AROC Ambulatory Report

January 2019 – December 2019

Anywhere Hospital

Australasian
Faculty of
Rehabilitation
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

AROC ambulatory data collection

- 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.

Ambulatory outcome measures

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)

Data exclusions

- 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.

Interpretation of results

- 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 (≥ 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?

Month	No. episodes
January	18
February	29
March	25
April	31
May	42
June	18
July	35
August	30
September	20
October	32
November	27
December	29
Full year	336

Quality of data reported

AROC core data set items	No.	%
Path	336	100.0
Facility code	336	100.0
Facility name	336	100.0
Ward code[1]	292	86.9
Ward name[1]	298	88.7
MRN	336	100.0
Letters of name	334	99.4
Date of birth	336	100.0
DOB estimate flag	335	99.7
Sex	336	100.0
Indigenous status	336	100.0
Geographical residence	336	100.0
Postcode	336	100.0
Episode begin date	336	100.0
Episode end date	336	100.0
Funding source	336	100.0
Health fund/other payer	210	99.1
NDIS	303	90.2
Referral date	336	100.0
Impairment code	336	100.0
Onset date &/or time since onset	335	99.7
Relevant inpatient episode date	326	97.0
Episode begin reason	336	100.0
First direct care episode	336	100.0
Interpreter required	336	100.0
Date of multi-disciplinary rehab plan	336	100.0
Accommodation prior to episode	336	100.0
Carer status prior to episode	331	100.0
Employment status prior to episode	336	100.0
Accommodation during episode	336	100.0
Carer status during episode	327	99.7
Existing comorbidity interfering with rehab	336	100.0
— Comorbidities identified	96	100.0

AROC core data set items	No.	%
Cognitive impairment impacting rehab	325	96.7
Episode end reason	336	100.0
Final accommodation – episode end	322	100.0
Carer status – episode end	321	100.0
Employment status after discharge	89	26.5 ←
Return to pre-impairment activities	315	93.8
Days seen	332	98.8
Occasions of service	332	98.8
Disciplines involved in therapy	335	99.7
Lawton's start date	331	98.5
Lawton's start items	331	98.5
Lawton's end date	324	96.4
Lawton's end items	325	96.7
GAS start date[1]	31	9.2
GAS start scores[1]	23	6.8
GAS end date[1]	31	9.2
GAS end scores[1]	23	6.8

Impairment specific items

	No.	%
Stroke	**48**	
— Rehab aimed at upper limb function	36	75.0 ←
— Rehab aimed at gait retraining	35	72.9 ←
— Rehab aimed at aphasia	35	72.9 ←
— ULMAS start date	10	83.3 ←
— ULMAS start scores	10	83.3 ←
— ULMAS end date	9	75.0 ←
— ULMAS end scores	9	75.0 ←
— Timed ten metre walk start date	12	85.7
— Timed ten metre walk test on admission	12	85.7
— Timed ten metre walk end date	13	92.9
— Timed ten metre walk test on discharge	13	92.9

AROC impairment specific items	No.	%
Brain injury*	**11**	
— MPAI4 start date	8	72.7 ←
— MPAI4 start scores	8	72.7 ←
— MPAI4 end date	8	72.7 ←
— MPAI4 end scores	8	72.7 ←
Spinal cord injury*	**3**	
— Injury start level	2	66.7 ←
Reconditioning	**42**	
— DEMMI start date	32	76.2 ←
— DEMMI start scores	32	76.2 ←
— DEMMI end date	32	76.2 ←
— DEMMI end scores	32	76.2 ←
Amputation of limb	**4**	
— Phase of care at episode start	4	100.0
— Phase of care during episode	4	100.0
— Phase of care at episode end	4	100.0
— Prosthetic device fitted	4	100.0
— Casting date[2]	3	100.0
— Date of first prosthetic fitting[2]	3	100.0
— Reason for delay in fitting[2]	1	33.3
— Timed up and go test	3	75.0
— Six min walk test[1]	3	75.0
— Ten metre walk test[1]	2	50.0
Orthopaedic conditions	**167**	
— Timed ten metre walk start date	131	78.4
— Timed ten metre walk test on admission	107	64.1
— Timed ten metre walk end date	129	78.2
— Timed ten metre walk test on discharge	118	71.5

*Also includes MMT that contain this impairment

Overall data quality score   **90.0**

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

Demographic data

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.	%
Facilities						
New South Wales	3	5.5	18	32.7	21	38.2
Victoria	0	—	3	5.5	3	5.5
Queensland	2	3.6	9	16.4	11	20.0
South Australia	8	14.5	0	—	8	14.5
Western Australia	1	1.8	1	1.8	2	3.6
Tasmania	2	3.6	0	—	2	3.6
Australian territories	0	—	1	1.8	1	1.8
NZ	7	12.7			7	12.7
Total	**23**	**41.8**	**32**	**58.2**	**55**	**100.0**
Episodes						
New South Wales	403	3.8	4,601	42.9	5,004	46.7
Victoria	0	—	432	4.0	432	4.0
Queensland	540	5.0	1,372	12.8	1,912	17.8
South Australia	1,834	17.1	0	—	1,834	17.1
Western Australia	462	4.3	73	0.7	535	5.0
Tasmania	6	0.1	0	—	6	0.1
Australian territories	0	—	360	3.4	360	3.4
NZ	643	6.0			643	6.0
Total	**3,888**	**36.2**	**6,838**	**63.8**	**10,726**	**100.0**

Episodes by impairment group
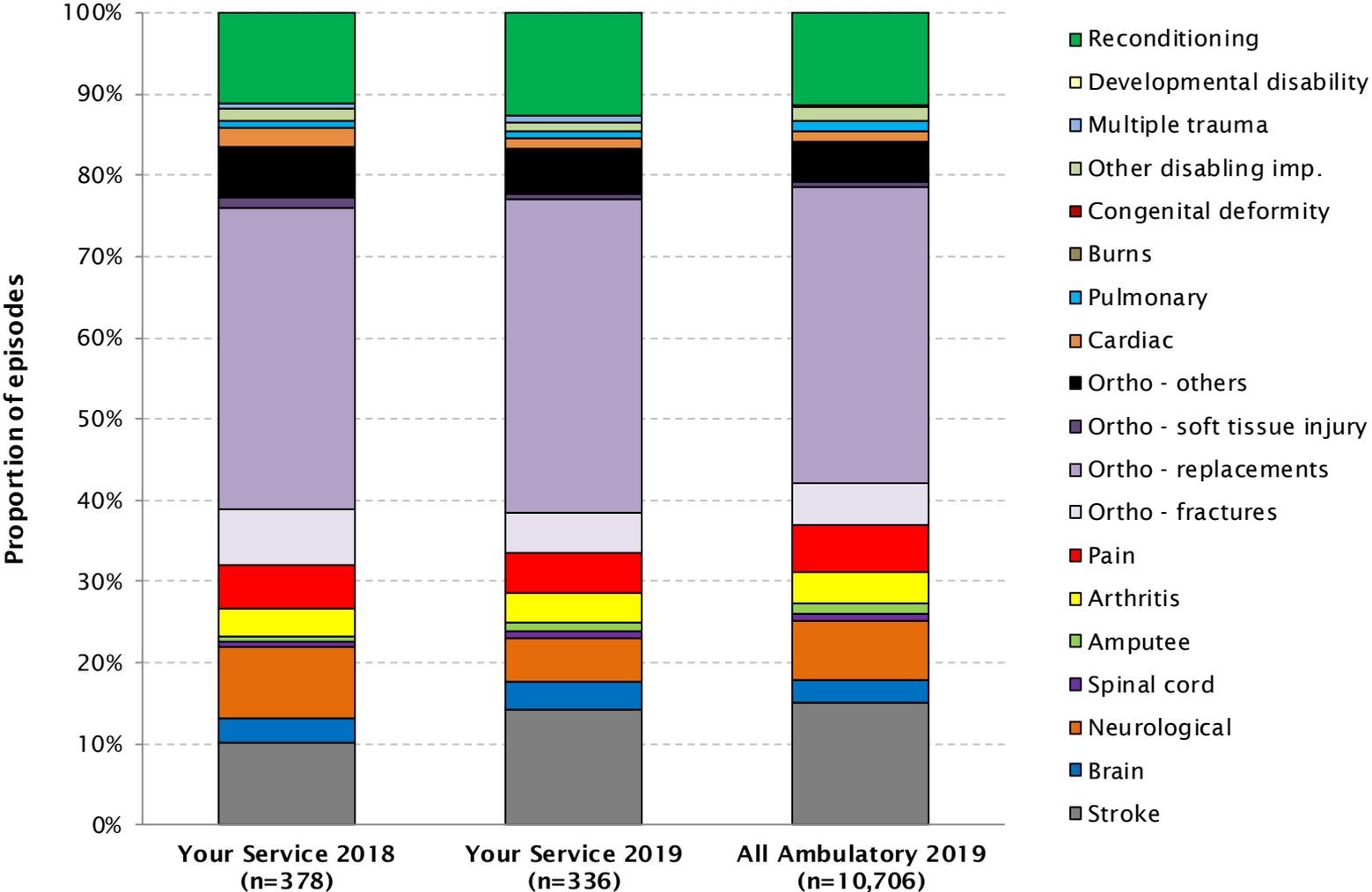
Episodes by impairment group

Impairment group	Your Service 2018		Your Service 2019		All Ambulatory 2019	
	No.	%	No.	%	No.	%
Stroke	38	10.1	48	14.3	1,612	15.1
Brain	12	3.2	11	3.3	311	2.9
Neurological	33	8.7	18	5.4	763	7.1
Spinal cord	2	0.5	3	0.9	93	0.9
Amputee	3	0.8	4	1.2	151	1.4
Arthritis	13	3.4	12	3.6	397	3.7
Pain	20	5.3	17	5.1	641	6.0
Ortho - fractures	26	6.9	16	4.8	549	5.1
Ortho - replacements	140	37.0	130	38.7	3,904	36.5
Ortho - soft tissue injury	5	1.3	2	0.6	58	0.5
Ortho - others	24	6.3	19	5.7	532	5.0
Cardiac	9	2.4	4	1.2	142	1.3
Pulmonary	3	0.8	3	0.9	132	1.2
Burns	0	—	0	—	4	0.0
Congenital deformity	0	—	0	—	5	0.0
Other disabling imp.	6	1.6	4	1.2	174	1.6
Multiple trauma	2	0.5	3	0.9	35	0.3
Developmental disability	0	—	0	—	3	0.0
Reconditioning	42	11.1	42	12.5	1,200	11.2
Missing or excluded	0		0		20	
All episodes	378	100.0	336	100.0	10,726	100.0

First direct care rehabilitation episode by impairment group

First direct care rehabilitation episode by impairment group

Impairment group	Your Service 2018				Your Service 2019				All Ambulatory 2019			
	No.	Primary admission	Subsequent admission	Missing	No.	Primary admission	Subsequent admission	Missing	No.	Primary admission	Subsequent admission	Missing
Stroke	38	19	19	0	48	38	10	0	1,612	1,117	492	3
Brain	12	7	5	0	11	5	6	0	311	194	117	0
Neurological	33	22	11	0	18	15	3	0	763	510	251	2
Spinal cord	2	1	1	0	3	2	1	0	93	53	40	0
Amputee	3	2	1	0	4	2	2	0	151	63	88	0
Arthritis	13	11	2	0	12	11	1	0	397	342	55	0
Pain	20	14	6	0	17	10	7	0	641	413	227	1
Ortho - fractures	26	11	15	0	16	10	6	0	549	252	297	0
Ortho - replacements	140	85	55	0	130	61	69	0	3,904	2,234	1,670	0
Ortho - soft tissue injury	5	5	0	0	2	0	2	0	58	41	17	0
Ortho - others	24	12	12	0	19	6	13	0	532	265	267	0
Cardiac	9	9	0	0	4	3	1	0	142	111	31	0
Pulmonary	3	2	1	0	3	3	0	0	132	103	29	0
Burns	0	0	0	0	0	0	0	0	4	3	1	0
Congenital deformity	0	0	0	0	0	0	0	0	5	3	2	0
Other disabling imp.	6	4	2	0	4	3	1	0	174	85	89	0
Multiple trauma	2	1	1	0	3	0	3	0	35	10	24	1
Developmental disability	0	0	0	0	0	0	0	0	3	3	0	0
Reconditioning	42	31	11	0	42	25	17	0	1,200	771	429	0
Missing or excluded	0				0				20			
All episodes	378	236	142	0	336	194	142	0	10,726	6,573	4,126	7

Episode source

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

Categories:
- Your Service 2018 (n=376)
- Your Service 2019 (n=336)
- All Ambulatory 2019 (n=10,706)

X-axis: Proportion of episodes (0% to 100%)
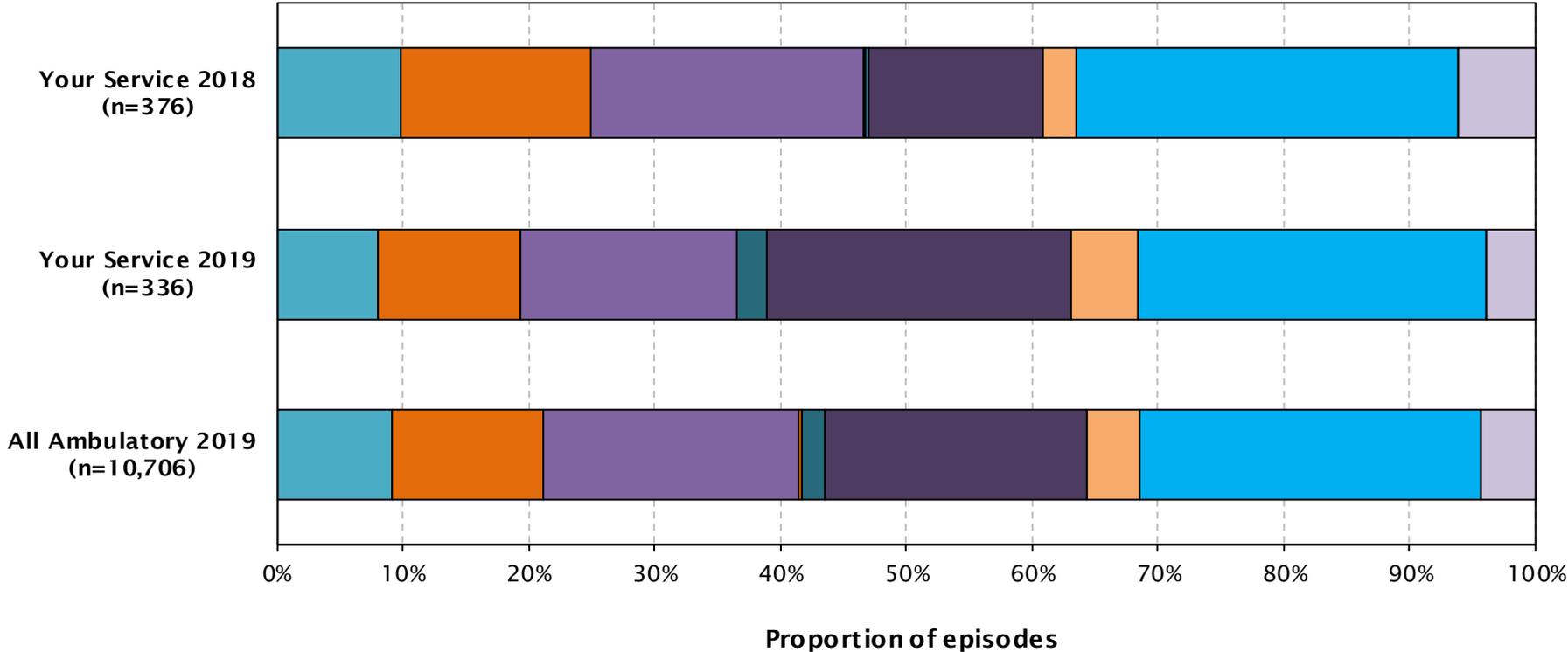
Episode source

Episode source	Your Service 2018		Your Service 2019		All Ambulatory 2019	
	No.	%	No.	%	No.	%
Referred by GP	37	9.8	27	8.0	980	9.2
Referred by therapist	57	15.2	38	11.3	1,290	12.0
Referred directly from specialist rooms	81	21.5	58	17.3	2,160	20.2
Referred from ED	1	0.3	0	—	33	0.3
Referred from acute specialist unit	1	0.3	8	2.4	202	1.9
Referred from acute inpatient care same hospital	52	13.8	81	24.1	2,228	20.8
Referred from acute inpatient care different hospital	10	2.7	18	5.4	448	4.2
Referred from sub-acute care same service	114	30.3	93	27.7	2,906	27.1
Referred from sub-acute care different service	23	6.1	13	3.9	459	4.3
Missing	2		0		20	
All episodes	378	100	336	100	10,726	100

First direct care rehabilitation episode by episode source
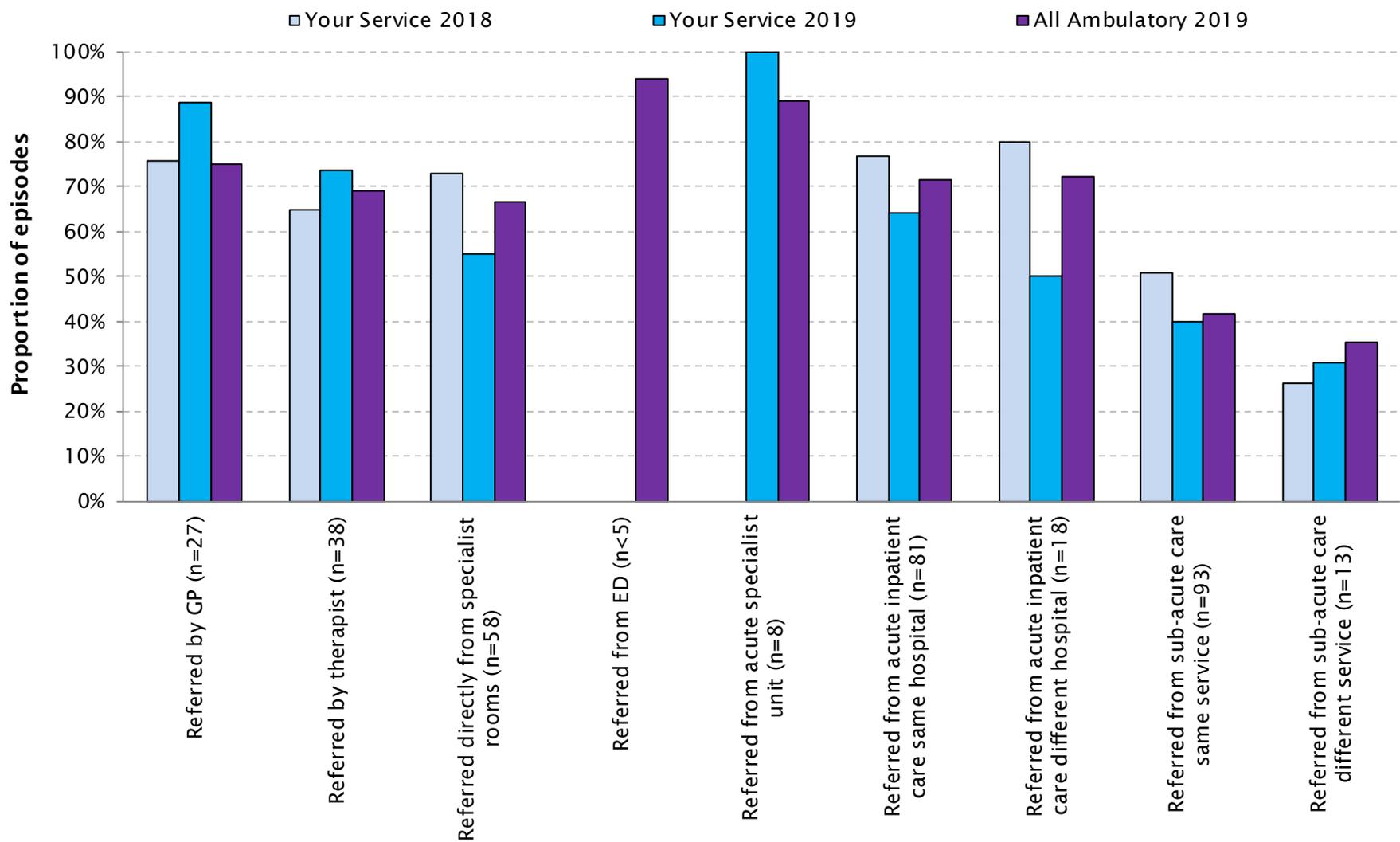
First direct care rehabilitation episode by episode source

