

2019

# AROC Ambulatory Report, January 2018 - December 2018

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# AROC Ambulatory Report

January 2018 – December 2018

Anywhere Hospital



**Australasian  
Faculty of  
Rehabilitaion  
Medicine**



australian health services  
research institute



**UNIVERSITY  
OF WOLLONGONG  
AUSTRALIA**

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# Definition of ambulatory rehabilitation



- Starts with a multi-disciplinary assessment
- Is multi-disciplinary, although all therapies may not necessarily be delivered concurrently
- Is goal orientated – includes goal setting and review
- The program of care is time limited
- Is delivered in an ambulatory setting, either centre or community based

Ambulatory rehabilitation may occur as:

- The continuation of an inpatient episode of rehabilitation
- A rehabilitation program provided solely in an ambulatory setting

- The AROC dataset includes items that relate specifically to evaluating the efficacy of ambulatory rehabilitation programs.
- Data is collected to reflect the program of rehabilitation, thus an 'episode' is defined by the initial and final service contact.
- The challenge in developing the dataset was to include an outcome tool that could best address the diverse range of service models and impairment groups represented in ambulatory rehabilitation, with a minimum burden on resources.
- The over-arching outcome tool included in the dataset is the Australian Modified Lawton's Instrumental Activities of Daily Living (IADL) scale.
- Impairment or discipline specific outcomes tools have been added to the dataset to provide more outcome specificity by cohort.
- V4.1 of the AROC dataset was introduced on 1 July 2017.
- V4 AROC data items have been mapped to the V4.1 AROC dataset.

## All impairments

- Australian Modified Lawton's IADL Scale

## Stroke

- Upper Limb Motor Assessment Scale (if relevant)
- Timed 10 meter walk test (if relevant)
- Aphasia tool (specify tool used)

## Brain Dysfunction

- Mayo - Portland Adaptability Inventory - 4 (MPAI-4)

## Orthopaedic conditions

- Timed 10 meter walk test

## Reconditioning

- de Morton Mobility Index (DEMMI)

## Amputation of limb

- Timed up and go
- 6 minute walk test (optional)
- Timed 10 meter walk test (optional)

- Demographic and episode start information is reported for all episodes.
- An episode is considered "complete" for the purpose of calculating outcome statistics in this report when mode of episode end is discharged to final or interim destination.
- Outcome measures are based on completed episodes, as defined above, however the volume of reported data may be further reduced if data items are missing.



- This descriptive report includes analysis of data that has been collected by your service, and the combined submitted data of all participating ambulatory rehabilitation services.
- Where sufficient data for an impairment group is available ( $\geq 5$ ), AROC provides comparison analysis.
- The data presented in this report represents a small proportion of all ambulatory rehabilitation services and models of service delivery. Interpretation of these results must be made with care.

# Completeness of data reported



Number of episodes submitted each month to AROC by

## Anywhere Hospital

Do these numbers look like a complete year was submitted?

	No. episodes
<b>Month</b>	
January	5
February	9
March	11
April	12
May	11
June	8
July	7
August	9
September	9
October	10
November	14
December	12
<b>Full year</b>	<b>117</b>

# Quality of data reported

AROC core data set items	Item collected	
	No.	%
Path	117	100.0
Facility code	117	100.0
Facility name	117	100.0
Ward code <sup>1</sup>	96	82.1
Ward name <sup>1</sup>	96	82.1
MRN	117	100.0
Letters of name	116	99.1
Date of birth	117	100.0
DOB estimate flag	116	99.1
Sex	117	100.0
Indigenous status	117	100.0
Geographical residence	117	100.0
Postcode	117	100.0
Episode begin date	117	100.0
Episode end date	117	100.0
Funding source	117	100.0
Health fund/other payer	83	100.0
NDIS	91	77.8 ←
Referral date	116	99.1
Impairment code	117	100.0
Onset date &/or time since onset	117	100.0
Relevant inpatient episode date	108	92.3
Episode begin reason	116	99.1
First direct care episode	117	100.0
Interpreter required	117	100.0
Date of multi-disciplinary rehab plan	116	99.1
Accommodation prior to episode	113	96.6
Carer status prior to episode	111	100.0
Employment status prior to episode	115	98.3
Accommodation during episode	116	99.1
Carer status during episode	112	100.0
Existing comorbidity interfering with rehab	116	99.1
— Comorbidities identified	35	100.0

AROC core data set items	Item collected	
	No.	%
Cognitive impairment impacting rehab	99	84.6 ←
Episode end reason	112	95.7
Final accommodation – episode end	109	100.0
Carer status – episode end	107	99.1
Employment status after discharge	36	30.8 ←
Return to pre-impairment activities	97	82.9 ←
Days seen	115	98.3
Occasions of service	116	99.1
Disciplines involved in therapy	115	98.3
Lawton's start date	116	99.1
Lawton's start items	116	99.1
Lawton's end date	115	98.3
Lawton's end items	115	98.3
GAS start date <sup>1</sup>	5	4.3
GAS start scores <sup>1</sup>	3	2.6
GAS end date <sup>1</sup>	5	4.3
GAS end scores <sup>1</sup>	3	2.6

## Impairment specific items

Stroke	No.	%
— Rehab aimed at upper limb function	5	45.5 ←
— Rehab aimed at gait retraining	5	45.5 ←
— Rehab aimed at aphasia	5	45.5 ←
— ULMAS start date	3	100.0
— ULMAS start scores	3	100.0
— ULMAS end date	3	100.0
— ULMAS end scores	2	66.7 ←
— Timed ten metre walk start date	1	100.0
— Timed ten metre walk test on admission	1	100.0
— Timed ten metre walk end date	1	100.0
— Timed ten metre walk test on discharge	1	100.0

AROC impairment specific items	Item collected	
	No.	%
<b>Brain injury*</b>	5	
— MPAI4 start date	3	60.0 ←
— MPAI4 start scores	3	60.0 ←
— MPAI4 end date	3	60.0 ←
— MPAI4 end scores	3	60.0 ←
<b>Spinal cord injury*</b>	1	
— Injury start level	1	100.0
<b>Reconditioning</b>	10	
— DEMMI start date	5	50.0 ←
— DEMMI start scores	5	50.0 ←
— DEMMI end date	5	50.0 ←
— DEMMI end scores	5	50.0 ←
<b>Amputation of limb</b>	1	
— Phase of care at episode start	1	100.0
— Phase of care during episode	1	100.0
— Phase of care at episode end	1	100.0
— Prosthetic device fitted	1	100.0
— Casting date <sup>2</sup>	1	100.0
— Date of first prosthetic fitting <sup>2</sup>	0	0.0
— Reason for delay in fitting <sup>2</sup>	0	0.0
— Timed up and go test	1	100.0
— Six min walk test <sup>1</sup>	1	100.0
— Ten metre walk test <sup>1</sup>	1	100.0

Orthopaedic conditions	No.	%
— Timed ten metre walk start date	49	76.6 ←
— Timed ten metre walk test on admission	46	71.9 ←
— Timed ten metre walk end date	49	81.7 ←
— Timed ten metre walk test on discharge	50	83.3 ←

\*Also includes MMT that contain this impairment

Overall data quality score 88.4

NOTE: AROC can provide case listings of missing data to assist with updating.

(1) These data items are optional to collect

(2) Not included in overall data quality score

The following section provides demographic data. These data are presented at service and national levels.

Such data are useful to provide context to the more detailed analysis of rehabilitation outcomes, but in themselves are not impacted by clinical practice.

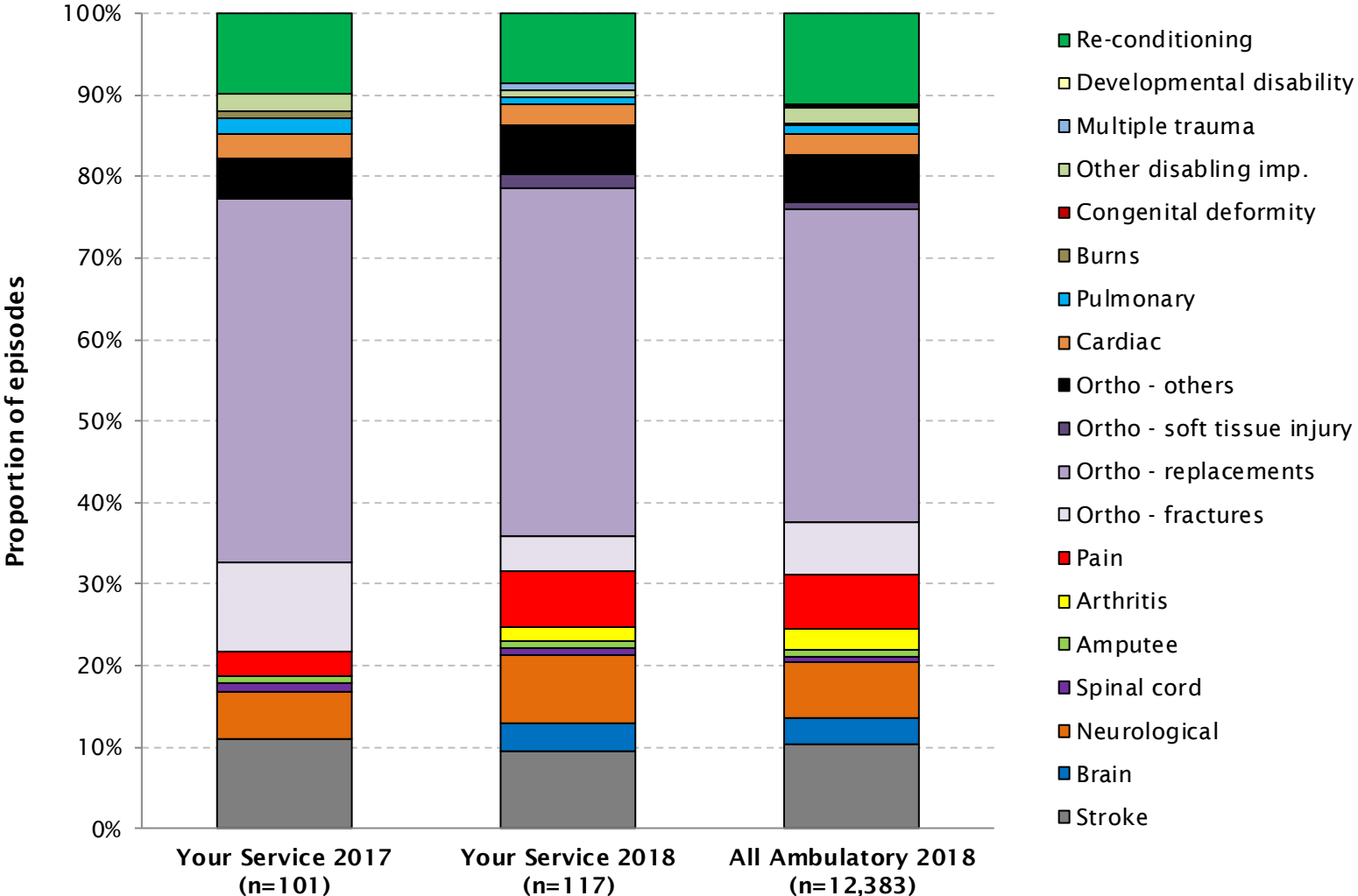
# Distribution of services and episodes



	Public		Private		All Ambulatory	
	No.	%	No.	%	No.	%
<b>Facilities</b>						
New South Wales	3	5.0	18	30.0	21	35.0
Victoria	0	—	4	6.7	4	6.7
Queensland	2	3.3	9	15.0	11	18.3
South Australia	7	11.7	1	1.7	8	13.3
Western Australia	1	1.7	1	1.7	2	3.3
Tasmania	1	1.7	0	—	1	1.7
Australian territories	1	1.7	1	1.7	2	3.3
NZ	11	18.3			11	18.3
<b>Total</b>	<b>26</b>	<b>43.3</b>	<b>34</b>	<b>56.7</b>	<b>60</b>	<b>100.0</b>

<b>Episodes</b>						
New South Wales	310	2.5	5,176	41.8	5,486	44.3
Victoria	0	—	1,874	15.1	1,874	15.1
Queensland	627	5.1	1,270	10.2	1,897	15.3
South Australia	1,498	12.1	194	1.6	1,692	13.7
Western Australia	299	2.4	68	0.5	367	3.0
Tasmania	20	0.2	0	—	20	0.2
Australian territories	1	0.0	414	3.3	415	3.3
NZ	642	5.2			642	5.2
<b>Total</b>	<b>3,397</b>	<b>27.4</b>	<b>8,996</b>	<b>72.6</b>	<b>12,393</b>	<b>100.0</b>

# Episodes by impairment group

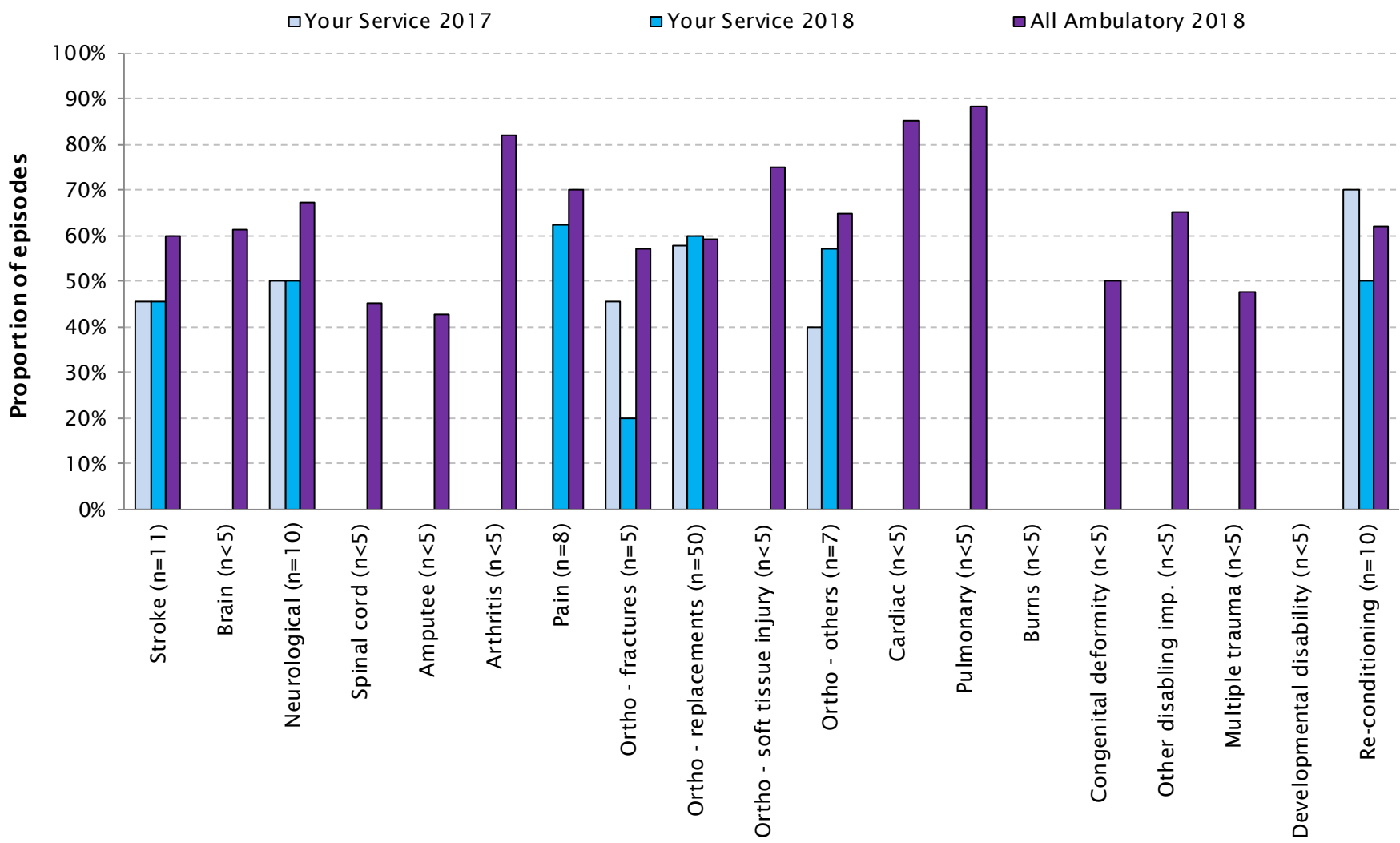


# Episodes by impairment group



Impairment group	Your Service 2017		Your Service 2018		All Ambulatory 2018	
	No.	%	No.	%	No.	%
Stroke	11	10.9	11	9.4	1,288	10.4
Brain	0	—	4	3.4	399	3.2
Neurological	6	5.9	10	8.5	850	6.9
Spinal cord	1	1.0	1	0.9	86	0.7
Amputee	1	1.0	1	0.9	101	0.8
Arthritis	0	—	2	1.7	309	2.5
Pain	3	3.0	8	6.8	829	6.7
Ortho - fractures	11	10.9	5	4.3	798	6.4
Ortho - replacements	45	44.6	50	42.7	4,748	38.3
Ortho - soft tissue injury	0	—	2	1.7	108	0.9
Ortho - others	5	5.0	7	6.0	721	5.8
Cardiac	3	3.0	3	2.6	322	2.6
Pulmonary	2	2.0	1	0.9	136	1.1
Burns	1	1.0	0	—	2	0.0
Congenital deformity	0	—	0	—	8	0.1
Other disabling imp.	2	2.0	1	0.9	248	2.0
Multiple trauma	0	—	1	0.9	42	0.3
Developmental disability	0	—	0	—	4	0.0
Re-conditioning	10	9.9	10	8.5	1,384	11.2
Missing or excluded	0		0		10	
<b>All episodes</b>	<b>101</b>	<b>100.0</b>	<b>117</b>	<b>100.0</b>	<b>12,393</b>	<b>100.0</b>

# First direct care rehabilitation episode by impairment group





# First direct care rehabilitation episode by impairment group

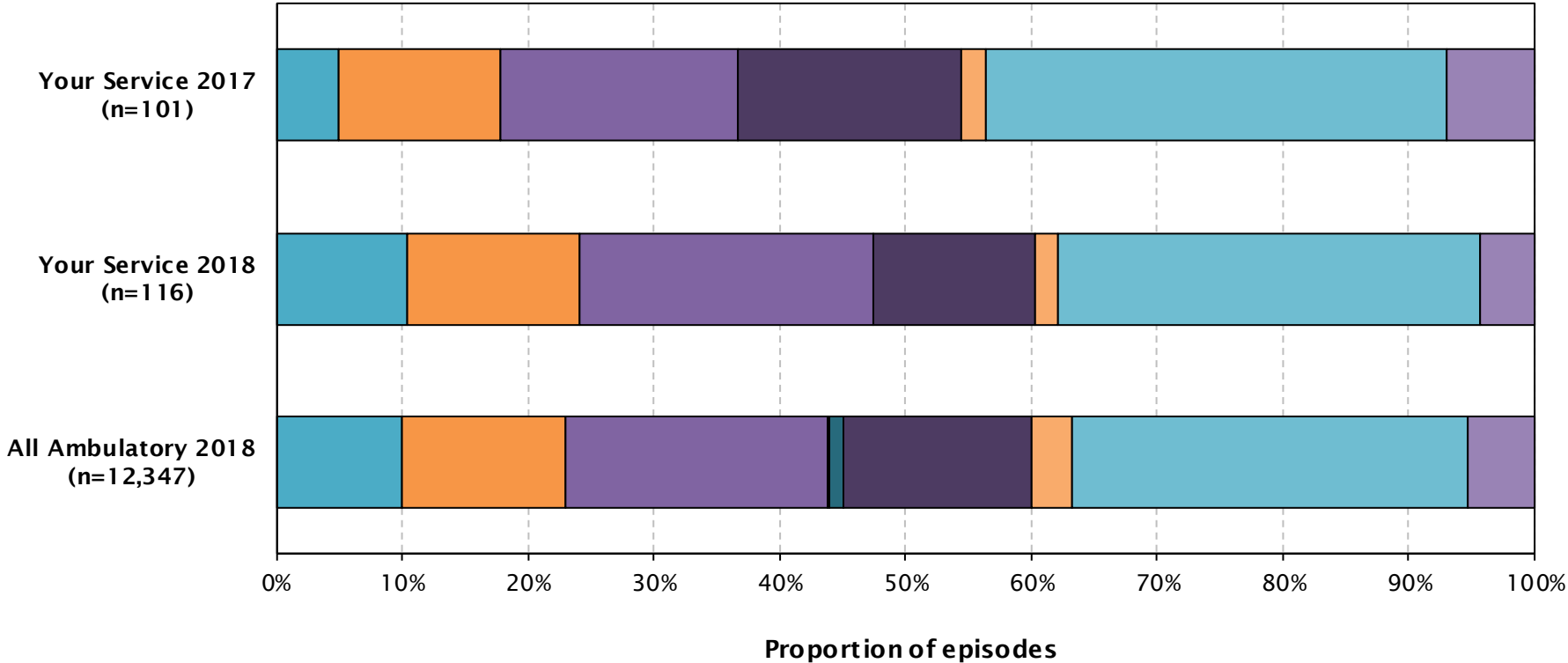


Impairment group	Your Service 2017				Your Service 2018				All Ambulatory 2018			
	No.	Primary admission	Subsequent admission	Missing	No.	Primary admission	Subsequent admission	Missing	No.	Primary admission	Subsequent admission	Missing
Stroke	11	5	6	0	11	5	6	0	1,288	772	509	7
Brain	0	0	0	0	4	3	1	0	399	245	152	2
Neurological	6	3	3	0	10	5	5	0	850	573	272	5
Spinal cord	1	1	0	0	1	0	1	0	86	39	47	0
Amputee	1	0	1	0	1	1	0	0	101	43	58	0
Arthritis	0	0	0	0	2	2	0	0	309	254	55	0
Pain	3	3	0	0	8	5	3	0	829	582	247	0
Ortho - fractures	11	5	6	0	5	1	4	0	798	456	340	2
Ortho - replacements	45	26	19	0	50	30	20	0	4,748	2,816	1,929	3
Ortho - soft tissue injury	0	0	0	0	2	2	0	0	108	81	26	1
Ortho - others	5	2	3	0	7	4	3	0	721	467	254	0
Cardiac	3	3	0	0	3	3	0	0	322	274	48	0
Pulmonary	2	1	1	0	1	0	1	0	136	120	16	0
Burns	1	1	0	0	0	0	0	0	2	1	1	0
Congenital deformity	0	0	0	0	0	0	0	0	8	4	4	0
Other disabling imp.	2	1	1	0	1	1	0	0	248	162	86	0
Multiple trauma	0	0	0	0	1	0	1	0	42	20	22	0
Developmental disability	0	0	0	0	0	0	0	0	4	3	1	0
Re-conditioning	10	7	3	0	10	5	5	0	1,384	861	521	2
Missing or excluded	0				0				10			
<b>All episodes</b>	<b>101</b>	<b>58</b>	<b>43</b>	<b>0</b>	<b>117</b>	<b>67</b>	<b>50</b>	<b>0</b>	<b>12,393</b>	<b>7,773</b>	<b>4,588</b>	<b>22</b>

# Episode source



- Referred by GP
- Referred directly from specialist rooms
- Referred from acute specialist unit
- Referred from acute inpatient care different hospital
- Referred from sub-acute care different service
- Referred by therapist
- Referred from ED
- Referred from acute inpatient care same hospital
- Referred from sub-acute care same service

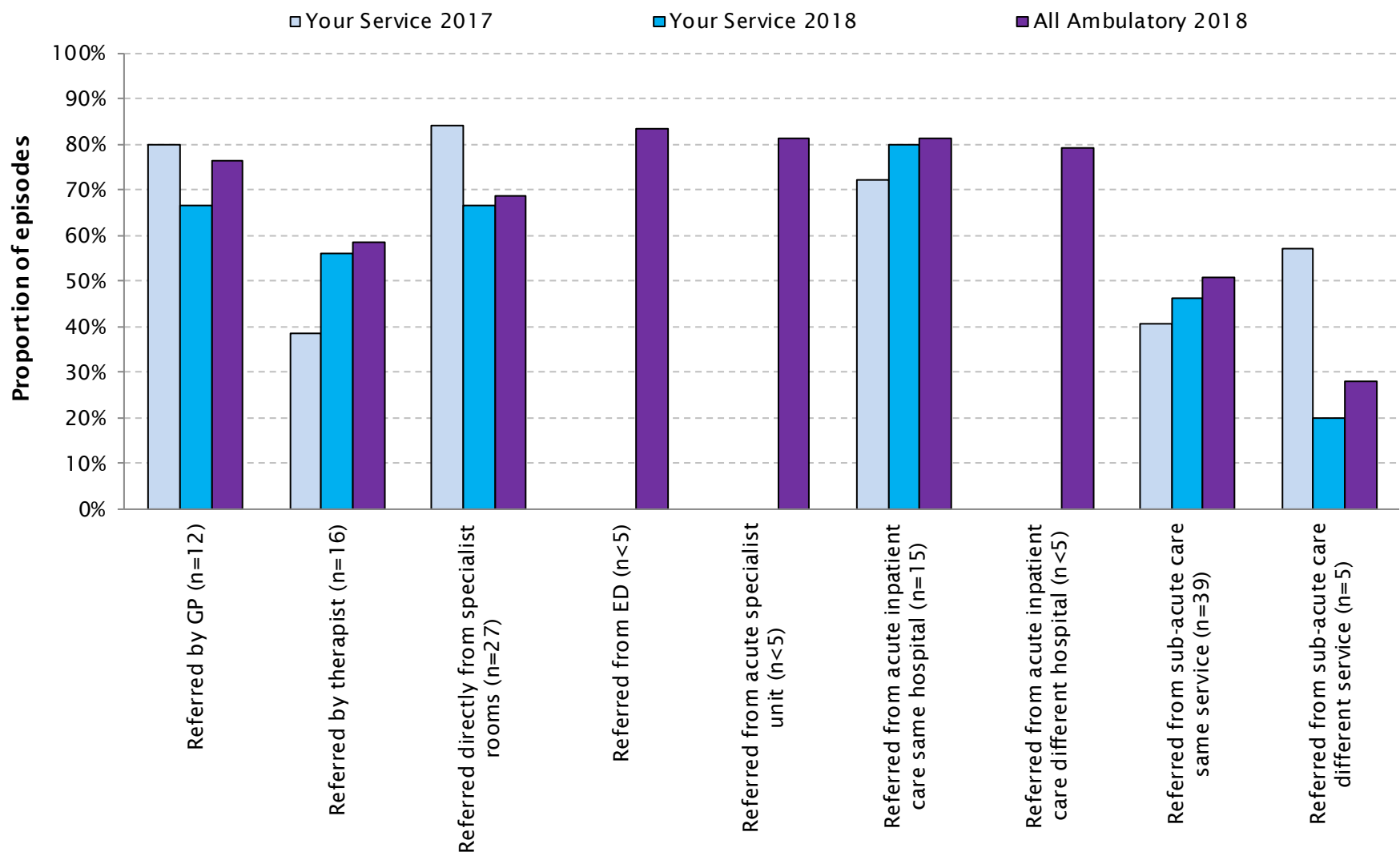


# Episode source



Episode source	Your Service 2017		Your Service 2018		All Ambulatory 2018	
	No.	%	No.	%	No.	%
Referred by GP	5	5.0	12	10.3	1,237	10.0
Referred by therapist	13	12.9	16	13.8	1,600	13.0
Referred directly from specialist rooms	19	18.8	27	23.3	2,567	20.8
Referred from ED	0	—	0	—	18	0.1
Referred from acute specialist unit	0	—	0	—	135	1.1
Referred from acute inpatient care same hospital	18	17.8	15	12.9	1,855	15.0
Referred from acute inpatient care different hospital	2	2.0	2	1.7	396	3.2
Referred from sub-acute care same service	37	36.6	39	33.6	3,893	31.5
Referred from sub-acute care different service	7	6.9	5	4.3	646	5.2
Missing	0		1		46	
<b>All episodes</b>	<b>101</b>	<b>100</b>	<b>117</b>	<b>100</b>	<b>12,393</b>	<b>100</b>

# First direct care rehabilitation episode by episode source

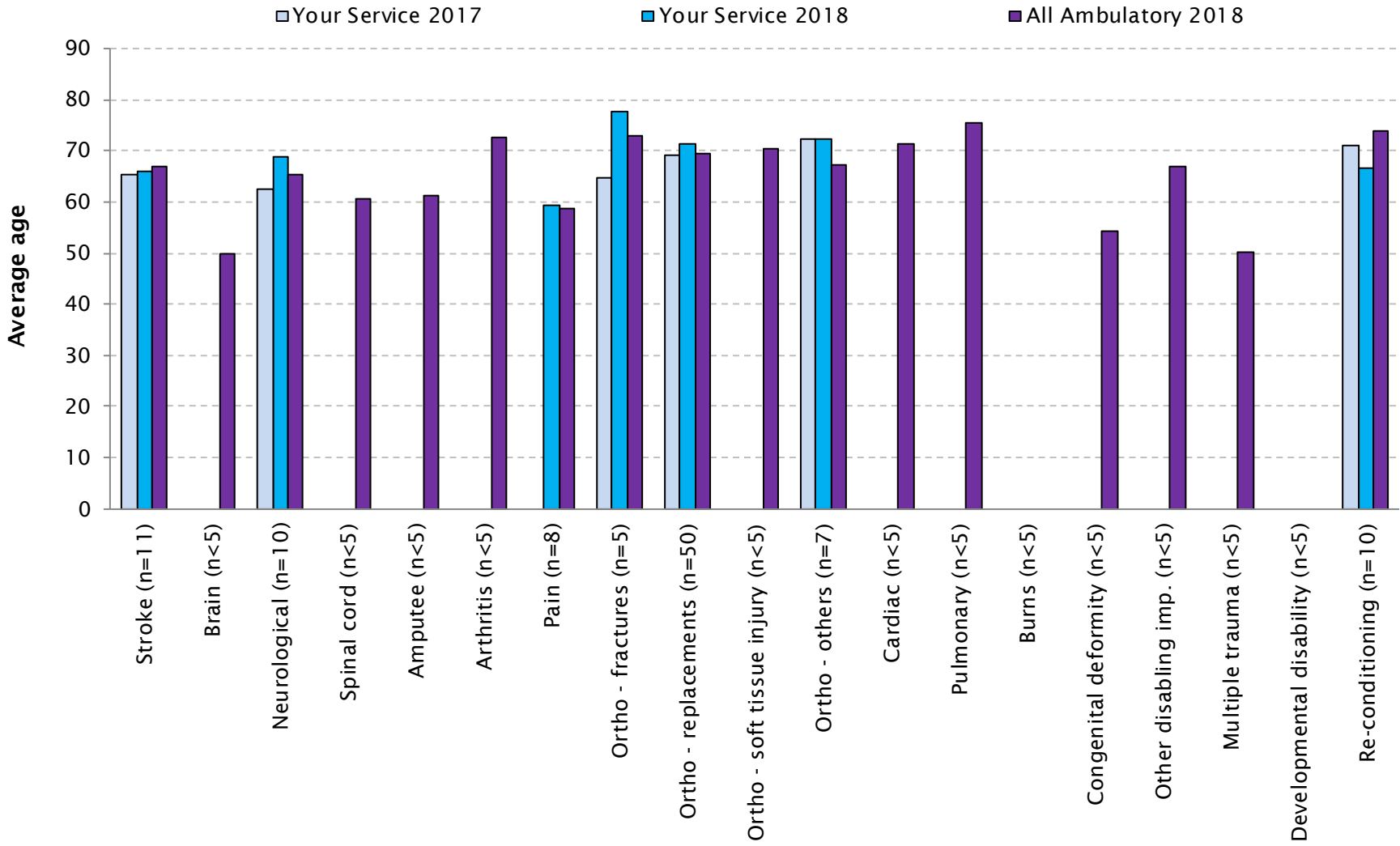


# First direct care rehabilitation episode by episode source



Impairment group	Your Service 2017				Your Service 2018				All Ambulatory 2018			
	No.	Primary admission	Subsequent admission	Missing	No.	Primary admission	Subsequent admission	Missing	No.	Primary admission	Subsequent admission	Missing
Referred by GP	5	4	1	0	12	8	4	0	1,237	944	290	3
Referred by therapist	13	5	8	0	16	9	7	0	1,600	939	652	9
Referred directly from specialist rooms	19	16	3	0	27	18	9	0	2,567	1,766	799	2
Referred from ED	0	0	0	0	0	0	0	0	18	15	3	0
Referred from acute specialist unit	0	0	0	0	0	0	0	0	135	110	24	1
Referred from acute inpatient care same hospital	18	13	5	0	15	12	3	0	1,855	1,512	343	0
Referred from acute inpatient care different hospital	2	1	1	0	2	1	1	0	396	314	82	0
Referred from sub-acute care same service	37	15	22	0	39	18	21	0	3,893	1,974	1,915	4
Referred from sub-acute care different service	7	4	3	0	5	1	4	0	646	182	464	0
Missing	0	0	0	0	1	0	1	0	46	17	19	10
<b>All episodes</b>	<b>101</b>	<b>58</b>	<b>43</b>	<b>0</b>	<b>117</b>	<b>67</b>	<b>50</b>	<b>0</b>	<b>12,393</b>	<b>7,773</b>	<b>4,591</b>	<b>29</b>

