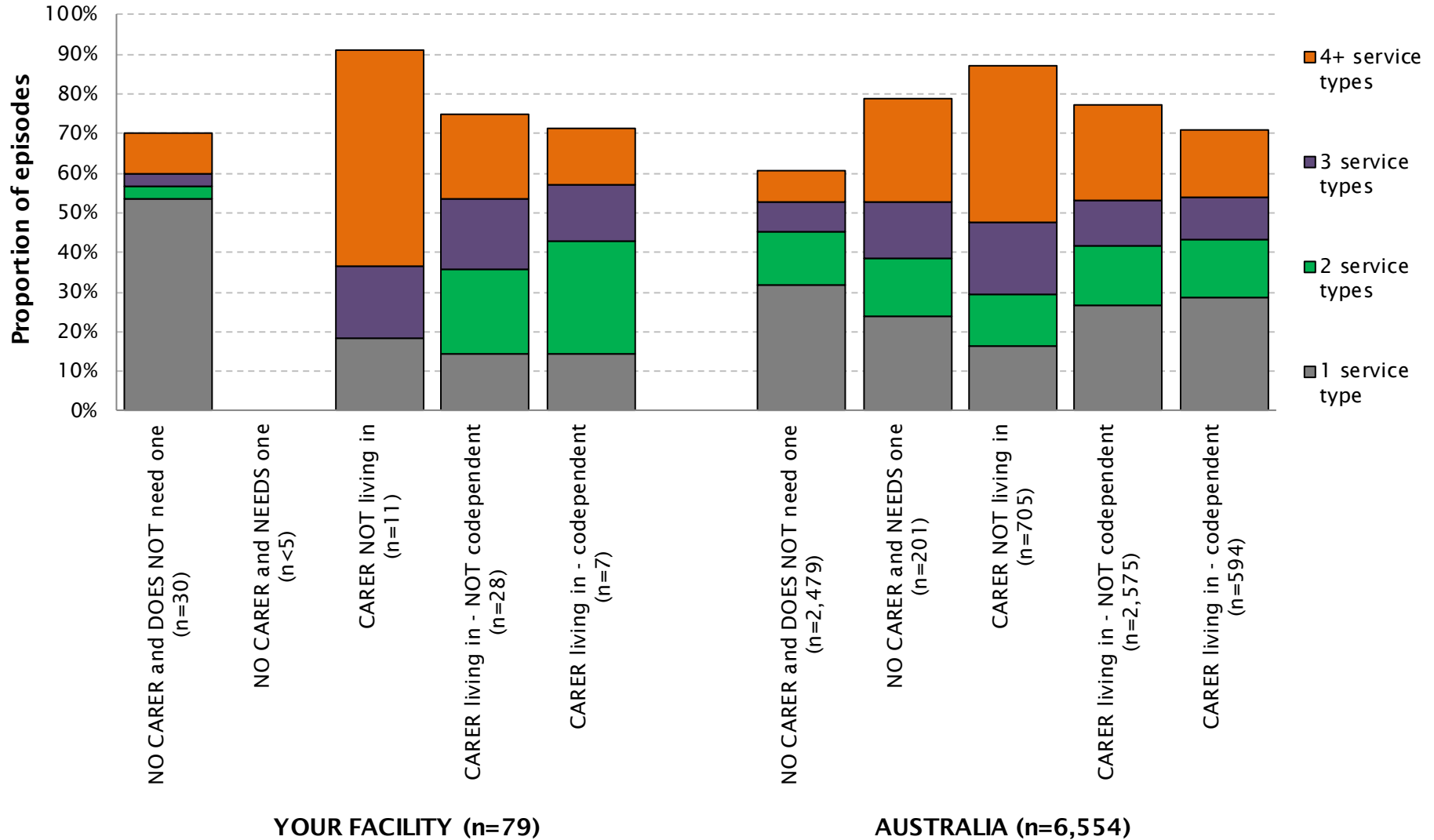
NOTE: Includes only those episodes whose final accommodation is private residence and with known carer status and known services status