Impairment group	Your Service 2018				Your Service 2019				All Ambulatory 2019			
	No.	Primary admission	Subsequent admission	Missing	No.	Primary admission	Subsequent admission	Missing	No.	Primary admission	Subsequent admission	Missing
Referred by GP	37	28	9	0	27	24	3	0	980	734	245	1
Referred by therapist	57	37	20	0	38	28	10	0	1,290	893	396	1
Referred directly from specialist rooms	81	59	22	0	58	32	26	0	2,160	1,442	717	1
Referred from ED	1	0	1	0	0	0	0	0	33	31	2	0
Referred from acute specialist unit	1	0	1	0	8	8	0	0	202	180	22	0
Referred from acute inpatient care same hospital	52	40	12	0	81	52	29	0	2,228	1,596	631	1
Referred from acute inpatient care different hospital	10	8	2	0	18	9	9	0	448	323	125	0
Referred from sub-acute care same service	114	58	56	0	93	37	56	0	2,906	1,213	1,690	3
Referred from sub-acute care different service	23	6	17	0	13	4	9	0	459	163	296	0
Missing	2	0	2	0	0	0	0	0	20	12	6	2
All episodes	378	236	142	0	336	194	142	0	10,726	6,587	4,130	9

Age by impairment group
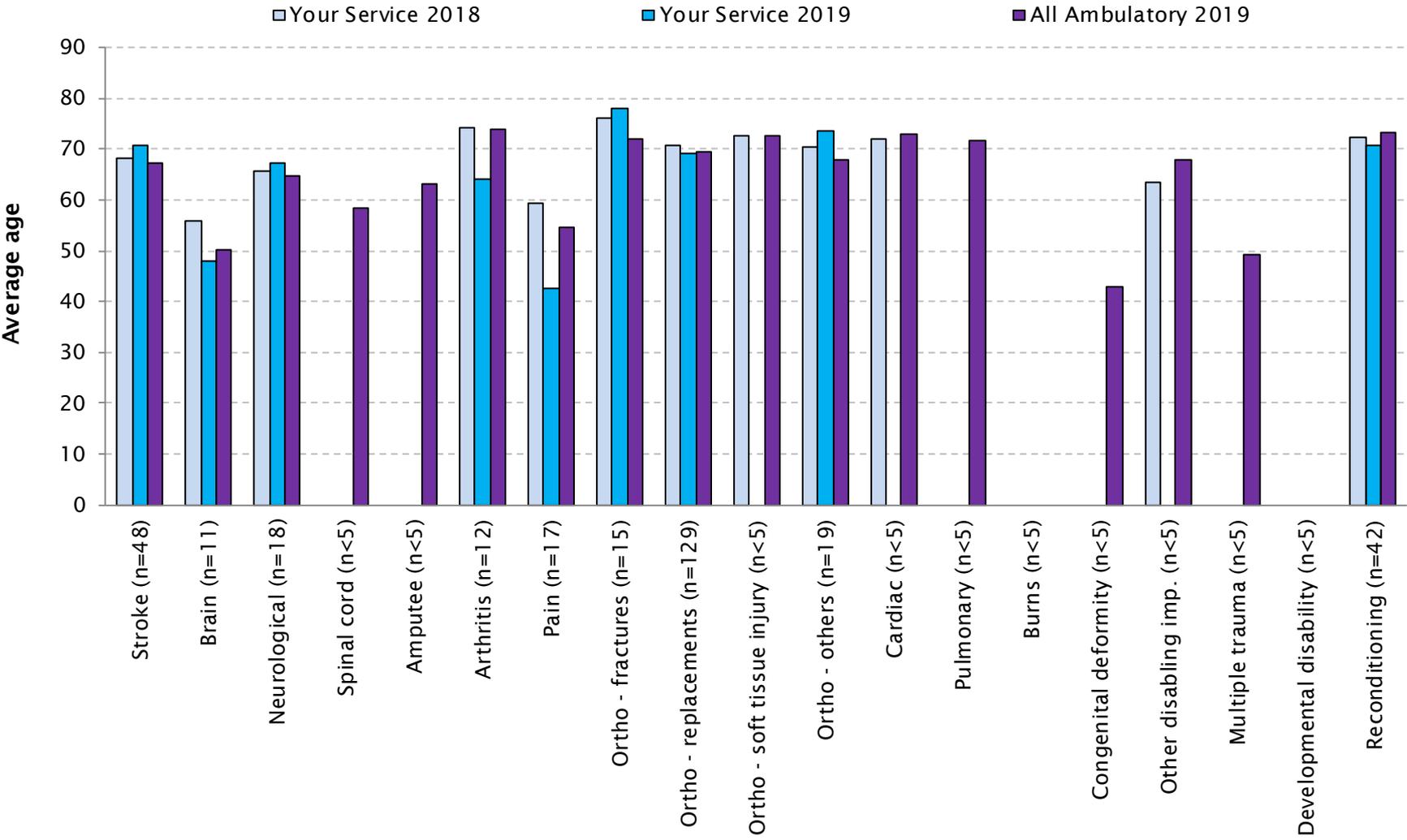
Age by impairment group

Impairment group	Your Service 2018			Your Service 2019			All Ambulatory 2019		
	No.	Mean age	(95% CI)	No.	Mean age	(95% CI)	No.	Mean age	(95% CI)
Stroke	38	68.3	(64.3 – 72.3)	48	70.7	(67.0 – 74.4)	1,608	67.3	(66.6 – 68.1)
Brain	12	56.0	(43.9 – 68.1)	11	47.8	(37.0 – 58.6)	311	50.3	(48.2 – 52.3)
Neurological	33	65.7	(60.3 – 71.1)	18	67.1	(60.6 – 73.7)	761	64.7	(63.5 – 65.9)
Spinal cord	2	78.0	(66.2 – 89.8)	3	56.0	(35.9 – 76.1)	92	58.5	(54.7 – 62.3)
Amputee	3	59.0	(47.9 – 70.1)	4	62.0	(48.4 – 75.6)	151	63.1	(60.8 – 65.3)
Arthritis	13	74.3	(67.6 – 81.0)	12	64.2	(55.2 – 73.2)	397	73.8	(72.7 – 74.8)
Pain	20	59.3	(53.0 – 65.6)	17	42.6	(34.8 – 50.5)	638	54.7	(53.1 – 56.2)
Ortho - fractures	25	76.1	(71.4 – 80.7)	15	78.1	(73.6 – 82.5)	548	71.8	(70.6 – 73.0)
Ortho - replacements	140	70.6	(69.1 – 72.0)	129	69.1	(67.3 – 70.8)	3,899	69.4	(69.1 – 69.7)
Ortho - soft tissue injury	5	72.6	(59.6 – 85.6)	2	72.0	(56.3 – 87.7)	58	72.7	(69.9 – 75.5)
Ortho - others	24	70.4	(65.4 – 75.4)	19	73.7	(68.9 – 78.5)	532	68.0	(66.8 – 69.1)
Cardiac	9	72.1	(62.7 – 81.6)	4	79.8	(70.9 – 88.6)	142	72.9	(71.0 – 74.8)
Pulmonary	3	77.7	(72.6 – 82.8)	3	74.3	(66.6 – 82.0)	132	71.7	(70.2 – 73.3)
Burns	0	—		0	—		4	—	
Congenital deformity	0	—		0	—		5	43.0	(25.0 – 61.0)
Other disabling imp.	6	63.3	(49.1 – 77.5)	4	78.8	(71.0 – 86.5)	174	67.9	(65.4 – 70.3)
Multiple trauma	2	38.0	(38.0 – 38.0)	3	61.7	(47.2 – 76.1)	35	49.4	(44.6 – 54.2)
Developmental disability	0	—		0	—		3	—	
Reconditioning	42	72.3	(68.7 – 75.8)	42	70.7	(66.8 – 74.6)	1,200	73.2	(72.4 – 73.9)
Missing or excluded	1			2			36		
All episodes	378	69.3	(68.0 – 70.6)	336	67.9	(66.4 – 69.4)	10,726	67.7	(67.5 – 68.0)

NDIS funding status at episode end

Episode source	Your Service 2018		Your Service 2019		All Ambulatory 2019 (AU)	
	No.	%	No.	%	No.	%
Accepted - on a plan	3	1.0	10	3.3	191	2.0
Accepted - waiting	1	0.3	1	0.3	56	0.6
Awaiting eligibility determination	1	0.3	1	0.3	84	0.9
Eligible - hasn't applied	2	0.7	5	1.7	170	1.7
Eligible - NDIS not yet available in the region	0	—	0	—	6	0.1
Not eligible / not relevant	291	97.7	286	94.4	9,264	94.8
Missing	80		33		312	
All episodes (AU)	378		336		10,083	

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
Impairment group													
Stroke (n=48)	83.3	4.2	85.4	16.7	33.3	18.8	10.4	2.1	43.8	25.0	10.4	2.1	14.6
Brain (n=11)	45.5	0.0	72.7	45.5	27.3	9.1	0.0	0.0	54.5	45.5	0.0	18.2	54.5
Neurological (n=18)	94.4	5.6	94.4	16.7	22.2	50.0	22.2	22.2	61.1	55.6	22.2	11.1	27.8
Spinal cord (n=3)	100.0	33.3	100.0	66.7	66.7	0.0	0.0	0.0	0.0	100.0	33.3	33.3	33.3
Amputee (n=4)	100.0	0.0	100.0	50.0	25.0	50.0	0.0	0.0	0.0	50.0	50.0	0.0	100.0
Arthritis (n=12)	91.7	33.3	83.3	33.3	16.7	66.7	41.7	25.0	0.0	33.3	50.0	0.0	16.7
Pain (n=17)	100.0	17.6	94.1	29.4	5.9	0.0	5.9	0.0	0.0	17.6	35.3	70.6	23.5
Ortho - fractures (n=16)	93.8	18.8	68.8	31.3	56.3	25.0	6.3	0.0	6.3	37.5	0.0	0.0	18.8
Ortho - replacements (n=130)	98.5	63.1	66.2	30.0	24.6	26.9	29.2	7.7	0.8	6.2	12.3	0.8	11.5
Ortho - soft tissue injury (n=2)	100.0	100.0	100.0	0.0	100.0	50.0	100.0	50.0	0.0	0.0	0.0	0.0	50.0
Ortho - others (n=19)	100.0	84.2	84.2	26.3	42.1	31.6	10.5	15.8	0.0	5.3	21.1	0.0	10.5
Cardiac (n=3)	100.0	0.0	66.7	100.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	33.3
Pulmonary (n=3)	66.7	0.0	66.7	0.0	0.0	0.0	0.0	0.0	33.3	0.0	33.3	0.0	100.0
Burns (n=0)	—	—	—	—	—	—	—	—	—	—	—	—	—
Congenital deformity (n=0)	—	—	—	—	—	—	—	—	—	—	—	—	—
Other disabling imp. (n=4)	50.0	25.0	0.0	75.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	50.0
Multiple trauma (n=3)	66.7	0.0	66.7	66.7	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Developmental disability (n=0)	—	—	—	—	—	—	—	—	—	—	—	—	—
Reconditioning (n=42)	97.6	23.8	76.2	66.7	40.5	14.3	4.8	4.8	9.5	26.2	16.7	4.8	16.7

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
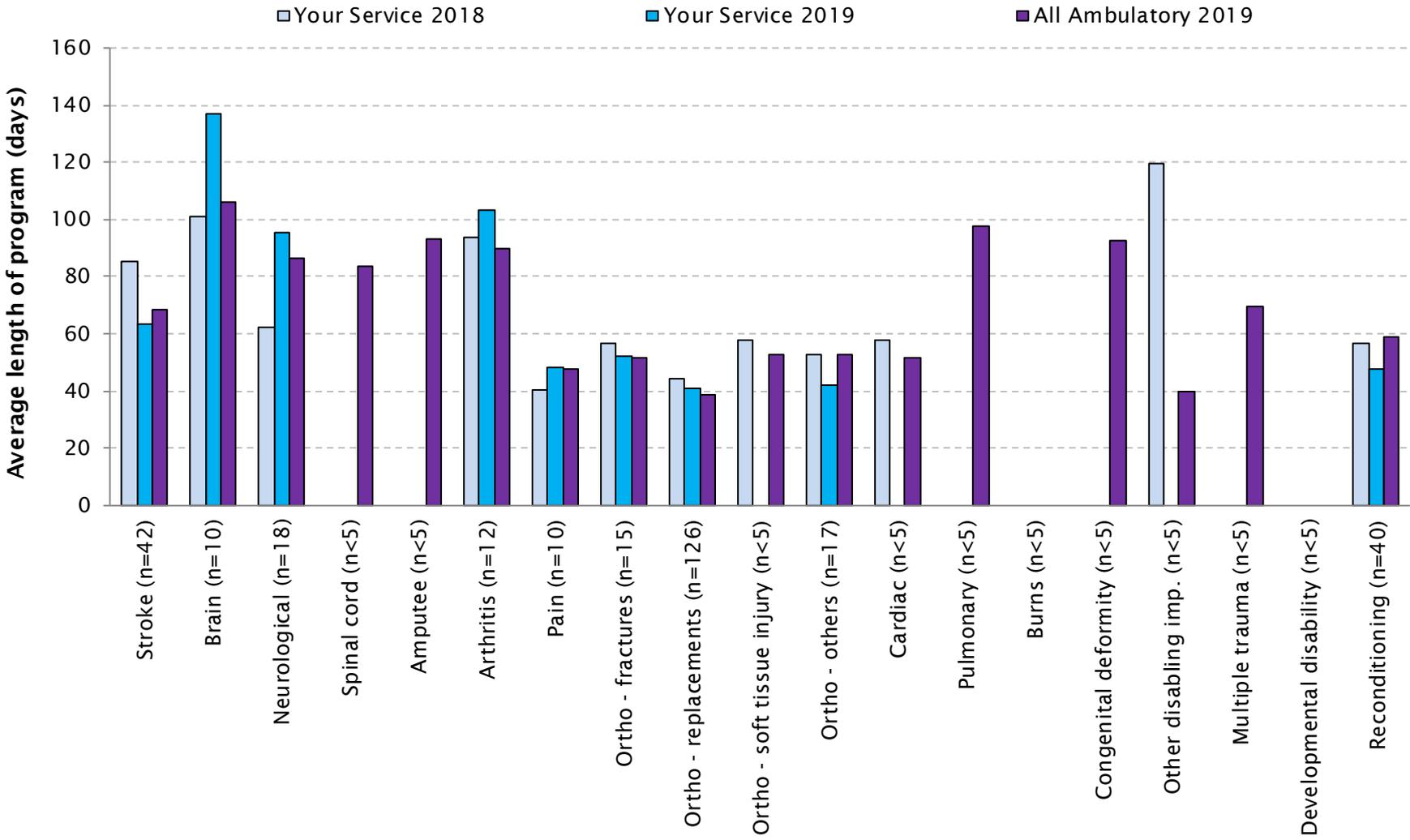
Length of program by impairment group

Impairment group	Your Service 2018			Your Service 2019			All Ambulatory 2019		
	No.	Mean LOP	Trimmed data range*	No.	Mean LOP	Trimmed data range*	No.	Mean LOP	Trimmed data range*
Stroke	35	85.3	(28 – 219)	42	63.5	(23 – 126)	1,524	68.4	(20 – 167)
Brain	11	100.9		10	136.7		282	105.8	(25 – 259)
Neurological	27	62.4	(28 – 104)	18	95.1		705	86.3	(26 – 231)
Spinal cord	2	—		3	—		76	83.4	(35 – 239)
Amputee	3	—		3	—		129	93.3	(21 – 225)
Arthritis	10	93.9		12	103.5		361	89.5	(27 – 203)
Pain	10	40.1		10	48.1		456	47.4	(11 – 119)
Ortho - fractures	23	56.7	(23 – 113)	15	52.3		508	51.7	(17 – 112)
Ortho - replacements	127	44.4	(21 – 101)	126	40.6	(14 – 71)	3,752	38.5	(16 – 73)
Ortho - soft tissue injury	5	57.8		2	—		58	52.7	(23 – 124)
Ortho - others	23	52.9	(28 – 82)	17	42.1		510	52.8	(19 – 117)
Cardiac	9	57.9		4	—		134	51.4	(16 – 134)
Pulmonary	3	—		2	—		114	97.7	(28 – 248)
Burns	0	—		0	—		4	—	
Congenital deformity	0	—		0	—		5	92.8	
Other disabling imp.	6	119.5		4	—		149	39.9	(9 – 112)
Multiple trauma	2	—		2	—		33	69.3	(23 – 189)
Developmental disability	0	—		0	—		3	—	
Reconditioning	36	56.7	(28 – 105)	40	47.8	(23 – 73)	1,092	58.7	(22 – 134)
Missing or excluded	46			26			831		
All episodes	**378**	**60.3**	**(22 – 167)**	**336**	**55.4**	**(20 – 155)**	**10,726**	**56.8**	**(16 – 147)**

*Includes middle 90% of episodes

Days seen by impairment group

Days seen by impairment group

Impairment group	Your Service 2018			Your Service 2019			All Ambulatory 2019		
	No.	Mean days seen	Trimmed data range*	No.	Mean days seen	Trimmed data range*	No.	Mean days seen	Trimmed data range*
Stroke	36	15.8	(3 – 47)	40	11.8	(3 – 22)	1,507	14.1	(3 – 35)
Brain	11	14.6		10	42.4		275	26.6	(4 – 85)
Neurological	30	11.4	(2 – 21)	18	11.7		711	13.2	(3 – 29)
Spinal cord	2	—		3	—		87	18.4	(6 – 47)
Amputee	3	—		3	—		126	23.4	(4 – 53)
Arthritis	12	16.7		12	17.5		375	12.3	(2 – 26)
Pain	17	6.2		16	7.6		623	8.0	(1 – 17)
Ortho - fractures	25	11.9	(5 – 25)	15	10.5		503	12.2	(4 – 24)
Ortho - replacements	128	10.1	(5 – 20)	129	10.6	(4 – 20)	3,822	10.3	(4 – 19)
Ortho - soft tissue injury	5	10.2		2	—		58	10.6	(5 – 20)
Ortho - others	23	10.3	(6 – 16)	19	9.9		521	11.5	(4 – 23)
Cardiac	9	8.7		4	—		139	10.6	(3 – 21)
Pulmonary	2	—		2	—		114	12.0	(2 – 23)
Burns	0	—		0	—		4	—	
Congenital deformity	0	—		0	—		5	11.6	
Other disabling imp.	6	10.7		4	—		171	9.9	(3 – 20)
Multiple trauma	2	—		2	—		31	16.0	(4 – 40)
Developmental disability	0	—		0	—		3	—	
Reconditioning	36	11.6	(6 – 22)	39	12.4	(5 – 25)	1,078	11.4	(3 – 22)
Missing or excluded	31			18			573		
All episodes	378	11.4	(3 – 25)	336	12.3	(3 – 25)	10,726	11.9	(3 – 25)

*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 2018 No.	Mean days seen per week	Trimmed data range*	Your Service 2019 No.	Mean days seen per week	Trimmed data range*	All Ambulatory 2019 No.	Mean days seen per week	Trimmed data range*
Stroke	35	1.6	(0.5 – 3.4)	39	1.4	(0.4 – 2.7)	1,487	1.6	(0.4 – 3.0)
Brain	11	1.3		10	2.0		272	1.7	(0.4 – 3.5)
Neurological	27	1.7	(0.8 – 3.7)	18	1.1		691	1.4	(0.3 – 2.6)
Spinal cord	2	—		3	—		75	1.5	(0.4 – 2.8)
Amputee	3	—		3	—		120	1.8	(0.5 – 3.0)
Arthritis	10	1.5		12	1.1		361	1.2	(0.4 – 2.2)
Pain	10	1.8		10	2.8		451	2.2	(0.7 – 6.4)
Ortho - fractures	23	1.8	(1.1 – 2.6)	15	1.6		491	1.8	(0.8 – 2.7)
Ortho - replacements	127	1.9	(0.8 – 2.9)	126	2.1	(1.0 – 3.1)	3,748	2.0	(1.2 – 3.0)
Ortho - soft tissue injury	5	1.3		2	—		58	1.7	(0.5 – 2.5)
Ortho - others	23	1.6	(0.9 – 2.4)	17	1.9		510	1.8	(0.9 – 2.6)
Cardiac	9	1.1		4	—		133	1.8	(0.7 – 2.5)
Pulmonary	2	—		2	—		114	1.2	(0.1 – 2.3)
Burns	0	—		0	—		4	—	
Congenital deformity	0	—		0	—		5	1.0	
Other disabling imp.	6	1.0		4	—		149	2.9	(0.6 – 6.4)
Multiple trauma	2	—		2	—		31	1.8	(0.7 – 3.1)
Developmental disability	0	—		0	—		3	—	
Reconditioning	36	1.6	(0.7 – 3.0)	39	1.9	(0.9 – 3.3)	1,050	1.6	(0.5 – 2.5)
Missing or excluded	47			30			973		
All episodes	**378**	**1.7**	**(0.6 – 2.9)**	**336**	**1.9**	**(0.7 – 3.2)**	**10,726**	**1.8**	**(0.5 – 3.0)**