# Age by impairment group



# Age by impairment group



Impairment group	Your Service 2017			Your Service 2018			All Ambulatory 2018		
	No.	Mean age	(95% CI)	No.	Mean age	(95% CI)	No.	Mean age	(95% CI)
Stroke	11	65.5	(55.9 - 75.0)	11	65.9	(56.7 - 75.1)	1,285	67.0	(66.2 - 67.7)
Brain	0	—		4	49.8	(28.9 - 70.6)	397	49.8	(47.9 - 51.6)
Neurological	6	62.3	(43.7 - 81.0)	10	68.7	(63.0 - 74.4)	849	65.2	(64.2 - 66.2)
Spinal cord	1	20.0		1	72.0		86	60.6	(57.5 - 63.7)
Amputee	1	38.0		1	79.0		101	61.3	(58.7 - 63.9)
Arthritis	0	—		2	66.0	(48.4 - 83.6)	309	72.7	(71.6 - 73.9)
Pain	3	56.3	(41.1 - 71.6)	8	59.4	(49.9 - 68.9)	821	58.8	(57.4 - 60.1)
Ortho - fractures	11	64.7	(50.1 - 79.4)	5	77.8	(59.6 - 96.0)	797	73.0	(72.0 - 74.0)
Ortho - replacements	44	69.0	(65.9 - 72.2)	50	71.3	(68.8 - 73.8)	4,742	69.4	(69.1 - 69.6)
Ortho - soft tissue injury	0	—		2	59.5	(48.7 - 70.3)	107	70.5	(67.6 - 73.4)
Ortho - others	5	72.4	(68.7 - 76.1)	7	72.4	(68.6 - 76.3)	720	67.1	(66.2 - 68.1)
Cardiac	3	74.3	(69.0 - 79.7)	3	79.3	(74.1 - 84.6)	321	71.5	(70.3 - 72.7)
Pulmonary	2	78.5	(65.8 - 91.2)	1	82.0		136	75.5	(73.8 - 77.1)
Burns	1	47.0		0	—		2	—	
Congenital deformity	0	—		0	—		8	54.1	(41.6 - 66.7)
Other disabling imp.	2	68.5	(57.7 - 79.3)	1	59.0		248	67.0	(65.1 - 68.9)
Multiple trauma	0	—		1	38.0		42	50.2	(43.6 - 56.8)
Developmental disability	0	—		0	—		4	—	
Re-conditioning	10	71.0	(62.4 - 79.6)	10	66.7	(60.1 - 73.3)	1,382	73.7	(73.0 - 74.4)
Missing or excluded	1			0			36		
<b>All episodes</b>	<b>101</b>	<b>67.1</b>	<b>(64.0 - 70.1)</b>	<b>117</b>	<b>68.7</b>	<b>(66.4 - 70.9)</b>	<b>12,393</b>	<b>68.1</b>	<b>(67.8 - 68.3)</b>

# NDIS funding status at episode end

Episode source	Your Service 2017		Your Service 2018 All Ambulatory 2018 (AU)			
	No.	%	No.	%	No.	%
Accepted - on a plan	0	—	2	2.2	66	0.7
Accepted - waiting	0	—	1	1.1	41	0.4
Awaiting eligibility determination	0	—	0	—	53	0.5
Eligible - hasn't applied	0	—	0	—	98	1.0
Eligible - NDIS not yet available in the region	0	—	0	—	9	0.1
Not eligible / not relevant	23	100.0	88	96.7	9,662	97.3
Missing	78		26		1,822	
<b>All episodes (AU)</b>	<b>101</b>		<b>117</b>		<b>11,751</b>	



# Staff type by impairment group

percentage of patients receiving treatment from this staff type	Physiotherapist	Hydrotherapist	Occupational Therapist	Exercise Physiologist	Therapy Aide	Medical Officer	Registered Nurse	Enrolled Nurse	Speech Pathologist	Social Worker	Dietician	Psychologist	Other Staff Type
<b>Impairment group</b>													
Stroke (n=11)	81.8	9.1	72.7	36.4	63.6	9.1	27.3	9.1	45.5	54.5	27.3	0.0	0.0
Brain (n=4)	100.0	0.0	100.0	25.0	25.0	0.0	25.0	0.0	50.0	25.0	0.0	50.0	0.0
Neurological (n=10)	80.0	0.0	80.0	30.0	30.0	30.0	0.0	0.0	60.0	40.0	30.0	0.0	0.0
Spinal cord (n=1)	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amputee (n=1)	100.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0
Arthritis (n=2)	50.0	100.0	100.0	100.0	50.0	100.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0
Pain (n=8)	100.0	62.5	87.5	75.0	0.0	0.0	37.5	0.0	0.0	0.0	12.5	37.5	0.0
Ortho - fractures (n=5)	100.0	0.0	40.0	60.0	20.0	0.0	0.0	0.0	20.0	20.0	20.0	0.0	0.0
Ortho - replacements (n=49)	100.0	69.4	53.1	42.9	8.2	18.4	16.3	6.1	0.0	2.0	4.1	0.0	0.0
Ortho - soft tissue injury (n=2)	100.0	50.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ortho - others (n=7)	100.0	71.4	57.1	57.1	14.3	28.6	14.3	0.0	0.0	0.0	28.6	0.0	0.0
Cardiac (n=3)	66.7	0.0	33.3	66.7	0.0	0.0	33.3	0.0	0.0	0.0	33.3	33.3	0.0
Pulmonary (n=1)	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0
Burns (n=0)	—	—	—	—	—	—	—	—	—	—	—	—	—
Congenital deformity (n=0)	—	—	—	—	—	—	—	—	—	—	—	—	—
Other disabling imp. (n=1)	100.0	0.0	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0
Multiple trauma (n=1)	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Developmental disability (n=0)	—	—	—	—	—	—	—	—	—	—	—	—	—
Re-conditioning (n=9)	88.9	22.2	55.6	33.3	55.6	55.6	0.0	0.0	22.2	0.0	0.0	22.2	0.0

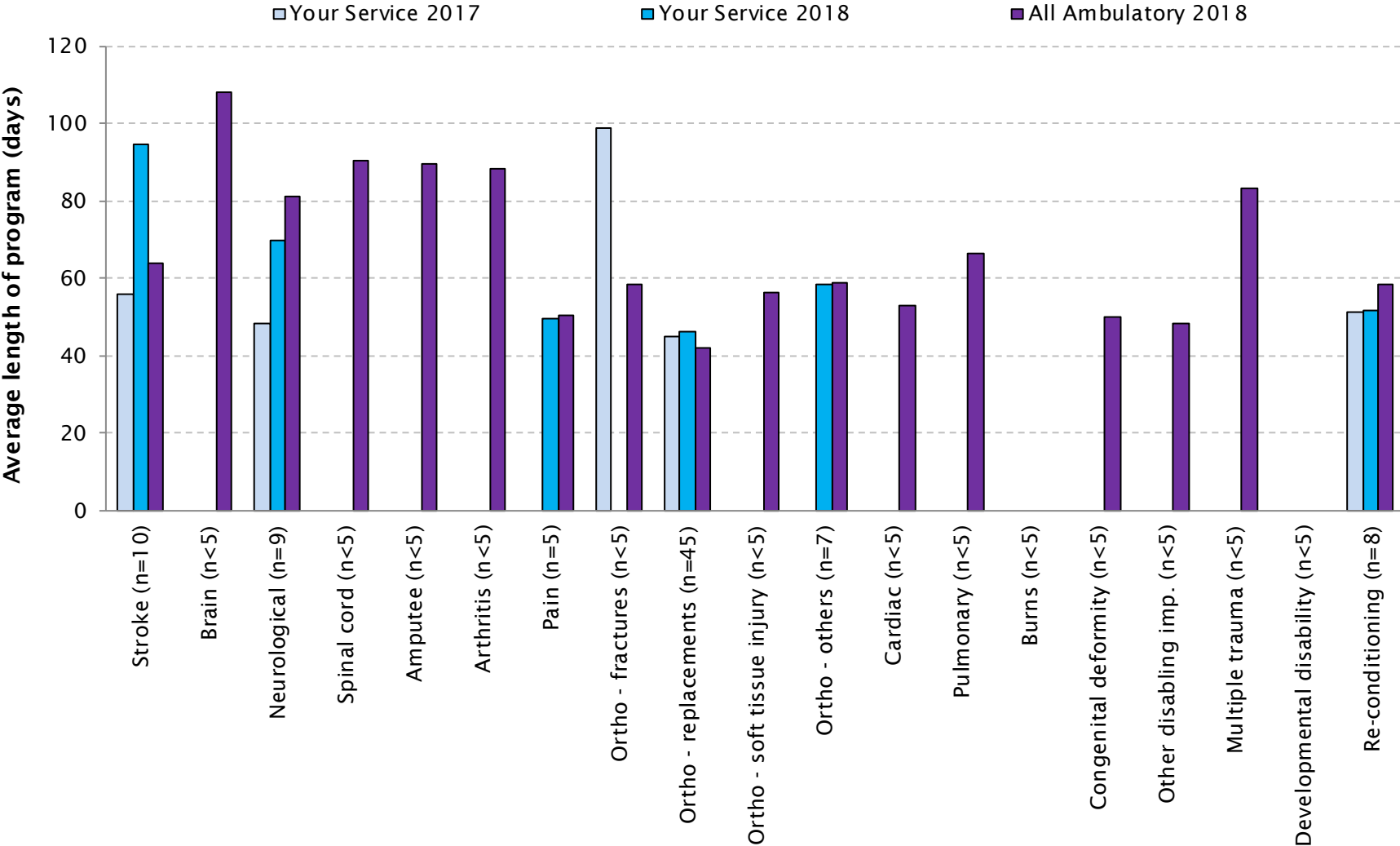
# Outcome measures – All impairments



The following section presents analysis of each of the following elements:

- Episode length
- Occasions of service
- Employment status
- Independence outcomes
- Lawton's score outcomes

# Length of program by impairment group

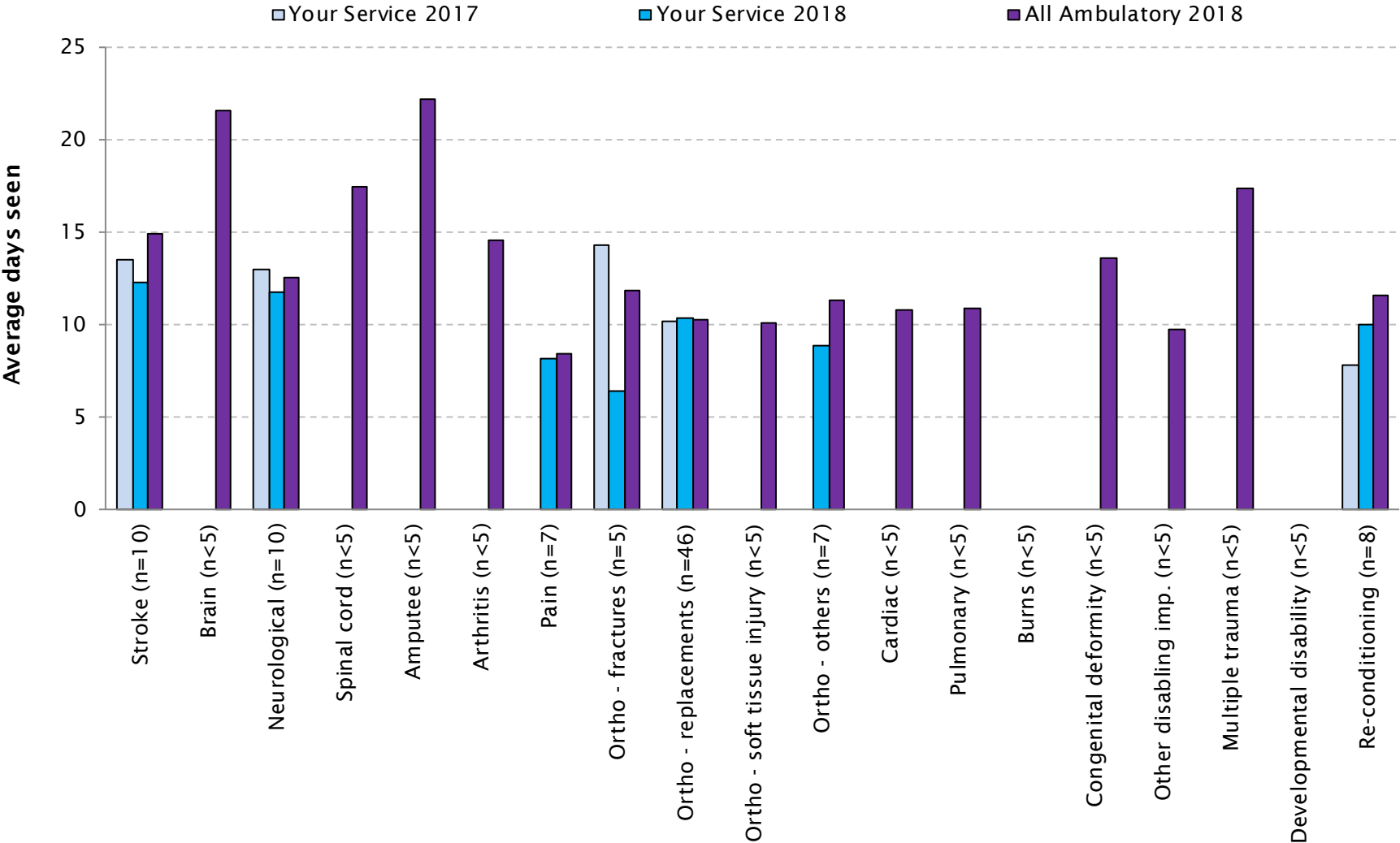


# Length of program by impairment group

Impairment group	Your Service 2017			Your Service 2018			All Ambulatory 2018		
	No.	Mean LOP	Trimmed data range*	No.	Mean LOP	Trimmed data range*	No.	Mean LOP	Trimmed data range*
Stroke	9	55.8		10	94.5		1,199	64.1	(16 - 156)
Brain	0	—		4	—		343	108.0	(24 - 237)
Neurological	5	48.2		9	69.9		789	81.1	(21 - 230)
Spinal cord	1	—		1	—		72	90.7	(27 - 275)
Amputee	1	—		1	—		92	89.7	(23 - 305)
Arthritis	0	—		2	—		275	88.4	(23 - 190)
Pain	2	—		5	49.8		602	50.5	(11 - 119)
Ortho - fractures	9	98.9		4	—		729	58.6	(19 - 131)
Ortho - replacements	39	44.9	(21 - 84)	45	46.3	(21 - 96)	4,334	42.2	(17 - 88)
Ortho - soft tissue injury	0	—		2	—		95	56.6	(26 - 112)
Ortho - others	4	—		7	58.3		651	58.9	(21 - 137)
Cardiac	3	—		3	—		287	53.1	(24 - 120)
Pulmonary	2	—		1	—		122	66.3	(35 - 162)
Burns	1	—		0	—		2	—	
Congenital deformity	0	—		0	—		7	50.1	
Other disabling imp.	2	—		1	—		223	48.5	(11 - 141)
Multiple trauma	0	—		1	—		40	83.3	(16 - 184)
Developmental disability	0	—		0	—		4	—	
Re-conditioning	10	51.4		8	51.8		1,223	58.6	(21 - 133)
Missing or excluded	13			13			1,304		
<b>All episodes</b>	<b>101</b>	<b>54.3</b>	<b>(20 - 131)</b>	<b>117</b>	<b>59.5</b>	<b>(23 - 155)</b>	<b>12,393</b>	<b>56.1</b>	<b>(17 - 140)</b>

\*Includes middle 90% of episodes

# Days seen by impairment group

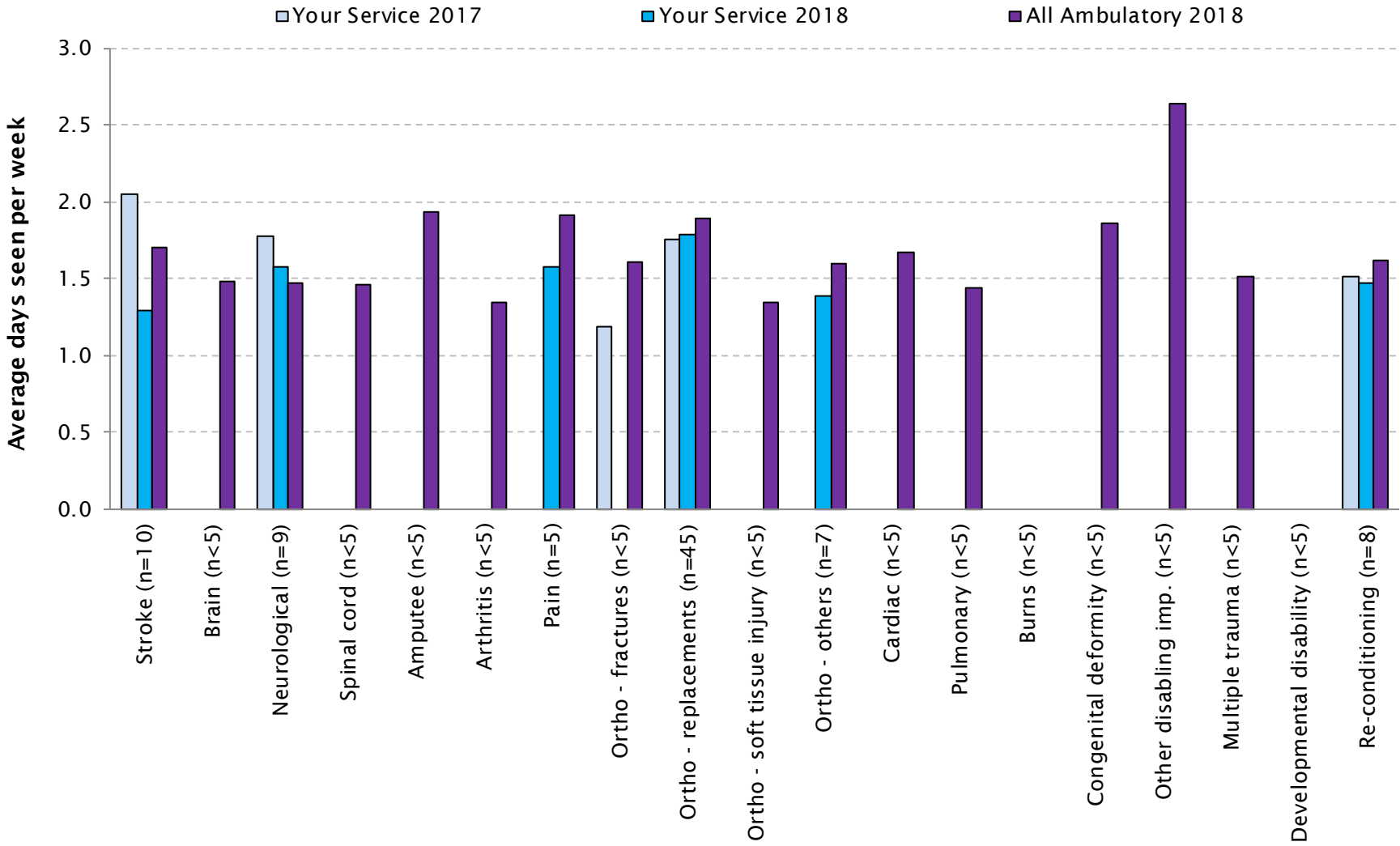


# Days seen by impairment group

Impairment group	Your Service 2017			Your Service 2018			All Ambulatory 2018		
	No. days seen	Mean	Trimmed data range*	No. days seen	Mean	Trimmed data range*	No. days seen	Mean	Trimmed data range*
Stroke	10	13.5		10	12.3		1,197	14.9	(3 - 36)
Brain	0	—		4	—		341	21.6	(3 - 67)
Neurological	5	13.0		10	11.7		806	12.5	(3 - 25)
Spinal cord	1	—		1	—		75	17.5	(5 - 40)
Amputee	1	—		1	—		91	22.1	(4 - 52)
Arthritis	0	—		2	—		294	14.5	(3 - 29)
Pain	2	—		7	8.1		786	8.4	(1 - 17)
Ortho - fractures	10	14.3		5	6.4		739	11.8	(4 - 25)
Ortho - replacements	40	10.1	(4 - 16)	46	10.3	(6 - 16)	4,394	10.2	(4 - 20)
Ortho - soft tissue injury	0	—		2	—		95	10.1	(4 - 20)
Ortho - others	4	—		7	8.9		662	11.3	(4 - 21)
Cardiac	3	—		3	—		288	10.8	(5 - 16)
Pulmonary	2	—		0	—		123	10.8	(5 - 17)
Burns	1	—		0	—		2	—	
Congenital deformity	0	—		0	—		7	13.6	
Other disabling imp.	2	—		1	—		240	9.7	(3 - 20)
Multiple trauma	0	—		1	—		40	17.4	(3 - 34)
Developmental disability	0	—		0	—		4	—	
Re-conditioning	10	7.8		8	10.0		1,229	11.6	(3 - 22)
Missing or excluded	10			9			980		
<b>All episodes</b>	<b>101</b>	<b>11.2</b>	<b>(3 - 27)</b>	<b>117</b>	<b>10.6</b>	<b>(5 - 20)</b>	<b>12,393</b>	<b>12.0</b>	<b>(3 - 24)</b>

\*Includes middle 90% of episodes

# Days seen per elapsed week by impairment group



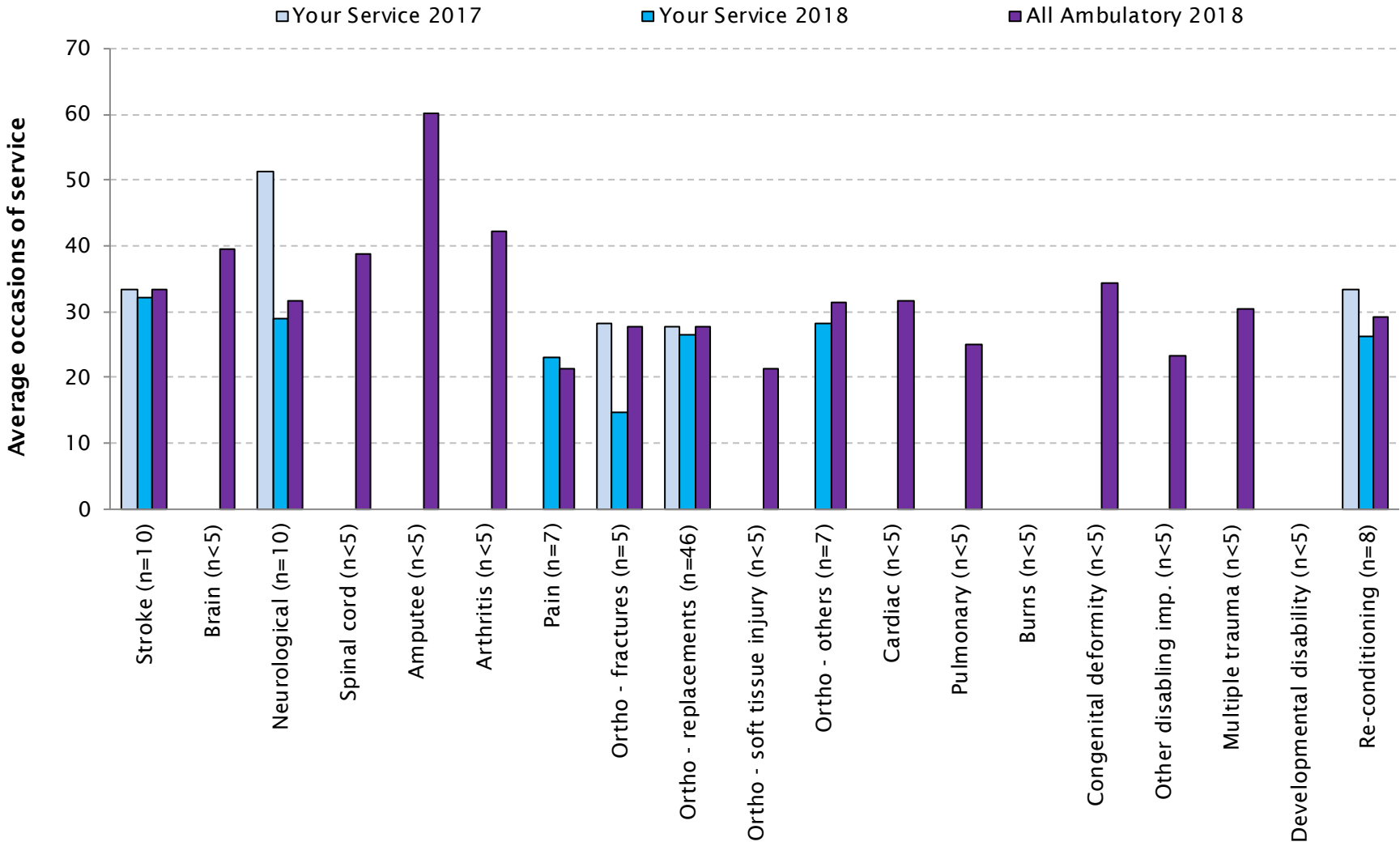
# Days seen per elapsed week by impairment group

Impairment group	Your Service 2017			Your Service 2018			All Ambulatory 2018		
	No.	Mean days seen per week	Trimmed data range*	No.	Mean days seen per week	Trimmed data range*	No.	Mean days seen per week	Trimmed data range*
Stroke	9	2.0		10	1.3		1,179	1.7	(0.5 - 3.4)
Brain	0	—		4	—		335	1.5	(0.3 - 3.3)
Neurological	5	1.8		9	1.6		786	1.5	(0.3 - 2.8)
Spinal cord	1	—		1	—		71	1.5	(0.5 - 2.5)
Amputee	1	—		1	—		88	1.9	(0.6 - 3.4)
Arthritis	0	—		2	—		275	1.3	(0.5 - 2.4)
Pain	2	—		5	1.6		602	1.9	(0.7 - 6.0)
Ortho - fractures	9	1.2		4	—		723	1.6	(0.7 - 2.7)
Ortho - replacements	39	1.8	(0.9 - 3.2)	45	1.8	(0.9 - 2.7)	4,332	1.9	(0.9 - 2.9)
Ortho - soft tissue injury	0	—		2	—		95	1.3	(0.6 - 2.5)
Ortho - others	4	—		7	1.4		650	1.6	(0.7 - 2.5)
Cardiac	3	—		3	—		286	1.7	(0.6 - 2.4)
Pulmonary	2	—		0	—		121	1.4	(0.4 - 2.3)
Burns	1	—		0	—		2	—	
Congenital deformity	0	—		0	—		7	1.9	
Other disabling imp.	2	—		1	—		222	2.6	(0.5 - 6.4)
Multiple trauma	0	—		1	—		39	1.5	(0.4 - 3.3)
Developmental disability	0	—		0	—		4	—	
Re-conditioning	10	1.5		8	1.5		1,207	1.6	(0.6 - 2.5)
Missing or excluded	13			14			1,369		
<b>All episodes</b>	<b>101</b>	<b>1.7</b>	<b>(0.6 - 3.2)</b>	<b>117</b>	<b>1.6</b>	<b>(0.6 - 2.5)</b>	<b>12,393</b>	<b>1.8</b>	<b>(0.6 - 3.0)</b>

\*Includes middle 90% of episodes



# Occasions of service by impairment group



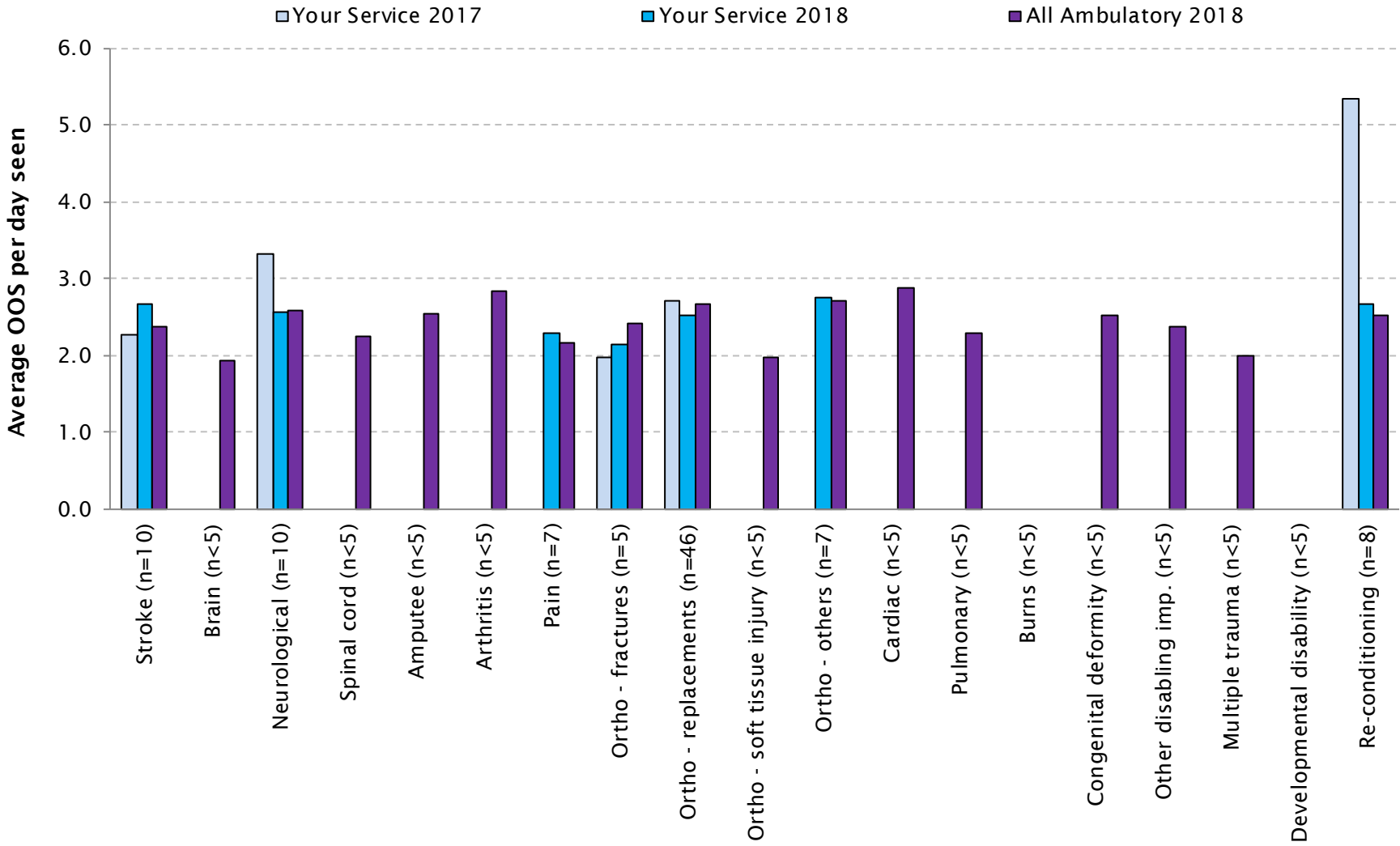
# Occasions of service by impairment group



Impairment group	Your Service 2017			Your Service 2018			All Ambulatory 2018		
	No.	Mean occasions of service	Trimmed data range*	No.	Mean occasions of service	Trimmed data range*	No.	Mean occasions of service	Trimmed data range*
Stroke	10	33.3		10	32.1		1,197	33.5	(4 - 96)
Brain	0	—		4	—		341	39.6	(4 - 153)
Neurological	5	51.4		10	28.9		806	31.6	(6 - 69)
Spinal cord	1	—		1	—		75	38.7	(6 - 89)
Amputee	1	—		1	—		91	60.2	(6 - 176)
Arthritis	0	—		2	—		294	42.2	(5 - 96)
Pain	2	—		7	23.0		786	21.3	(1 - 60)
Ortho - fractures	10	28.1		5	14.6		739	27.6	(5 - 66)
Ortho - replacements	40	27.8	(8 - 51)	46	26.6	(10 - 53)	4,393	27.7	(8 - 60)
Ortho - soft tissue injury	0	—		2	—		95	21.4	(4 - 50)
Ortho - others	4	—		7	28.3		662	31.3	(9 - 72)
Cardiac	3	—		3	—		288	31.6	(9 - 52)
Pulmonary	2	—		1	—		124	24.9	(7 - 52)
Burns	1	—		0	—		2	—	
Congenital deformity	0	—		0	—		7	34.4	
Other disabling imp.	2	—		1	—		240	23.3	(6 - 47)
Multiple trauma	0	—		1	—		40	30.5	(6 - 64)
Developmental disability	0	—		0	—		4	—	
Re-conditioning	10	33.3		8	26.1		1,229	29.1	(6 - 60)
Missing or excluded	10			8			980		
<b>All episodes</b>	<b>101</b>	<b>30.7</b>	<b>(5 - 114)</b>	<b>117</b>	<b>27.0</b>	<b>(6 - 64)</b>	<b>12,393</b>	<b>29.5</b>	<b>(5 - 69)</b>

\*Includes middle 90% of episodes

# Occasions of service per day seen by impairment group



# Occasions of service per day seen by impairment group

Impairment group	Your Service 2017			Your Service 2018			All Ambulatory 2018		
	No.	Mean OOS per day seen	Trimmed data range*	No.	Mean OOS per day seen	Trimmed data range*	No.	Mean OOS per day seen	Trimmed data range*
Stroke	10	2.3		10	2.7		1,196	2.4	(1.0 - 4.5)
Brain	0	—		4	—		341	1.9	(1.0 - 3.8)
Neurological	5	3.3		10	2.6		806	2.6	(1.1 - 4.0)
Spinal cord	1	—		1	—		75	2.2	(1.0 - 3.6)
Amputee	1	—		1	—		91	2.5	(1.0 - 4.0)
Arthritis	0	—		2	—		294	2.8	(1.3 - 5.0)
Pain	2	—		7	2.3		786	2.2	(1.0 - 5.1)
Ortho - fractures	10	2.0		5	2.2		739	2.4	(1.0 - 4.4)
Ortho - replacements	40	2.7	(1.0 - 3.5)	46	2.5	(1.5 - 3.7)	4,393	2.7	(1.4 - 4.2)
Ortho - soft tissue injury	0	—		2	—		95	2.0	(1.0 - 3.2)
Ortho - others	4	—		7	2.8		662	2.7	(1.6 - 4.3)
Cardiac	3	—		3	—		288	2.9	(1.5 - 4.0)
Pulmonary	2	—		0	—		123	2.3	(1.0 - 3.6)
Burns	1	—		0	—		2	—	
Congenital deformity	0	—		0	—		7	2.5	
Other disabling imp.	2	—		1	—		240	2.4	(1.0 - 3.1)
Multiple trauma	0	—		1	—		40	2.0	(1.0 - 3.3)
Developmental disability	0	—		0	—		4	—	
Re-conditioning	10	5.3		8	2.7		1,229	2.5	(1.2 - 3.8)
Missing or excluded	10			9			982		
<b>All episodes</b>	<b>101</b>	<b>2.9</b>	<b>(1.0 - 5.0)</b>	<b>117</b>	<b>2.5</b>	<b>(1.0 - 4.1)</b>	<b>12,393</b>	<b>2.5</b>	<b>(1.0 - 4.0)</b>

\*Includes middle 90% of episodes

# Employment outcomes by impairment group



A patient with an 'equivalent employment outcome' is in:

- the same or similar job with same or similar hours  
or
- a different job by choice.