# Change in prior accommodation post discharge



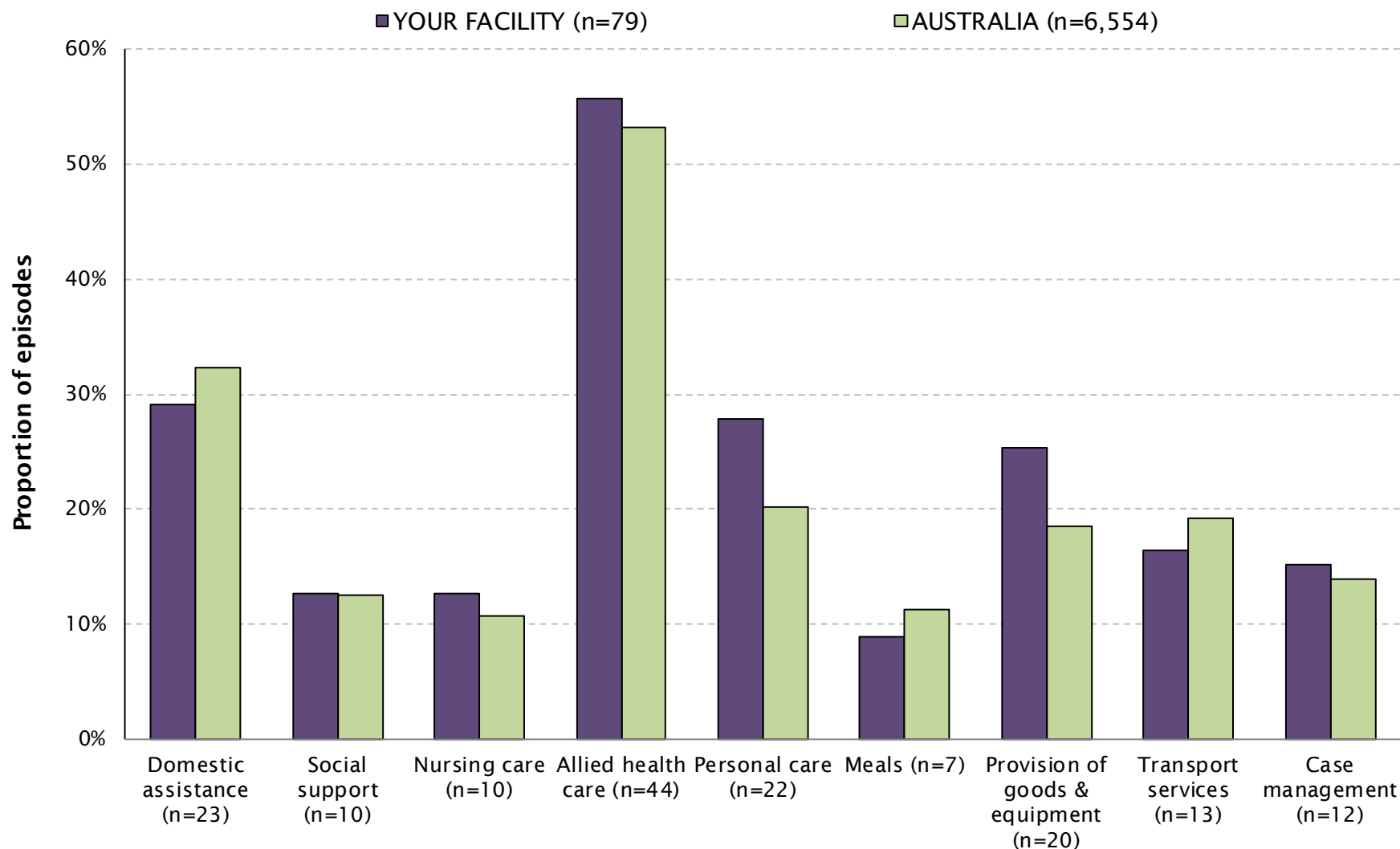
NOTE: Includes only those episodes whose final accommodation is private residence and with known carer status and known services status