*Includes middle 90% of episodes
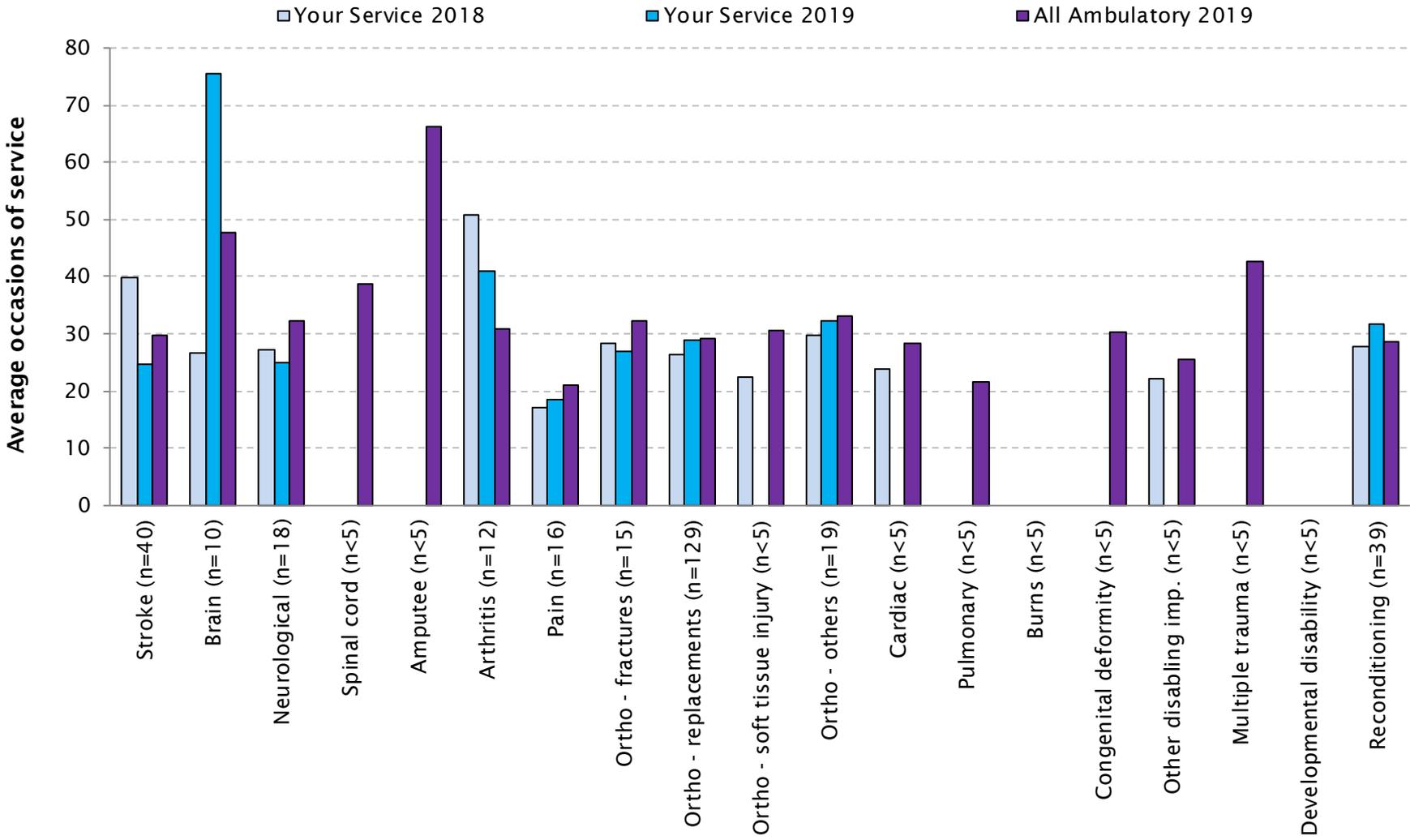
Occasions of service by impairment group

Legend: Your Service 2018, Your Service 2019, All Ambulatory 2019

Average occasions of service by impairment group: Stroke (n=40), Brain (n=10), Neurological (n=18), Spinal cord (n<5), Amputee (n<5), Arthritis (n=12), Pain (n=16), Ortho - fractures (n=15), Ortho - replacements (n=129), Ortho - soft tissue injury (n<5), Ortho - others (n=19), Cardiac (n<5), Pulmonary (n<5), Burns (n<5), Congenital deformity (n<5), Other disabling imp. (n<5), Multiple trauma (n<5), Developmental disability (n<5), Reconditioning (n=39)

Occasions of service by impairment group

Impairment group	Your Service 2018			Your Service 2019			All Ambulatory 2019		
	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	36	39.9	(7 – 133)	40	24.6	(4 – 68)	1,512	29.6	(4 – 79)
Brain	11	26.7		10	75.4		276	47.7	(7 – 153)
Neurological	30	27.2	(6 – 66)	18	24.8		711	32.2	(6 – 70)
Spinal cord	2	—		3	—		87	38.7	(6 – 84)
Amputee	3	—		3	—		126	66.1	(10 – 138)
Arthritis	12	50.8		12	40.9		375	30.9	(5 – 78)
Pain	17	16.9		16	18.4		623	21.1	(1 – 58)
Ortho - fractures	25	28.2	(5 – 62)	15	26.9		504	32.3	(8 – 70)
Ortho - replacements	128	26.4	(10 – 60)	129	28.9	(8 – 58)	3,822	29.0	(8 – 57)
Ortho - soft tissue injury	5	22.4		2	—		58	30.4	(7 – 72)
Ortho - others	23	29.7	(14 – 72)	19	32.2		520	33.0	(9 – 72)
Cardiac	9	23.9		4	—		139	28.4	(8 – 49)
Pulmonary	3	—		2	—		114	21.7	(3 – 40)
Burns	0	—		0	—		4	—	
Congenital deformity	0	—		0	—		5	30.4	
Other disabling imp.	6	22.0		4	—		171	25.4	(7 – 51)
Multiple trauma	2	—		2	—		31	42.6	(7 – 153)
Developmental disability	0	—		0	—		3	—	
Reconditioning	36	27.6	(11 – 68)	39	31.6	(8 – 60)	1,081	28.5	(6 – 55)
Missing or excluded	30			18			564		
All episodes	378	28.8	(5 – 71)	336	30.1	(5 – 63)	10,726	29.8	(5 – 67)

*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 2018 No.	Mean OOS per day seen	Trimmed data range*	Your Service 2019 No.	Mean OOS per day seen	Trimmed data range*	All Ambulatory 2019 No.	Mean OOS per day seen	Trimmed data range*
Stroke	36	2.7	(1.1 – 5.0)	40	2.0	(1.0 – 3.4)	1,507	2.2	(1.0 – 4.7)
Brain	11	1.8		10	2.2		275	2.1	(1.0 – 4.1)
Neurological	30	2.4	(1.0 – 4.5)	18	2.1		711	2.5	(1.1 – 4.5)
Spinal cord	2	—		3	—		87	2.3	(1.0 – 4.7)
Amputee	3	—		3	—		126	2.9	(1.3 – 5.0)
Arthritis	12	3.1		12	2.4		375	2.5	(1.2 – 3.4)
Pain	17	2.1		16	1.9		623	2.2	(1.0 – 5.0)
Ortho - fractures	25	2.3	(1.0 – 4.0)	15	2.8		503	2.8	(1.1 – 5.1)
Ortho - replacements	128	2.6	(1.5 – 3.9)	129	2.7	(1.3 – 4.0)	3,822	2.8	(1.3 – 4.6)
Ortho - soft tissue injury	5	2.0		2	—		58	2.8	(1.0 – 6.0)
Ortho - others	23	2.9	(1.9 – 6.0)	19	3.1		520	2.9	(1.6 – 4.0)
Cardiac	9	2.7		4	—		139	2.8	(1.3 – 3.5)
Pulmonary	2	—		2	—		114	1.8	(1.0 – 3.0)
Burns	0	—		0	—		4	—	
Congenital deformity	0	—		0	—		5	2.7	
Other disabling imp.	6	1.9		4	—		171	2.8	(1.2 – 3.1)
Multiple trauma	2	—		2	—		31	2.6	(1.2 – 4.4)
Developmental disability	0	—		0	—		3	—	
Reconditioning	36	2.4	(1.2 – 3.1)	39	2.5	(1.7 – 3.3)	1,078	2.6	(1.2 – 3.8)
Missing or excluded	31			18			574		
All episodes	**378**	**2.5**	**(1.0 – 4.1)**	**336**	**2.5**	**(1.0 – 4.0)**	**10,726**	**2.5**	**(1.0 – 4.4)**

*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:
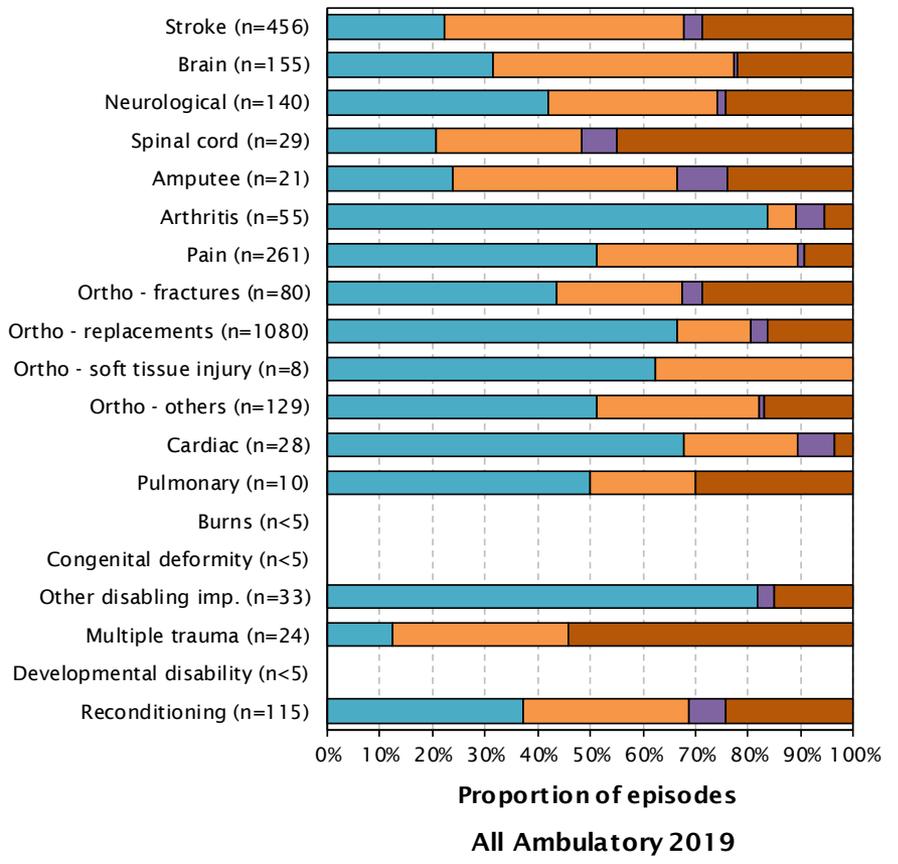
- the same or similar job with reduced hours

  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

Proportion of episodes

Your Service 2019
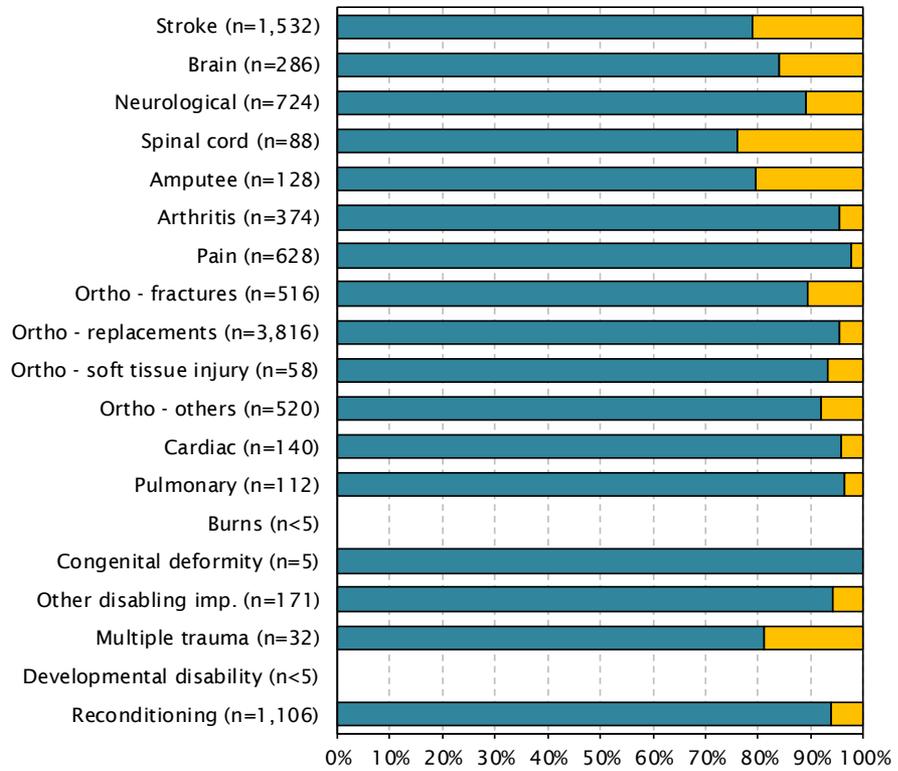
Proportion of episodes

All Ambulatory 2019

Employment outcomes by impairment group

Impairment group	Your Service 2018		Your Service 2019		All Ambulatory 2019	
	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	13	23.1	10	10.0	456	22.4
Brain	4	75.0	5	20.0	155	31.6
Neurological	4	25.0	2	50.0	140	42.1
Spinal cord	0	—	0	—	29	20.7
Amputee	1	100.0	0	—	21	23.8
Arthritis	4	100.0	3	100.0	55	83.6
Pain	9	77.8	10	50.0	261	51.3
Ortho - fractures	4	50.0	1	100.0	80	43.8
Ortho - replacements	24	79.2	32	62.5	1,080	66.7
Ortho - soft tissue injury	0	—	0	—	8	62.5
Ortho - others	2	50.0	3	33.3	129	51.2
Cardiac	2	50.0	0	—	28	67.9
Pulmonary	0	—	0	—	10	50.0
Burns	0	—	0	—	0	—
Congenital deformity	0	—	0	—	1	—
Other disabling imp.	1	0.0	0	—	33	81.8
Multiple trauma	1	100.0	2	50.0	24	12.5
Developmental disability	0	—	0	—	0	—
Reconditioning	5	60.0	4	0.0	115	37.4
Missing or excluded	304		264		8,101	
All episodes	378	62.2	336	47.2	10,726	50.4

Independence outcomes by impairment group

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

Independence is ranked using the following order:

High

Low

Private residence & no carer needed

Private residence & carer needed

Supported living

Residential aged care

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

Your Service 2019

All Ambulatory 2019

Independence outcomes by impairment group

| Impairment group | Your Service 2018 | | Your Service 2019 | | All Ambulatory 2019 | |
	No.	Equivalent independence outcome (%)	No.	Equivalent independence outcome (%)	No.	Equivalent independence outcome (%)
Stroke	34	94.1	43	79.1	1,532	78.8
Brain	11	81.8	10	80.0	286	83.9
Neurological	30	86.7	18	100.0	724	89.1
Spinal cord	2	100.0	3	66.7	88	76.1
Amputee	3	66.7	3	100.0	128	79.7
Arthritis	12	100.0	12	83.3	374	95.5
Pain	17	94.1	16	100.0	628	97.8
Ortho - fractures	24	87.5	15	86.7	516	89.3
Ortho - replacements	128	95.3	128	94.5	3,816	95.4
Ortho - soft tissue injury	5	80.0	2	100.0	58	93.1
Ortho - others	23	82.6	19	100.0	520	92.1
Cardiac	9	100.0	4	100.0	140	95.7
Pulmonary	3	100.0	2	100.0	112	96.4
Burns	0	—	0	—	4	—
Congenital deformity	0	—	0	—	5	100.0
Other disabling imp.	6	83.3	4	75.0	171	94.2
Multiple trauma	2	100.0	2	100.0	32	81.3
Developmental disability	0	—	0	—	3	—
Reconditioning	34	85.3	40	95.0	1,106	93.9
Missing or excluded	35		15		483	
All episodes	**378**	**91.3**	**336**	**91.9**	**10,726**	**91.3**

Lawton's score change by impairment
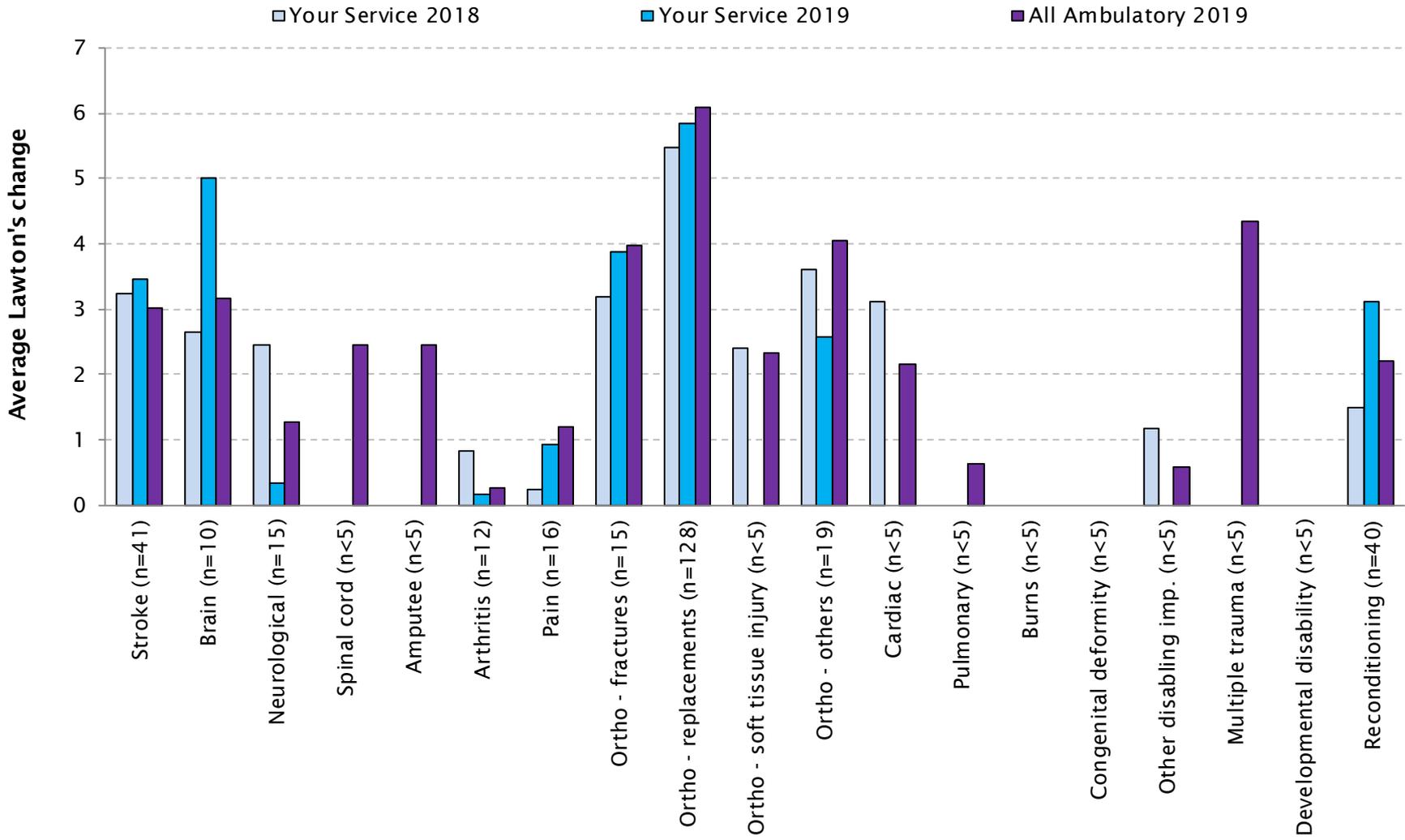
Lawton's score change by impairment