A patient with a 'reduced employment outcome' is in:

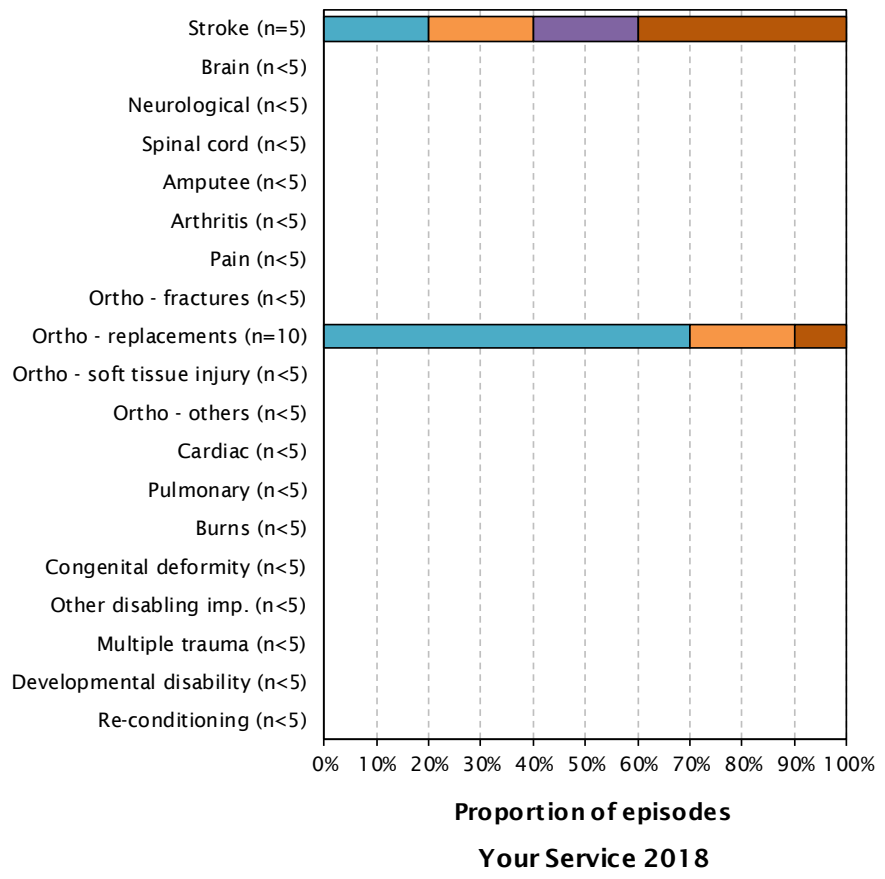
- the same or similar job with reduced hours  
or
- a different job due to reduced function  
or
- not able to work.

Employment outcomes are only considered for patients who were employed prior to injury / impairment or exacerbation of impairment.

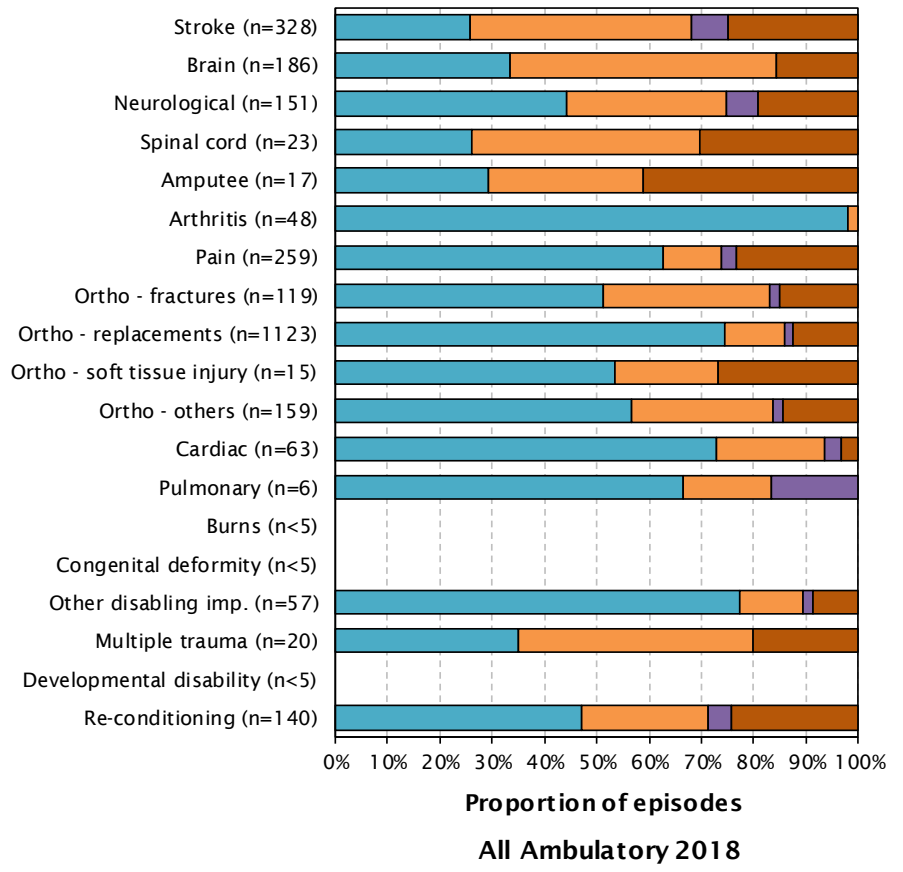
# Employment outcomes by impairment group



■ Equivalent employment outcome   
 ■ Reduced employment outcome  
■ Chosen to retire   
 ■ Too early to determine



■ Equivalent employment outcome   
 ■ Reduced employment outcome  
■ Chosen to retire   
 ■ Too early to determine



# Employment outcomes by impairment group

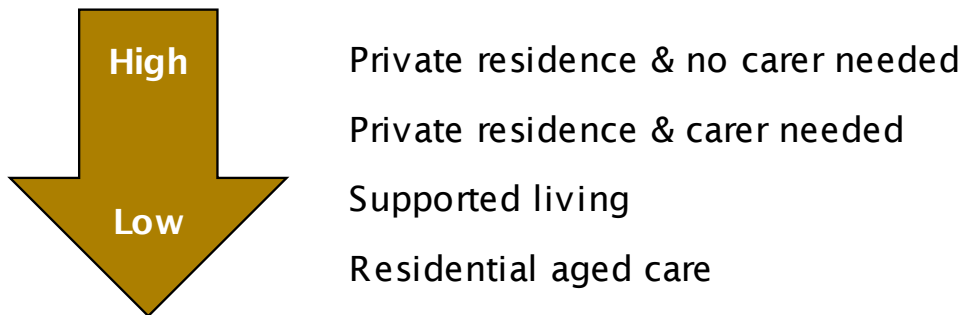


Impairment group	Your Service 2017		Your Service 2018		All Ambulatory 2018	
	Employed prior to impair (No.)	Equivalent employment outcome (%)	Employed prior to impair (No.)	Equivalent employment outcome (%)	Employed prior to impair (No.)	Equivalent employment outcome (%)
Stroke	3	0.0	5	20.0	328	25.9
Brain	0	—	3	100.0	186	33.3
Neurological	2	0.0	1	0.0	151	44.4
Spinal cord	1	0.0	0	—	23	26.1
Amputee	1	0.0	0	—	17	29.4
Arthritis	0	—	1	100.0	48	97.9
Pain	1	0.0	2	100.0	259	62.5
Ortho - fractures	1	100.0	0	—	119	51.3
Ortho - replacements	12	83.3	10	70.0	1,123	74.6
Ortho - soft tissue injury	0	—	0	—	15	53.3
Ortho - others	1	0.0	1	100.0	159	56.6
Cardiac	1	0.0	0	—	63	73.0
Pulmonary	0	—	0	—	6	66.7
Burns	1	0.0	0	—	0	—
Congenital deformity	0	—	0	—	1	—
Other disabling imp.	0	—	0	—	57	77.2
Multiple trauma	0	—	0	—	20	35.0
Developmental disability	0	—	0	—	0	—
Re-conditioning	2	0.0	2	50.0	140	47.1
Missing or excluded	75		92		9,678	
<b>All episodes</b>	<b>101</b>	<b>42.3</b>	<b>117</b>	<b>64.0</b>	<b>12,393</b>	<b>58.9</b>

# Independence outcomes by impairment group

Independence outcomes are based on changes in accommodation and carer status.

Independence is ranked using the following order:



A patient is defined as having 'equivalent independence' when:

- independence after the rehabilitation episode was the same or greater than prior to rehabilitation.

A patient is defined as having 'reduced independence' when:

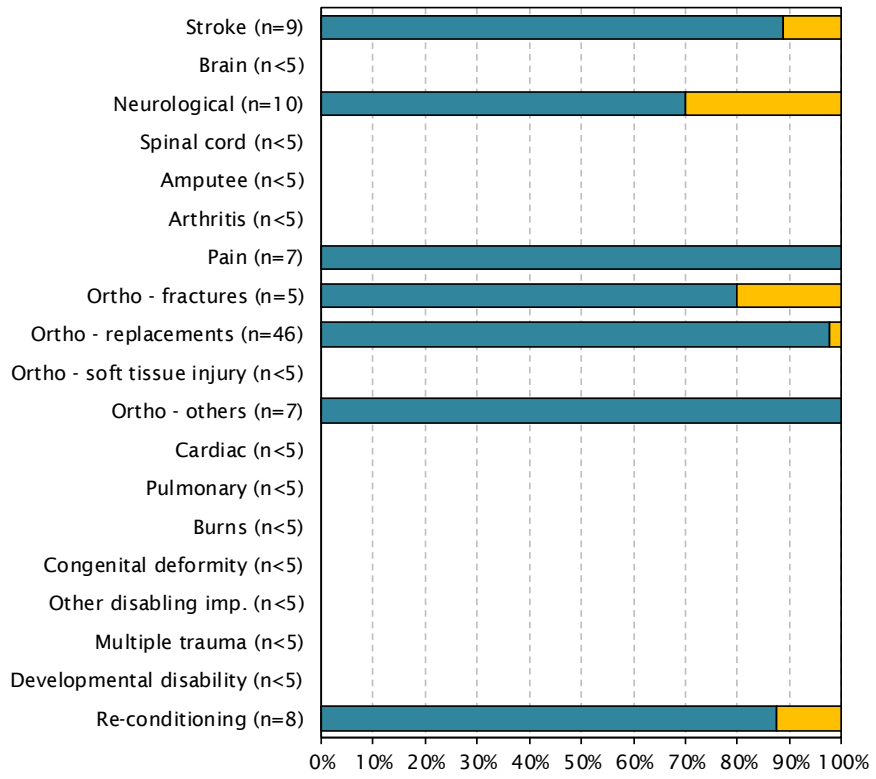
- independence after the rehabilitation episode was less than before rehabilitation.



# Independence outcomes by impairment group

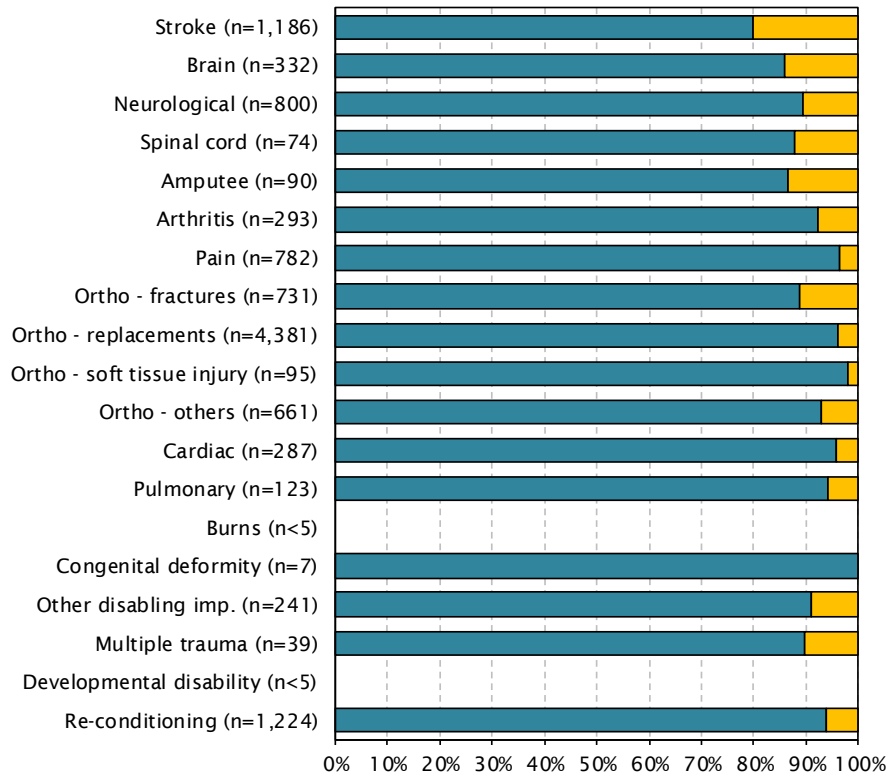


■ Equivalent independence   ■ Reduced independence



Proportion of episodes  
Your Service 2018

■ Equivalent independence   ■ Reduced independence



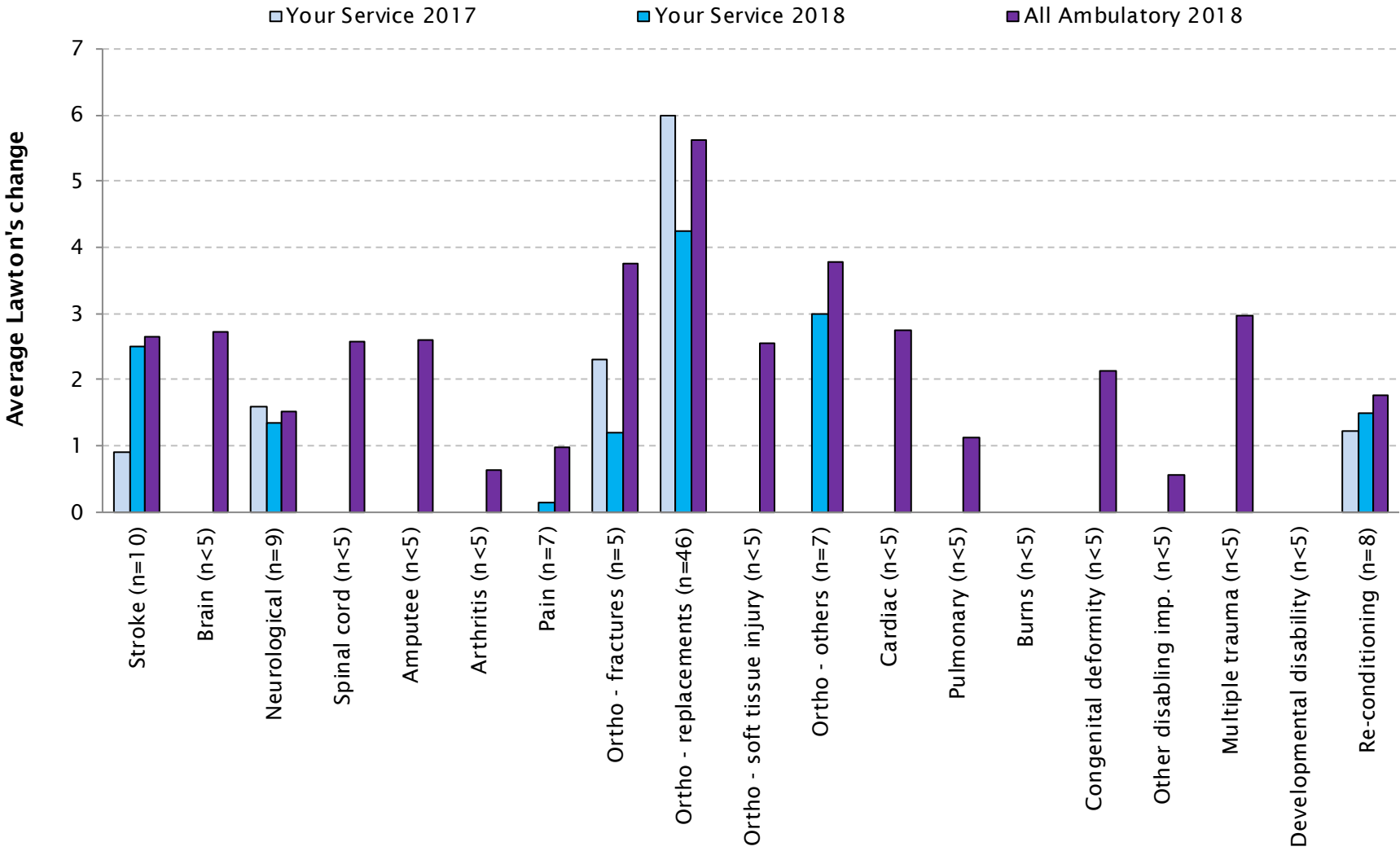
Proportion of episodes  
All Ambulatory 2018

# Independence outcomes by impairment group



Impairment group	Your Service 2017		Your Service 2018		All Ambulatory 2018	
	No.	Equivalent independence outcome (%)	No.	Equivalent independence outcome (%)	No.	Equivalent independence outcome (%)
Stroke	10	70.0	9	88.9	1,186	79.8
Brain	0	—	4	100.0	332	85.8
Neurological	5	100.0	10	70.0	800	89.5
Spinal cord	1	100.0	1	100.0	74	87.8
Amputee	1	0.0	1	100.0	90	86.7
Arthritis	0	—	2	100.0	293	92.2
Pain	2	100.0	7	100.0	782	96.4
Ortho - fractures	10	80.0	5	80.0	731	88.6
Ortho - replacements	40	100.0	46	97.8	4,381	96.1
Ortho - soft tissue injury	0	—	2	100.0	95	97.9
Ortho - others	4	100.0	7	100.0	661	92.9
Cardiac	3	100.0	3	100.0	287	95.8
Pulmonary	2	100.0	1	100.0	123	94.3
Burns	1	100.0	0	—	2	—
Congenital deformity	0	—	0	—	7	100.0
Other disabling imp.	2	100.0	1	100.0	241	90.9
Multiple trauma	0	—	1	100.0	39	89.7
Developmental disability	0	—	0	—	4	—
Re-conditioning	10	100.0	8	87.5	1,224	93.8
Missing or excluded	10		9		1,041	
<b>All episodes</b>	<b>101</b>	<b>93.4</b>	<b>117</b>	<b>93.5</b>	<b>12,393</b>	<b>92.4</b>

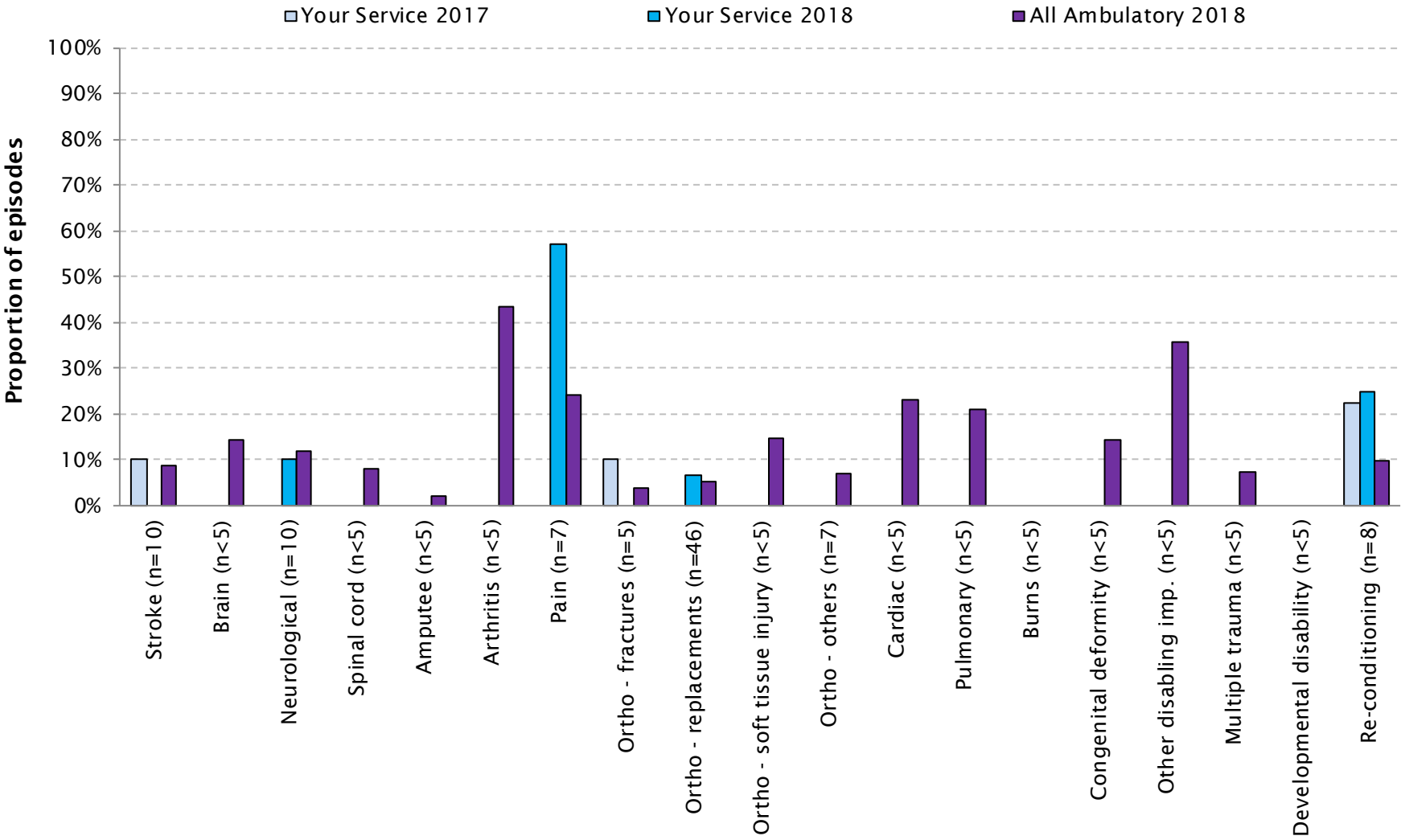
# Lawton's score change by impairment



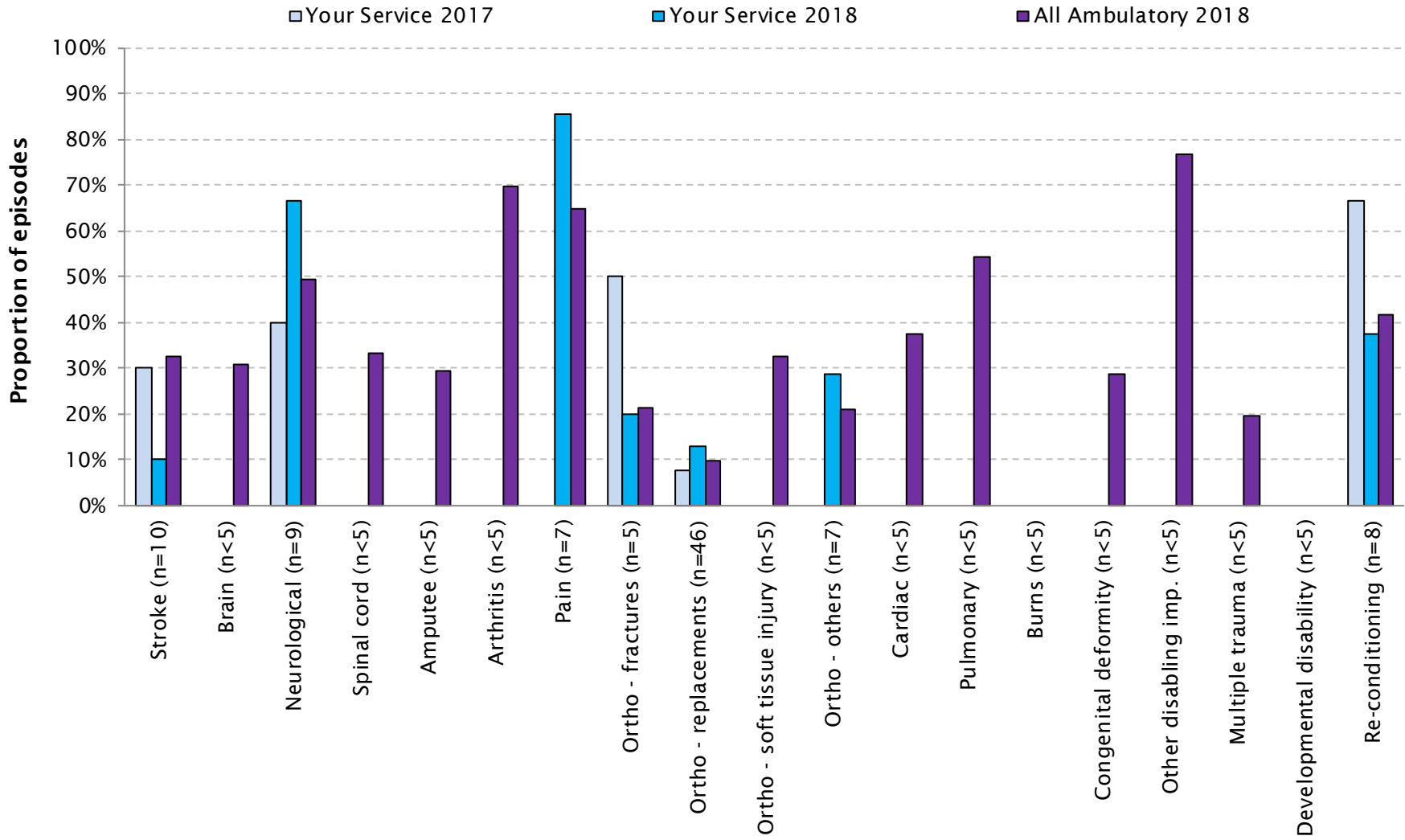
# Lawton's score change by impairment

Impairment group	Your Service 2017		Your Service 2018		All Ambulatory 2018	
	No.	Avg. Lawton's change	No.	Avg. Lawton's change	No.	Avg. Lawton's change
Stroke	10	0.9	10	2.5	1,194	2.7
Brain	0	—	4	2.5	338	2.7
Neurological	5	1.6	9	1.3	782	1.5
Spinal cord	1	12.0	1	0.0	72	2.6
Amputee	1	2.0	1	4.0	92	2.6
Arthritis	0	—	2	0.0	272	0.6
Pain	2	0.0	7	0.1	780	1.0
Ortho - fractures	10	2.3	5	1.2	741	3.8
Ortho - replacements	40	6.0	46	4.2	4,382	5.6
Ortho - soft tissue injury	0	—	2	1.0	95	2.5
Ortho - others	4	4.8	7	3.0	660	3.8
Cardiac	3	6.0	3	2.7	284	2.8
Pulmonary	2	3.0	1	0.0	116	1.1
Burns	1	4.0	0	—	2	—
Congenital deformity	0	—	0	—	7	2.1
Other disabling imp.	2	3.0	1	0.0	236	0.6
Multiple trauma	0	—	1	1.0	41	3.0
Developmental disability	0	—	0	—	3	—
Re-conditioning	9	1.2	8	1.5	1,219	1.8
Missing or excluded	11		9		1,077	
<b>All episodes</b>	<b>101</b>	<b>4.0</b>	<b>117</b>	<b>2.8</b>	<b>12,393</b>	<b>3.6</b>

# Episodes with a Lawton's start score of 30 by impairment group



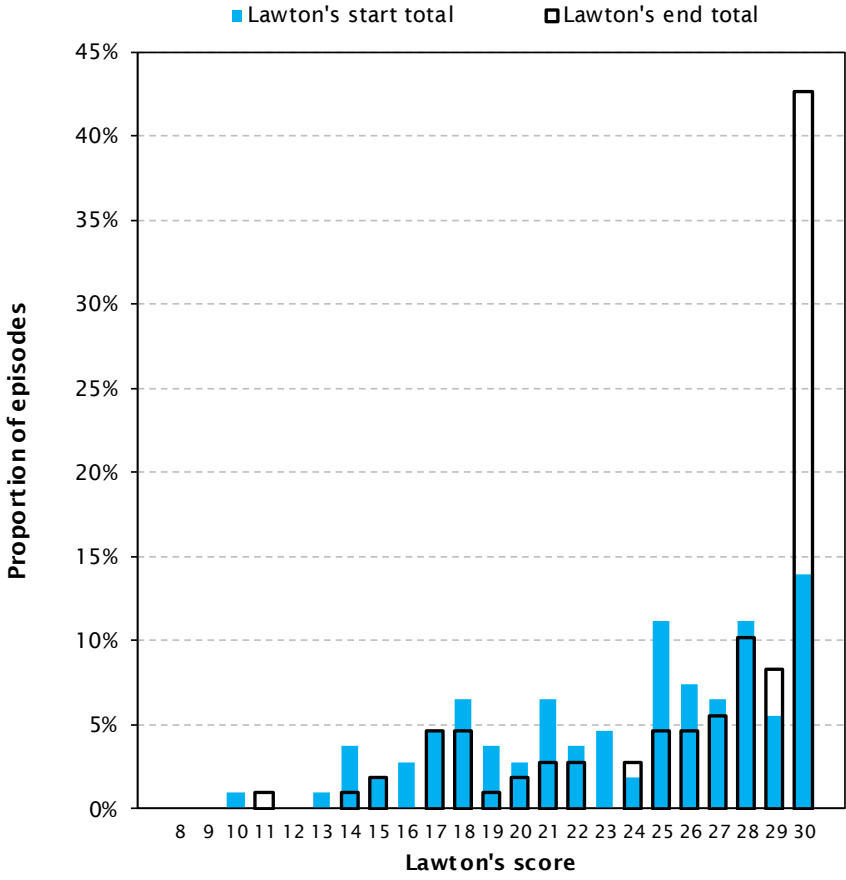
# Episodes with no change in Lawton's score by impairment group



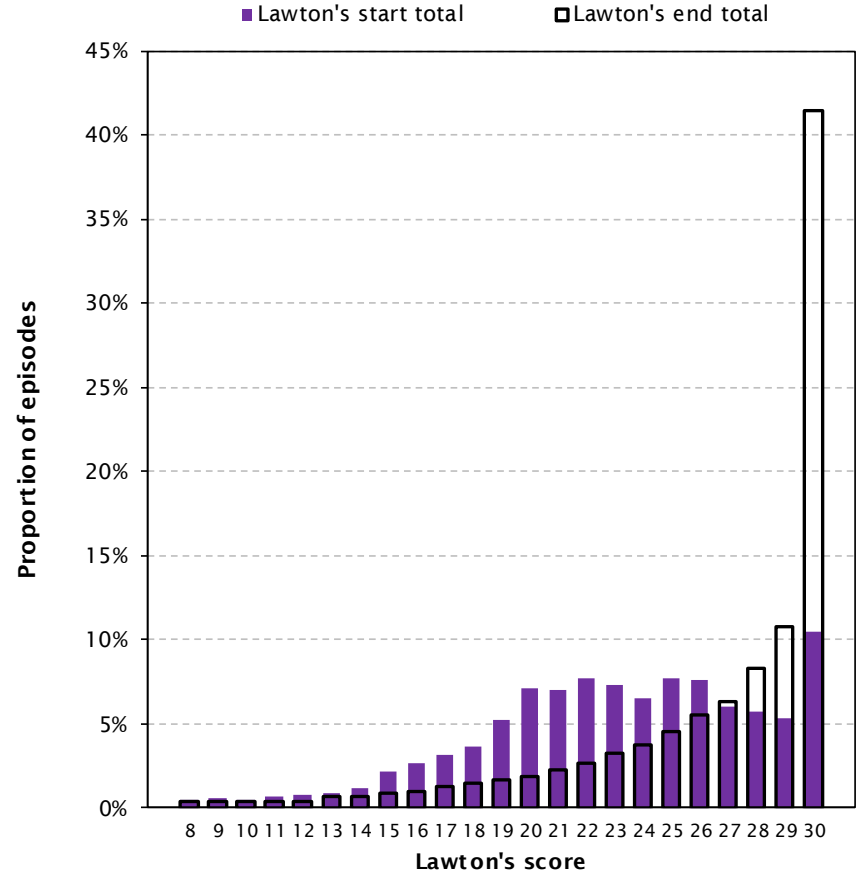
# Lawton's start and end total - all episodes



Your Service 2018 (n=108)