# 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

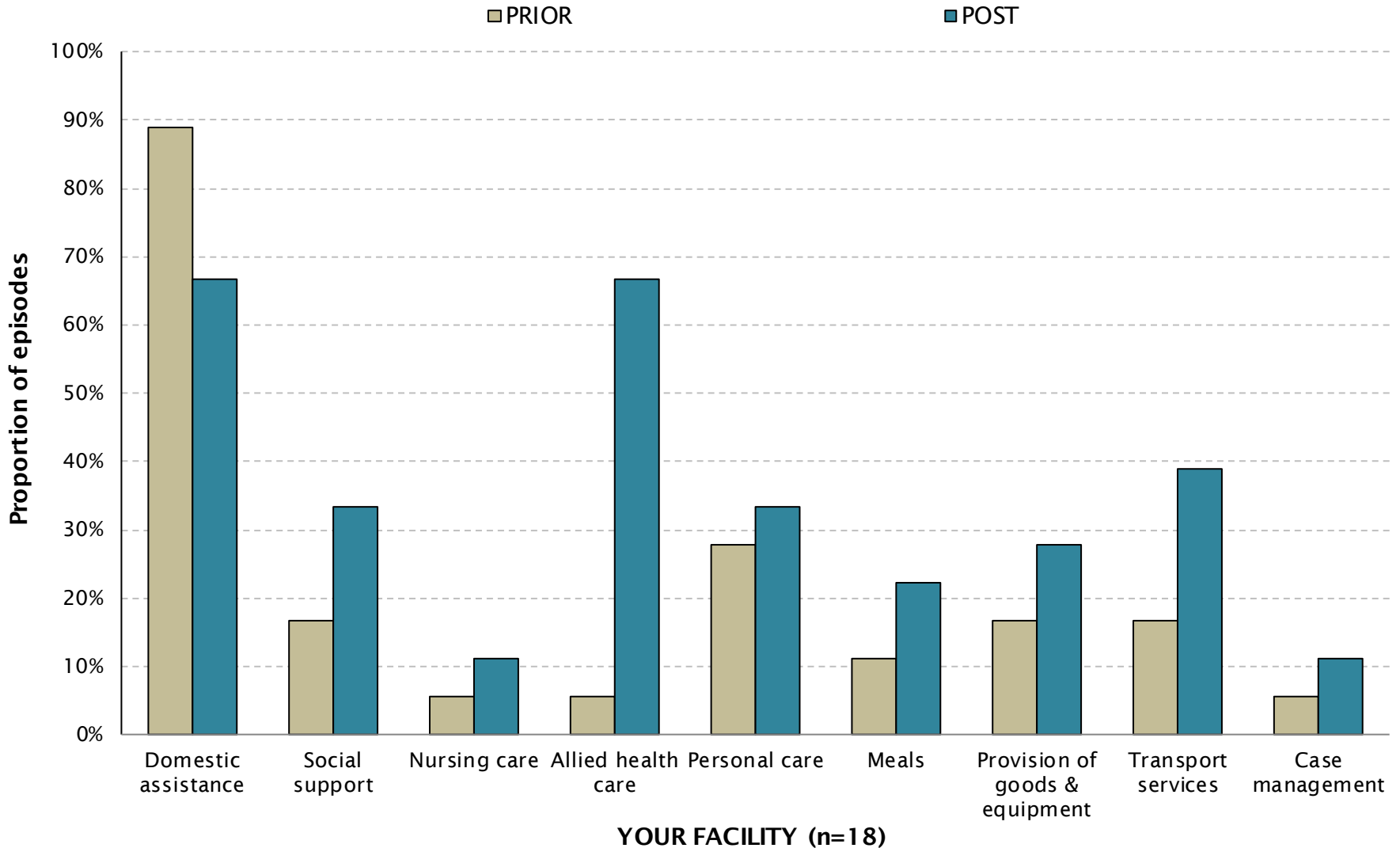
# Type of services received post discharge