Impairment group	Your Service 2018 No.	Your Service 2018 Avg. Lawton's change	Your Service 2019 No.	Your Service 2019 Avg. Lawton's change	All Ambulatory 2019 No.	All Ambulatory 2019 Avg. Lawton's change
Stroke	35	3.2	41	3.5	1,514	3.0
Brain	11	2.6	10	5.0	279	3.2
Neurological	29	2.4	15	0.3	679	1.3
Spinal cord	2	3.5	3	0.7	87	2.4
Amputee	3	1.7	3	6.7	131	2.5
Arthritis	12	0.8	12	0.2	354	0.3
Pain	17	0.2	16	0.9	624	1.2
Ortho - fractures	25	3.2	15	3.9	513	4.0
Ortho - replacements	128	5.5	128	5.8	3,809	6.1
Ortho - soft tissue injury	5	2.4	2	5.0	57	2.3
Ortho - others	23	3.6	19	2.6	520	4.0
Cardiac	9	3.1	4	1.3	136	2.2
Pulmonary	3	-0.3	2	2.0	84	0.6
Burns	0	—	0	—	4	—
Congenital deformity	0	—	0	—	4	—
Other disabling imp.	6	1.2	4	-0.8	167	0.6
Multiple trauma	2	2.5	2	7.0	32	4.3
Developmental disability	0	—	0	—	2	—
Reconditioning	35	1.5	40	3.1	1,096	2.2
Missing or excluded	33		20		634	
All episodes	**378**	**3.5**	**336**	**3.9**	**10,726**	**3.8**

Episodes with a Lawton's start score of 30 by impairment group
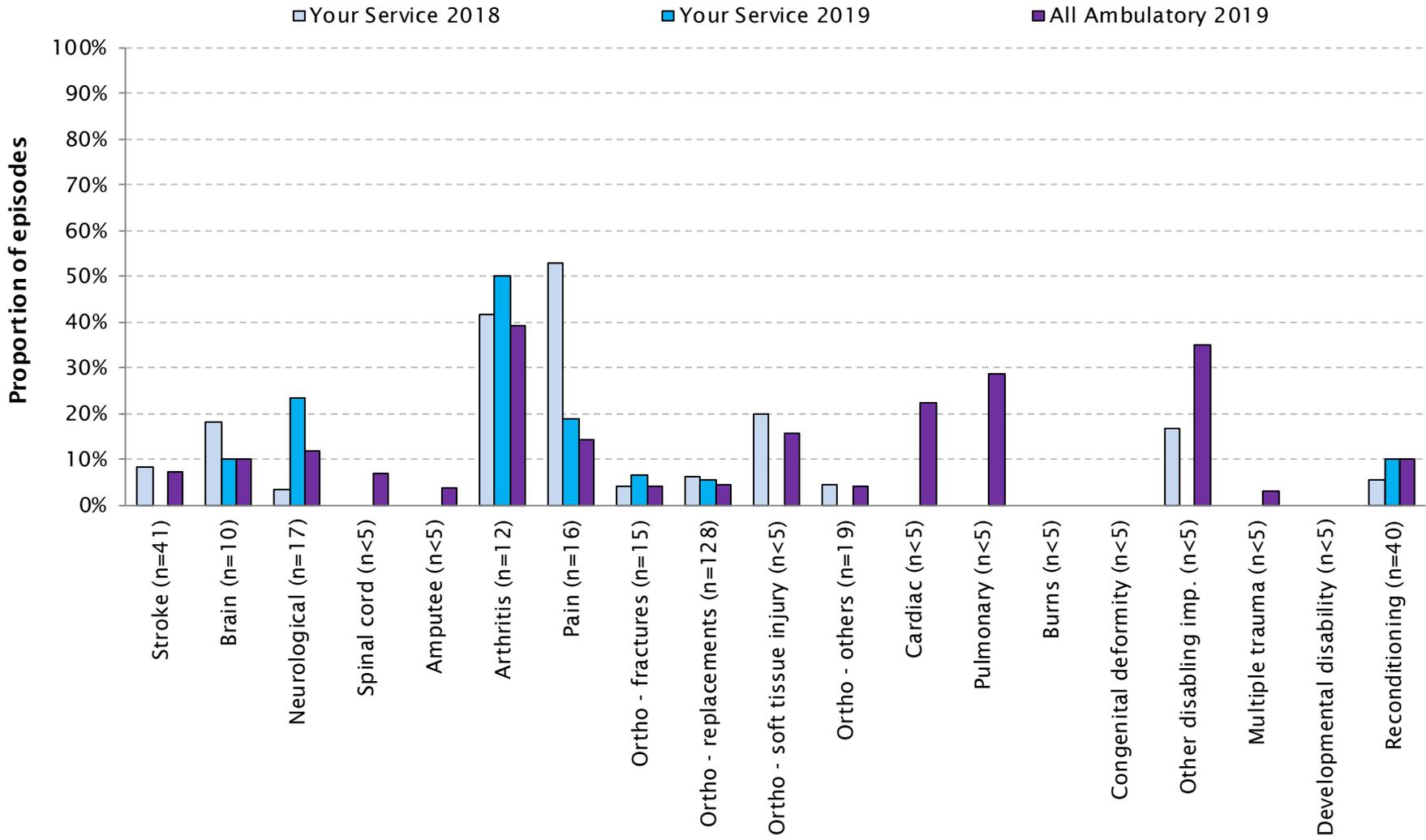
Episodes with no change in Lawton's score by impairment group
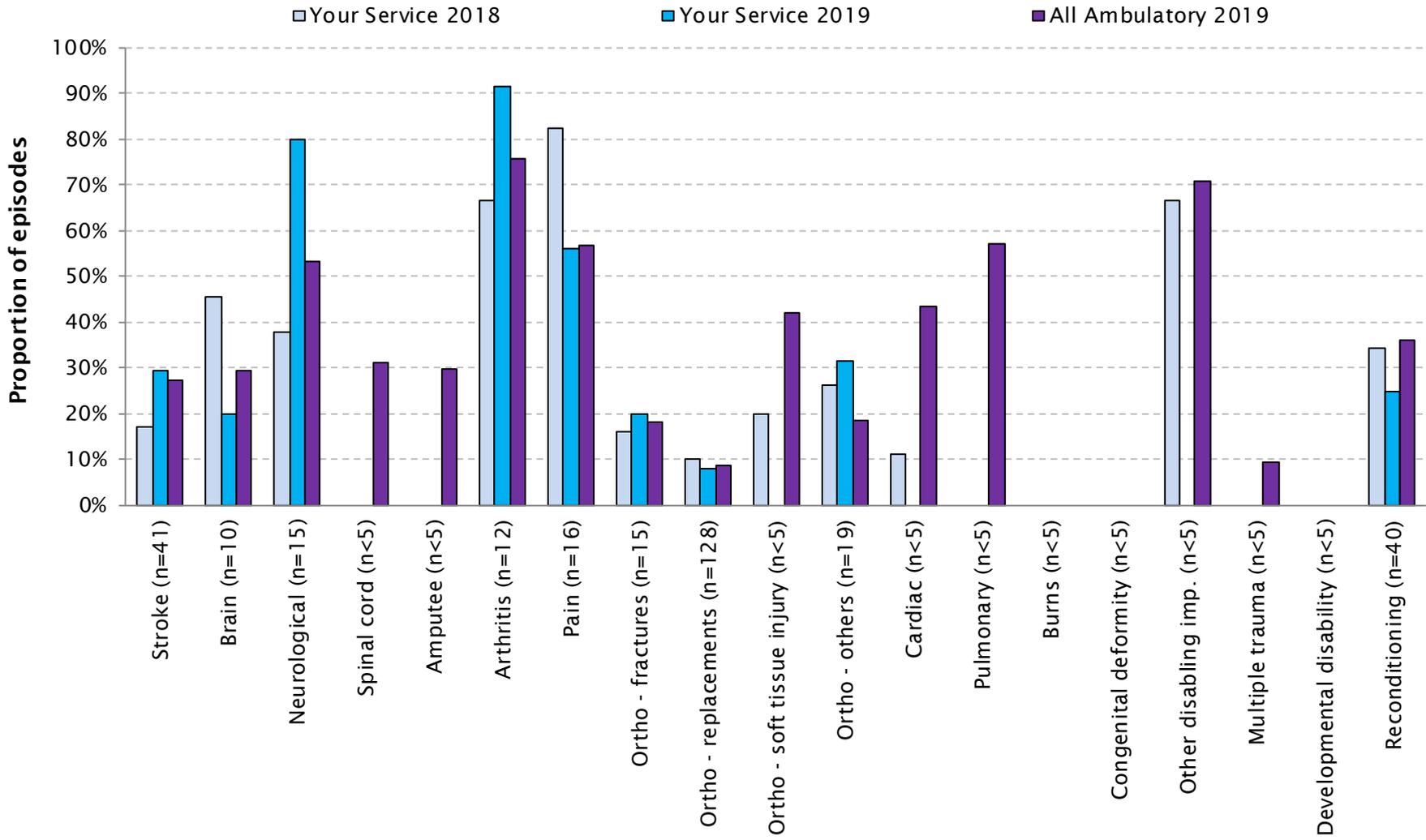
Lawton's start and end total – all episodes

Your Service 2019 (n=316)
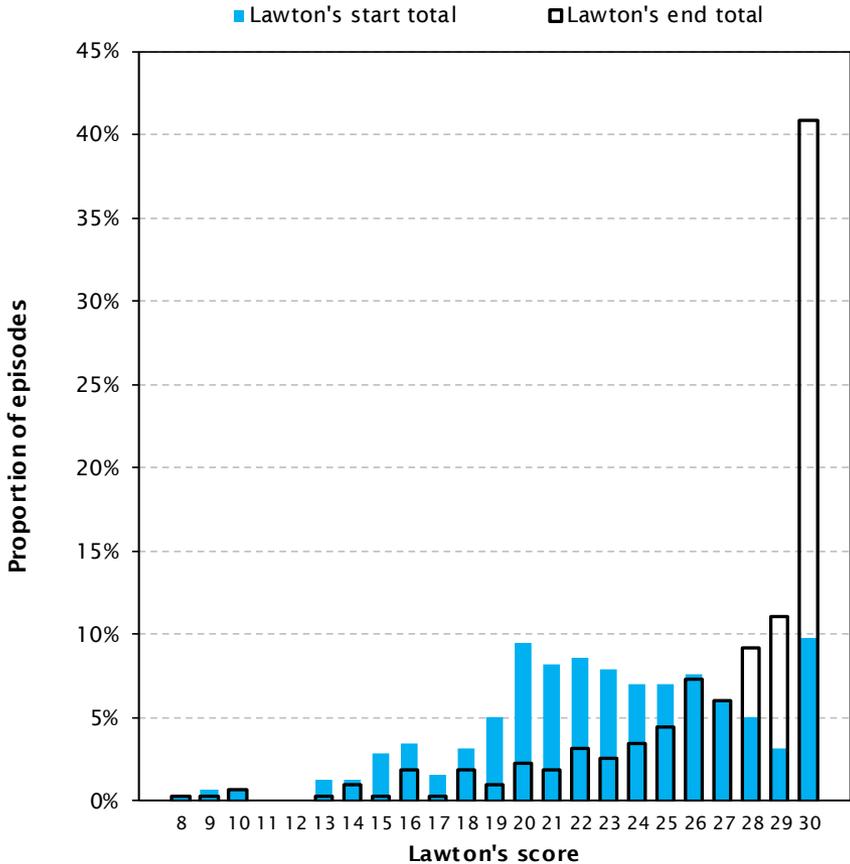
All Ambulatory 2019 (n=10,106)
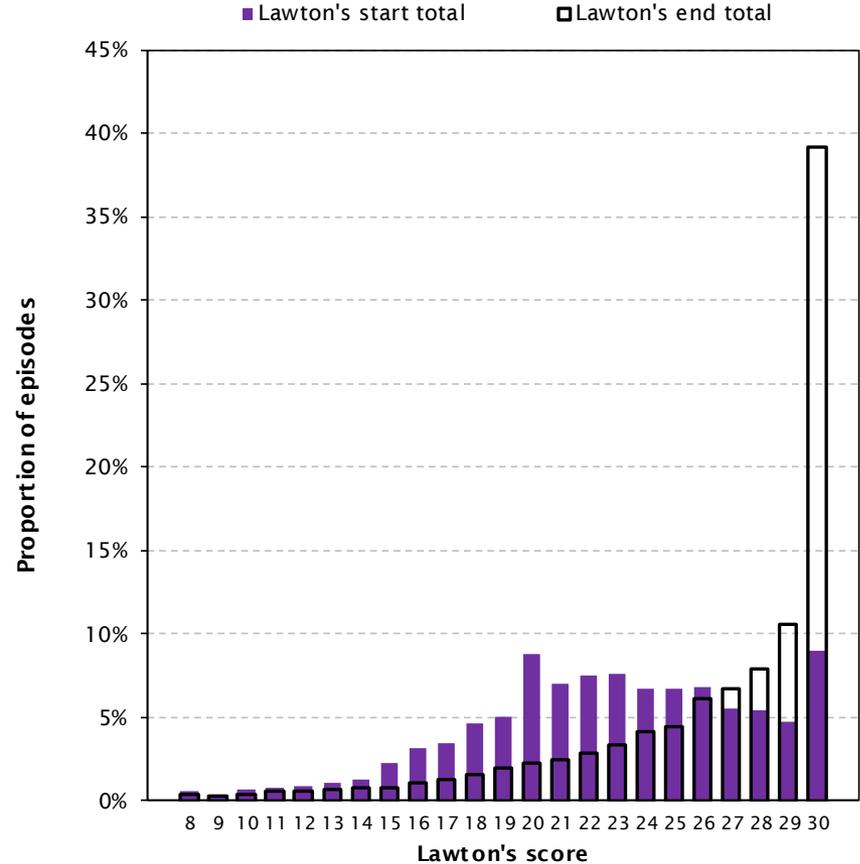
Change in Lawton's score – all episodes

Your Service 2019 (n=316)
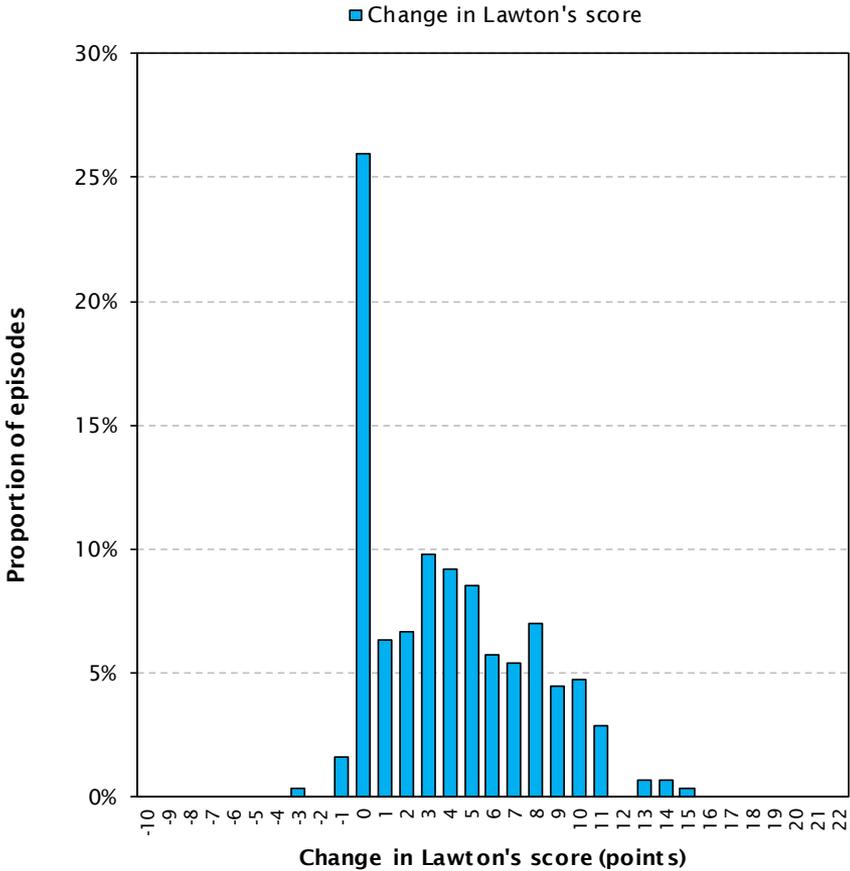
All Ambulatory 2019 (n=10,100)

Note: 6 episode(s) had a Lawton's change score < -10.

Change in Lawton's item scores – all episodes

Your Service 2019 (n=316)

All Ambulatory 2019 (n=10,100)

■ Average change in Lawton's item score
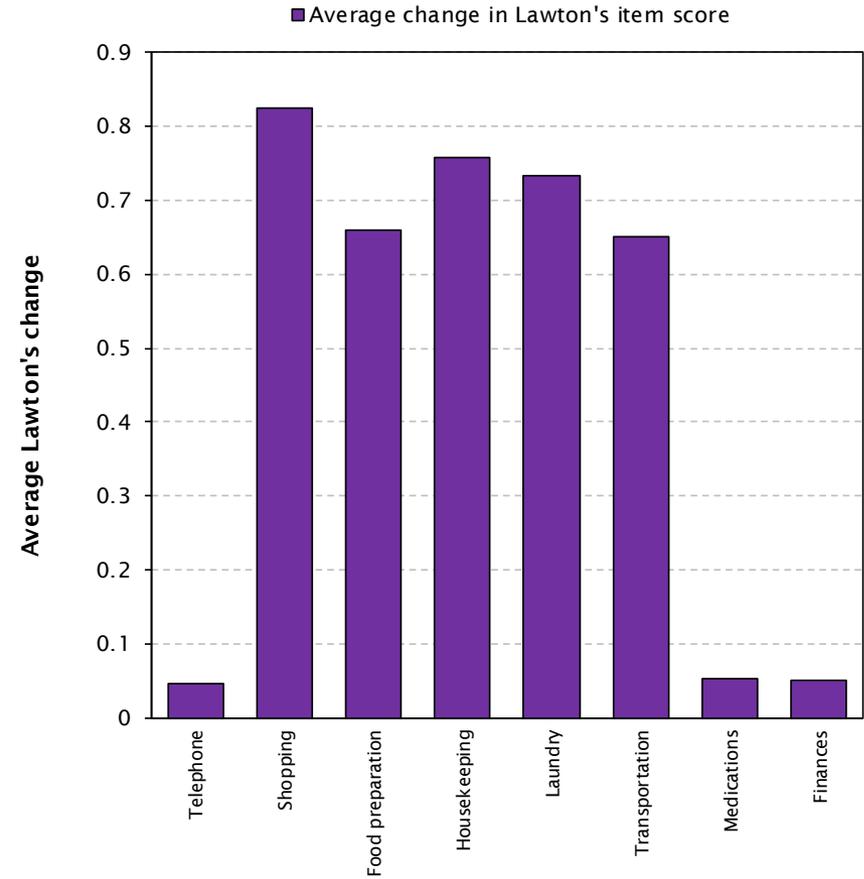
Note: 6 episode(s) had a Lawton's change score < -10.