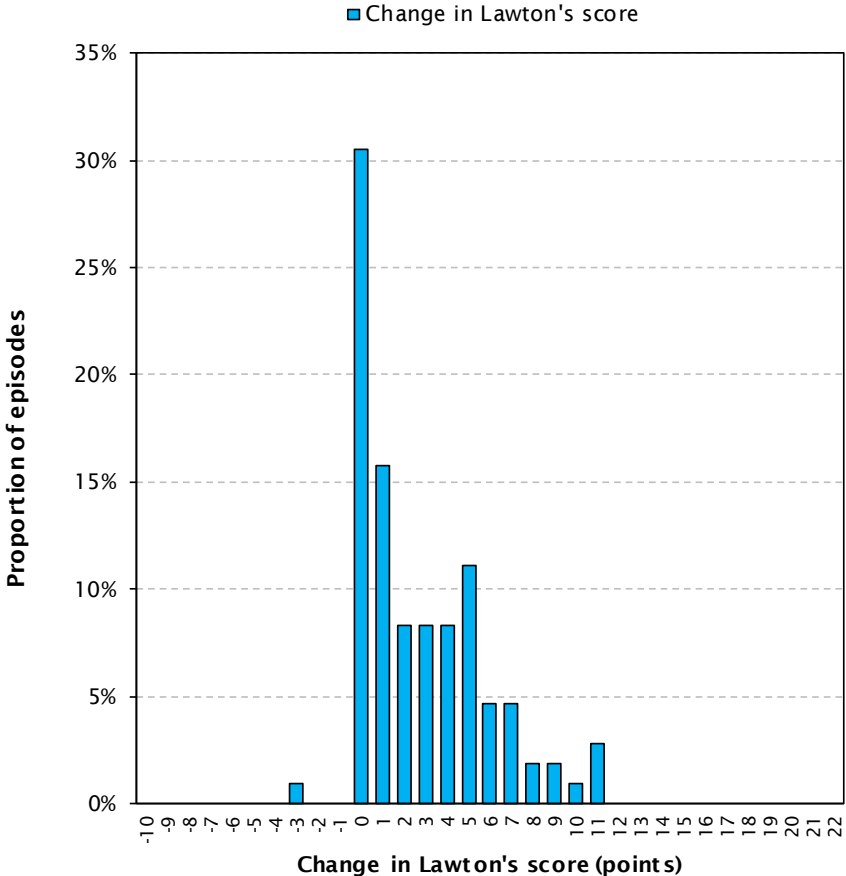
All Ambulatory 2018 (n=11,320)



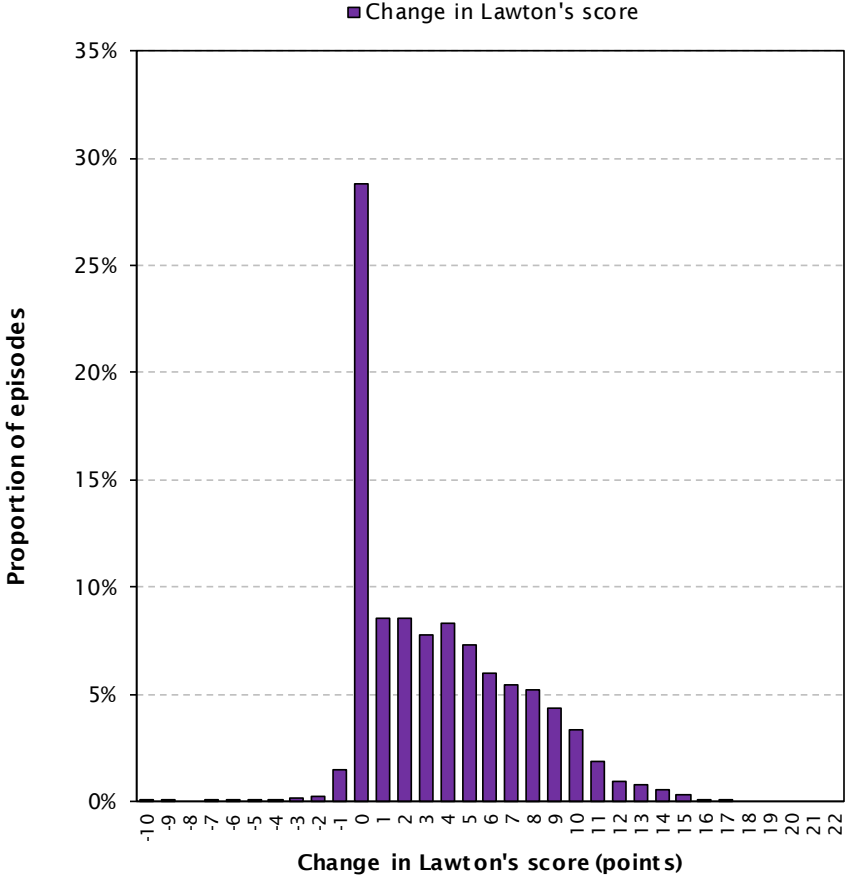
# Change in Lawton's score – all episodes



Your Service 2018 (n=108)



All Ambulatory 2018 (n=11,308)



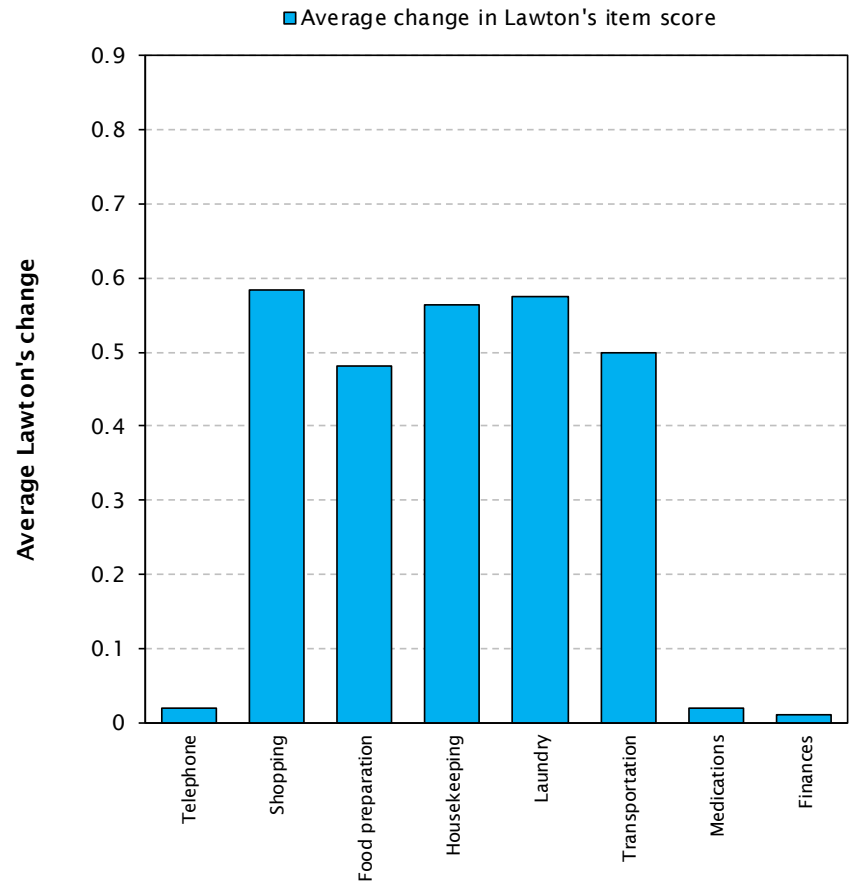
Note: 12 episode(s) had a Lawton's change score < -10.



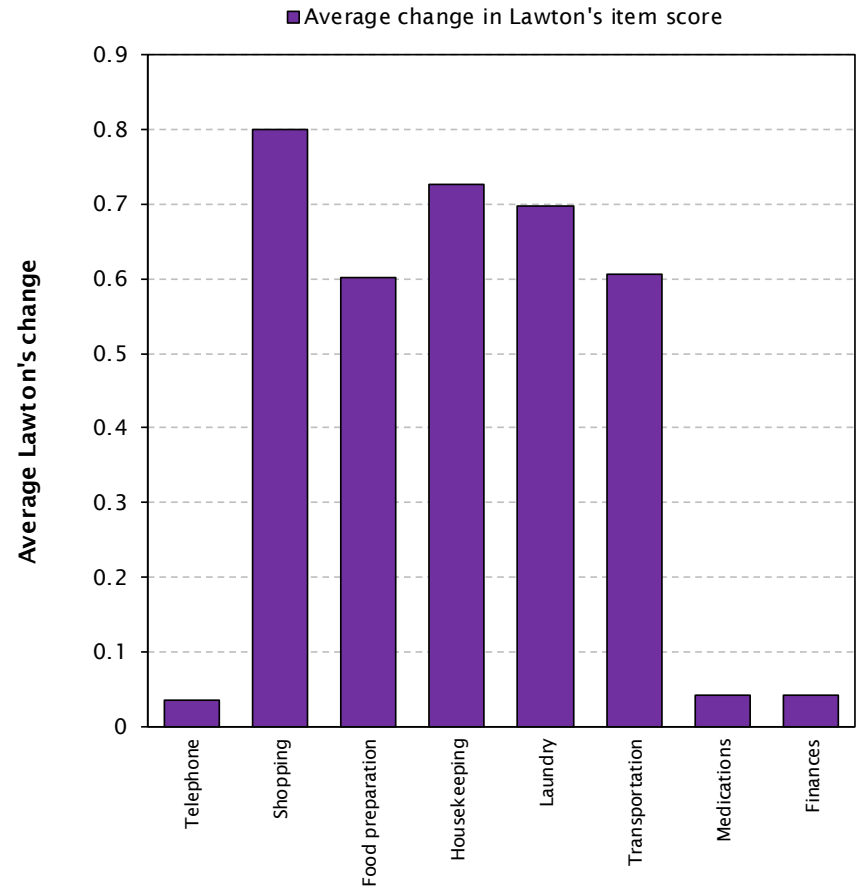
# Change in Lawton's item scores – all episodes



Your Service 2018 (n=108)



All Ambulatory 2018 (n=11,308)

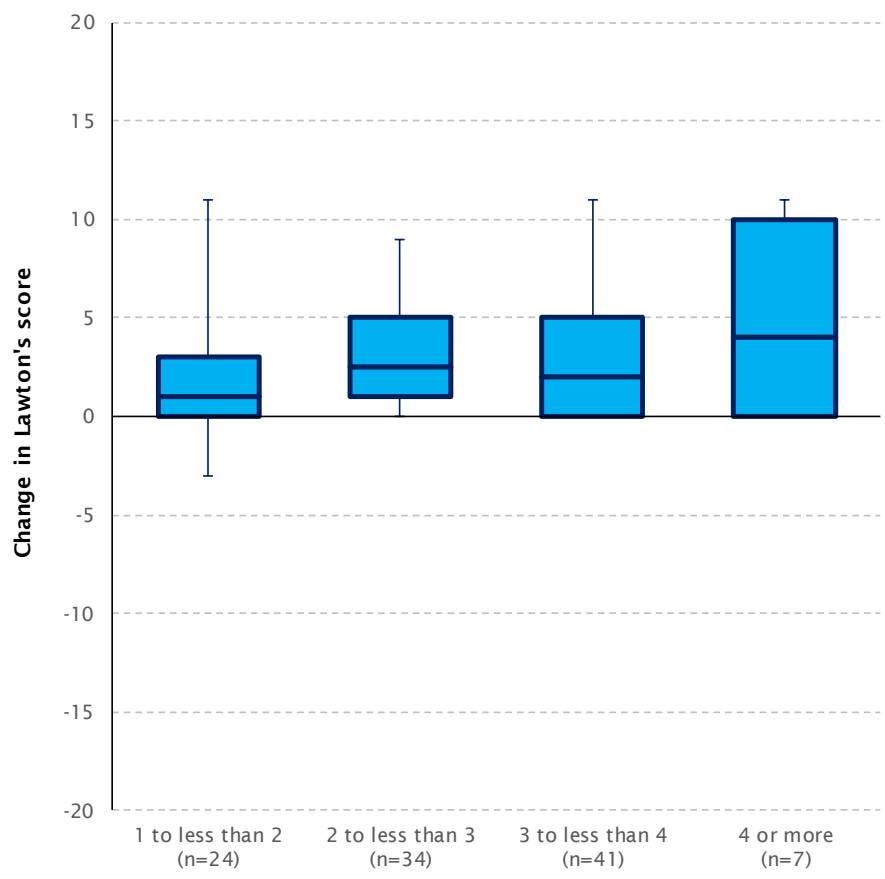


Note: 12 episode(s) had a Lawton's change score < -10.

# Change in Lawton's score by OOS/day seen - all episodes

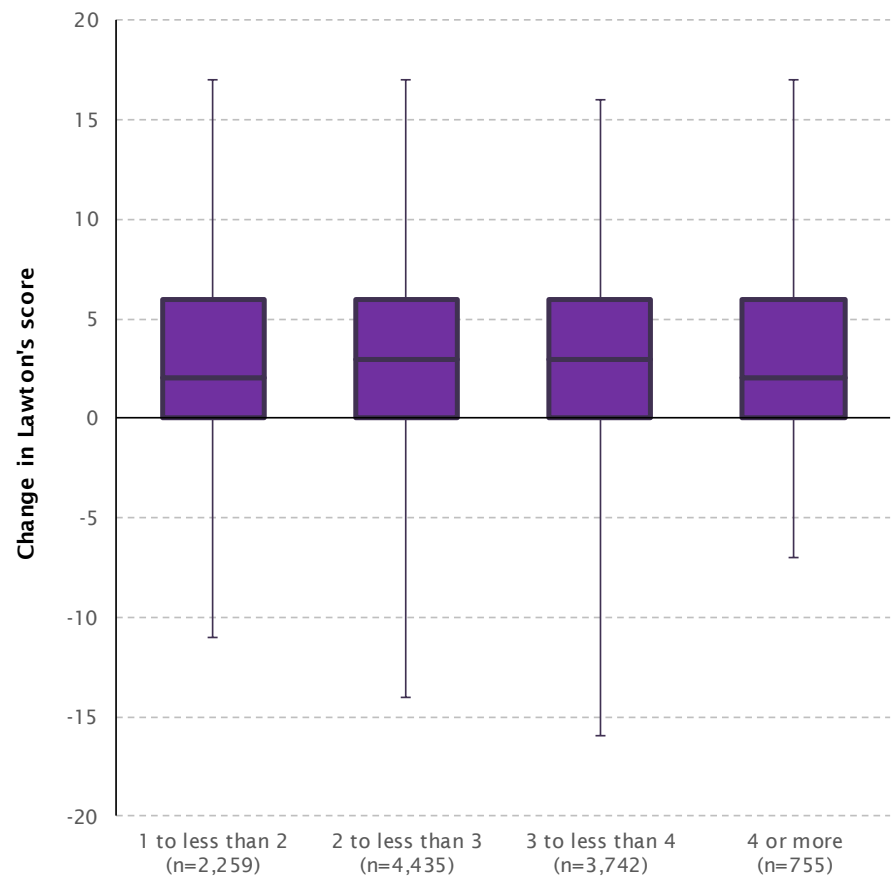


Your Service 2018



Mean occasions of service per day seen

All Ambulatory 2018

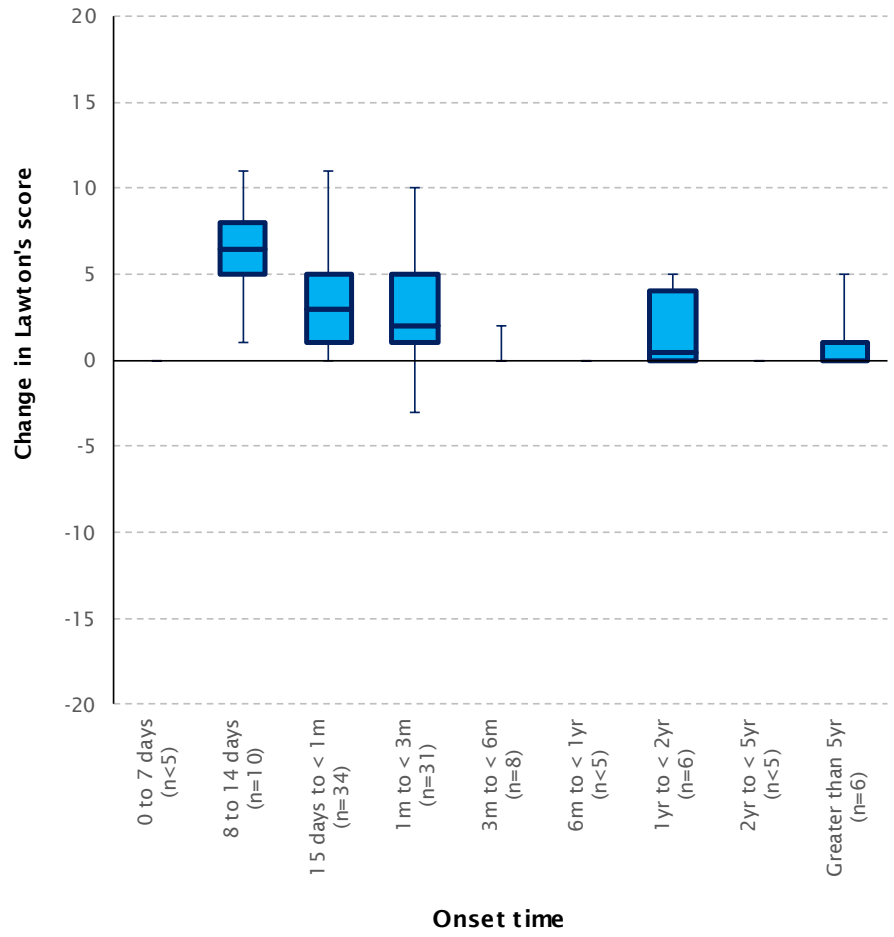


Mean occasions of service per day seen

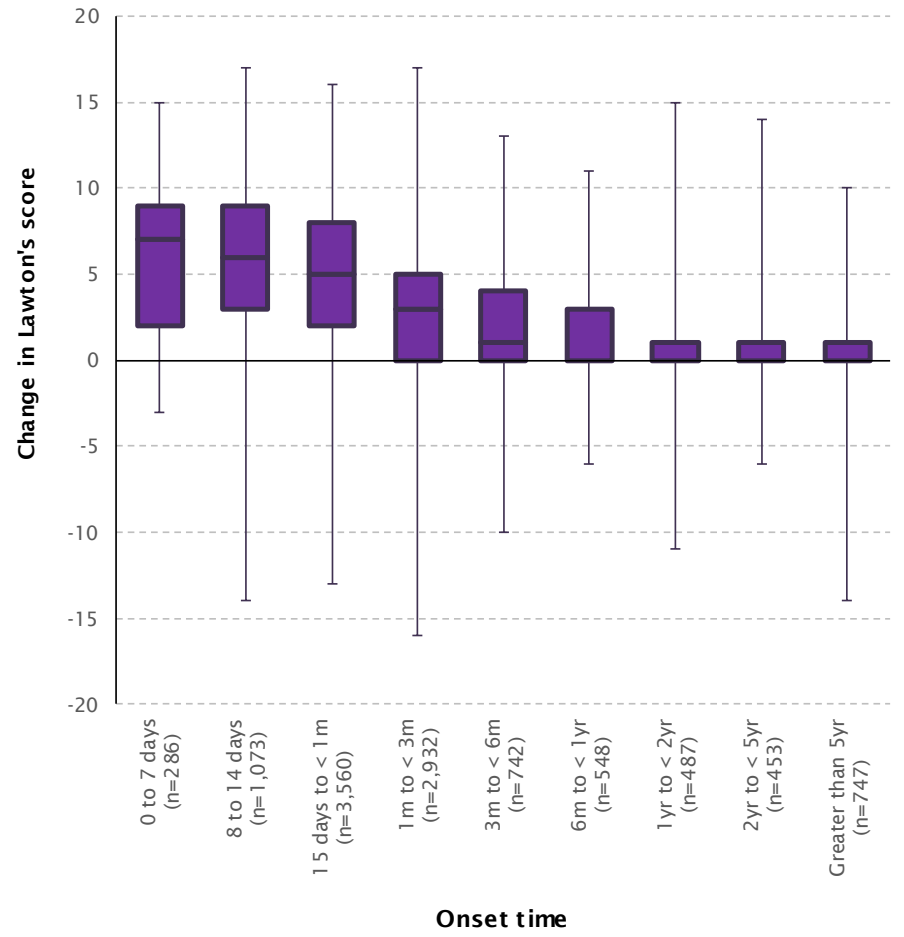
# Change in Lawton's score by onset time - all episodes



Your Service 2018



All Ambulatory 2018



No single outcome measure can provide comprehensive outcome information across the range of impairments treated in ambulatory settings. For this reason, in addition to the Australian Modified Lawton's IADL Scale which is used for every episode, a number of impairment specific measures are included in the AROC Ambulatory Dataset V4.1. This dataset was implemented in August 2017, following widespread clinical consultation.

The following section provides information about these measures, as relevant to your facility's patient population:

- Upper Limb Motor Assessment Scale (UL-MAS)
- Timed 10 Metre Walk Test
- Mayo-Portland Adaptability Inventory-4 (MPAI-4)
- De Morton Mobility Index (DEMMI)
- Timed Up and Go

# Upper Limb Motor Assessment Scale (UL-MAS)



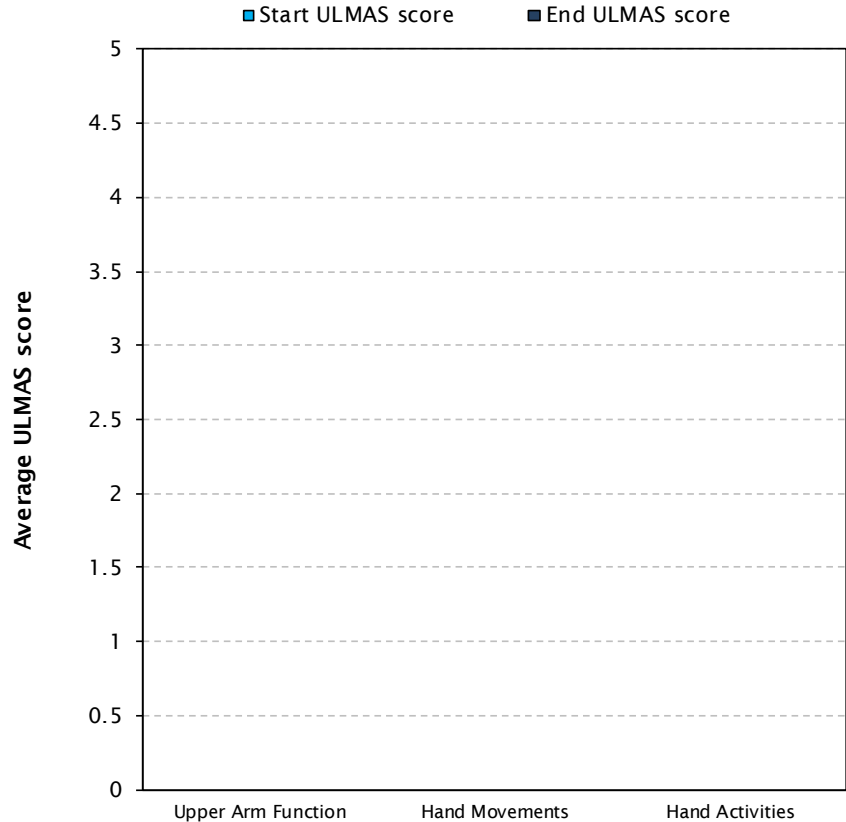
- This data item is collected in addition to the Australian Modified Lawton's IADL Scale for patients who have sustained upper limb impairment following a stroke
- The UL-MAS is used to assess everyday upper limb motor function in adults following stroke

For further information refer to the AROC Ambulatory Data Dictionary V4.1 for Clinicians.

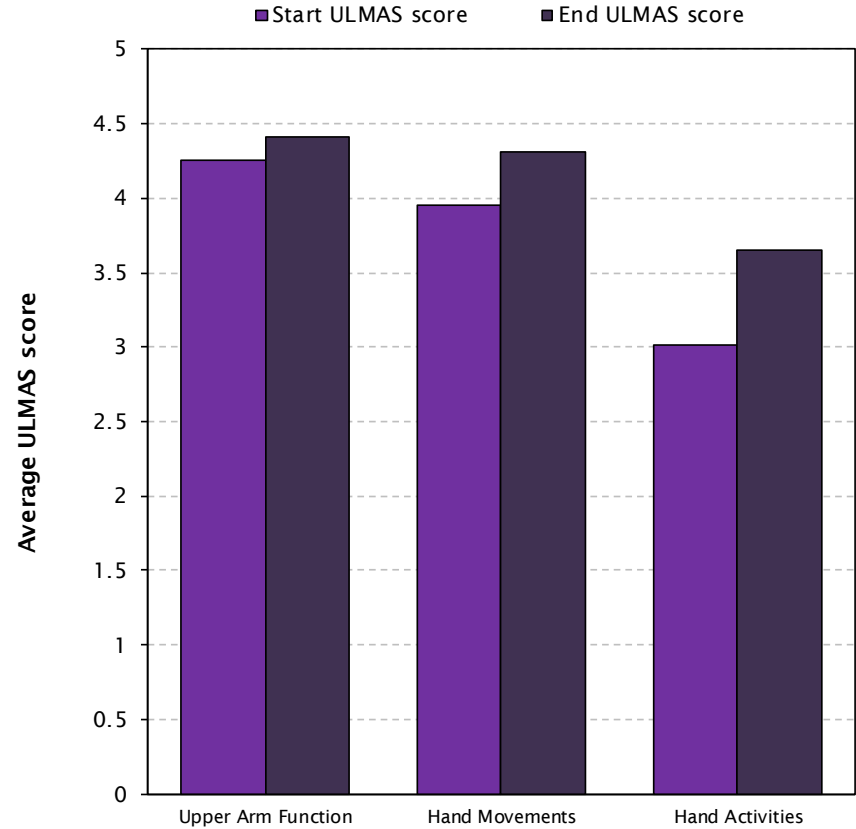
# Average ULMAS start and end score by sub-group



Your Service 2018 (n<5)



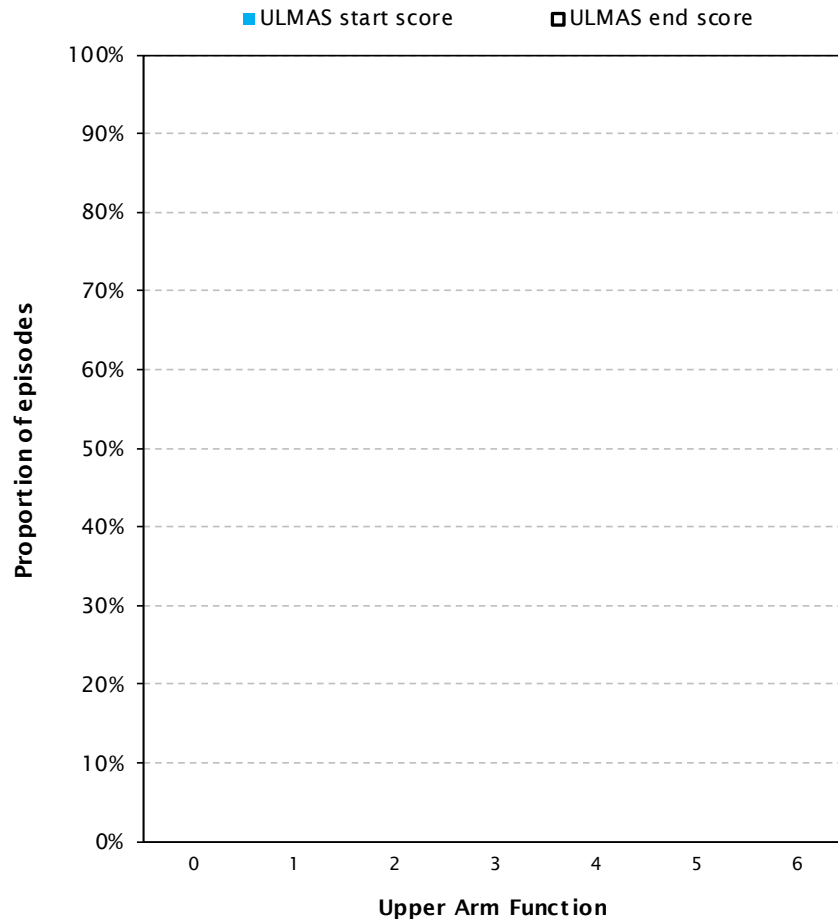
All Ambulatory 2018 (n=200)



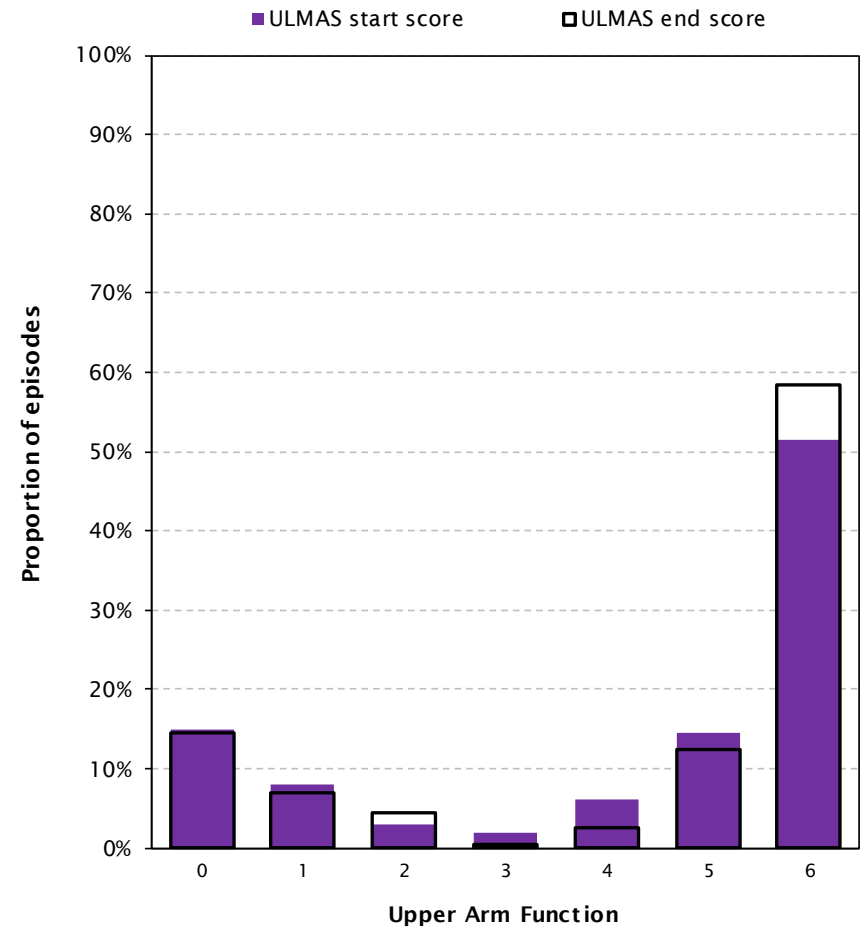
# ULMAS start and end total – Upper arm function



Your Service 2018 (n<5)



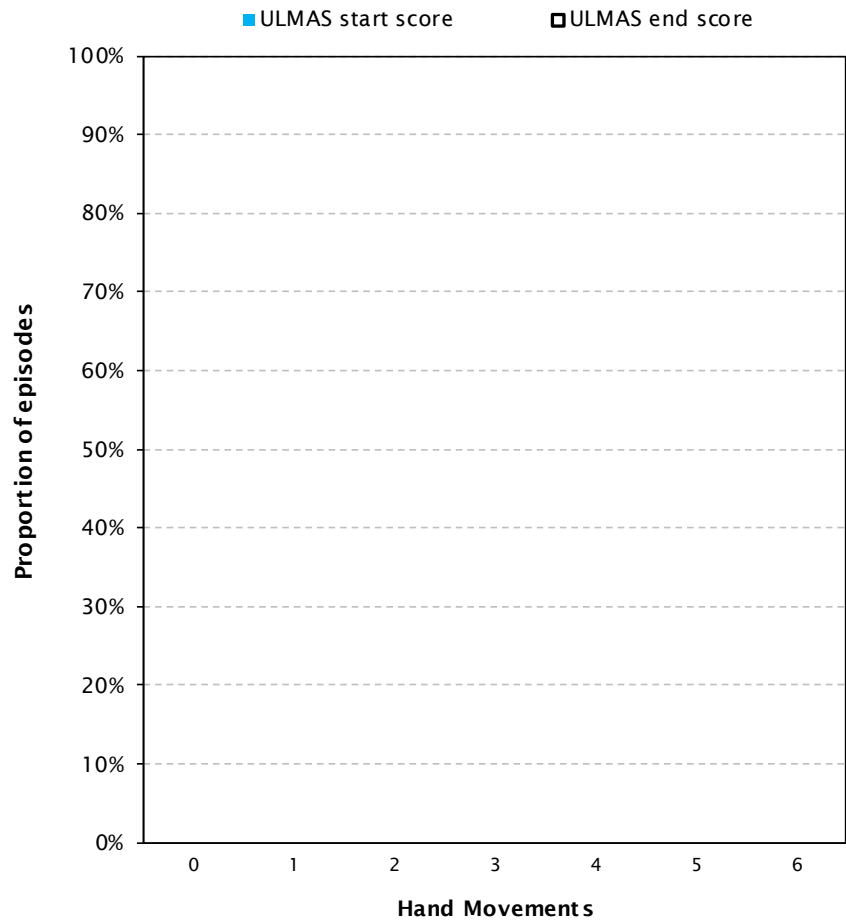
All Ambulatory 2018 (n=200)