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

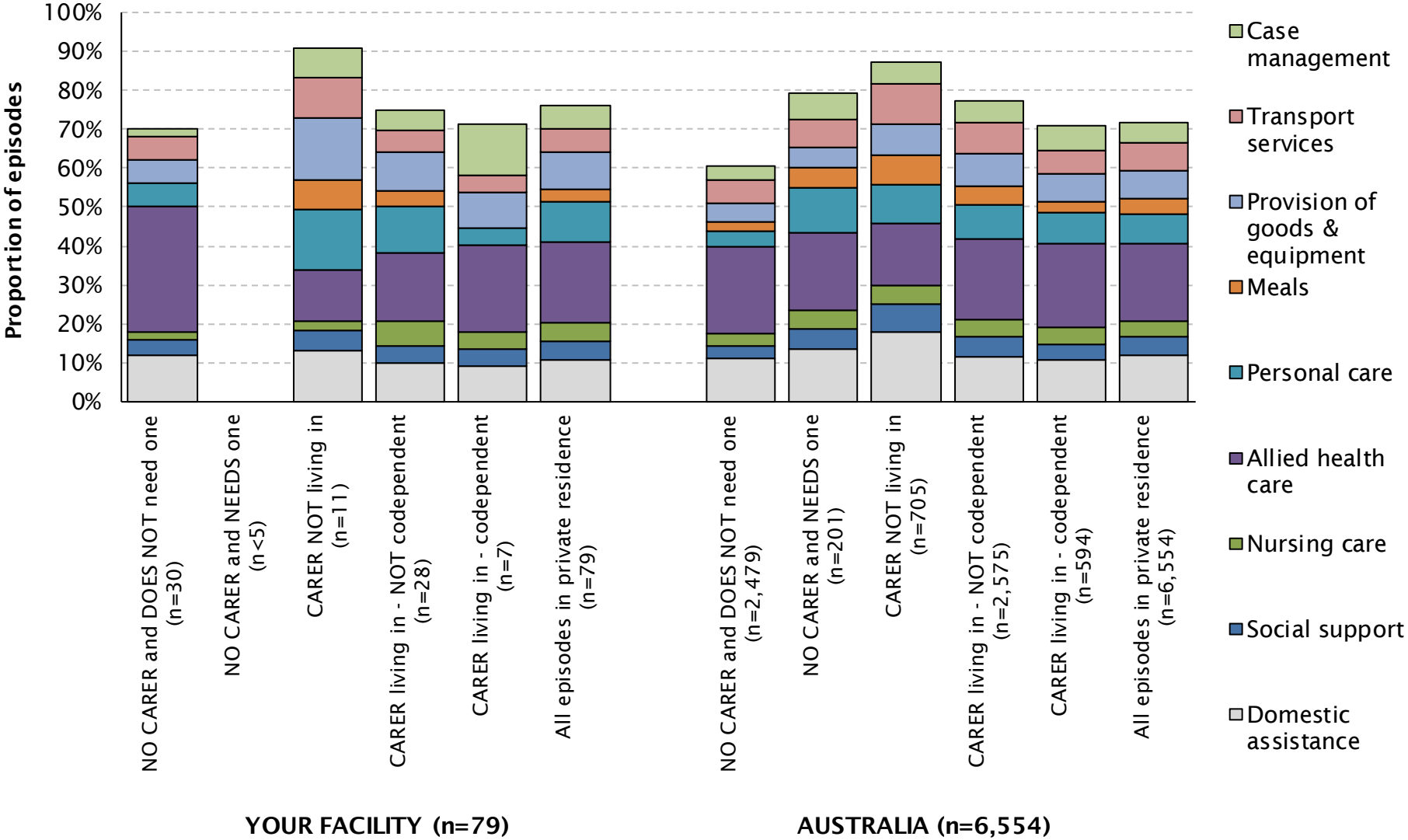


# Type of services received pre and post rehabilitation



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

# Type of services received post discharge by carer status



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

# Number and type of services received post discharge – Your facility



Carer status post discharge - YOUR FACILITY						
Services received post discharge	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	30	3	11	28	7	79
<b>Percent of episodes receiving:</b>						
No services	30.0	0.0	9.1	25.0	28.6	24.1
1 service type	53.3	66.7	18.2	14.3	14.3	31.6
2 service types	3.3	0.0	0.0	21.4	28.6	11.4
3 service types	3.3	0.0	18.2	17.9	14.3	11.4
4 or more service types	10.0	33.3	54.5	21.4	14.3	21.5
<b>Service Type received</b>						
Domestic assistance	20.0	33.3	45.5	32.1	28.6	29.1
Social support	6.7	33.3	18.2	14.3	14.3	12.7
Nursing care	3.3	33.3	9.1	21.4	14.3	12.7
Allied health care	53.3	66.7	45.5	57.1	71.4	55.7
Personal care	10.0	33.3	54.5	39.3	14.3	27.8
Meals	0.0	0.0	27.3	14.3	0.0	8.9
Provision of goods & equipment	10.0	0.0	54.5	32.1	28.6	25.3
Transport services	10.0	0.0	36.4	17.9	14.3	16.5
Case management	3.3	0.0	27.3	17.9	42.9	15.2

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

# Number and type of services received post discharge – National



Carer status post discharge - AUSTRALIA						
Services received post discharge	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	2,479	201	705	2,575	594	<b>6,554</b>
<b>Percent of episodes receiving:</b>						
No services	39.3	20.9	12.9	22.5	29.0	<b>28.4</b>
1 service type	31.8	23.9	16.3	26.6	28.6	<b>27.5</b>
2 service types	13.5	14.4	12.9	15.2	14.8	<b>14.3</b>
3 service types	7.3	14.4	18.4	11.1	10.4	<b>10.5</b>
4 or more service types	8.1	25.9	39.3	24.4	17.0	<b>19.2</b>
<b>Service Type received</b>						
Domestic assistance	22.5	39.3	64.5	33.2	27.4	<b>32.2</b>
Social support	6.1	14.9	25.4	15.8	9.9	<b>12.6</b>
Nursing care	6.6	14.9	18.3	12.1	12.0	<b>10.8</b>
Allied health care	43.8	58.2	56.7	60.6	54.9	<b>53.2</b>
Personal care	8.5	32.8	37.0	25.9	20.0	<b>20.2</b>
Meals	4.8	15.4	26.8	13.7	7.1	<b>11.2</b>
Provision of goods & equipment	9.6	15.4	28.7	24.4	19.0	<b>18.5</b>
Transport services	11.4	20.9	37.6	22.6	14.3	<b>19.2</b>
Case management	7.7	19.4	19.7	17.0	17.2	<b>13.9</b>

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

## **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.

## 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.

## Confidence interval for a mean

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

## Data Concatenation

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

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

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

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

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

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

## 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).



## 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.

## **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

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



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