Change in Lawton's score by OOS/day seen – all episodes
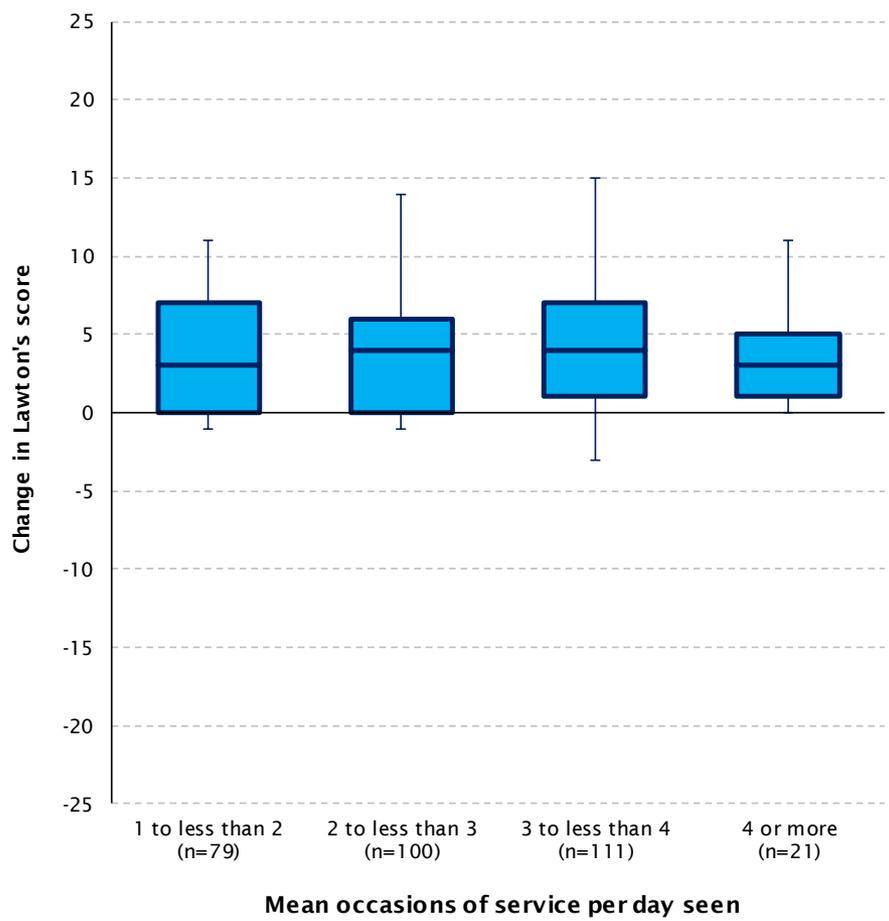
Your Service 2019

All Ambulatory 2019
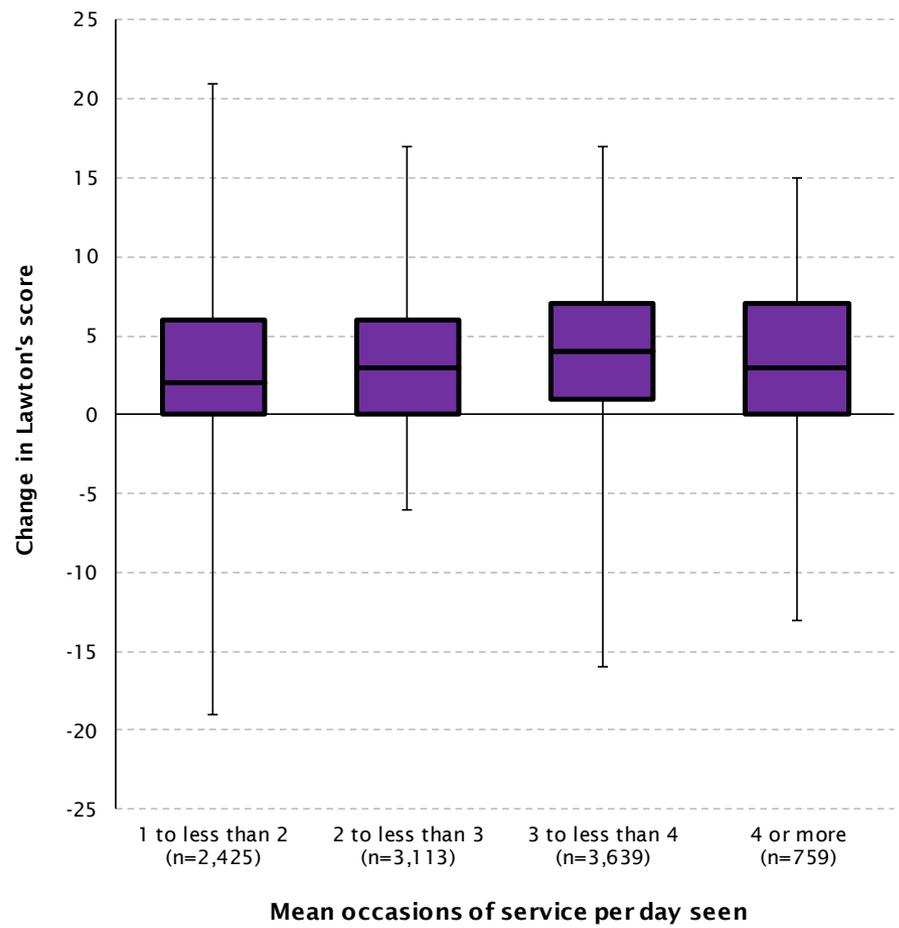
Change in Lawton's score by onset time – all episodes

Your Service 2019

All Ambulatory 2019

Impairment Specific Outcomes Measures
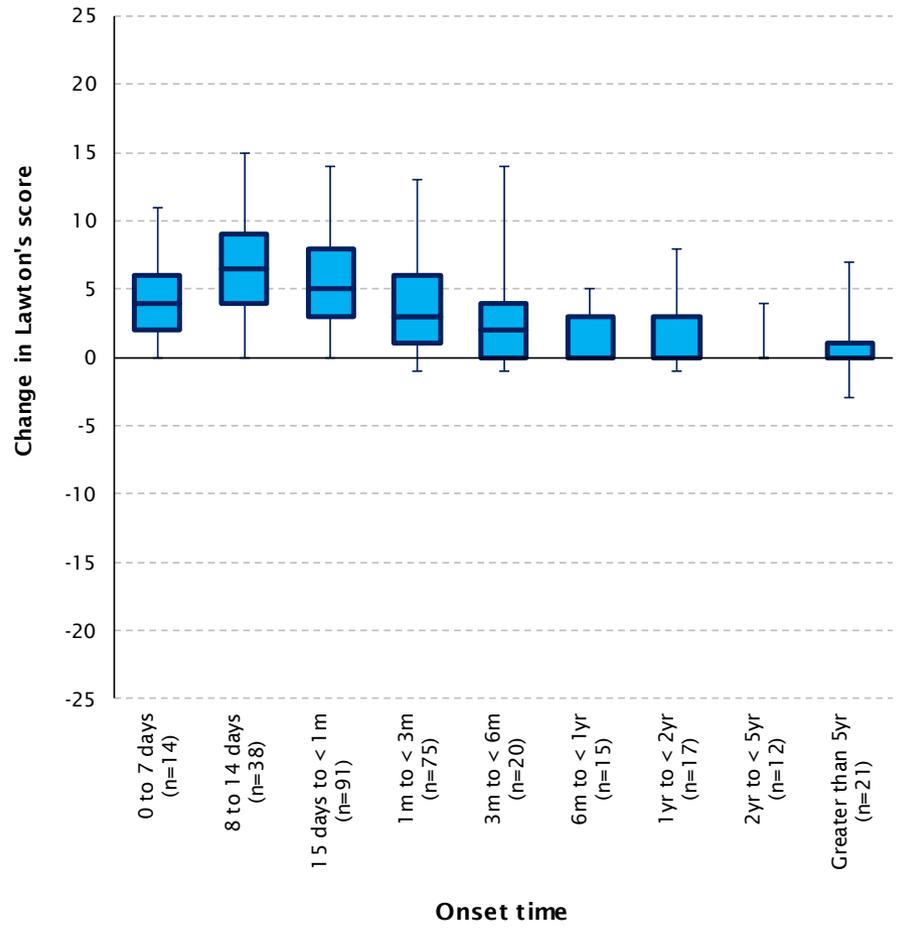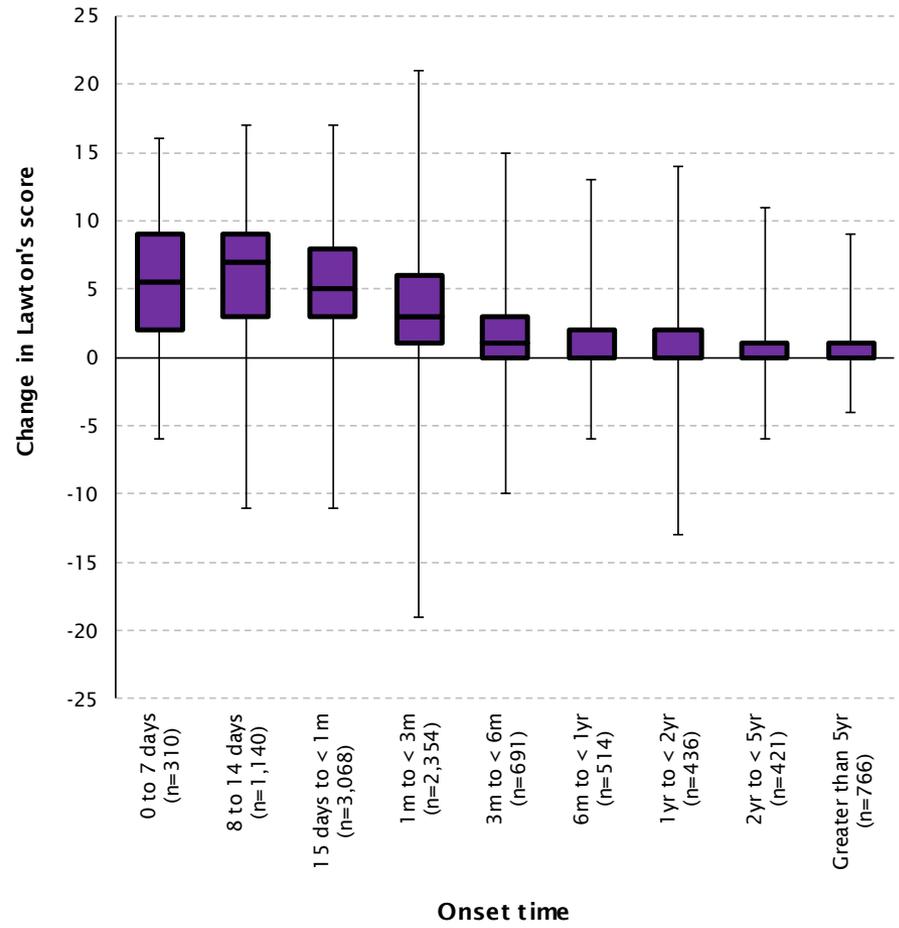
No single outcome measure can provide comprehensive outcome information across the range of impairments treated in ambulatory settings. For this reason, in addition to the Australian Modified Lawton's IADL Scale which is used for every episode, a number of impairment specific measures are included in 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 2019 (n=9)

■ Start ULMAS score   ■ End ULMAS score

All Ambulatory 2019 (n=254)

■ Start ULMAS score   ■ End ULMAS score
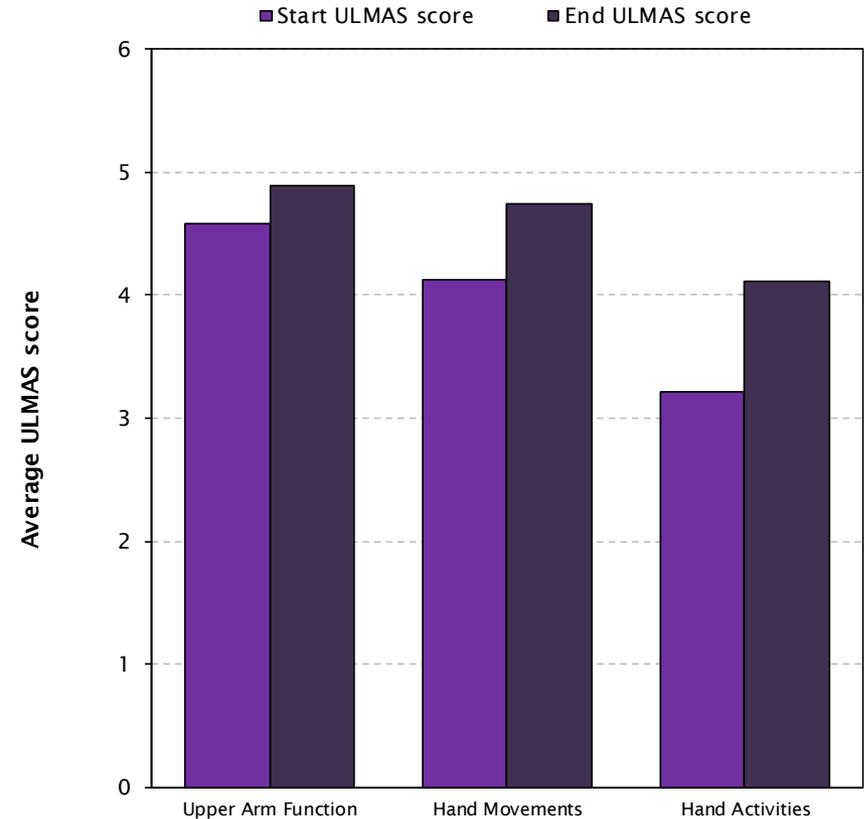
ULMAS start and end total – Upper arm function

Your Service 2019 (n=9)
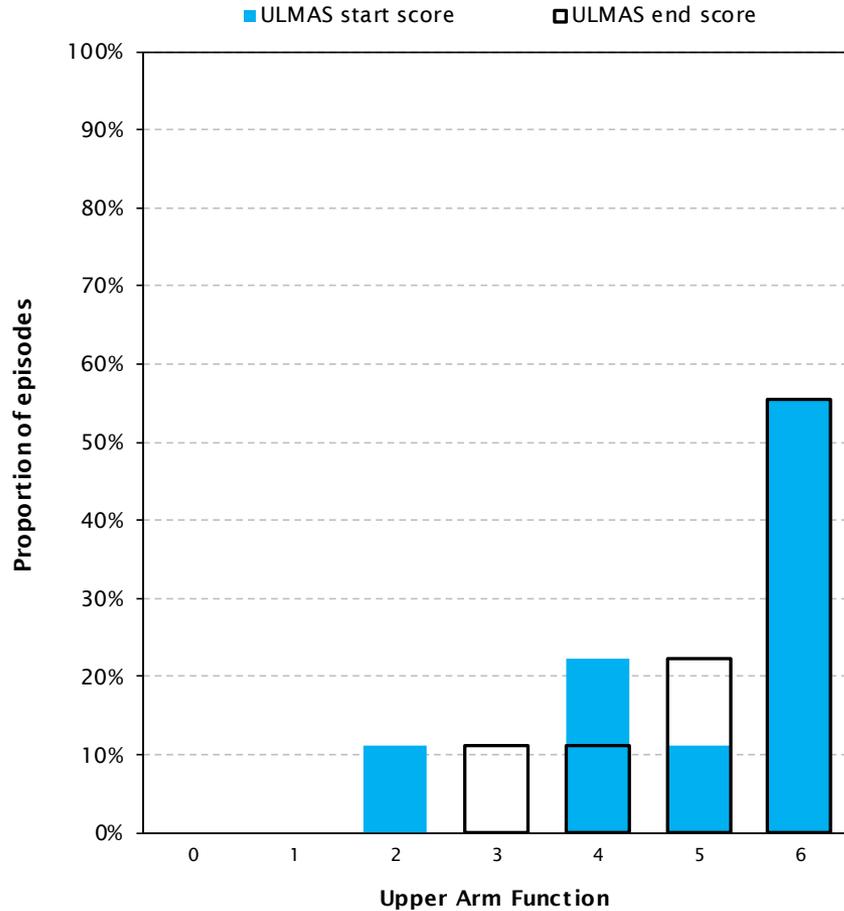
All Ambulatory 2019 (n=254)
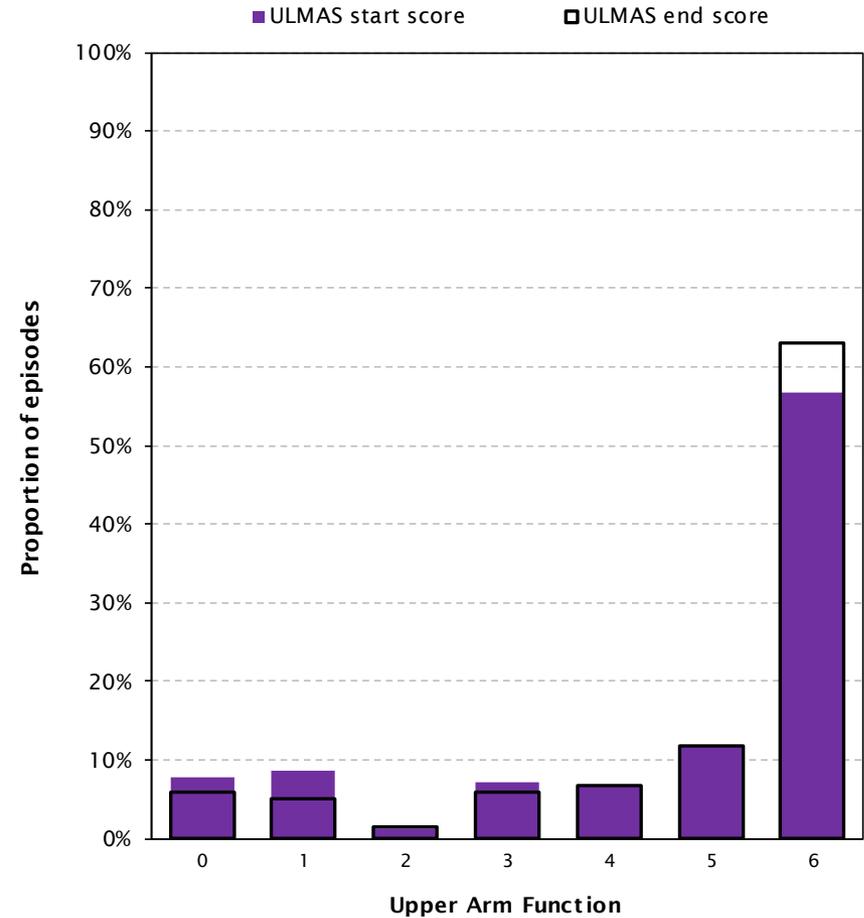
ULMAS start and end total – Hand movements
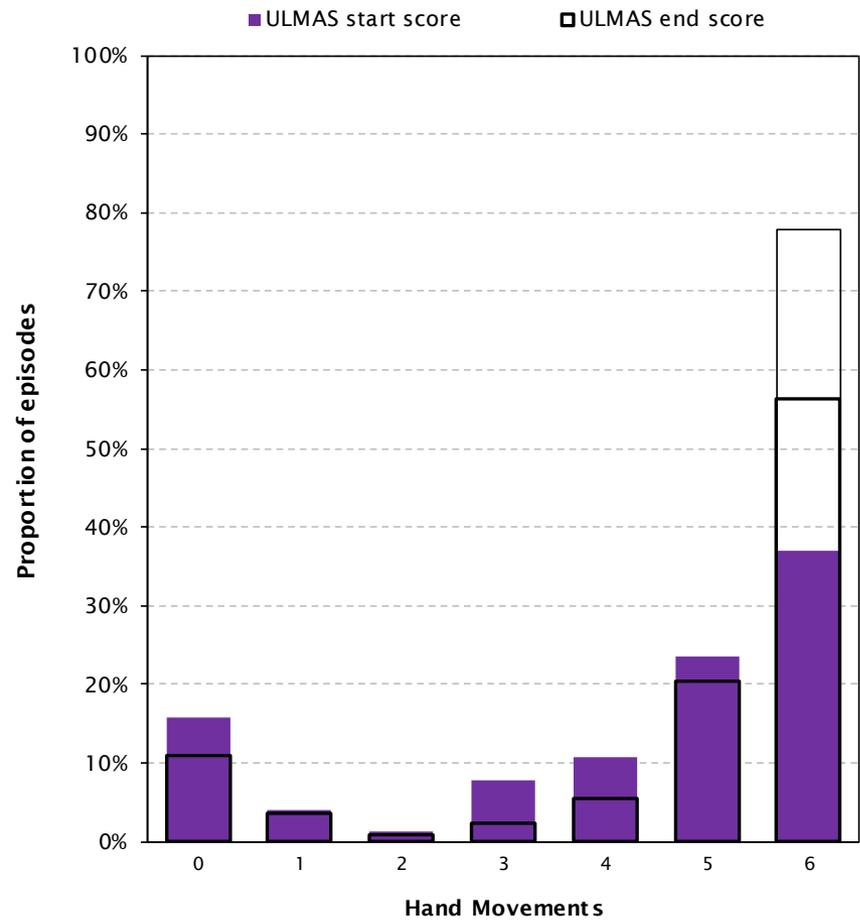
ULMAS start and end total – Hand activities