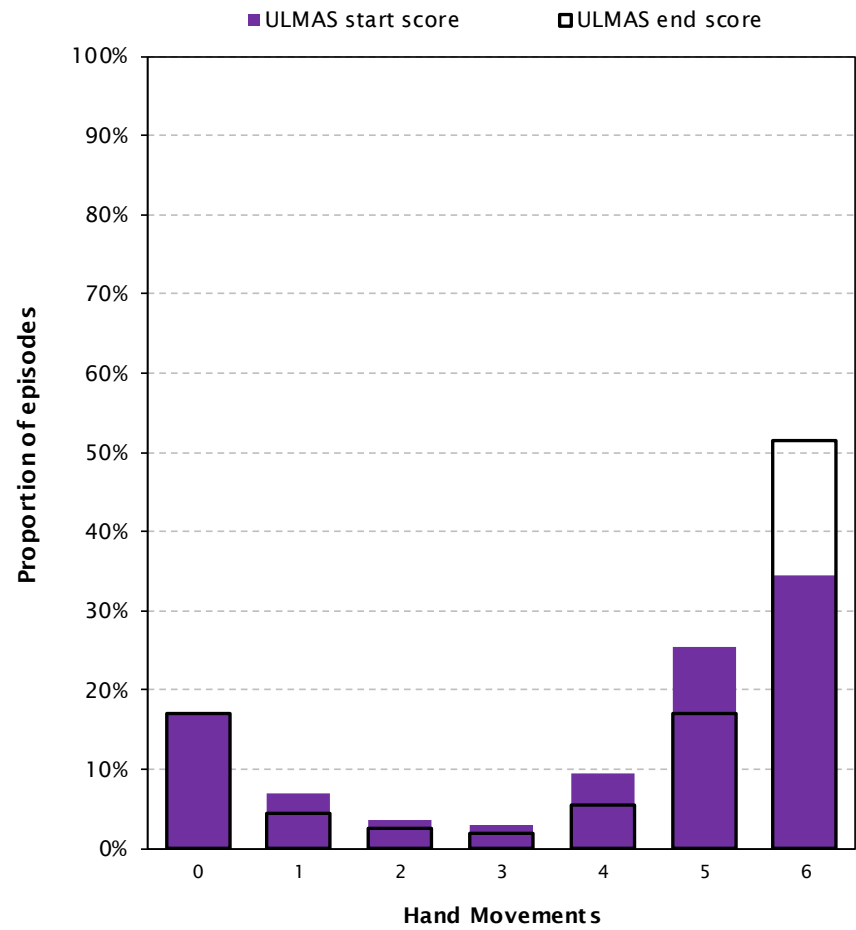
# ULMAS start and end total – Hand movements



Your Service 2018 (n<5)



All Ambulatory 2018 (n=200)

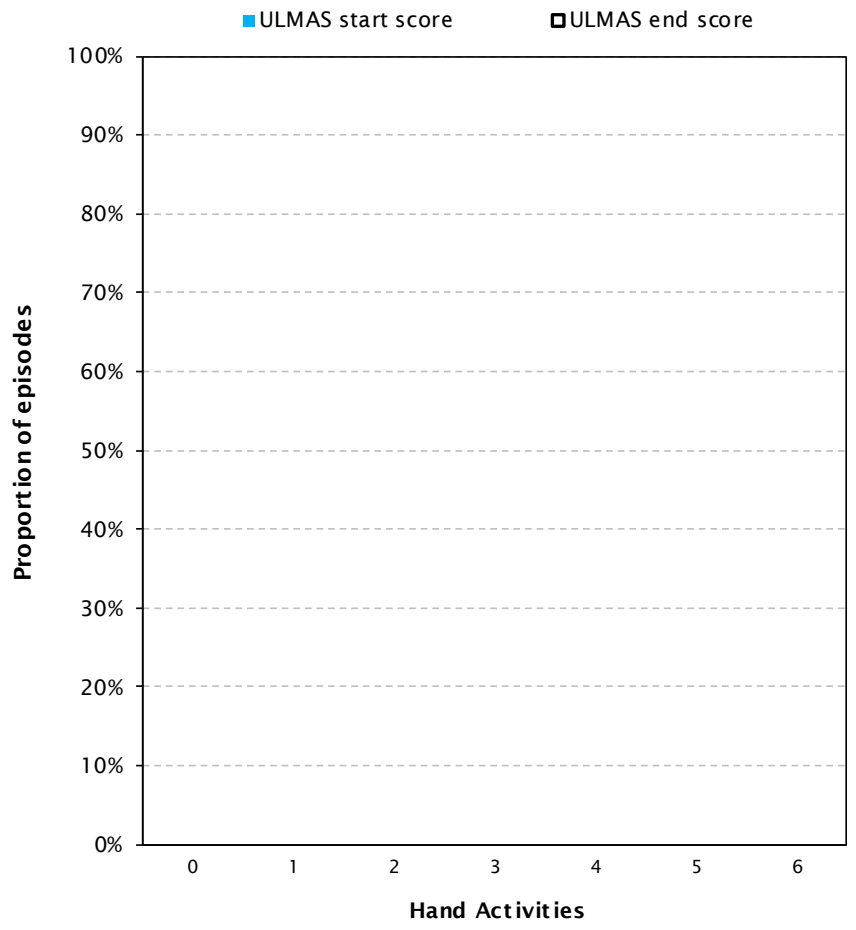




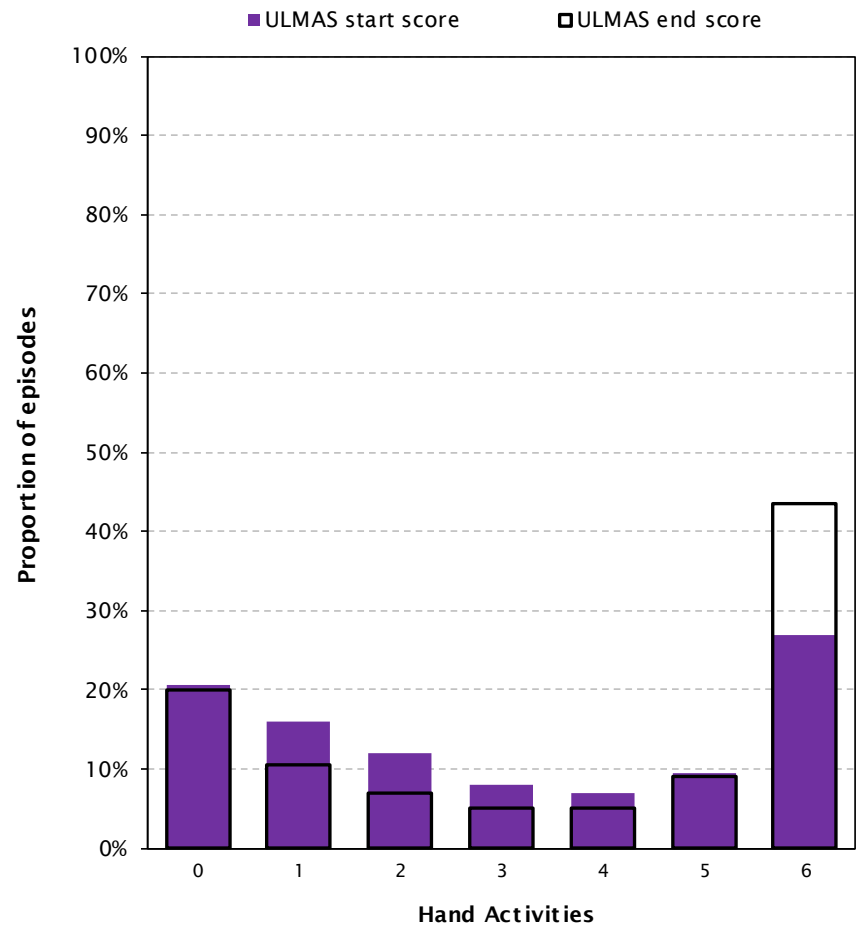
# ULMAS start and end total – Hand activities



Your Service 2018 (n<5)



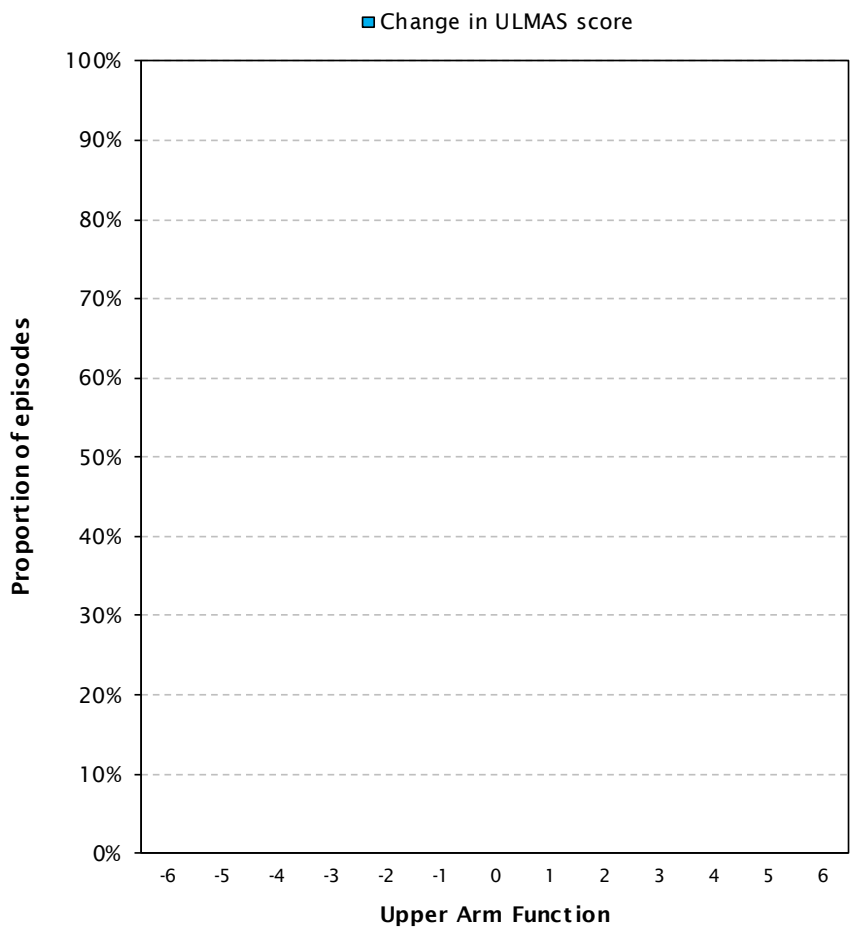
All Ambulatory 2018 (n=200)



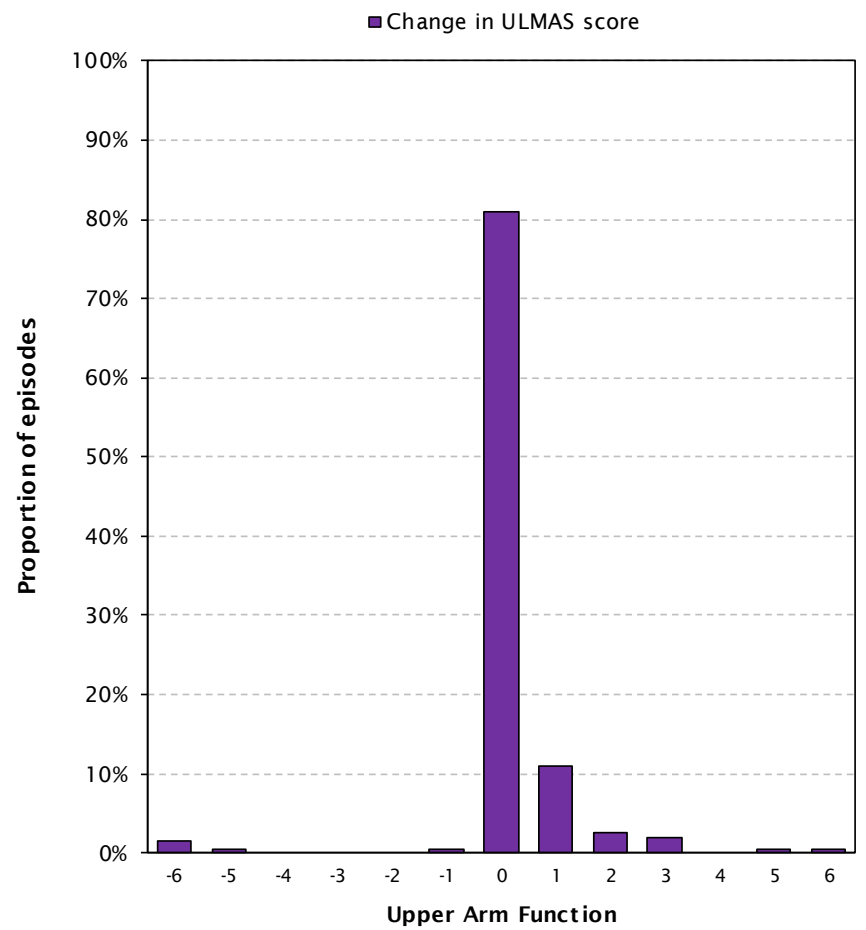
# Change in ULMAS score – Upper arm function



Your Service 2018 (n<5)



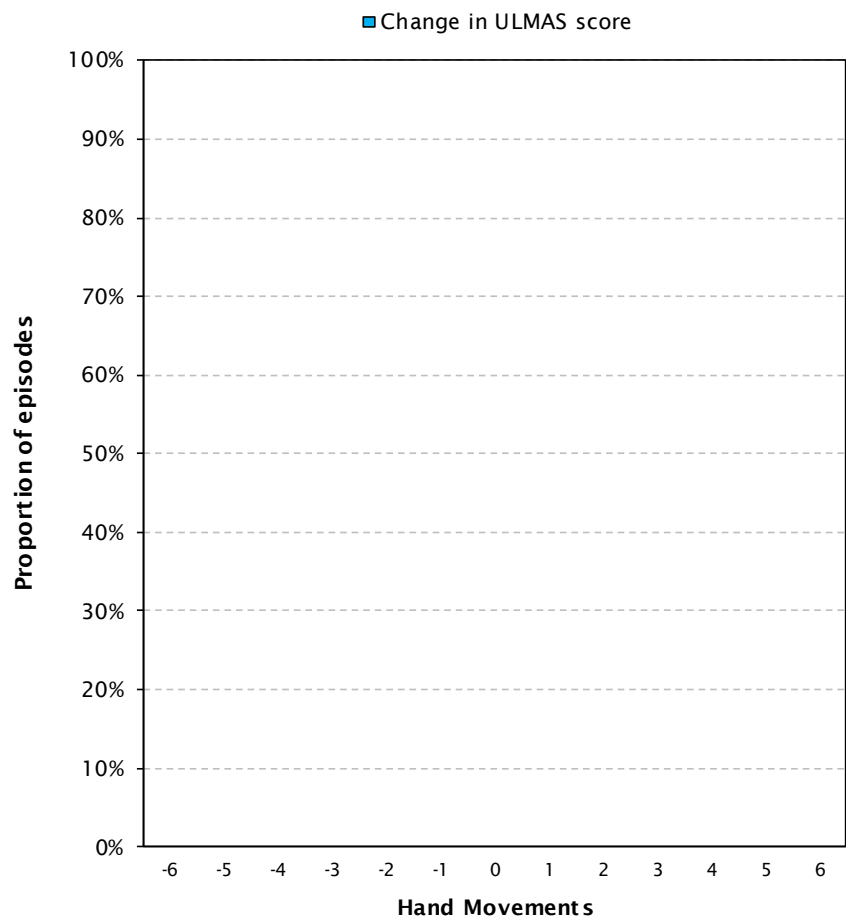
All Ambulatory 2018 (n=200)



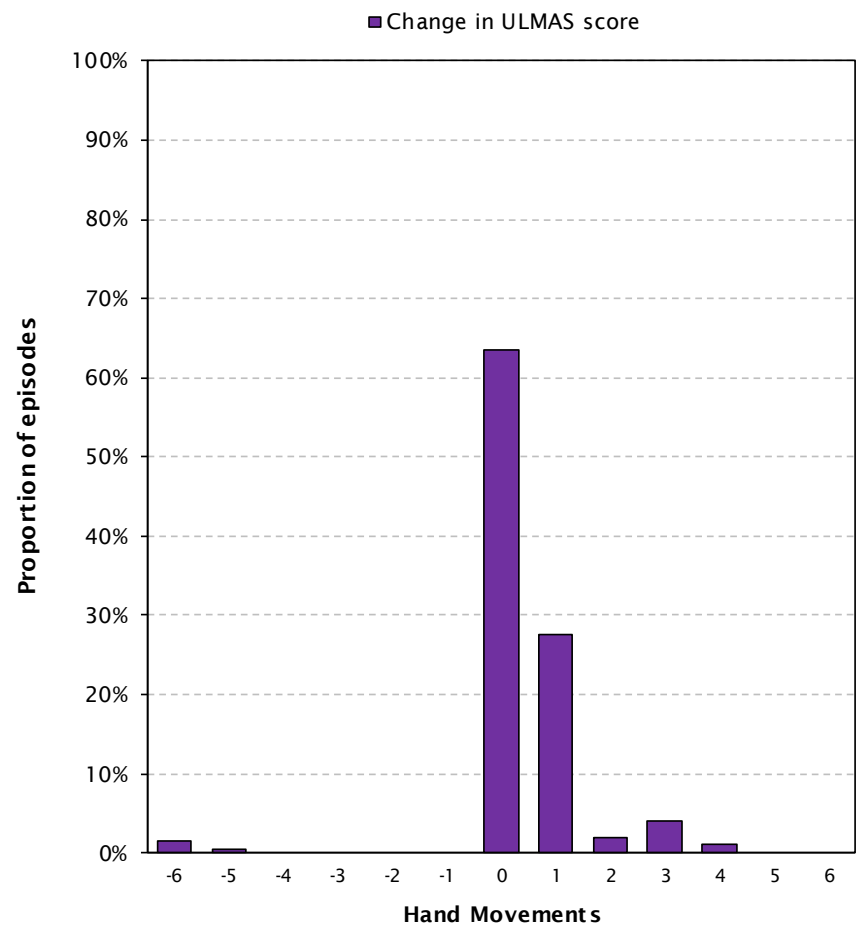
# Change in ULMAS score – Hand movements



Your Service 2018 (n<5)



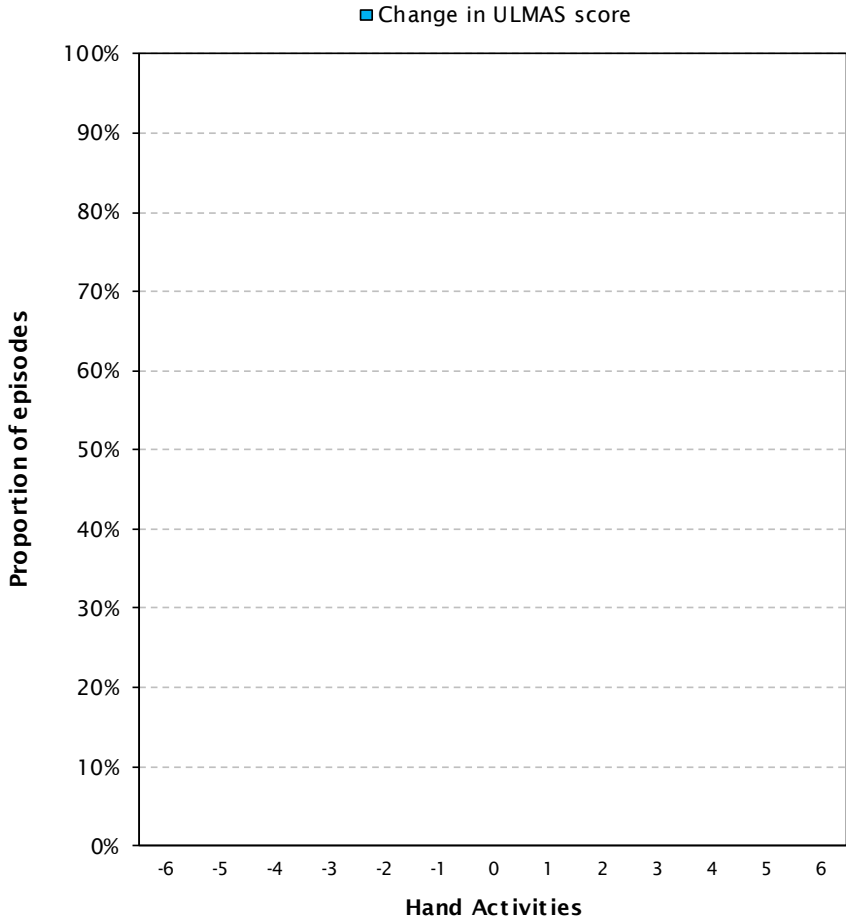
All Ambulatory 2018 (n=200)



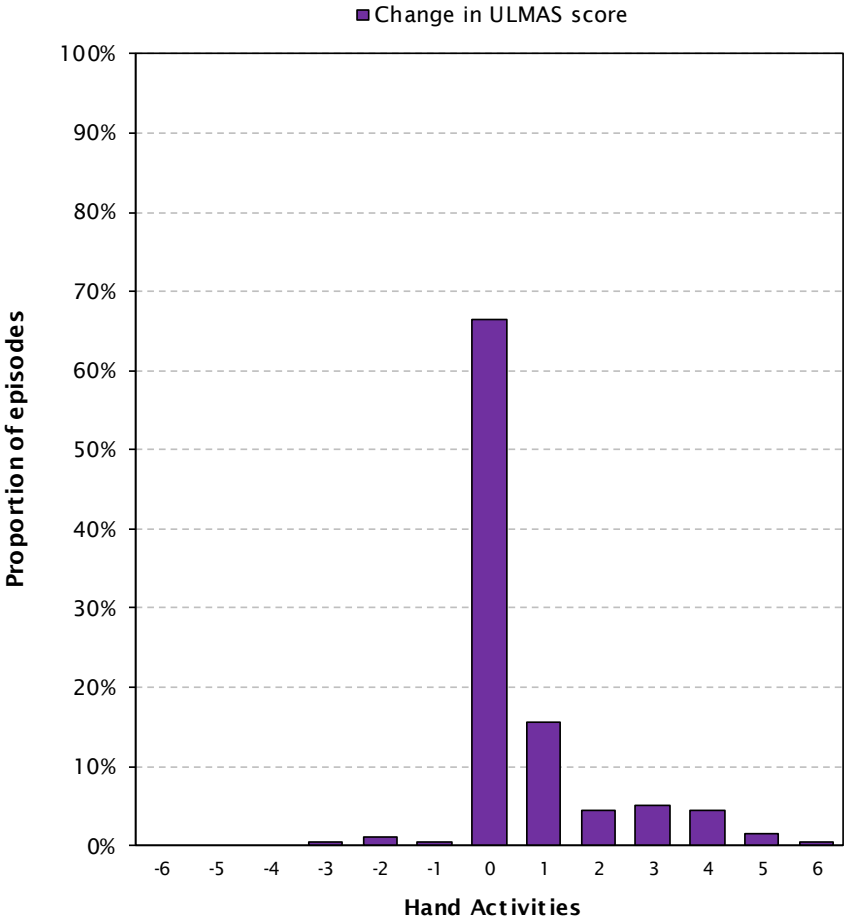
# Change in ULMAS score – Hand activities



Your Service 2018 (n<5)



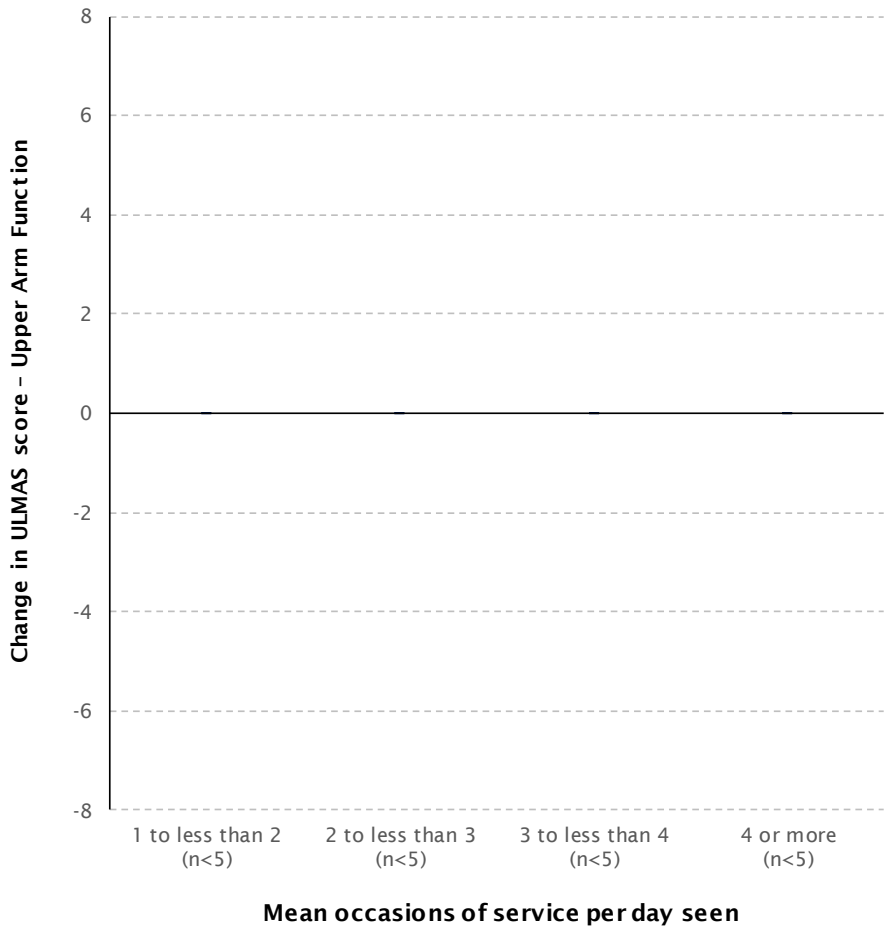
All Ambulatory 2018 (n=200)



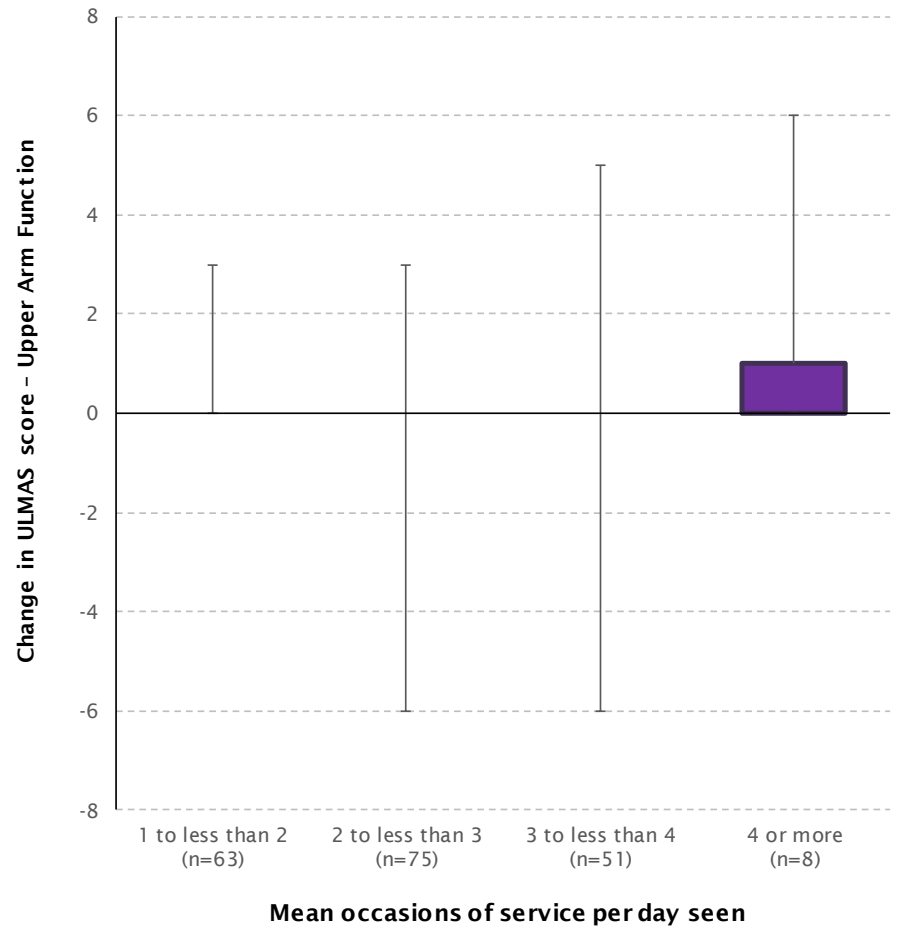
# Change in ULMAS score by OOS/day seen - Upper arm function



Your Service 2018



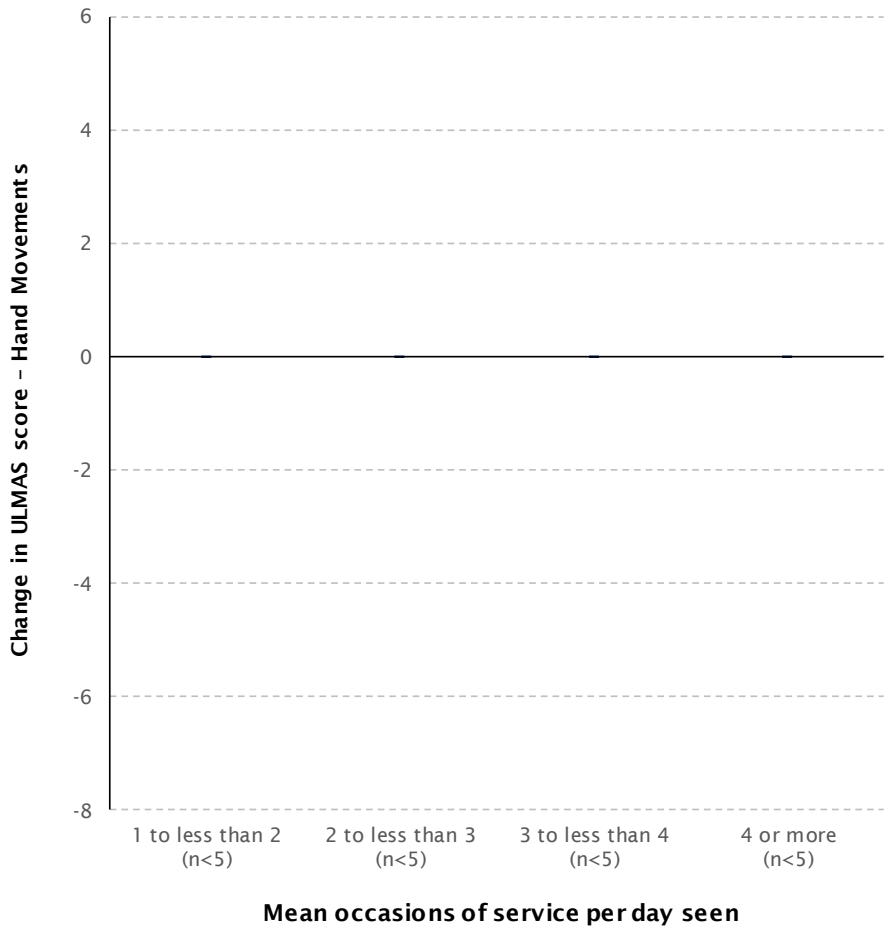
All Ambulatory 2018



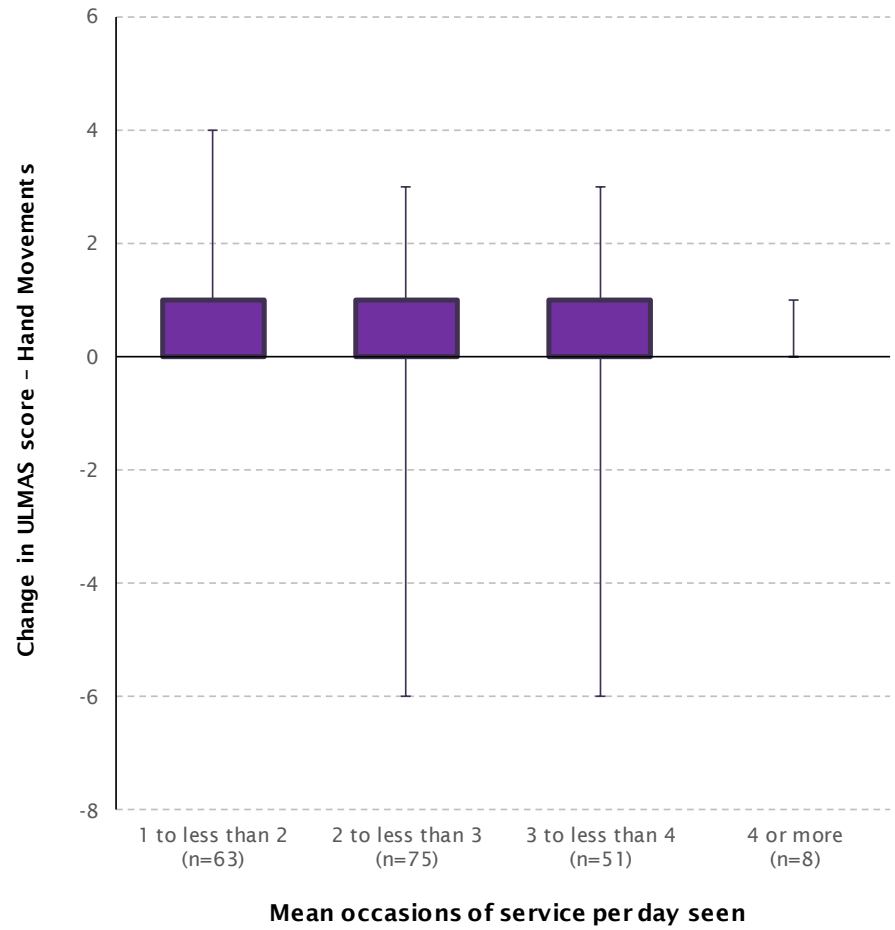
# Change in ULMAS score by OOS/day seen - Hand movements