Your Service 2019 (n=9)
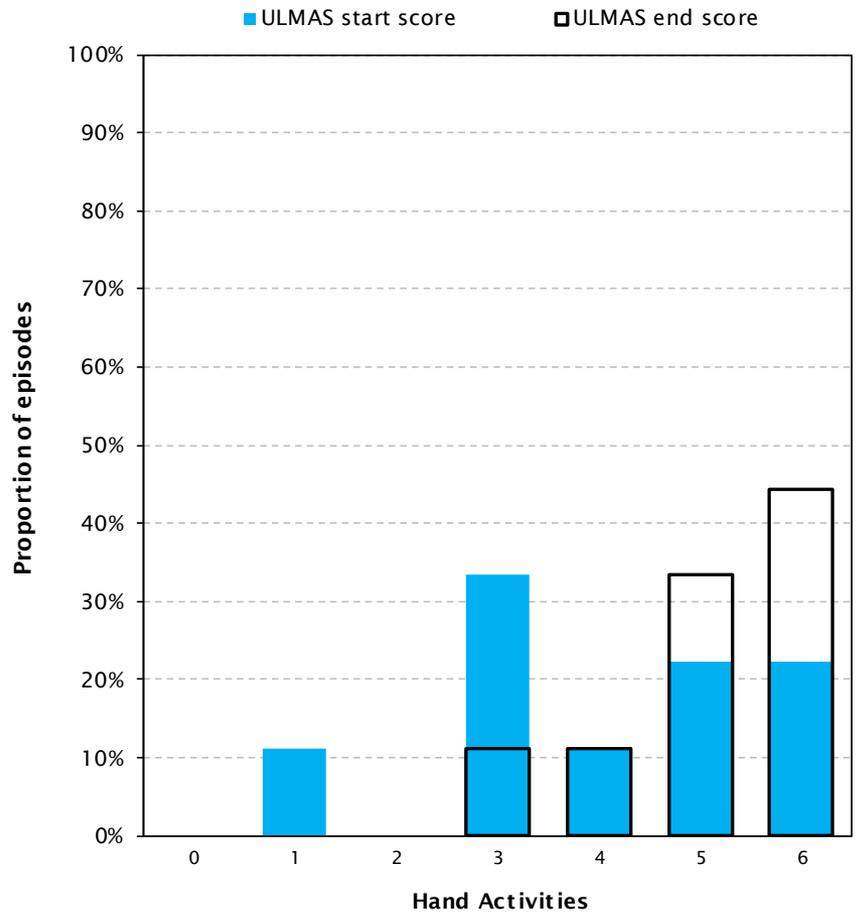
All Ambulatory 2019 (n=254)
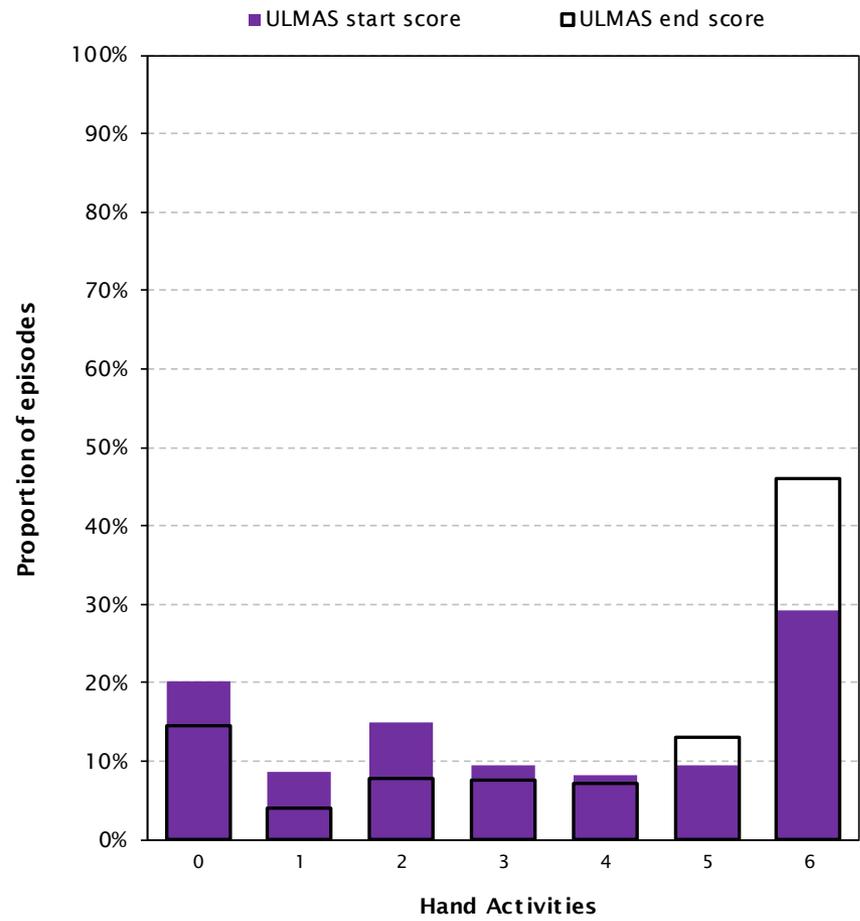
Change in ULMAS score – Upper arm function

Your Service 2019 (n=9)

■ Change in ULMAS score

Proportion of episodes

Upper Arm Function

All Ambulatory 2019 (n=254)

■ Change in ULMAS score

Proportion of episodes
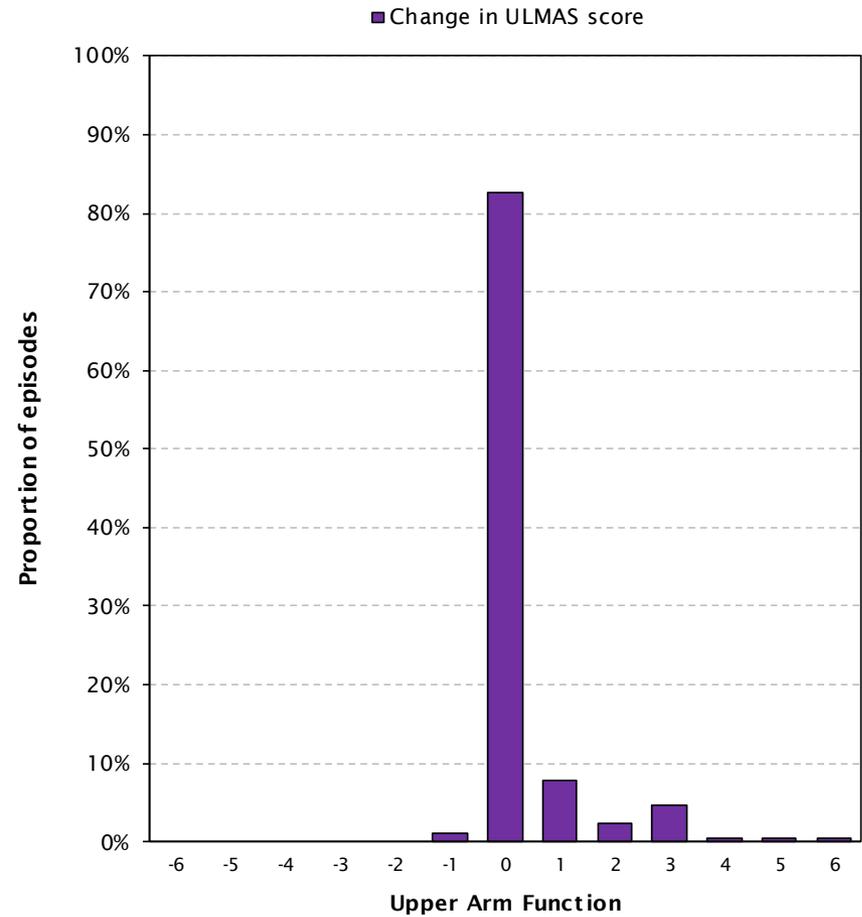
Upper Arm Function

Change in ULMAS score – Hand movements

Your Service 2019 (n=9)
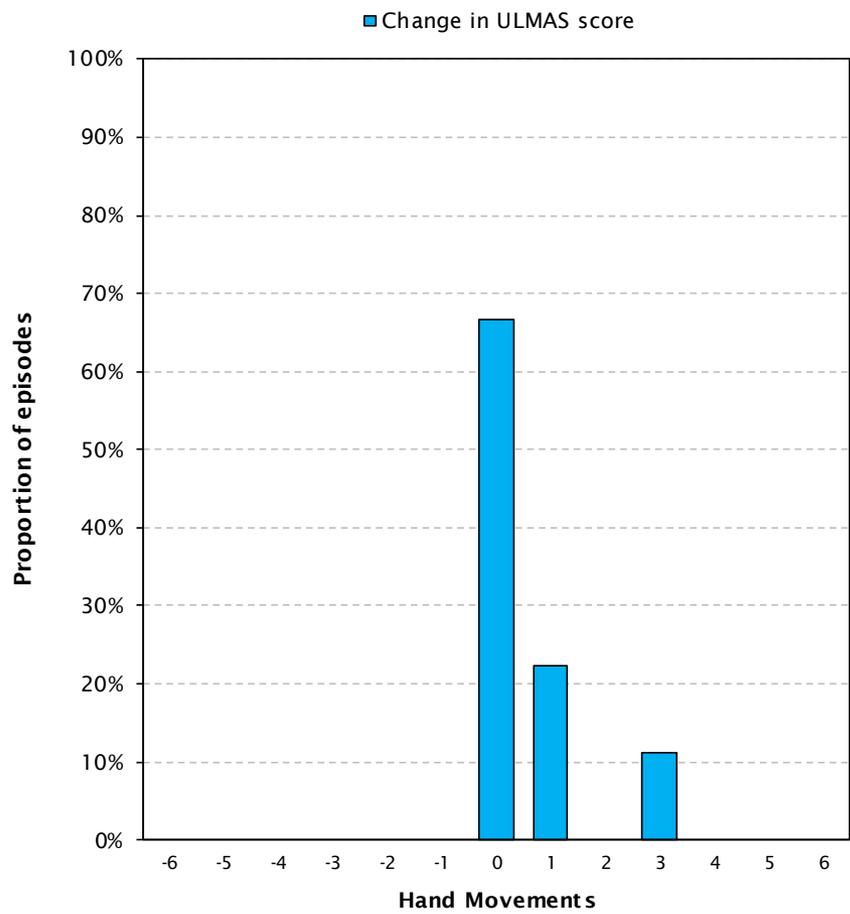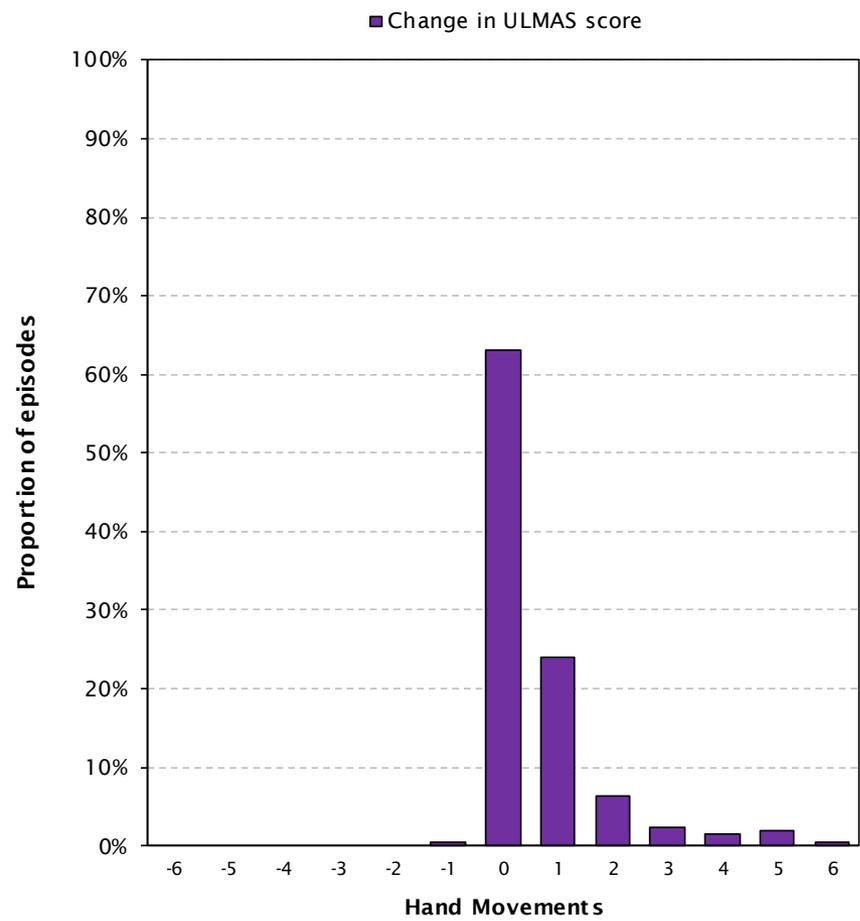
■ Change in ULMAS score

All Ambulatory 2019 (n=254)

■ Change in ULMAS score

Change in ULMAS score – Hand activities

Your Service 2019 (n=9)

■ Change in ULMAS score

All Ambulatory 2019 (n=254)
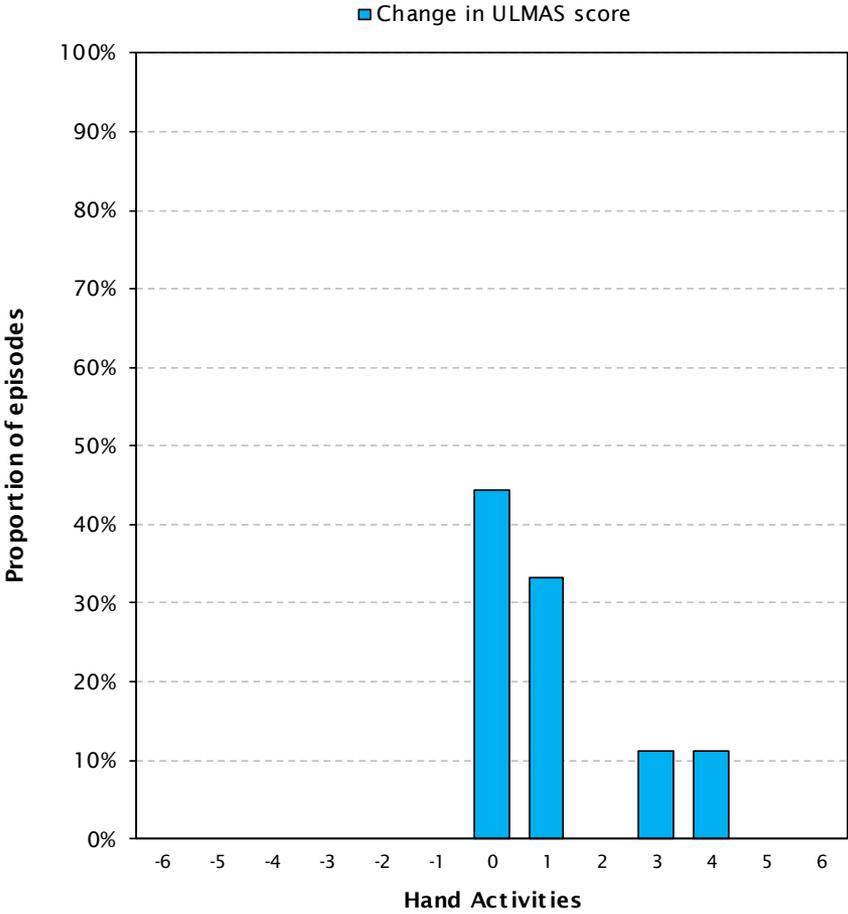
■ Change in ULMAS score
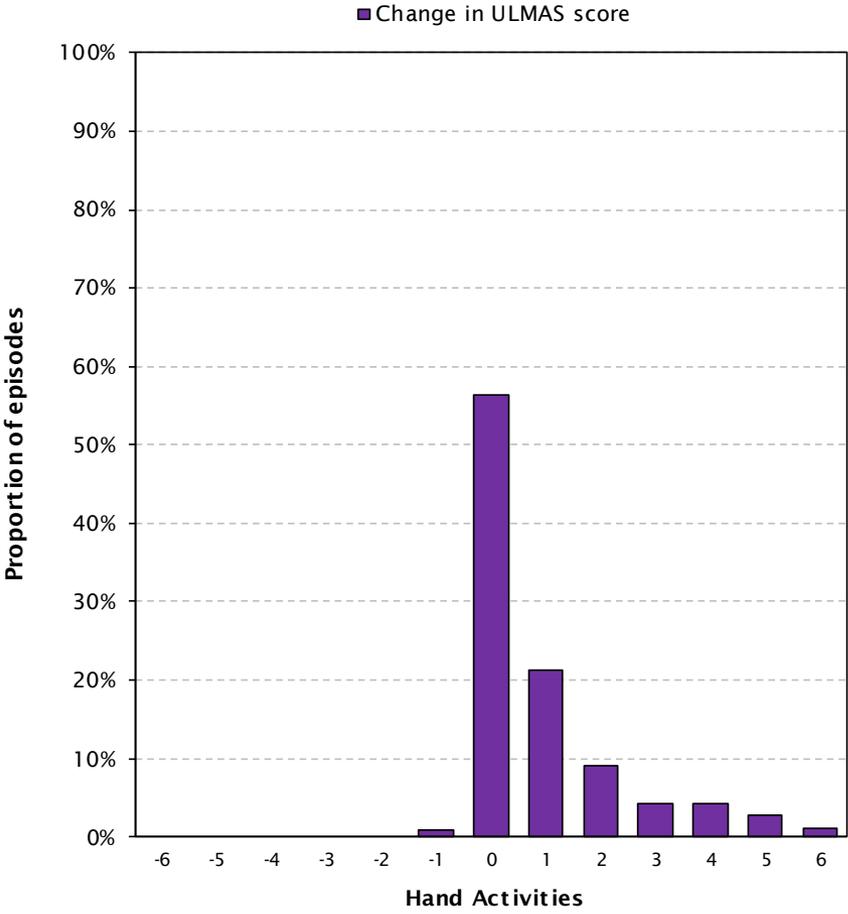
Change in ULMAS score by OOS/day seen – Upper arm function
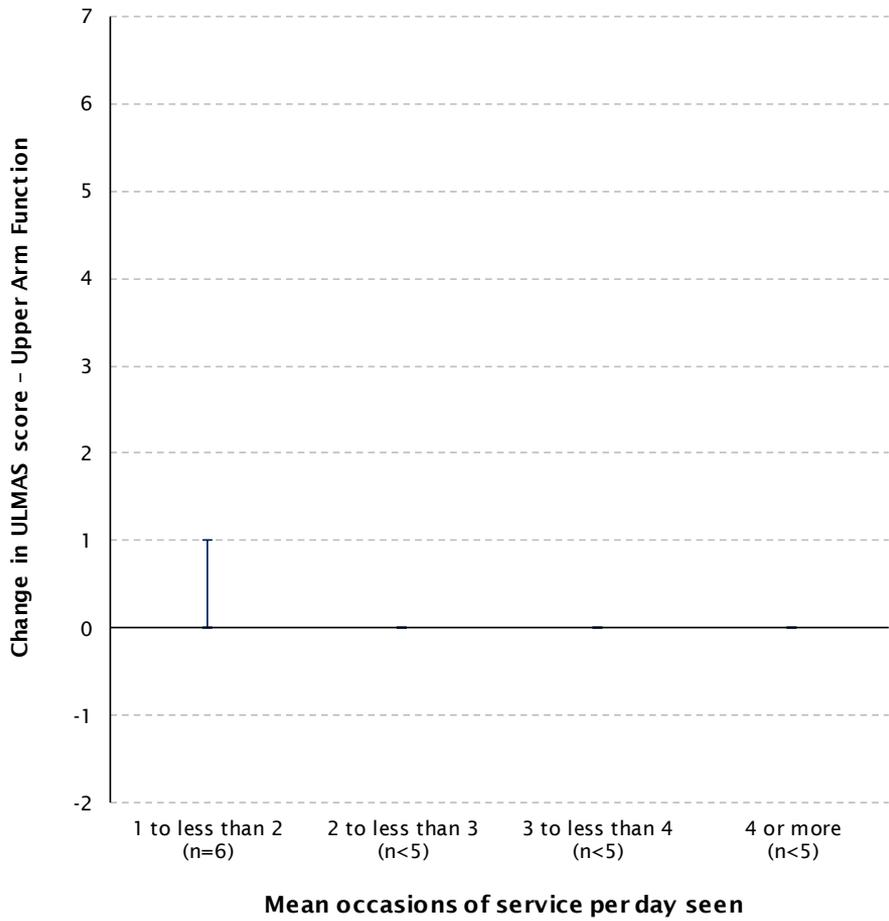
Your Service 2019

All Ambulatory 2019
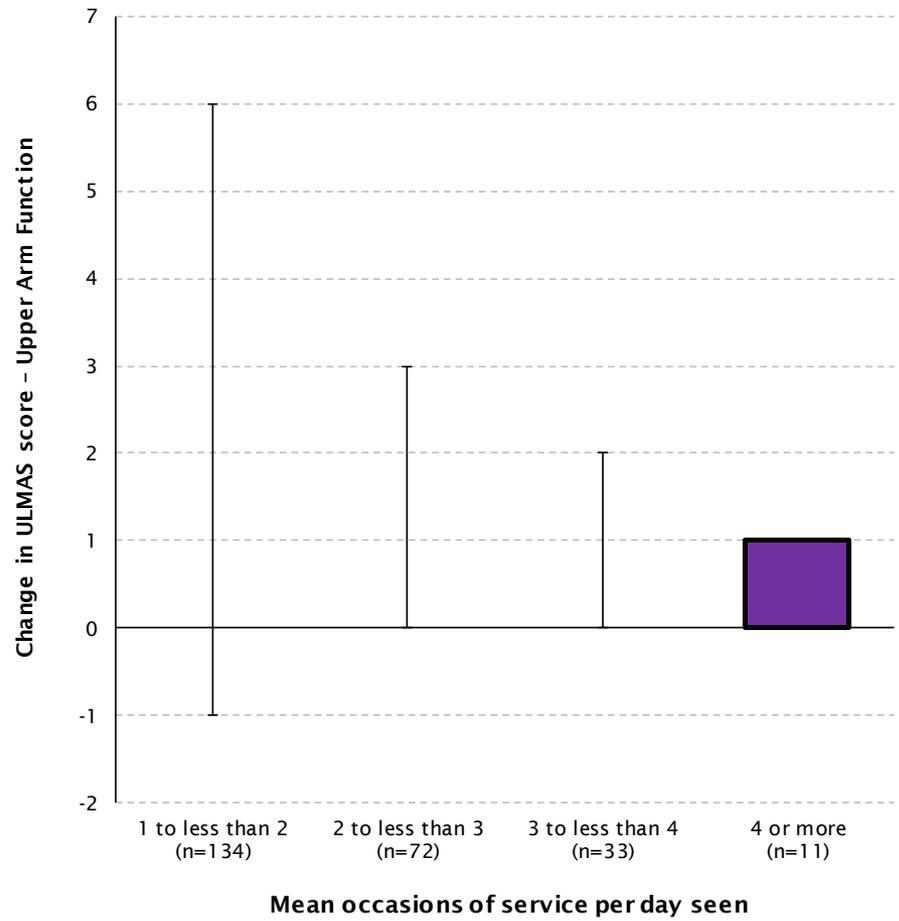
Change in ULMAS score by OOS/day seen – Hand movements

Your Service 2019
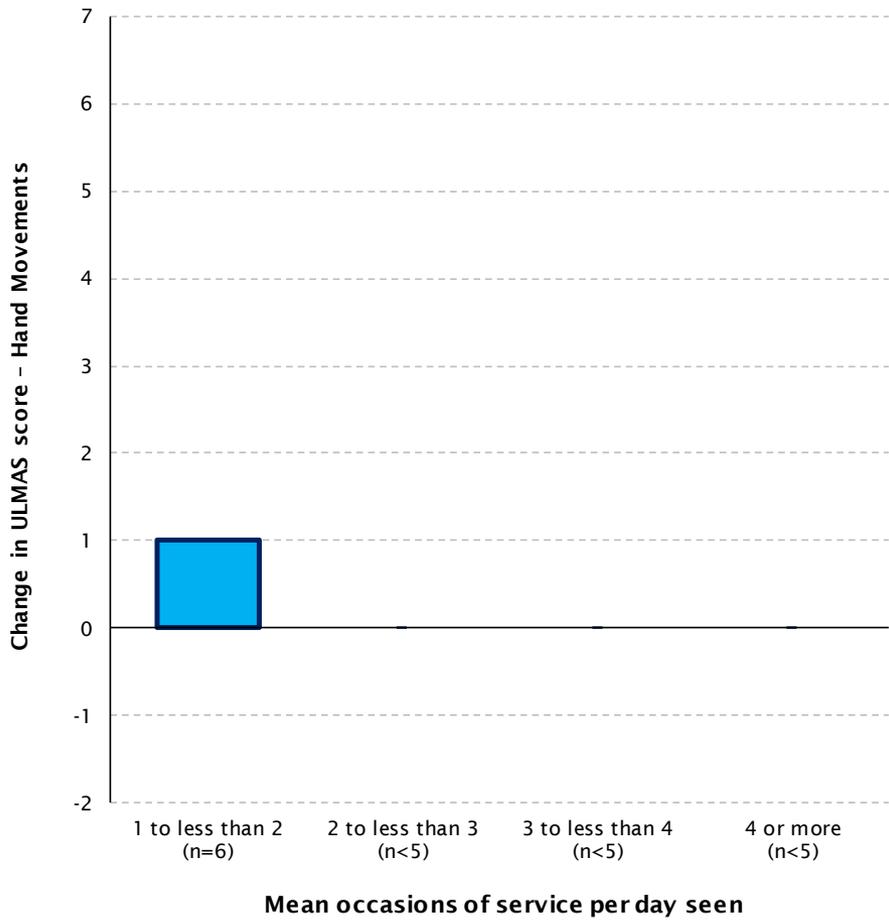
All Ambulatory 2019
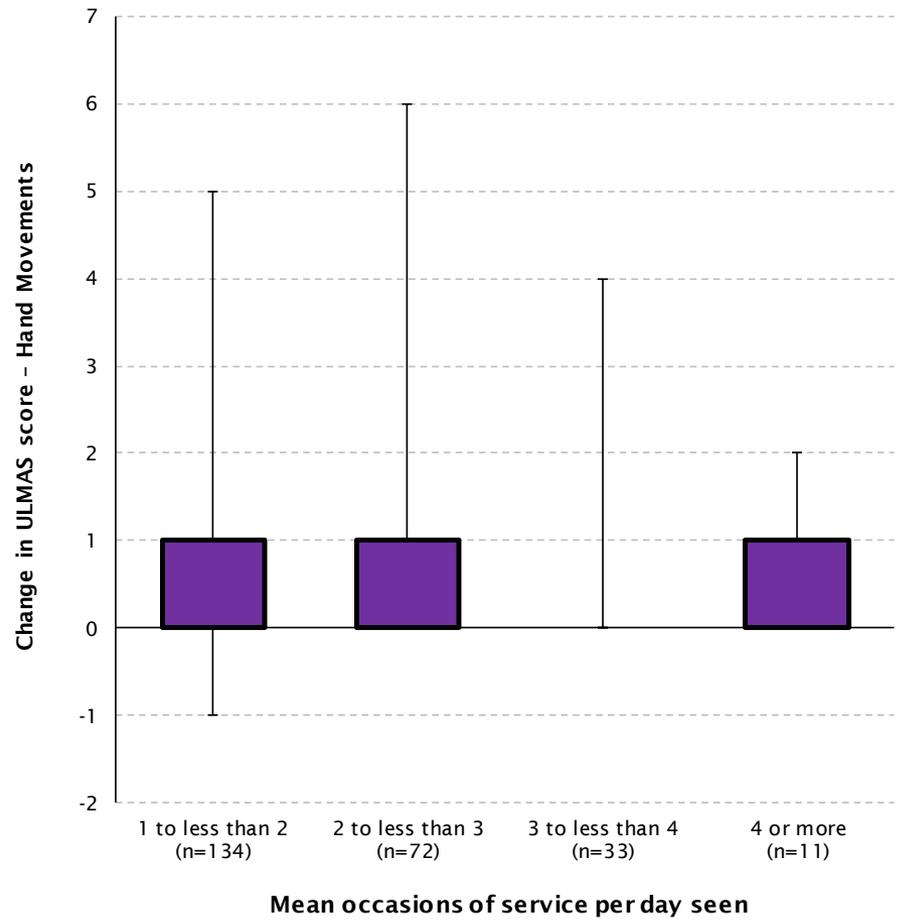
Change in ULMAS score by OOS/day seen – Hand activities

Your Service 2019

All Ambulatory 2019

Change in ULMAS score – Hand Activities

Mean occasions of service per day seen

Your Service categories: 1 to less than 2 (n=6), 2 to less than 3 (n<5), 3 to less than 4 (n<5), 4 or more (n<5)

All Ambulatory categories: 1 to less than 2 (n=134), 2 to less than 3 (n=72), 3 to less than 4 (n=33), 4 or more (n=11)
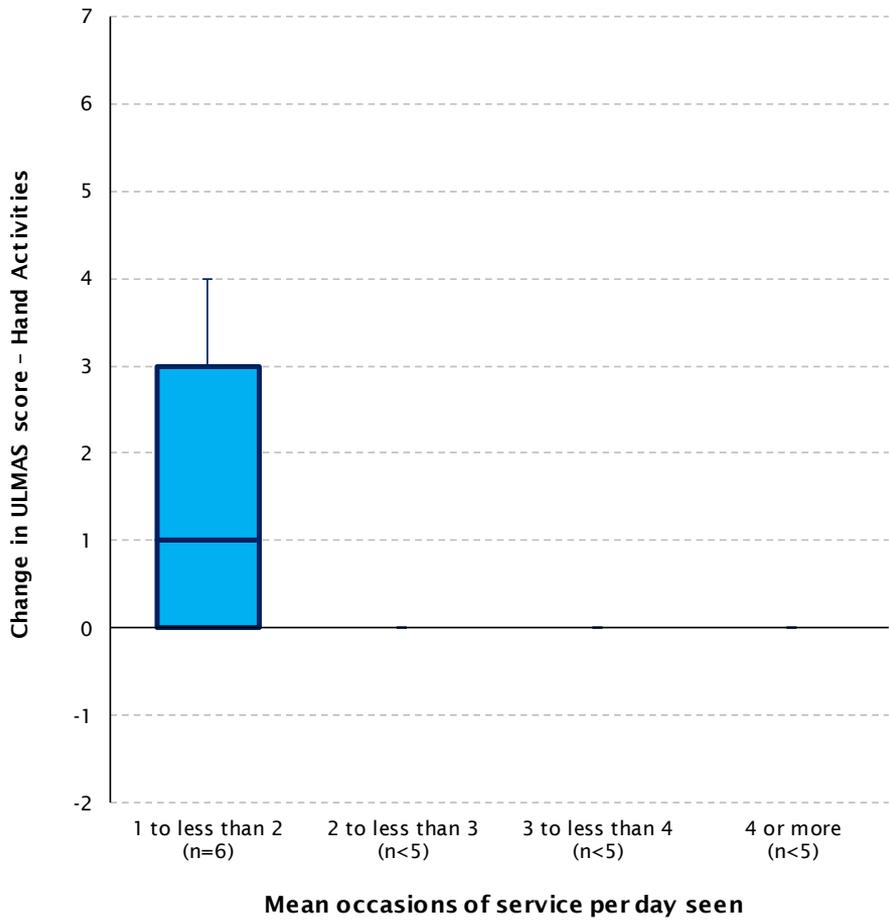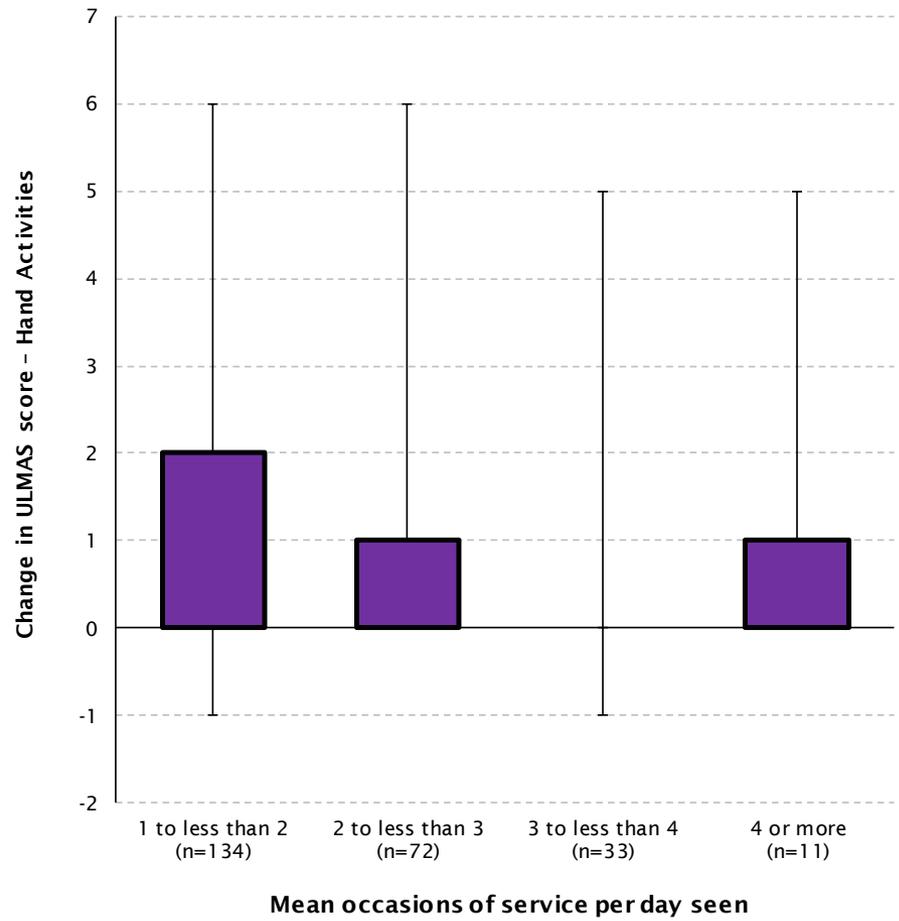
Change in ULMAS score by onset time – Upper arm function
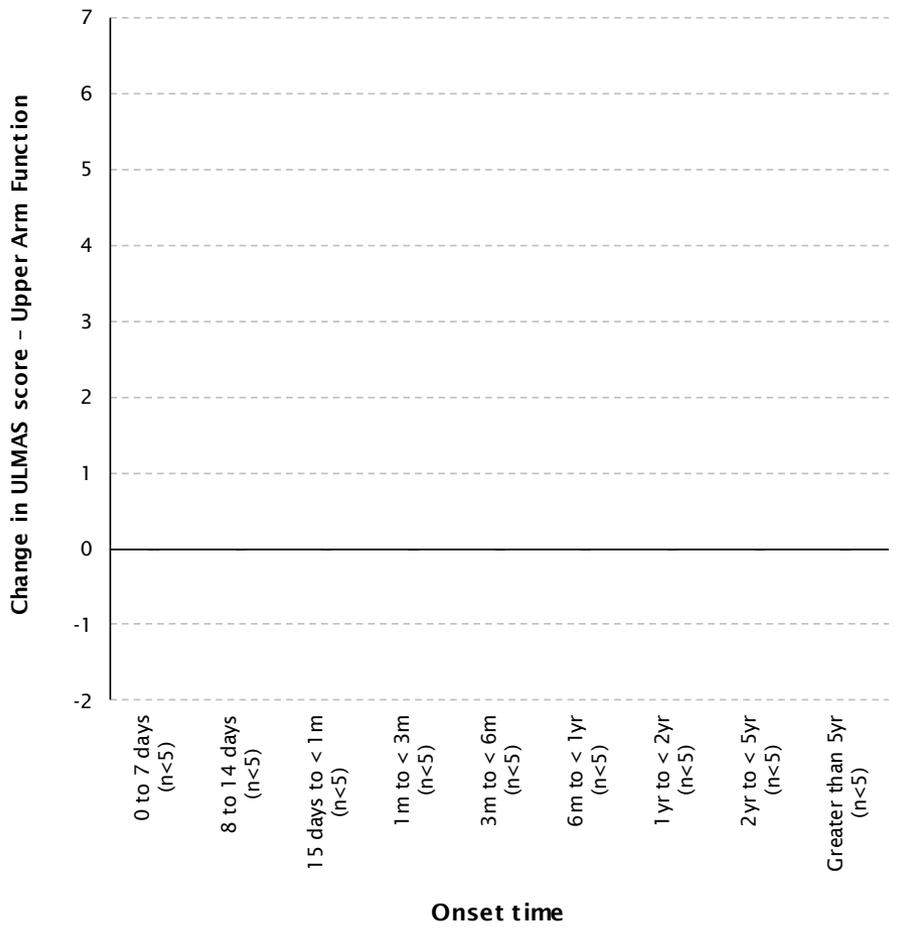
Your Service 2019

All Ambulatory 2019
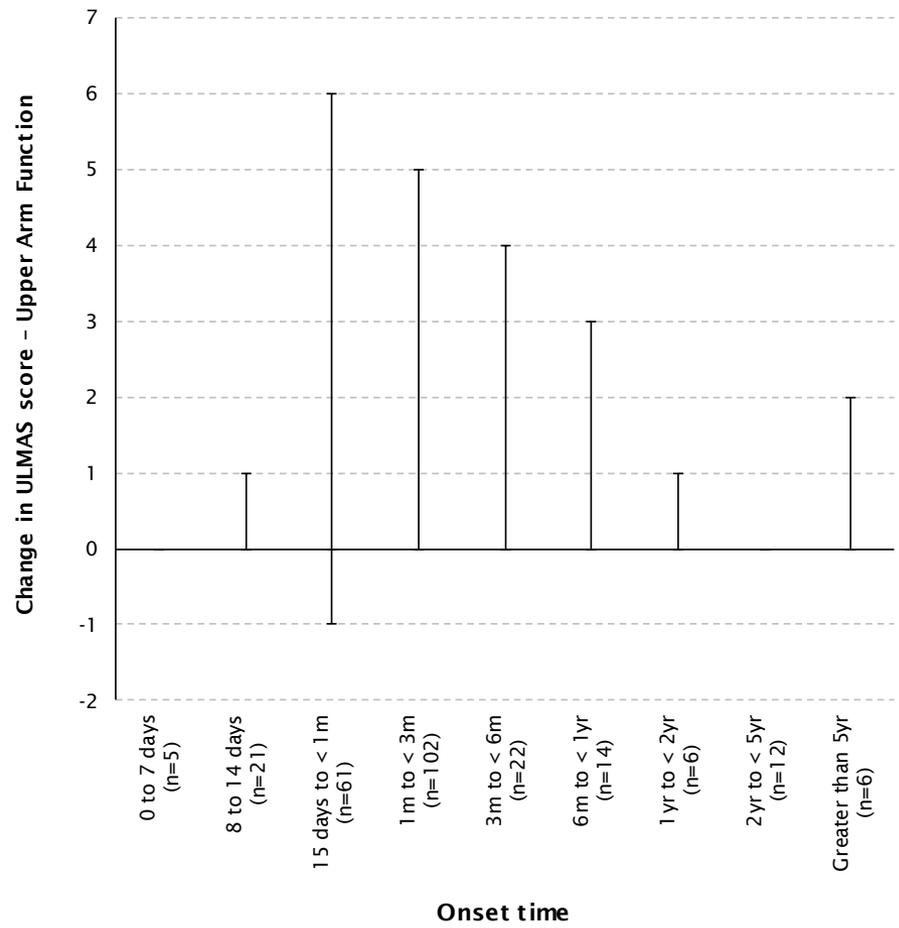
Change in ULMAS score by onset time – Hand movements