Your Service 2018



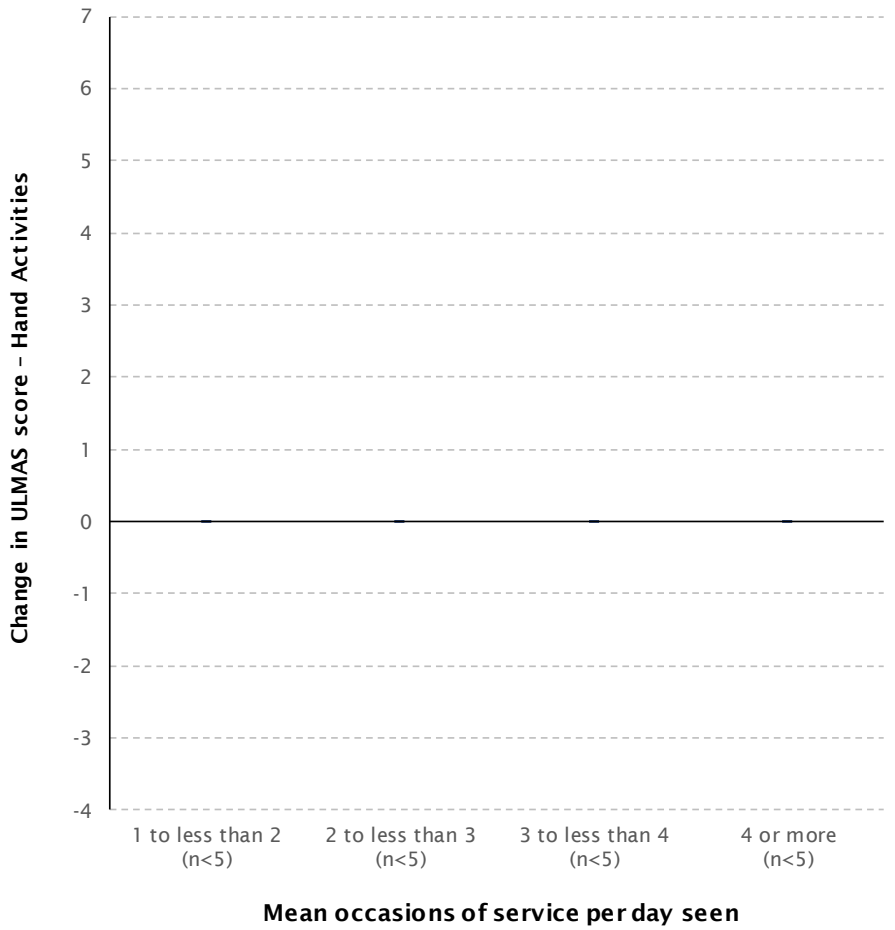
All Ambulatory 2018



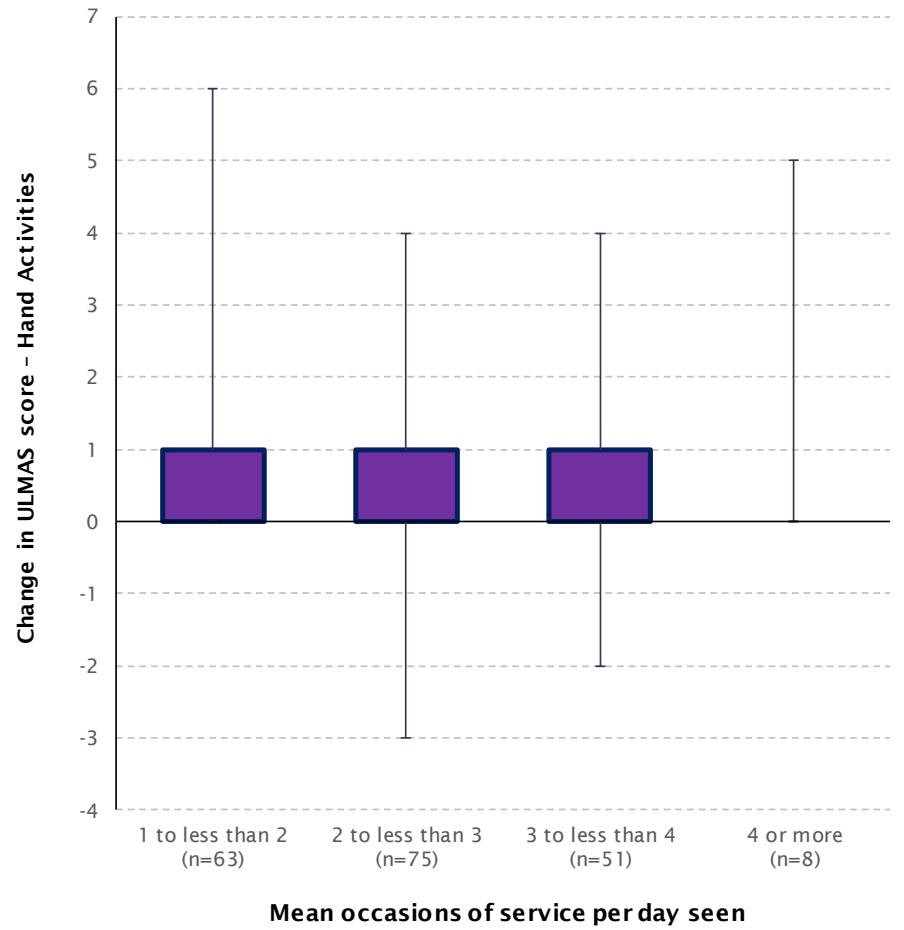
# Change in ULMAS score by OOS/day seen - Hand activities



Your Service 2018



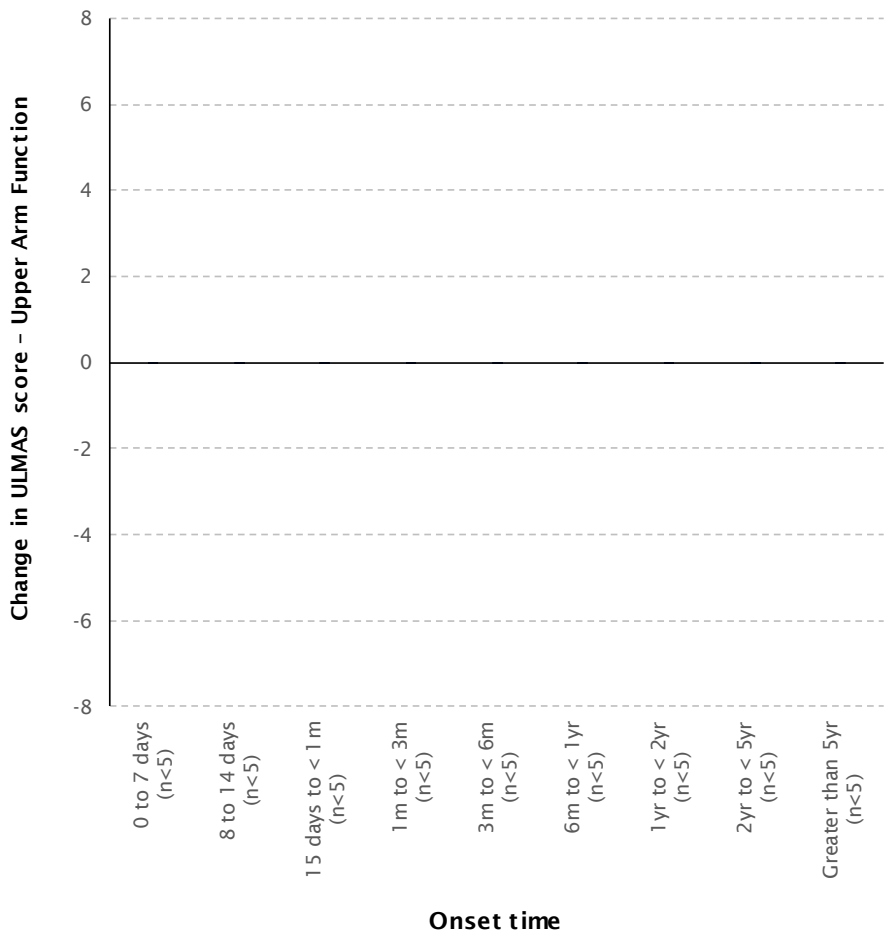
All Ambulatory 2018



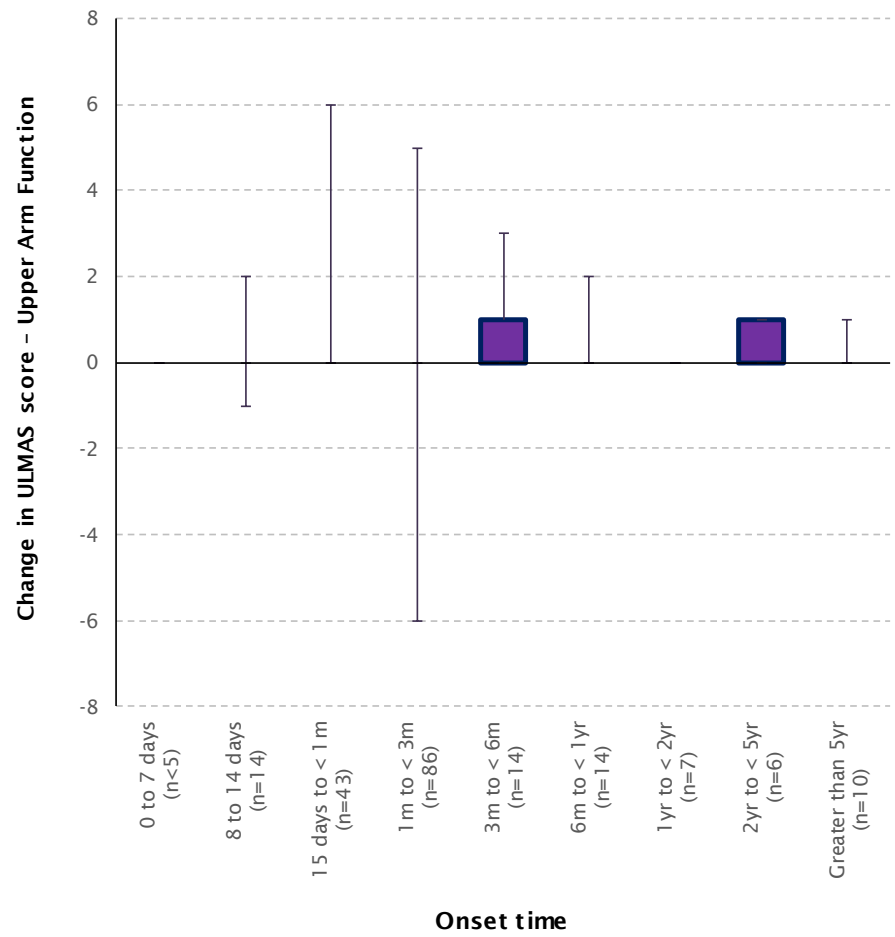
# Change in ULMAS score by onset time - Upper arm function



Your Service 2018



All Ambulatory 2018

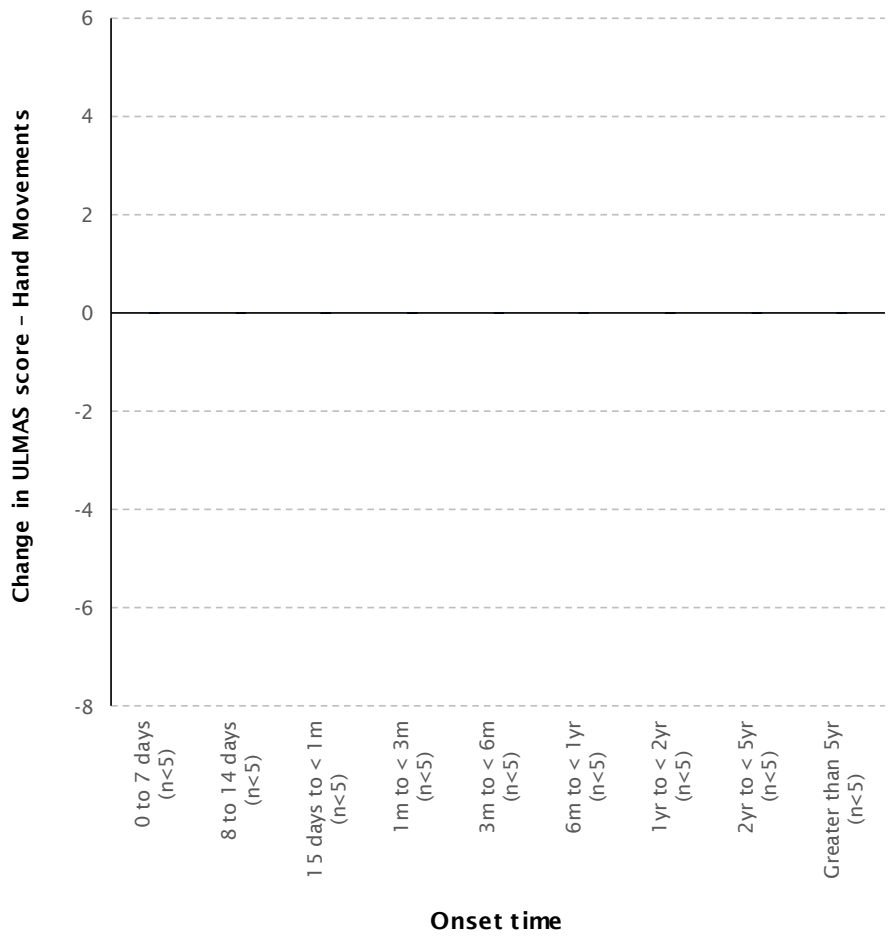




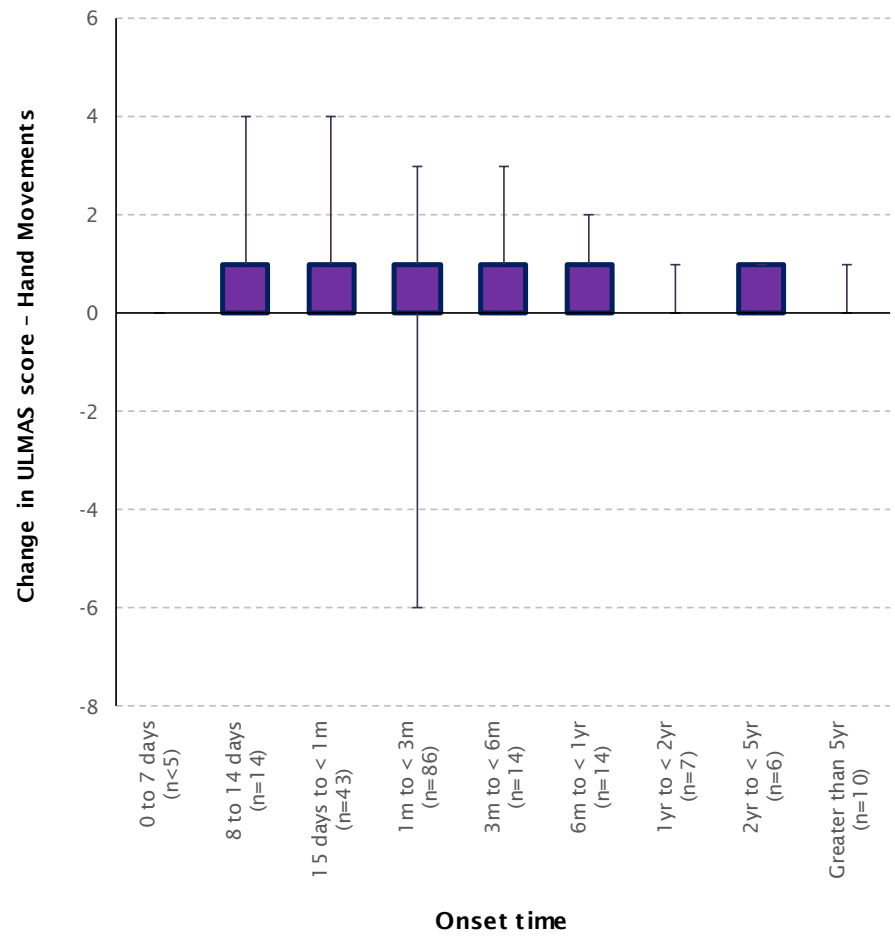
# Change in ULMAS score by onset time - Hand movements



Your Service 2018



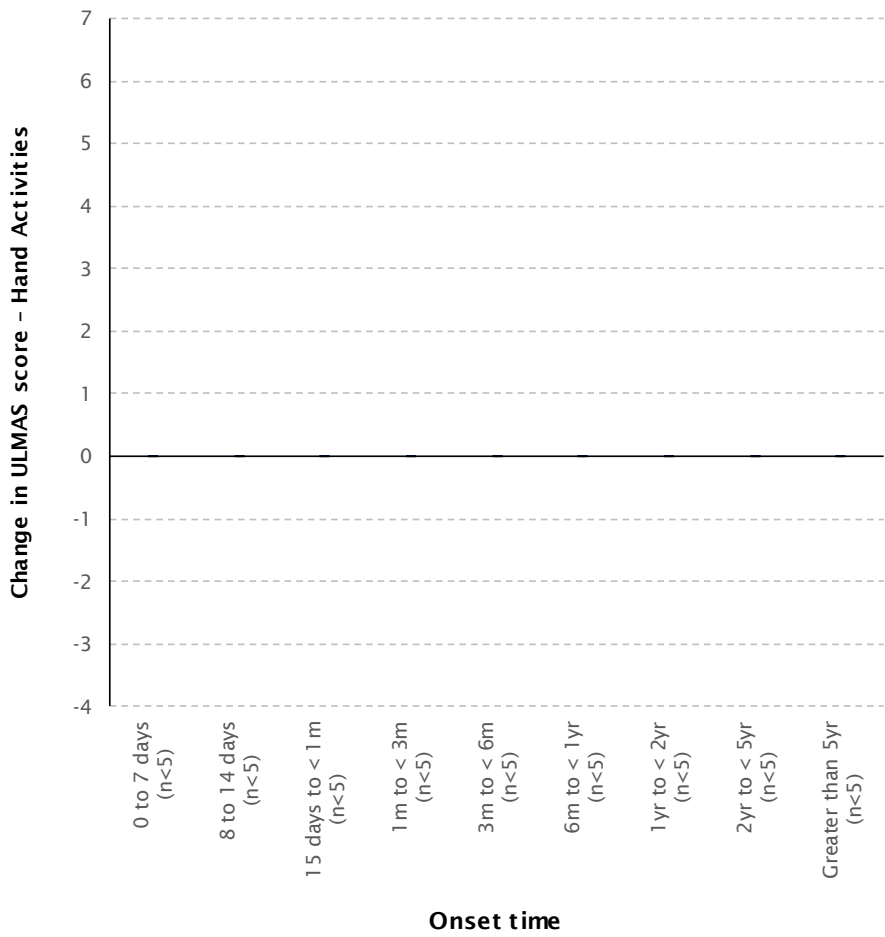
All Ambulatory 2018



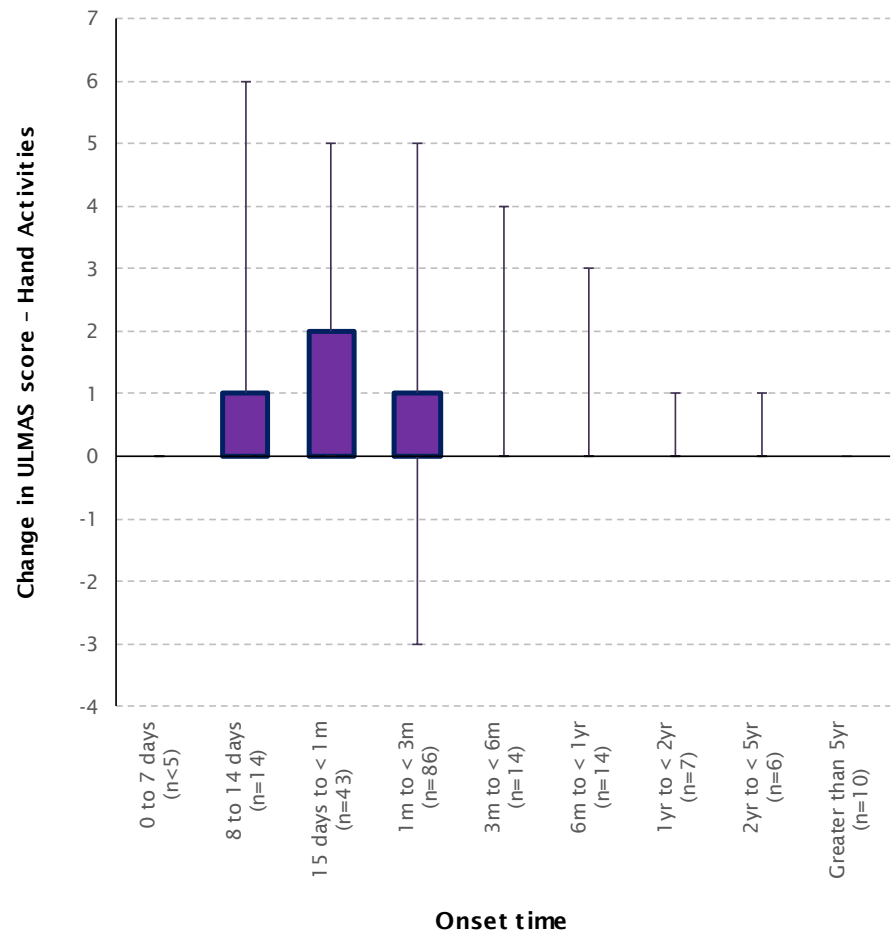
# Change in ULMAS score by onset time - Hand activities



Your Service 2018



All Ambulatory 2018



This data item is collected in addition to the Australian Modified Lawton's IADL Scale for patients who may have gait impairment as a result of:

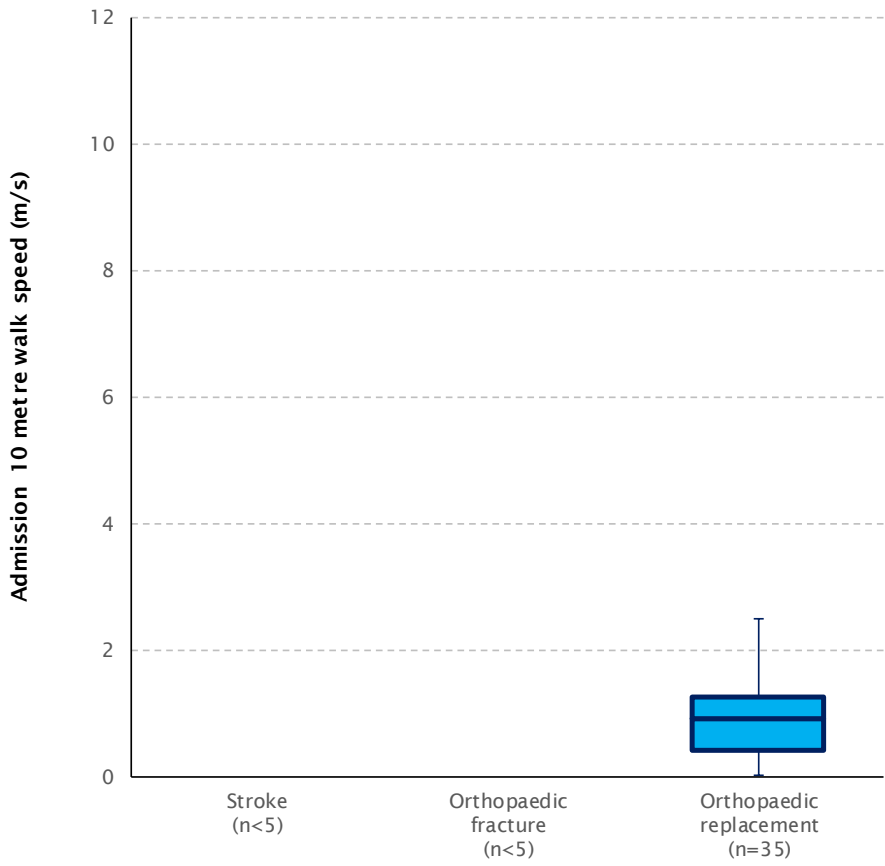
- Stroke
- Lower limb orthopaedic injury or joint replacement
- Amputation of lower limb (optional measure)

For further information refer to the AROC Ambulatory Data Dictionary V4.1 for Clinicians.

# Admission timed 10 metre walk test speed by impairment

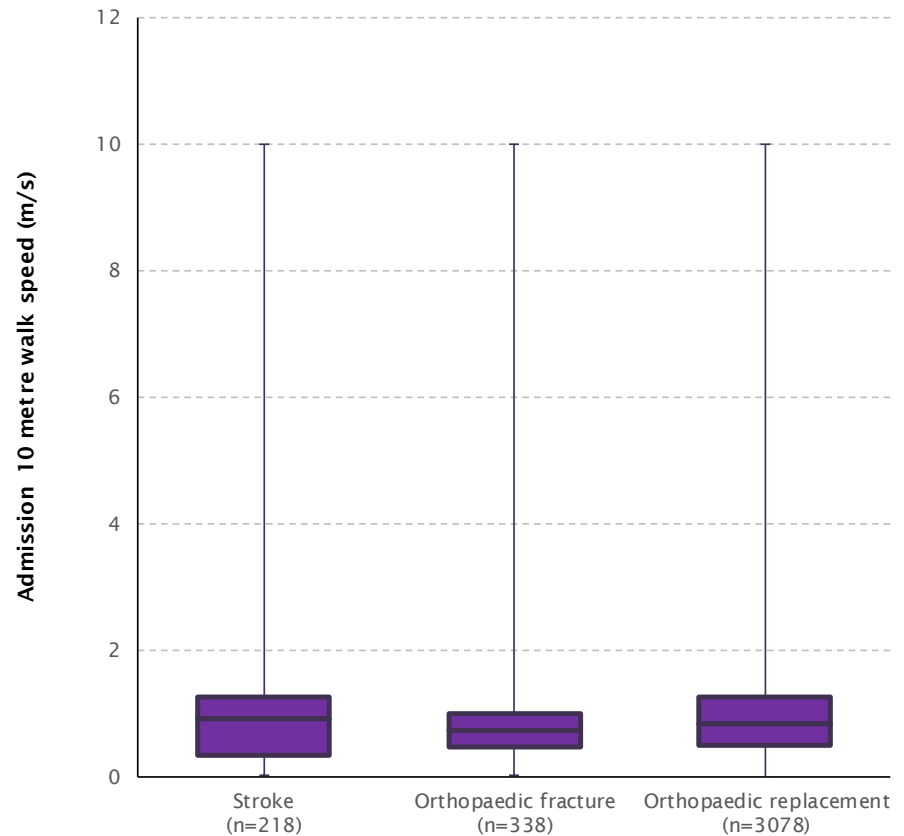


Your Service 2018



Note: All admissions.

All Ambulatory 2018

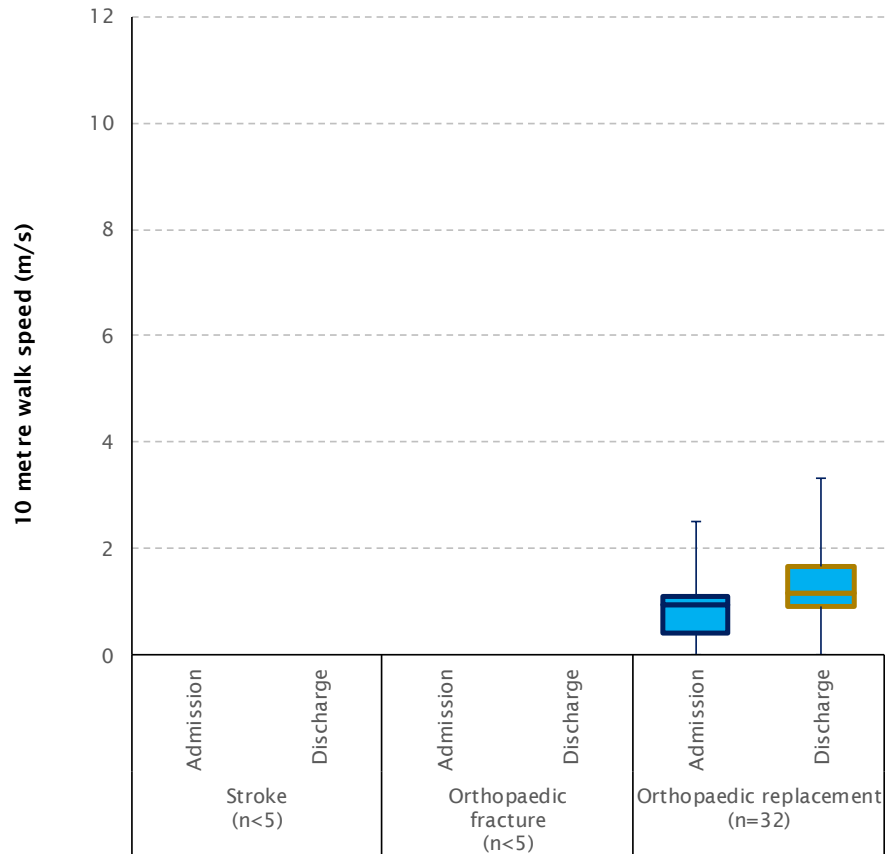


Note: All admissions.

# Admission and discharge timed 10 metre walk test speed by impairment

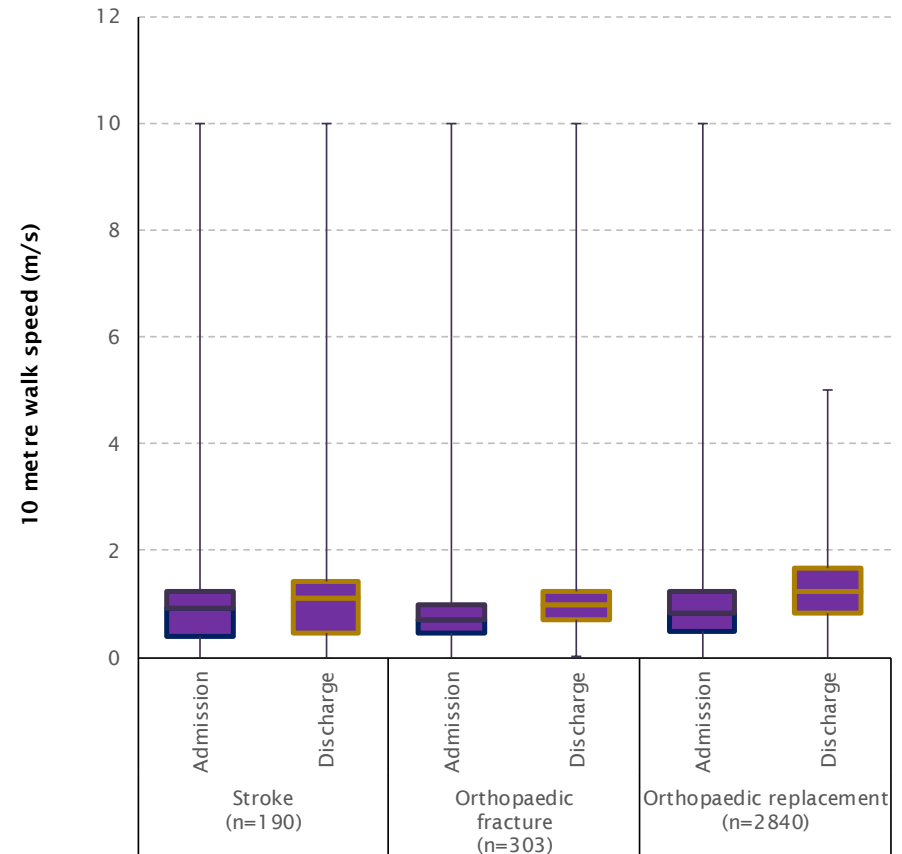


Your Service 2018



Note: Completed episodes only.

All Ambulatory 2018

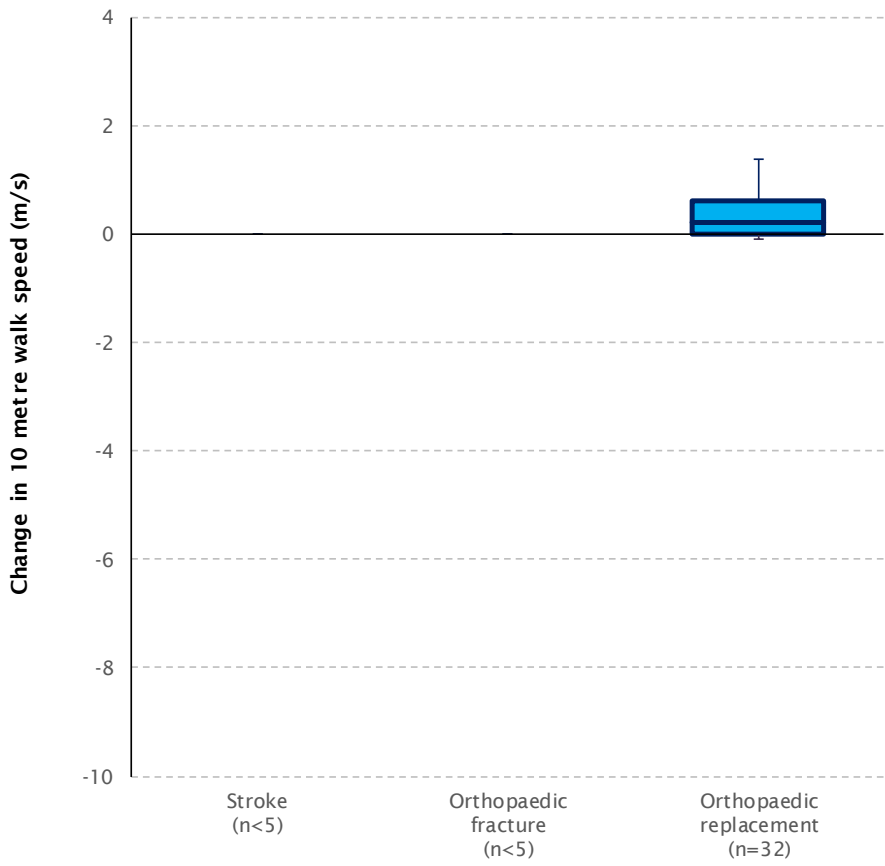


Note: Completed episodes only.

# Change in 10 metre walk speed by impairment

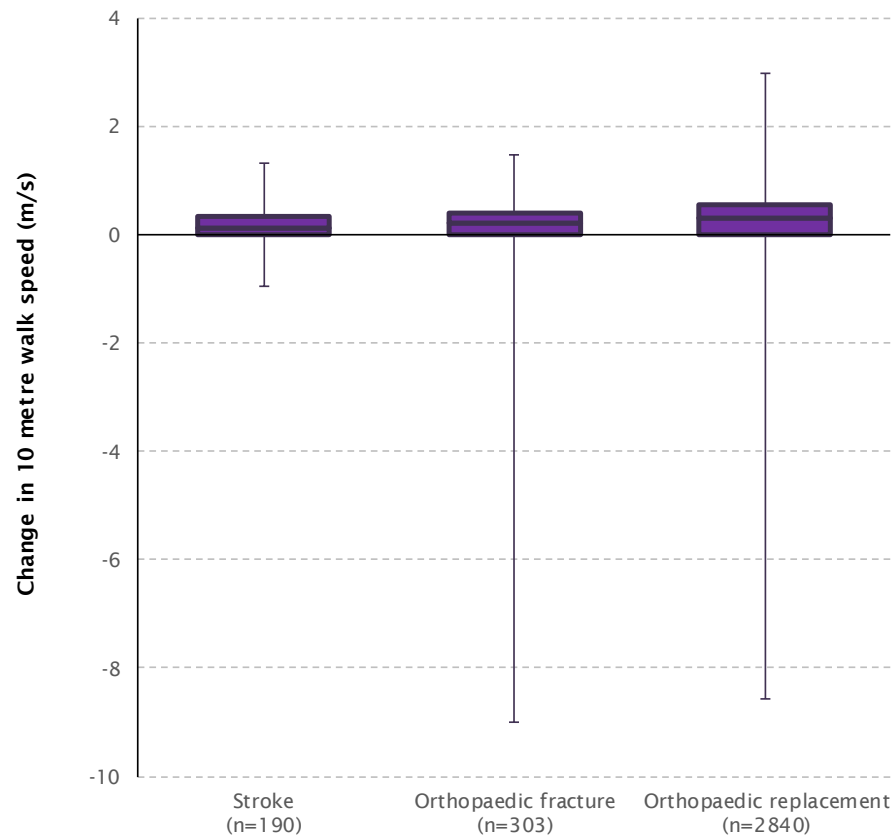


Your Service 2018



Note: Completed episodes only.

All Ambulatory 2018

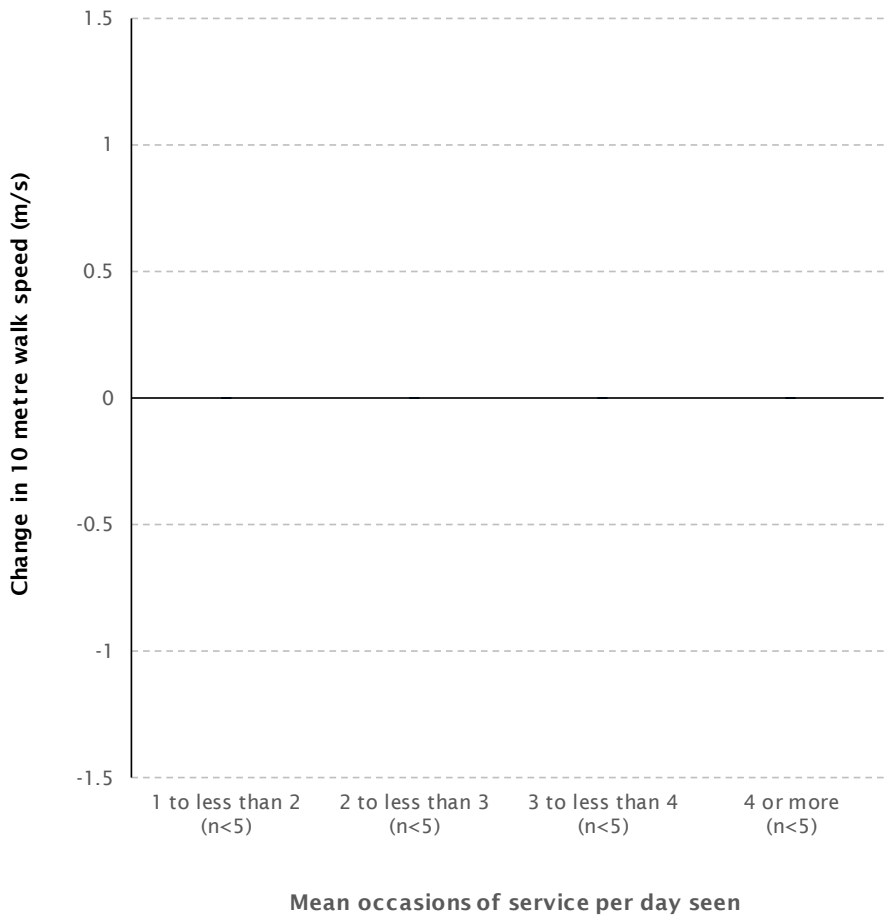


Note: Completed episodes only.

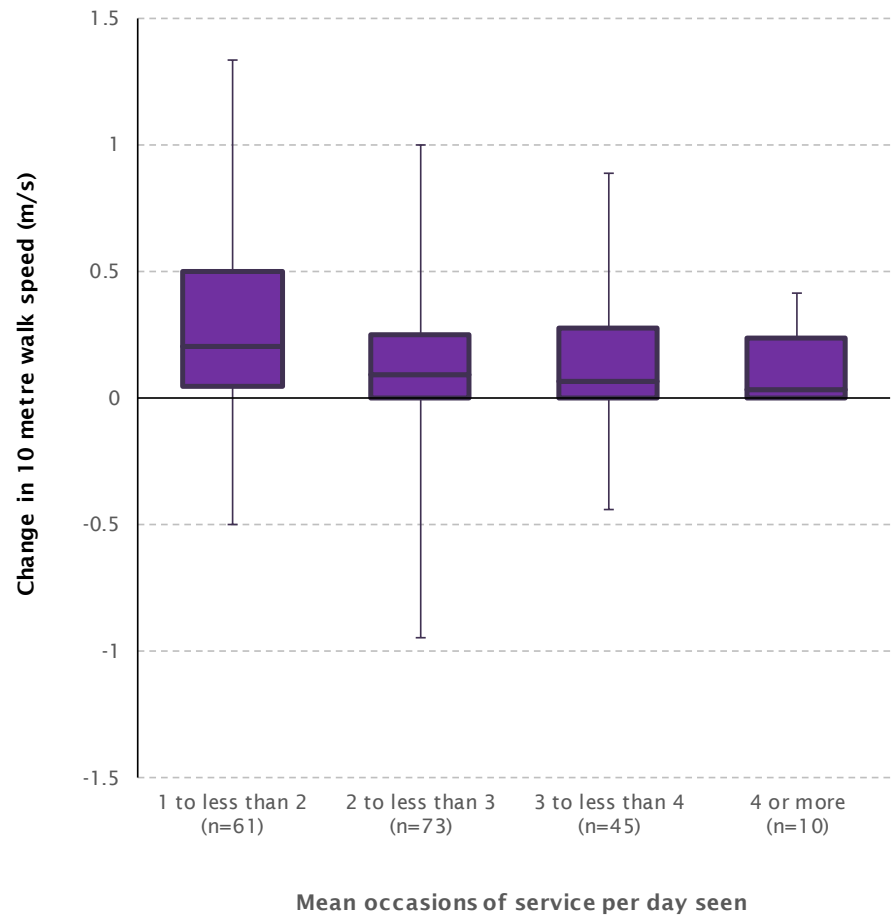
# Change in 10 metre walk speed by OOS/day seen – Stroke



Your Service 2018



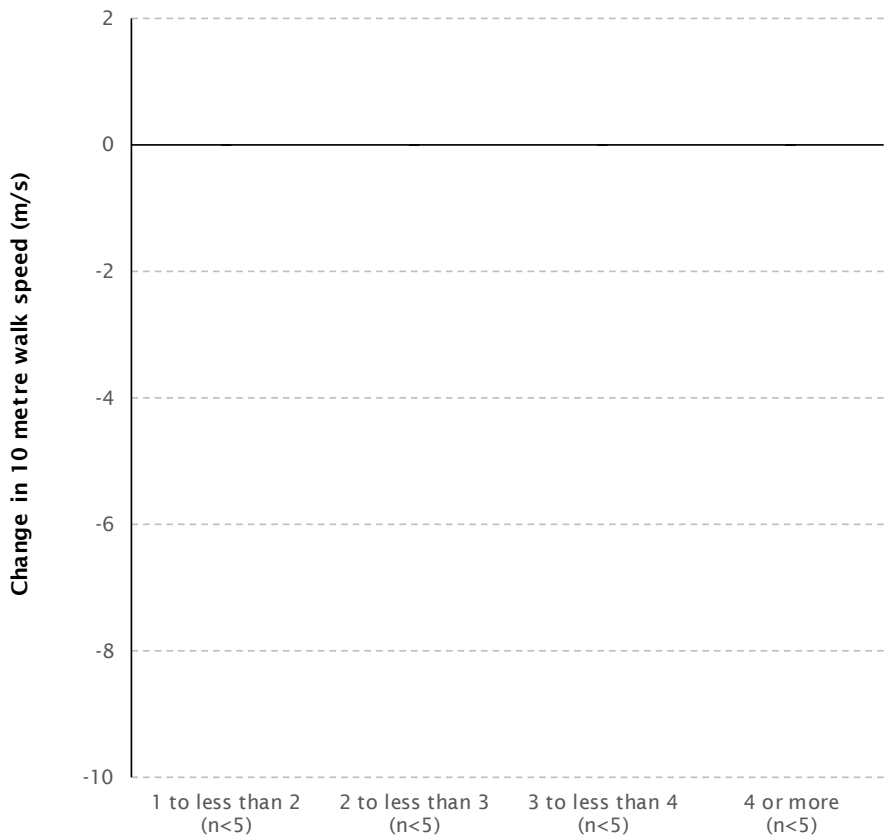
All Ambulatory 2018



# Change in 10 metre walk speed by OOS/day seen – Orthopaedic fractures

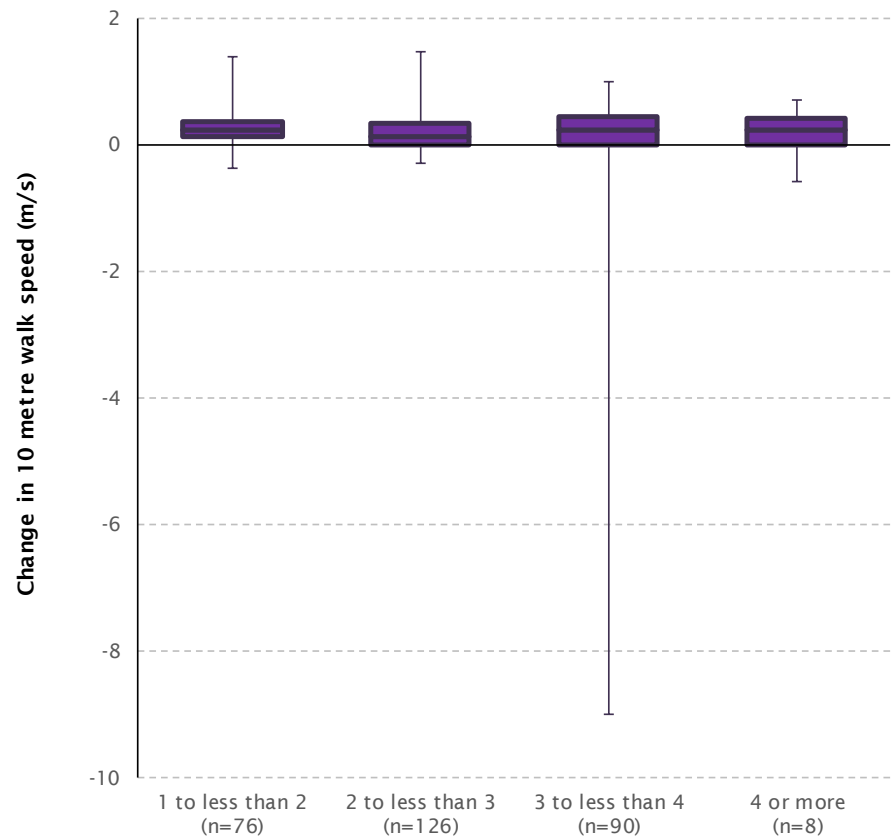


Your Service 2018



Mean occasions of service per day seen

All Ambulatory 2018



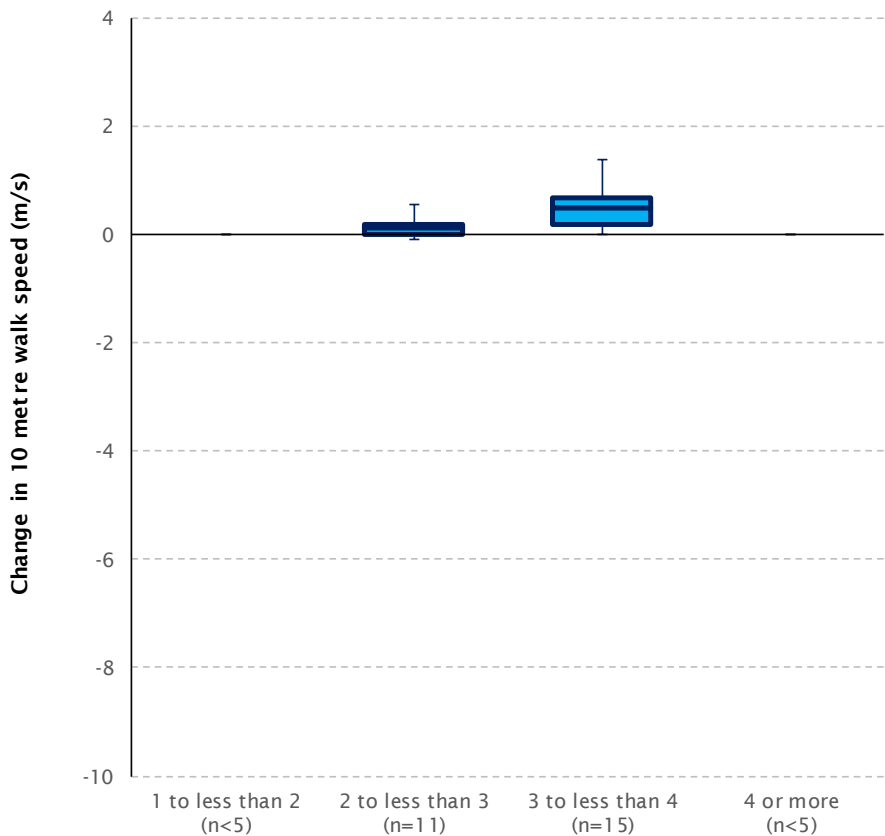
Mean occasions of service per day seen



# Change in 10 metre walk speed by OOS/day seen – Orthopaedic replacements

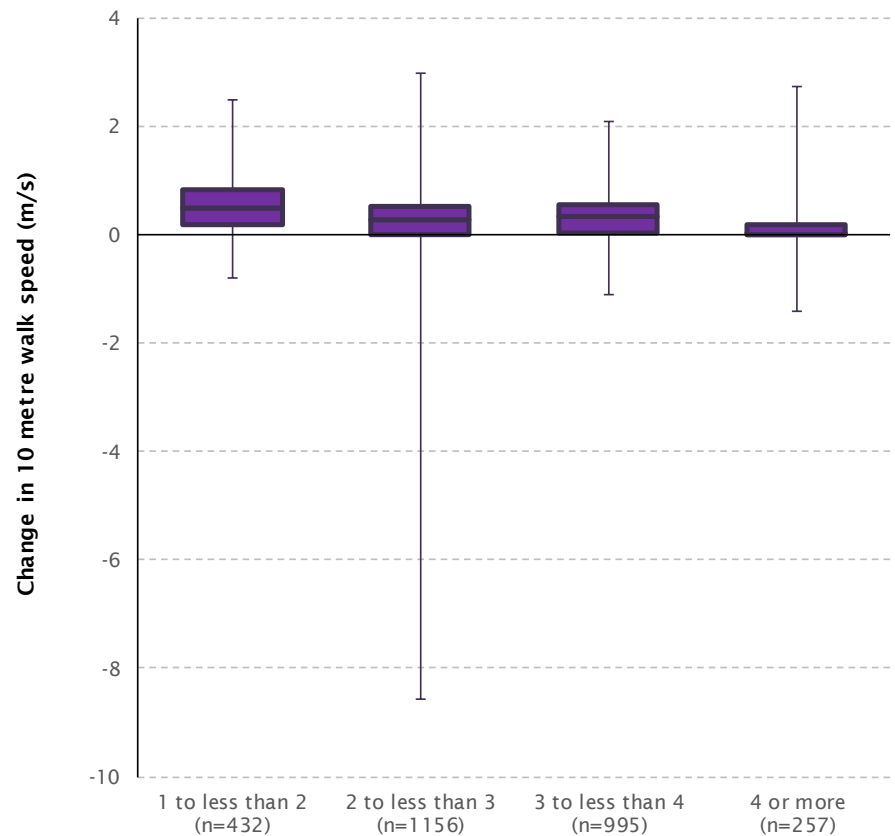


Your Service 2018



Mean occasions of service per day seen

All Ambulatory 2018



Mean occasions of service per day seen

- This data item is collected in addition to the Australian Modified Lawton's IADL Scale for patients who may have functional impairment as a result of deconditioning
- The DEMMI is an advanced instrument for accurately measuring and monitoring changes in mobility for all older adults

Only complete for rehabilitation episodes with AROC impairment codes:

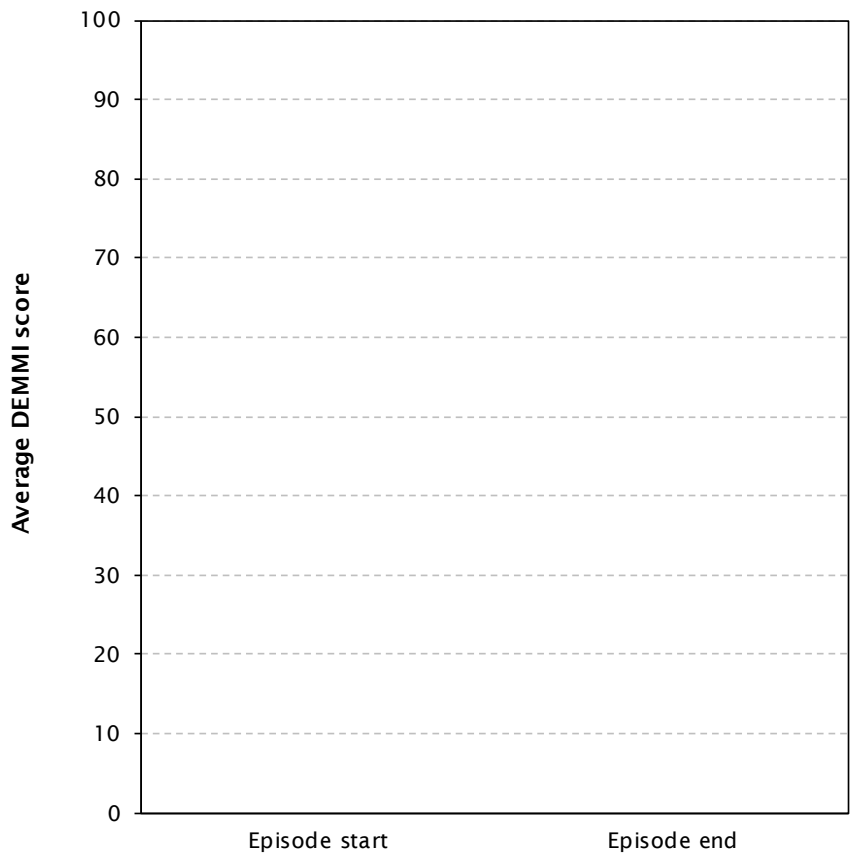
- 16.1 - Reconditioning following surgery
- 16.2 - Reconditioning following medical illness
- 16.3 - Cancer rehabilitation

For further information refer to the AROC Ambulatory Data Dictionary V4.1 for Clinicians.

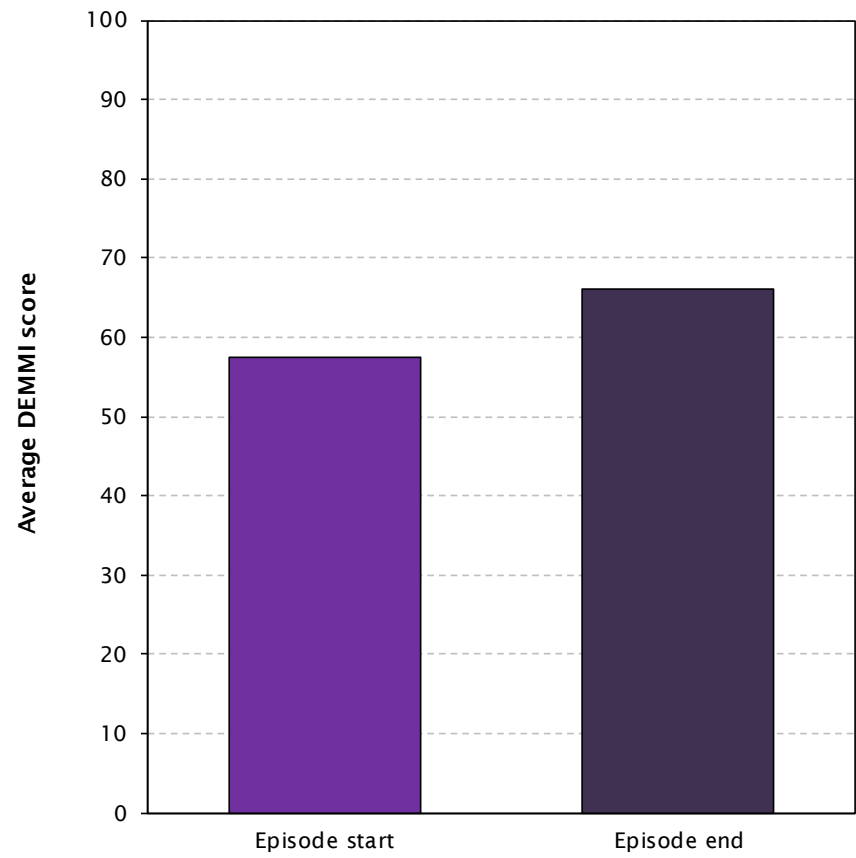
# Average DEMMI start and end score



Your Service 2018 (n<5)



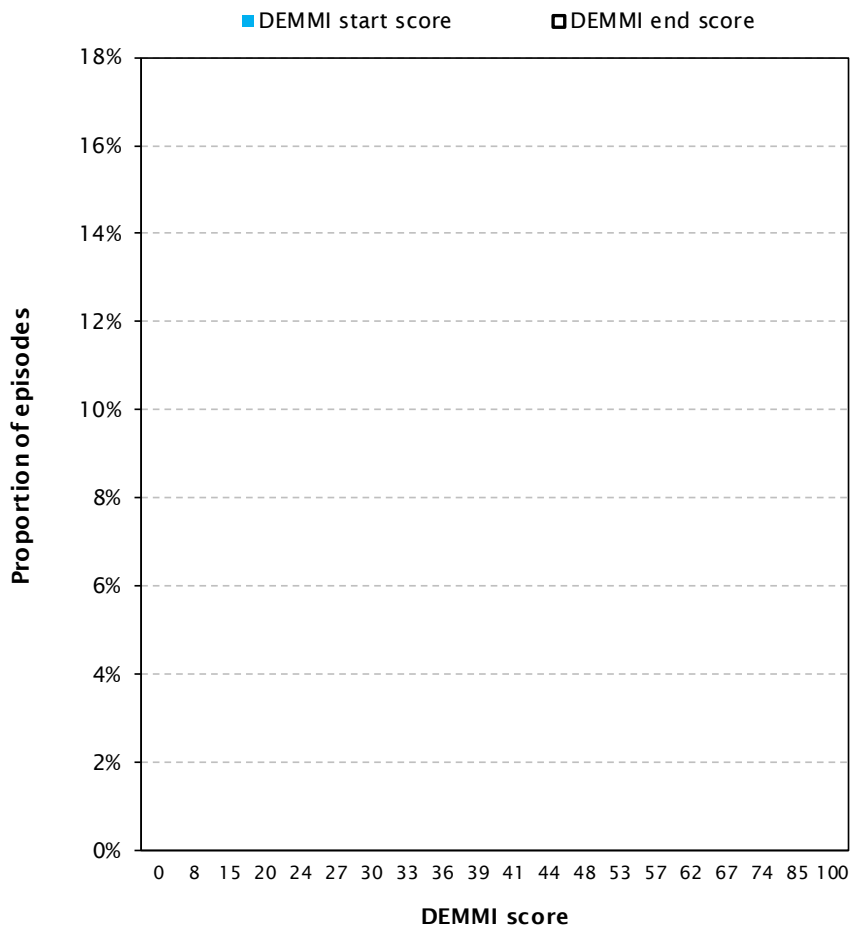
All Ambulatory 2018 (n=733)



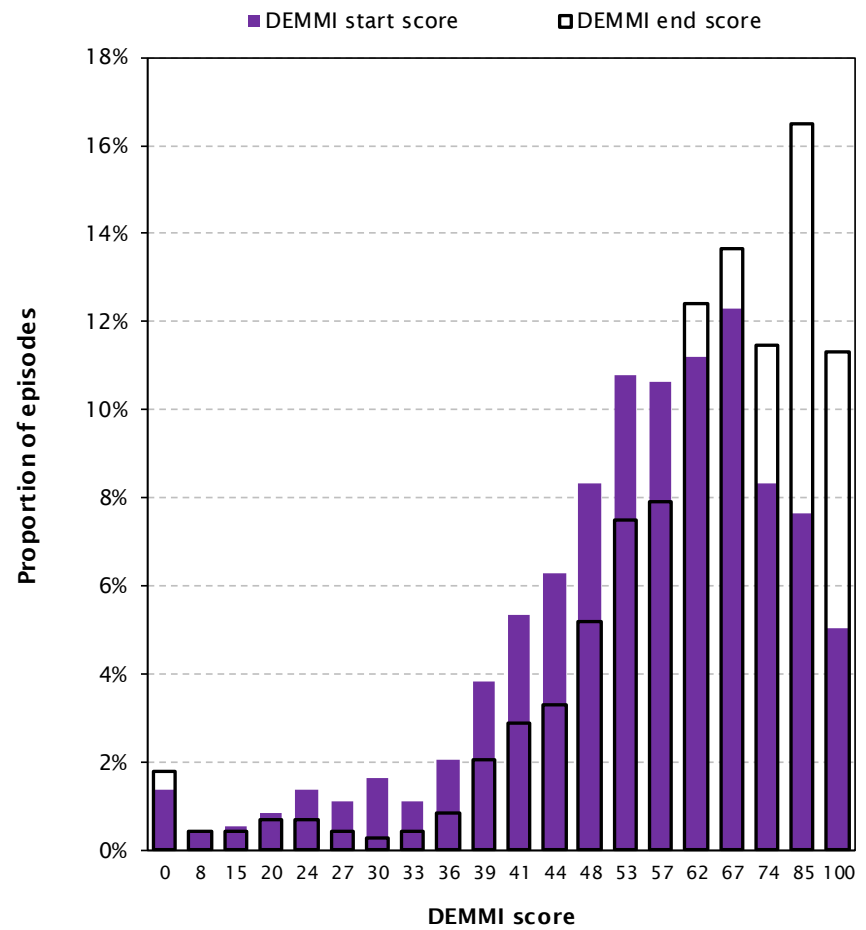
# DEMMI start and end total - all episodes



Your Service 2018 (n<5)



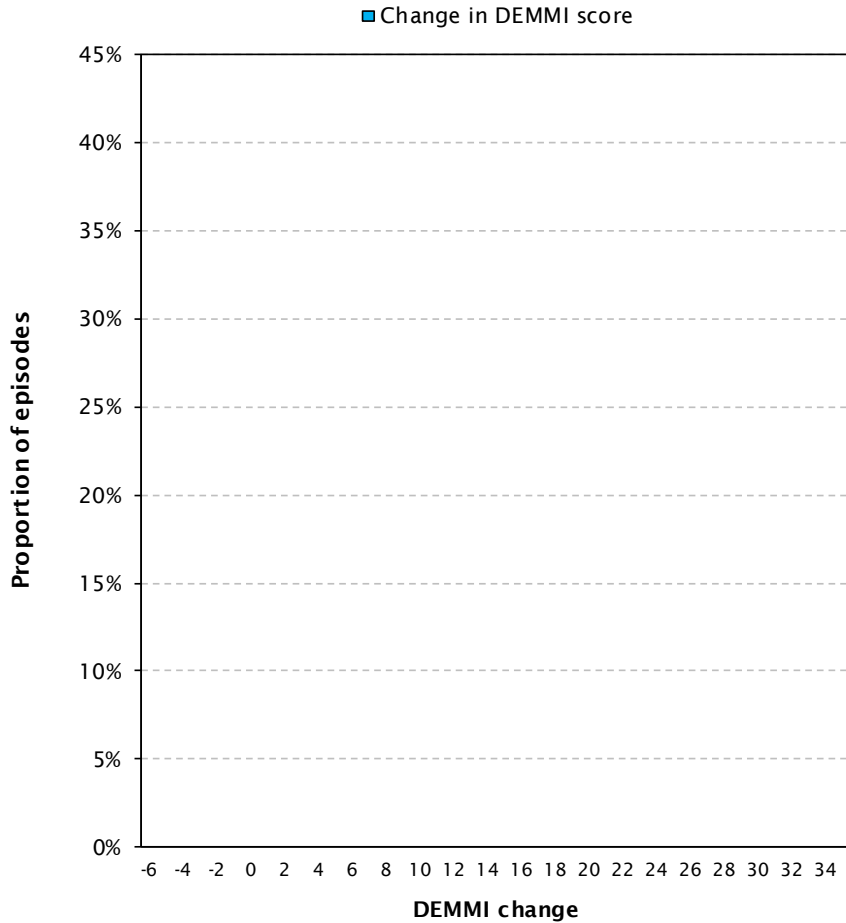
All Ambulatory 2018 (n=733)



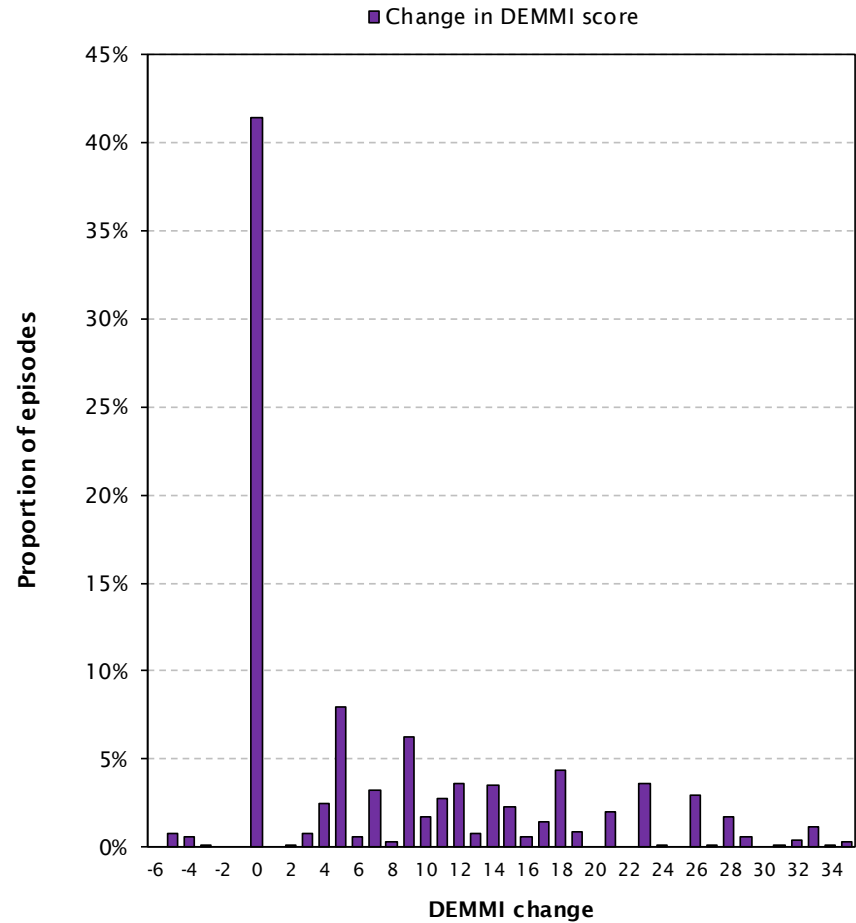
# Change in DEMMI score – all episodes



Your Service 2018 (n<5)



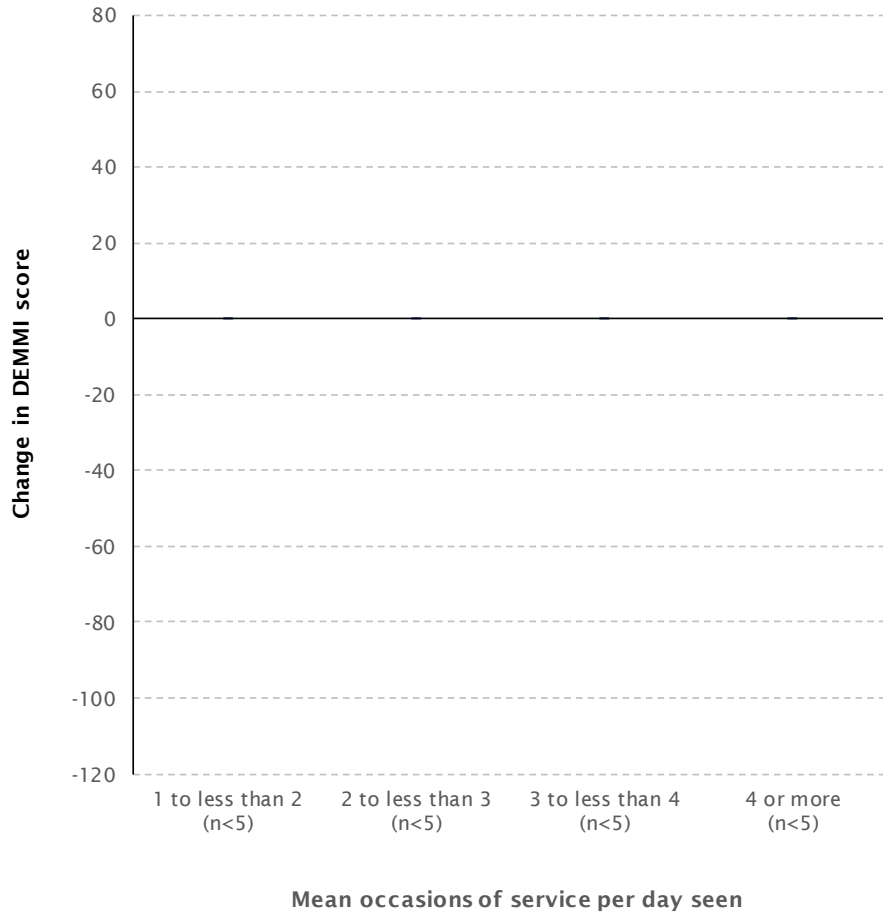
All Ambulatory 2018 (n=733)



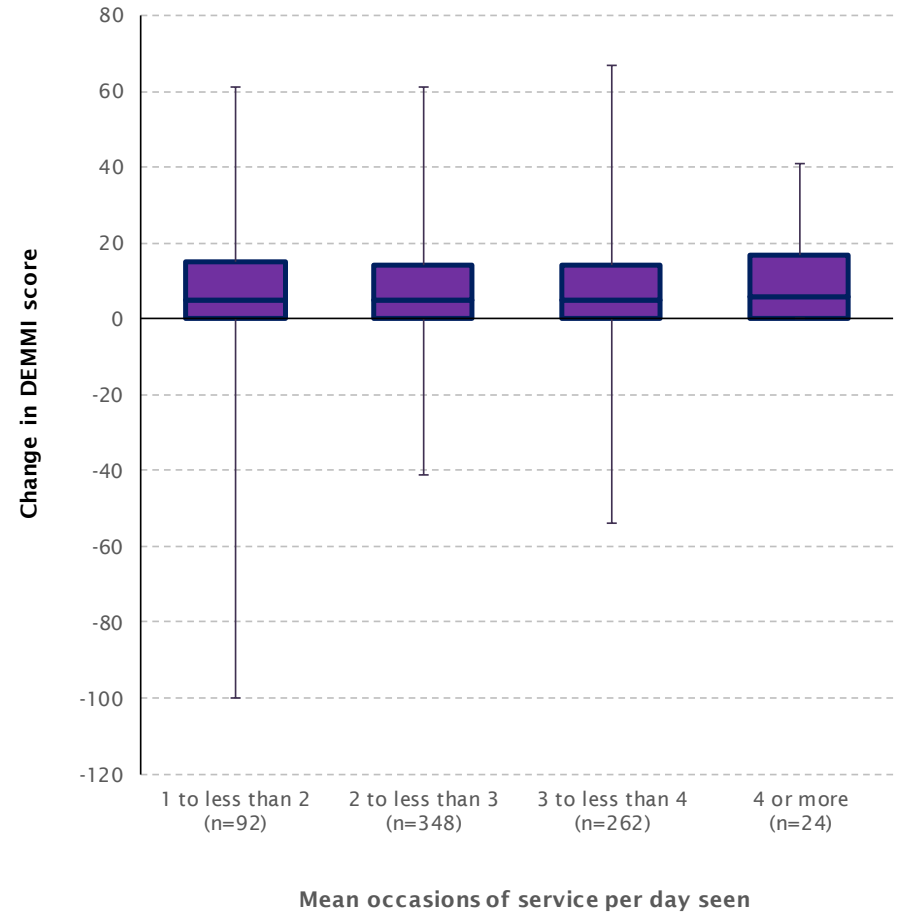
# Change in DEMMI score by OOS/day seen - all episodes



Your Service 2018



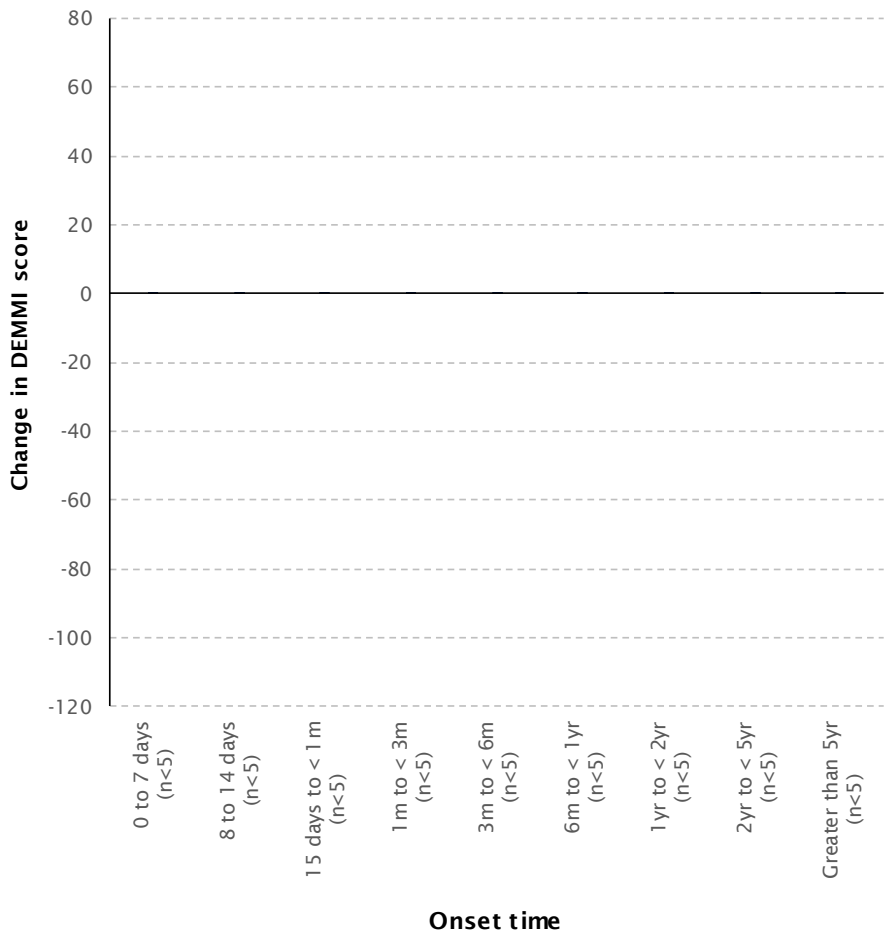
All Ambulatory 2018



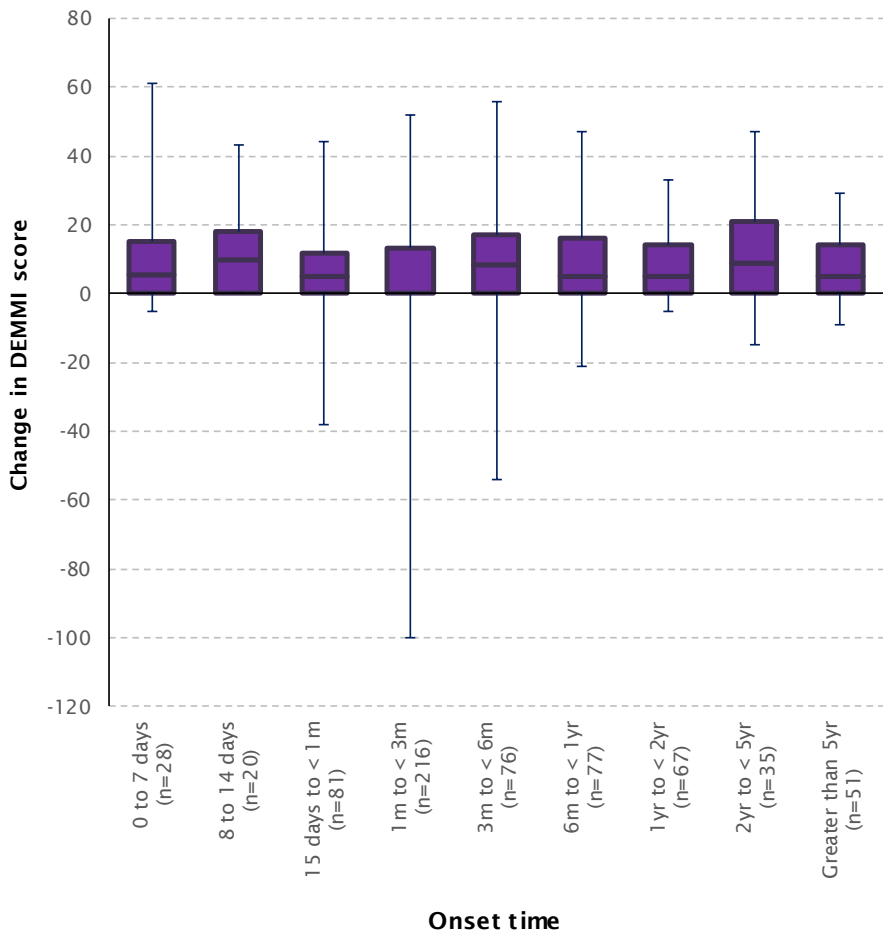
# Change in DEMMI score by onset time - all episodes



Your Service 2018



All Ambulatory 2018



# Mayo-Portland Adaptability Index-4 (MPAI-4)

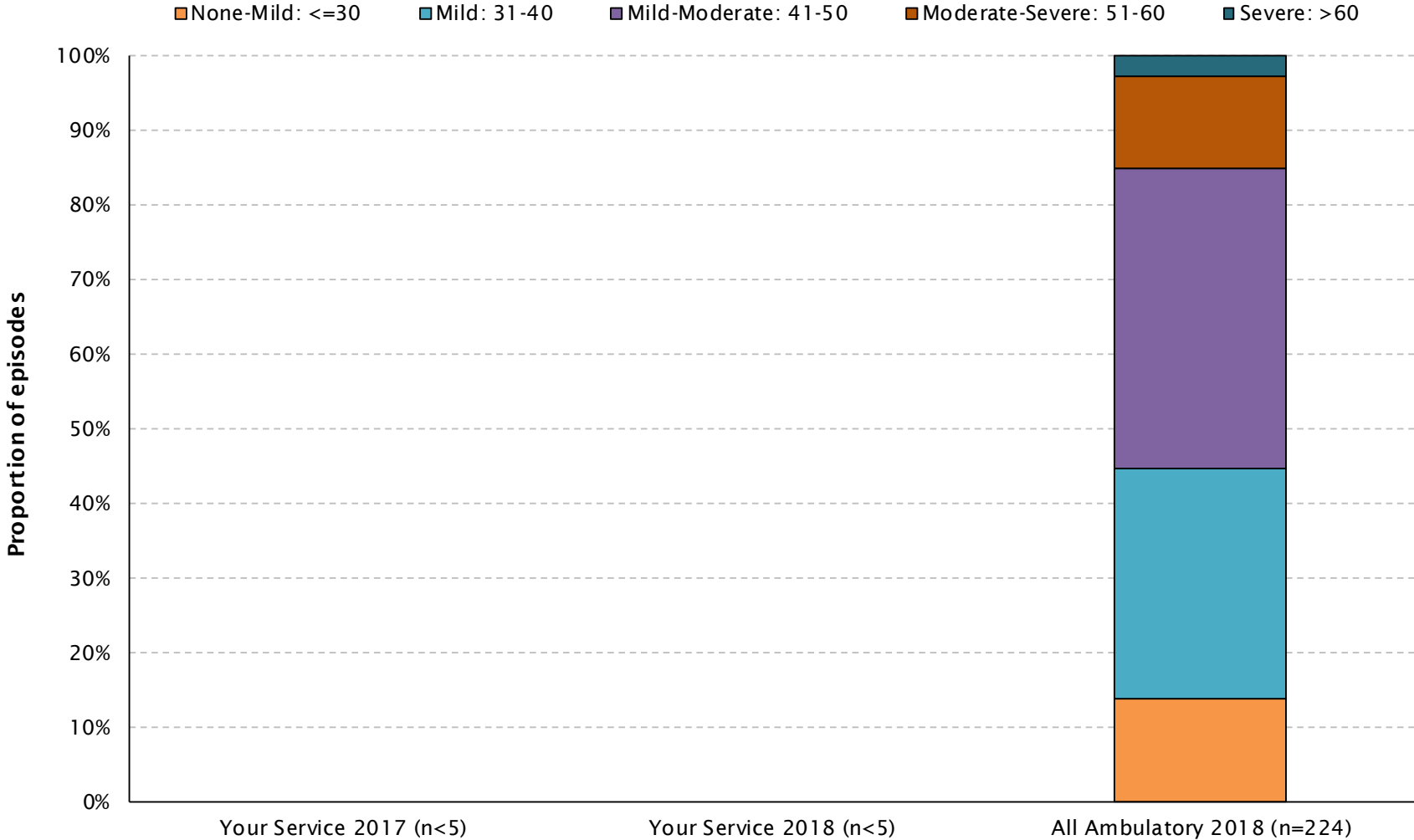


- This data item is collected in addition to the Australian Modified Lawton's IADL Scale for patients who may have functional impairment as a result of brain injury
- The MPAI-4 was specifically designed for the evaluation of individuals during the post-acute period following ABI
- The MPAI-4 consists of 29 items in three subscales (the Ability Index, the Adjustment Index and the Participation Index) plus an additional six items that are not included in the MPAI-4 score

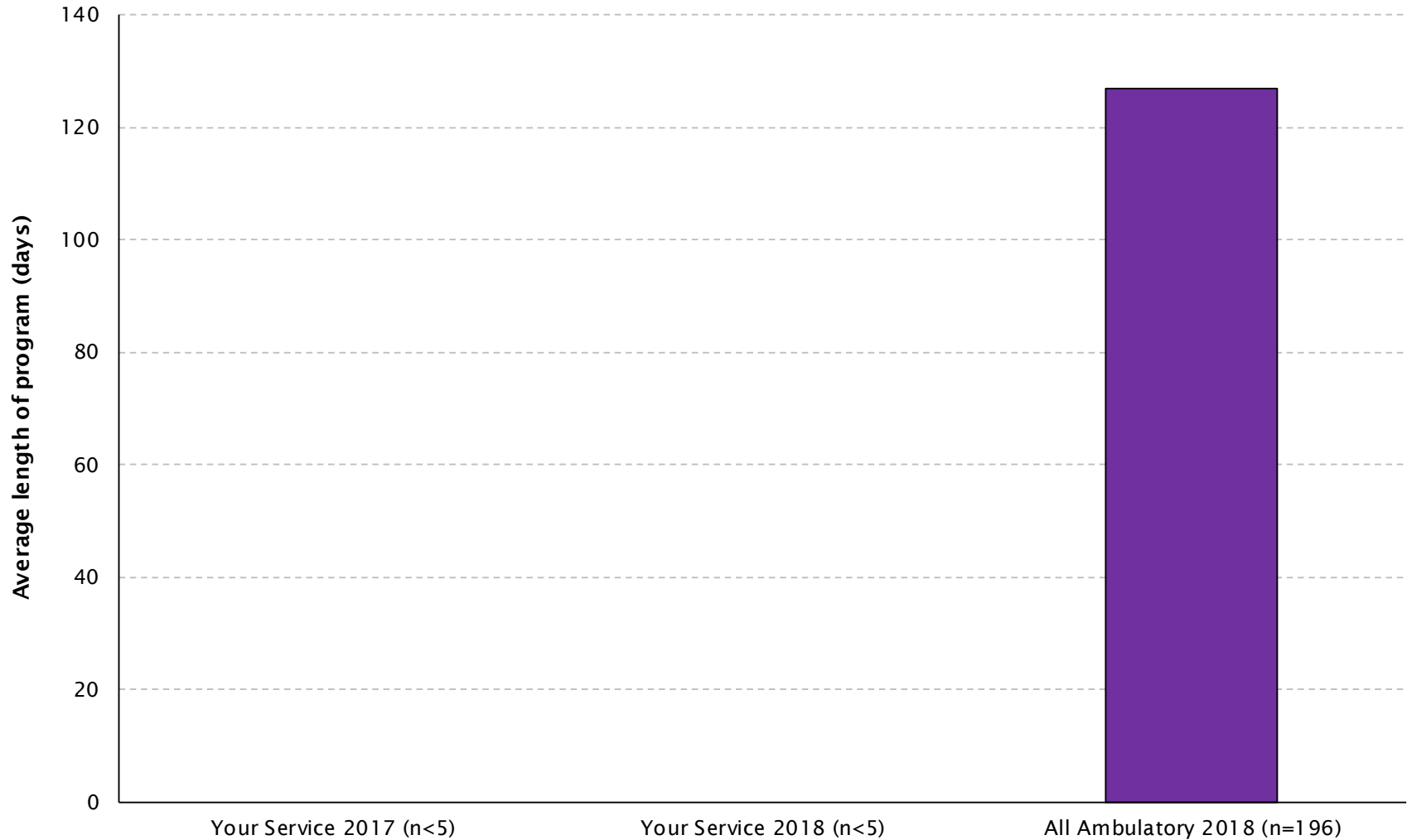
For further information refer to the AROC Ambulatory Data Dictionary V4.1 for Clinicians.



# Casemix of episodes submitted MPAI-4



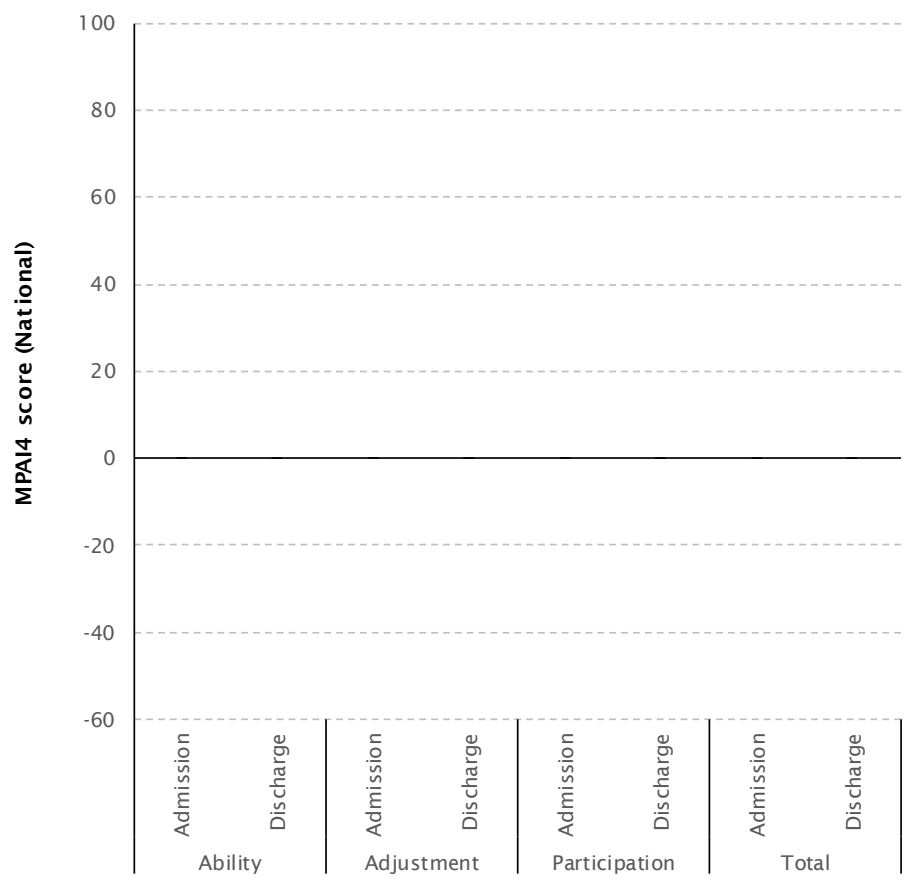
# Average program length for episodes with submitted MPAI-4



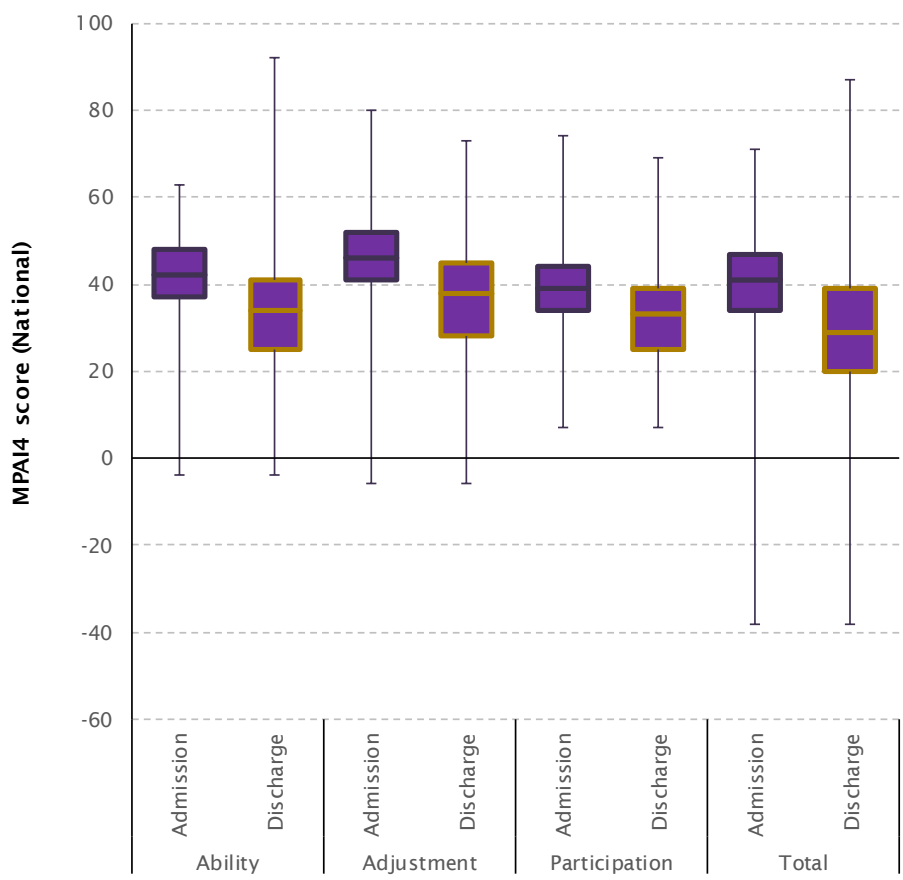
# Admission and discharge T score distribution of spread by MPAI-4 index



Your Service 2018 (n<5)



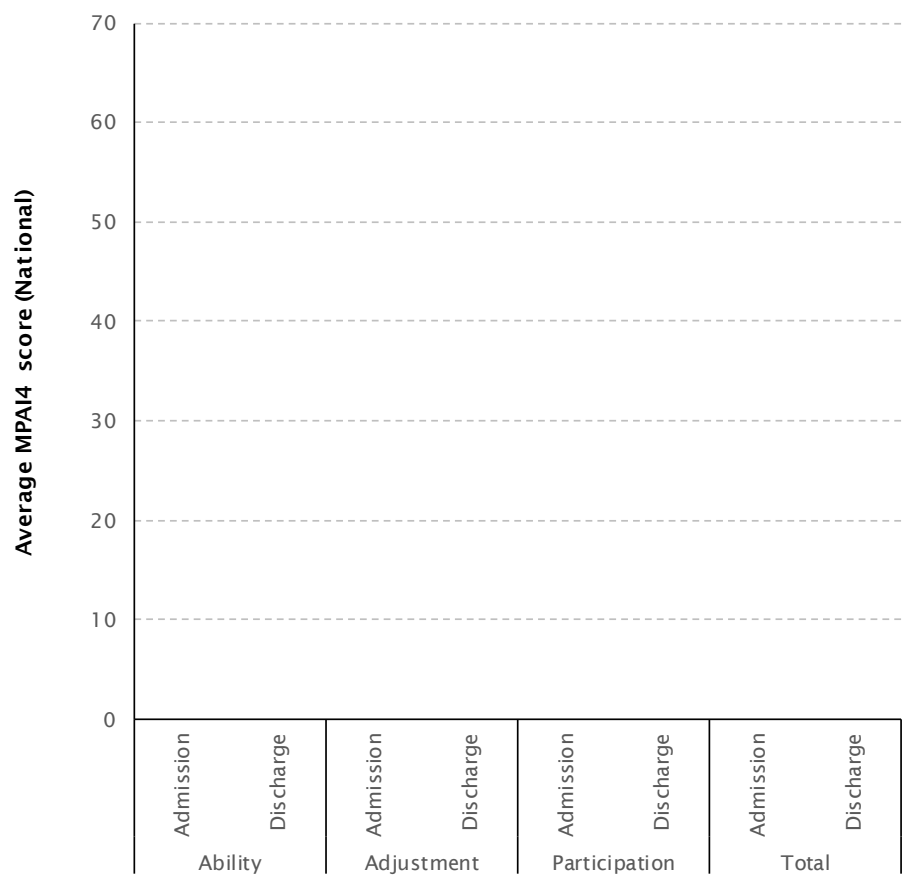
All Ambulatory 2018 (n=196)



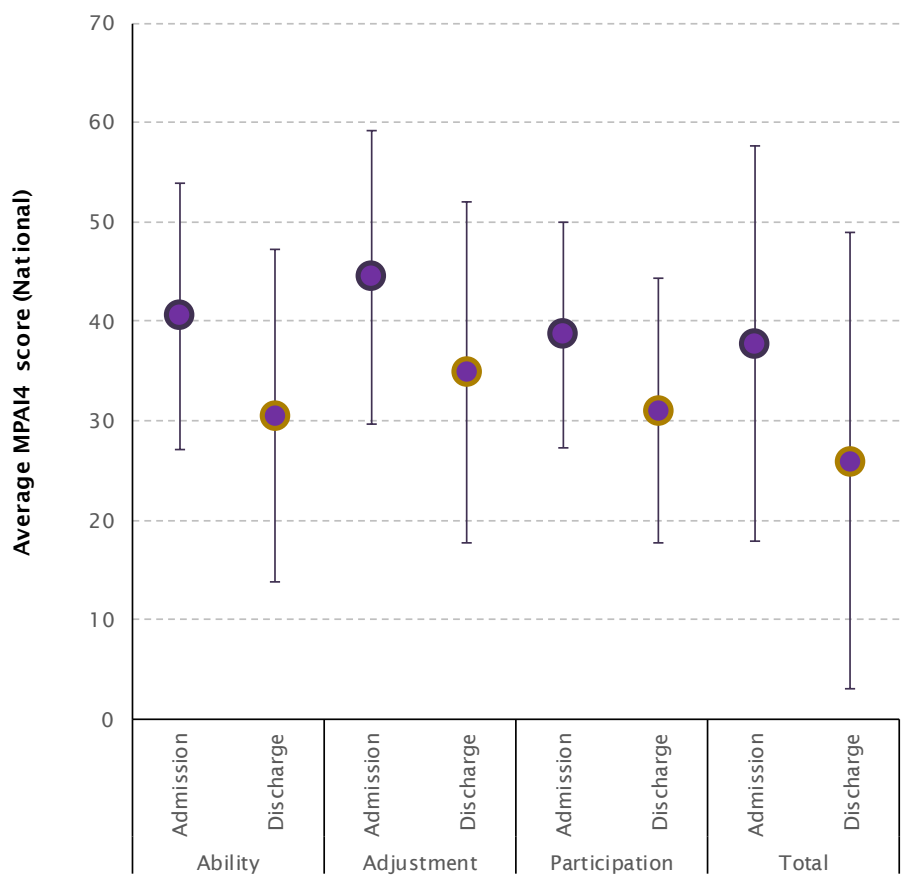
# Admission and discharge average T score by MPAI-4 index



Your Service 2018 (n<5)



All Ambulatory 2018 (n=196)



# Appendix 1: The Australian Modified Lawton's



- The Australian Modified Lawton's represents a sensitive measure of the outcome of ambulatory rehabilitation as it relates to instrumental tasks, such as a patient's ability to do their own shopping, cleaning, cooking, manage their finances, skills that demonstrate their independence in the wider context
- In general most participants in ambulatory care have already demonstrated a degree of functional independence, thus a straight ADL tool (such as the FIM), is not an appropriate outcome measure in this setting
- The Lawton's tool is quick and easy to administer, requires minimal training, and is not discipline or impairment specific
- The Lawton's is endorsed by AFRM as the over-arching ambulatory benchmarking outcome tool of choice
- It has demonstrated validity and reliability in measurement of outcomes Green J, Eagar K, Owen A, Gordon R and Quinsey K (2006). Towards a Measure of Function for Home and Community Care Services in Australia: Part II - Evaluation of the Screening Tool and Assessment Instruments. Australian Journal of Primary Health 12 (1), 82-90
- The Lawton's is not suggested to replace any service or impairment specific outcome measures that services may already collect or are considering collecting, but to provide a platform from which to launch a national benchmarking program with the expectation of further development over time

# Appendix 1: Definition of terms

## Episode

The program of ambulatory rehabilitation. A completed episode is one with a mode of episode end of discharge/case closure.

## Elapsed time

The elapsed time describes the number of days from commencement to end of an ambulatory rehabilitation program. It is calculated as the episode end date minus the start date.

## Days Seen

Days seen is the number of days within an episode of ambulatory rehabilitation on which an occasion of service has been provided.

## Occasions of Service (OOS)

An occasion of service is any therapy session and/or therapist contact within an episode. A patient may have several occasions of service on a 'day seen' and these may be delivered by the same or different staff type. Total occasions of service reflects the total number of therapy sessions provided to the patient during those visits. For example:

Mr Jones attends the program on Monday, Wednesday and Friday. On Monday he sees the physio and also attends hydrotherapy. On Wednesday he has a group exercise session, sees the OT and the speech pathologist. On Friday he sees the physio and attends hydrotherapy again. This program continues for 6 weeks. At week 7 his program is reviewed and he only needs to attend group exercise therapy and hydrotherapy twice a week until the program concludes at week 12.

**The total number of days seen in this instance is  $(3 \times 6) + (2 \times 6) = 30$**

**The total occasions of service in this instance is  $(7 \times 6) + (4 \times 6) = 66$**

# Appendix 1: Definition of terms



## **Therapy type**

Reflects the type of therapy the patient is receiving and is collected by staff type. Where a single staff type provides more than one therapy, e.g. hydrotherapy provided/supervised by a physiotherapist, the staff type selected should reflect the type of therapy session the patient is receiving.

## **ADL**

Activities of daily living describe a person's level of functioning in basic physical activities such as bathing, dressing, transferring, toileting, continence, eating, and walking.

## **IADL**

Instrumental activities of daily living (also known as extended or domestic activities of daily living), describe tasks that enable a person to live independently in the community and include, but not are limited to, light housework, preparing meals, taking medications, shopping for groceries, using the telephone, and managing money.

## **Outcome Measure**

The score recorded using the specified outcome measure at both the beginning and end of an ambulatory rehabilitation program.

## **Valid Outcome Measure**

A valid Outcome Measure requires all items within the scale to have a value assigned and be completed for both the episode begin and episode end assessments.

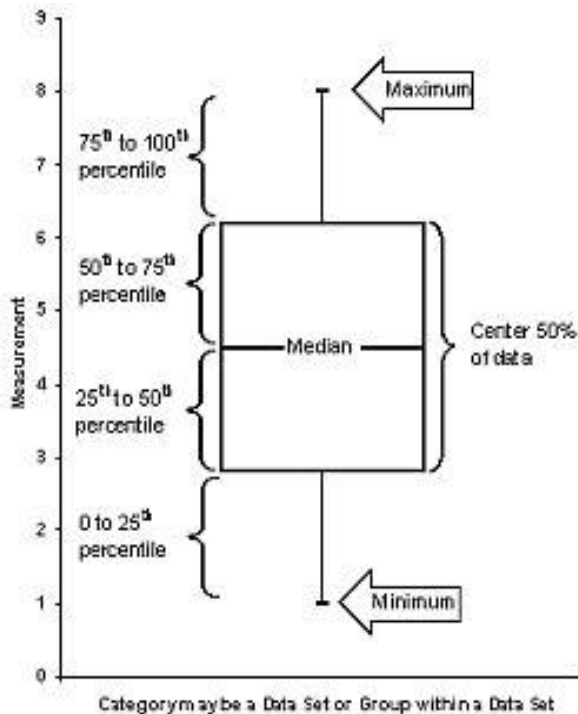
## **Outcome Measure change**

The calculated difference between the valid Outcome Measure score at the beginning and the end of the ambulatory rehabilitation episode.

# Appendix 3: Interpreting box plots

## Box Plots

Box plots, or box-and-whisker plots, provide insight into the distribution of observations within a data set by dividing it into four sections. The box indicates the spread of the central 50% of the data; the median is denoted by a horizontal line through the box. The portion of the box above the median line denotes the 50th - 75th percentile range. Likewise, the portion of the box below the median denotes the 25th-50th percentile range. The whiskers represent the full range of data, the whisker above the box extends to the maximum data value and the whisker below the box extends to the minimum data value.





# Appendix 4: 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 4: 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 Reconditioning following surgery
- 16.2 Reconditioning following medical illness
- 16.3 Cancer rehabilitation

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