Your Service 2019
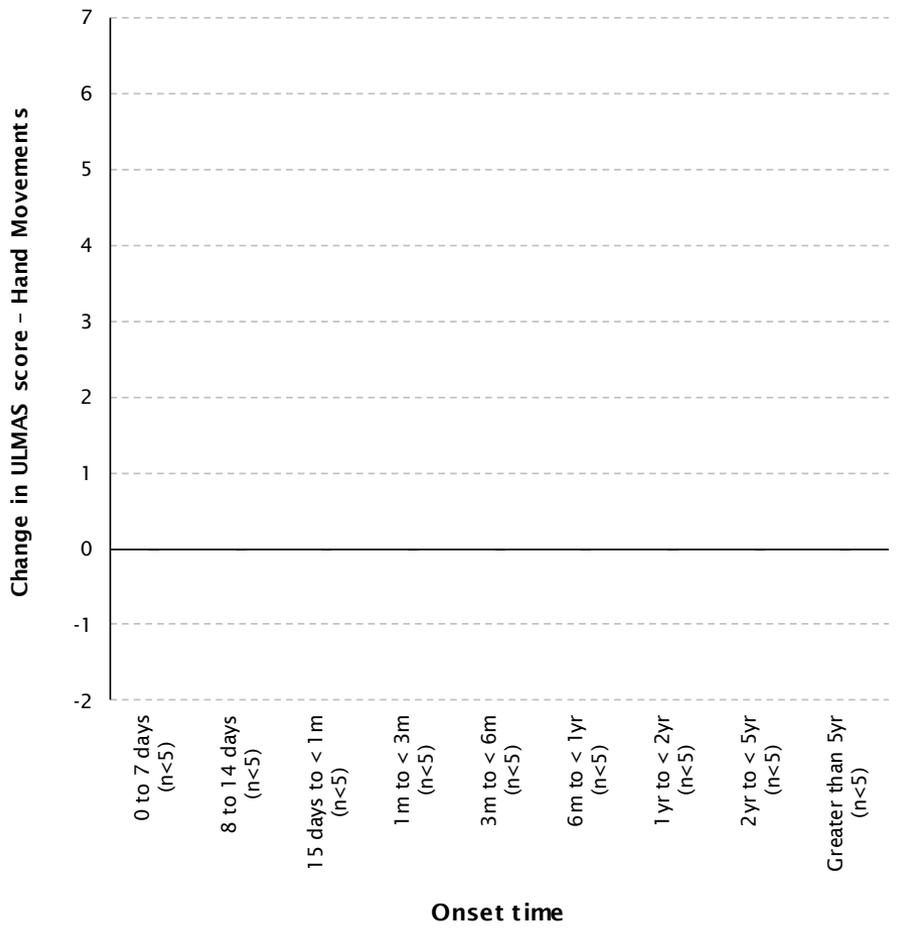
All Ambulatory 2019
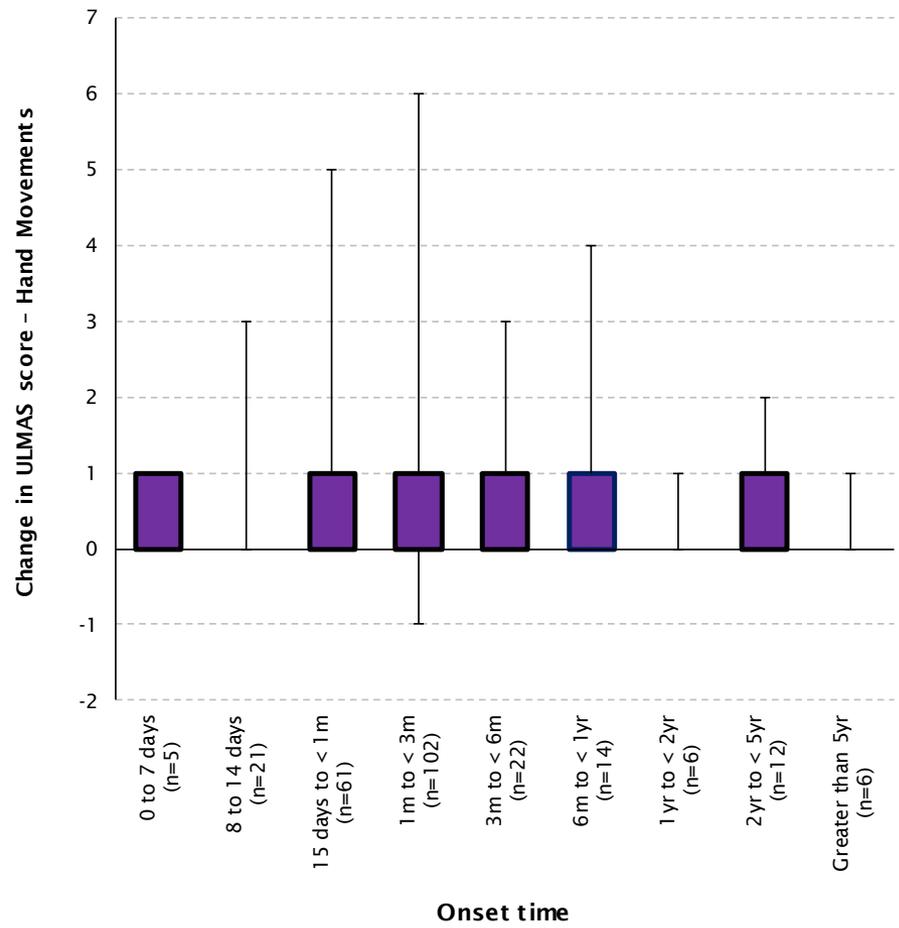
Change in ULMAS score by onset time – Hand activities

Your Service 2019
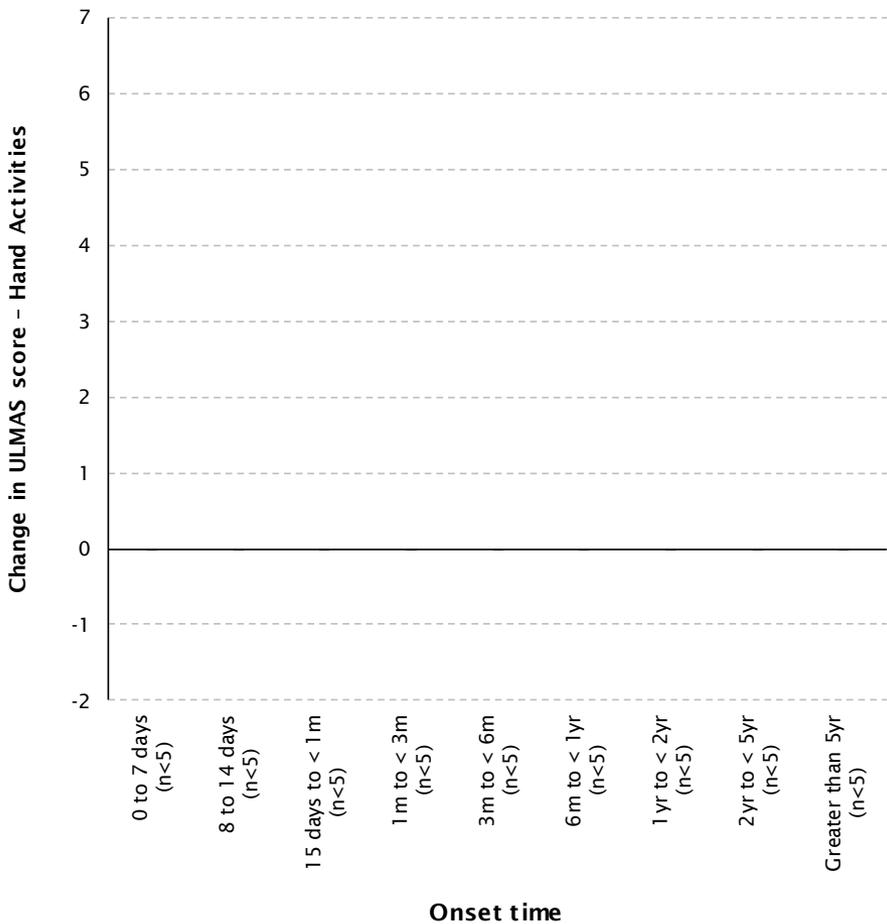
All Ambulatory 2019
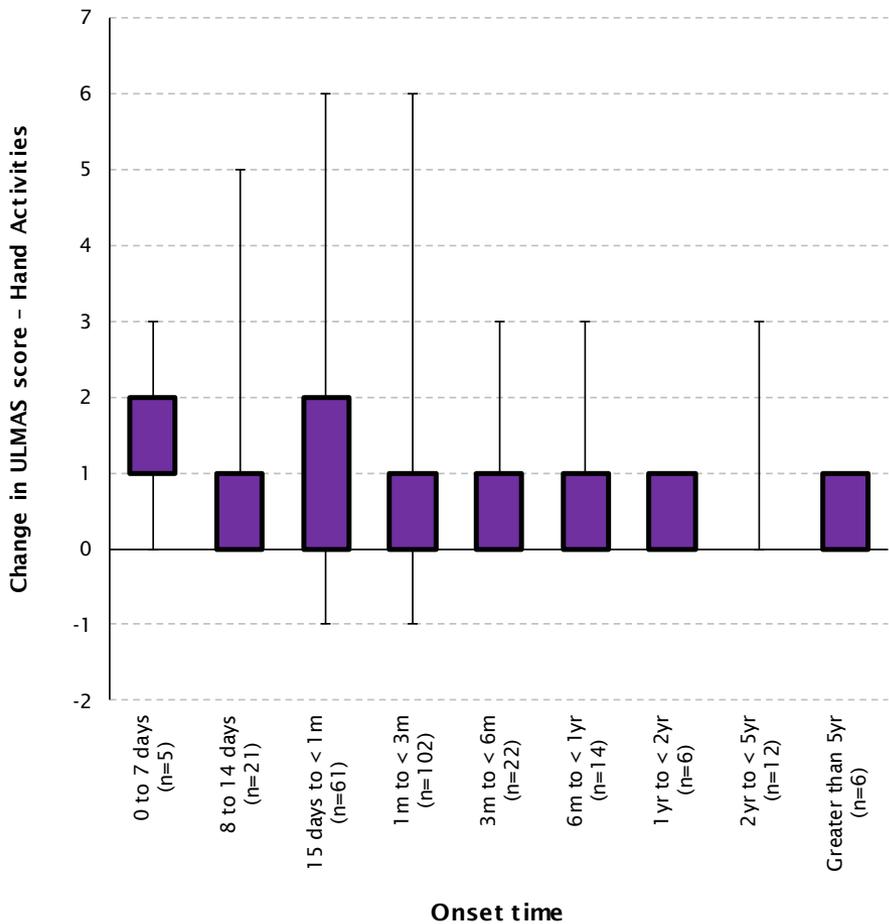
Timed 10 metre walk test

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 2019

All Ambulatory 2019

Note: All admissions.
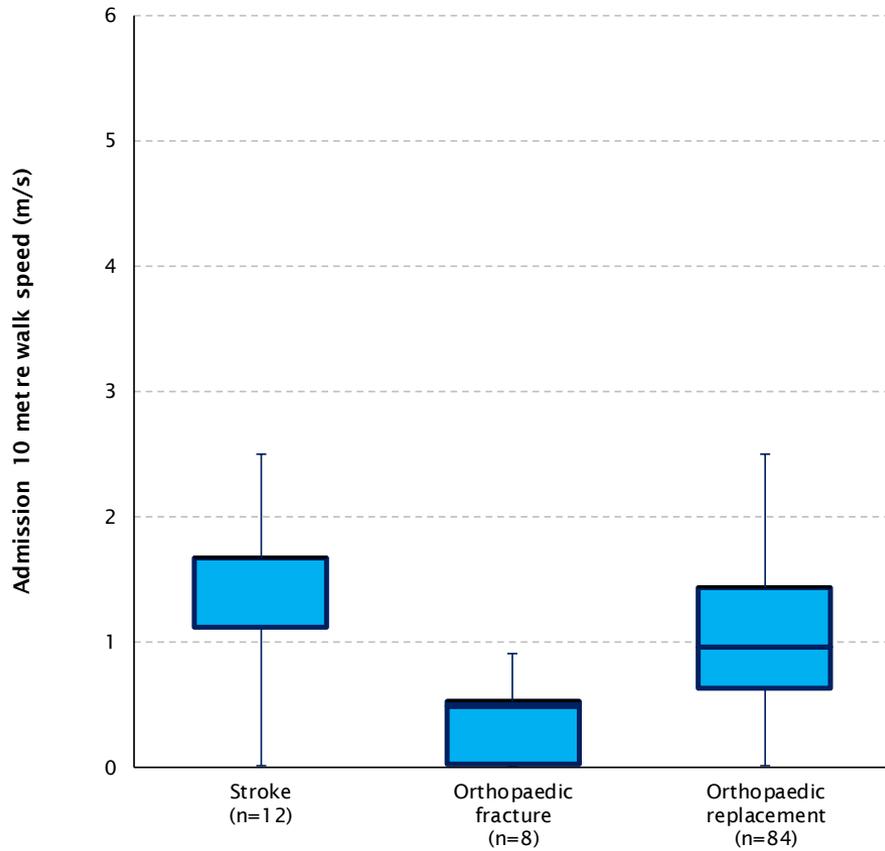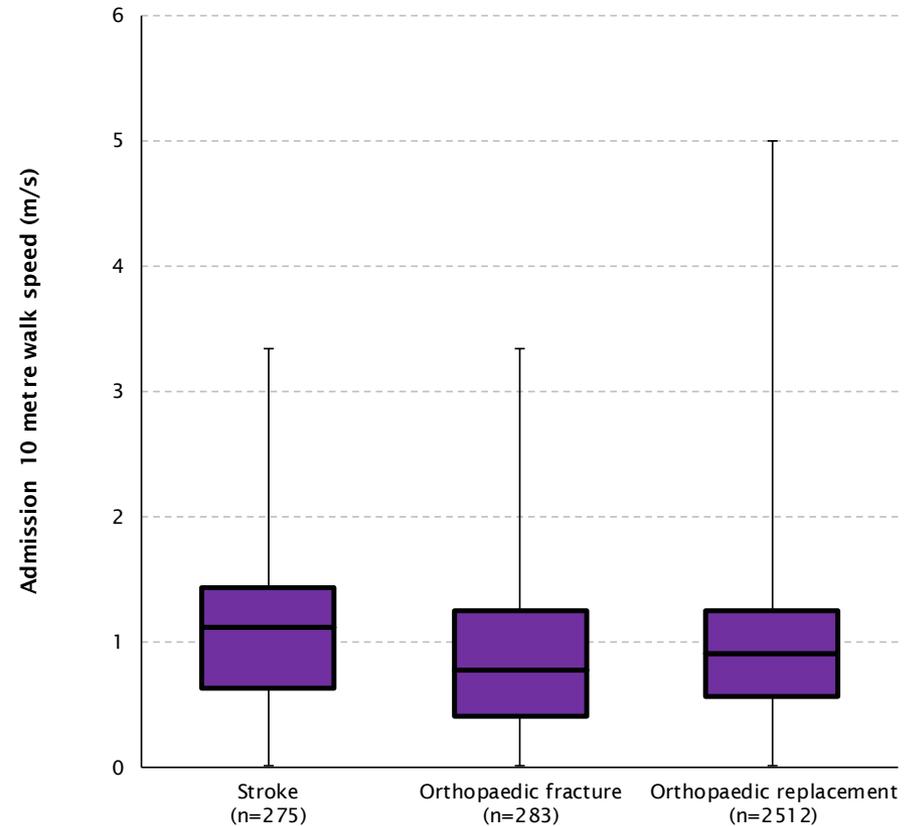
Note: All admissions.

Admission and discharge timed 10 metre walk test speed by impairment

Change in 10 metre walk speed by impairment
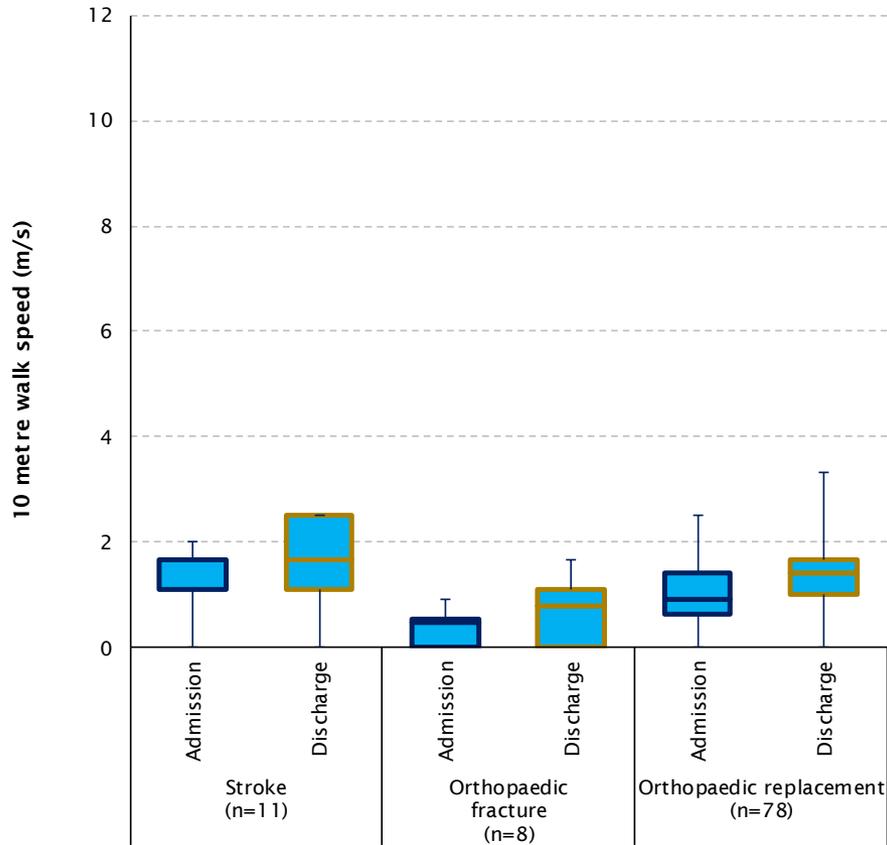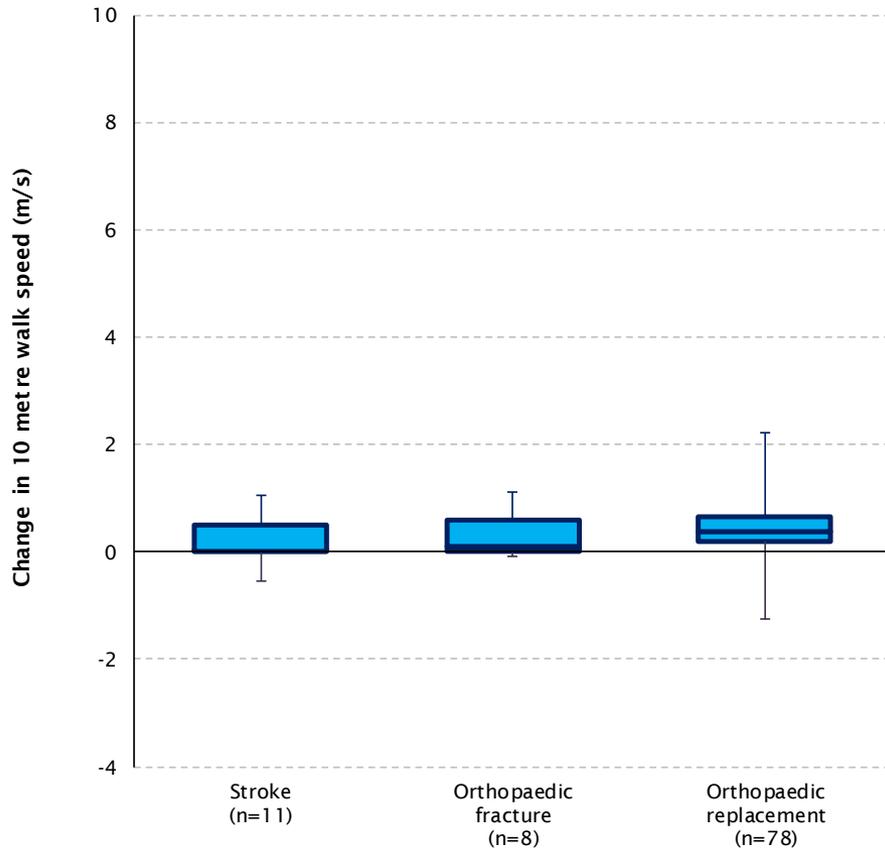
Your Service 2019

All Ambulatory 2019

Note: Completed episodes only.
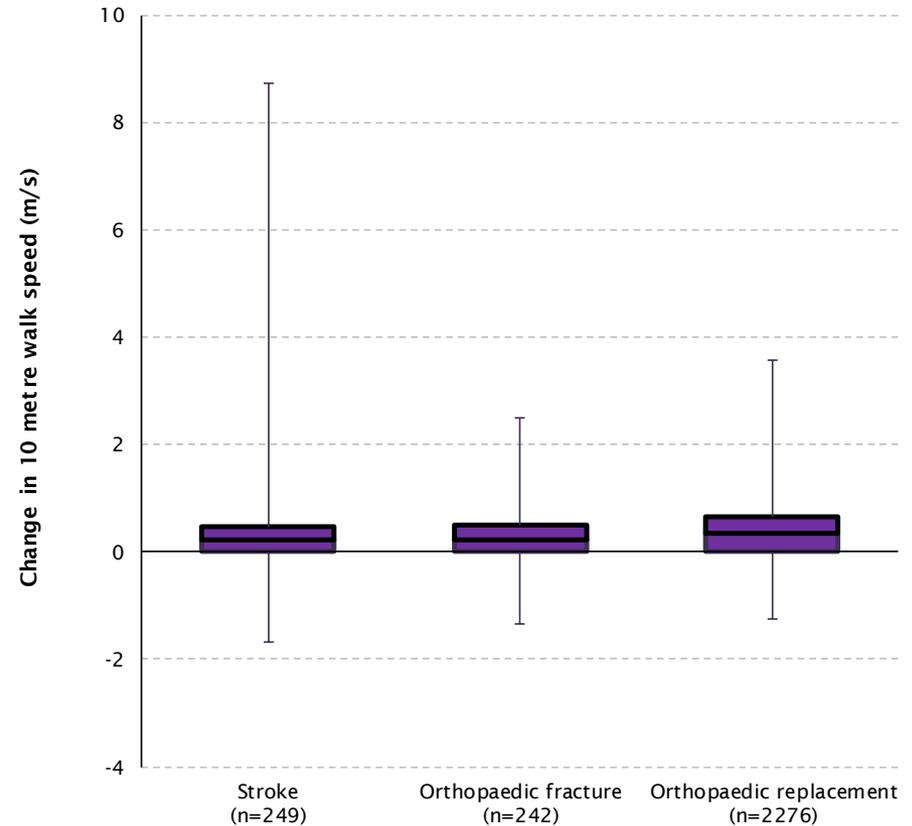
Note: Completed episodes only.

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

Your Service 2019
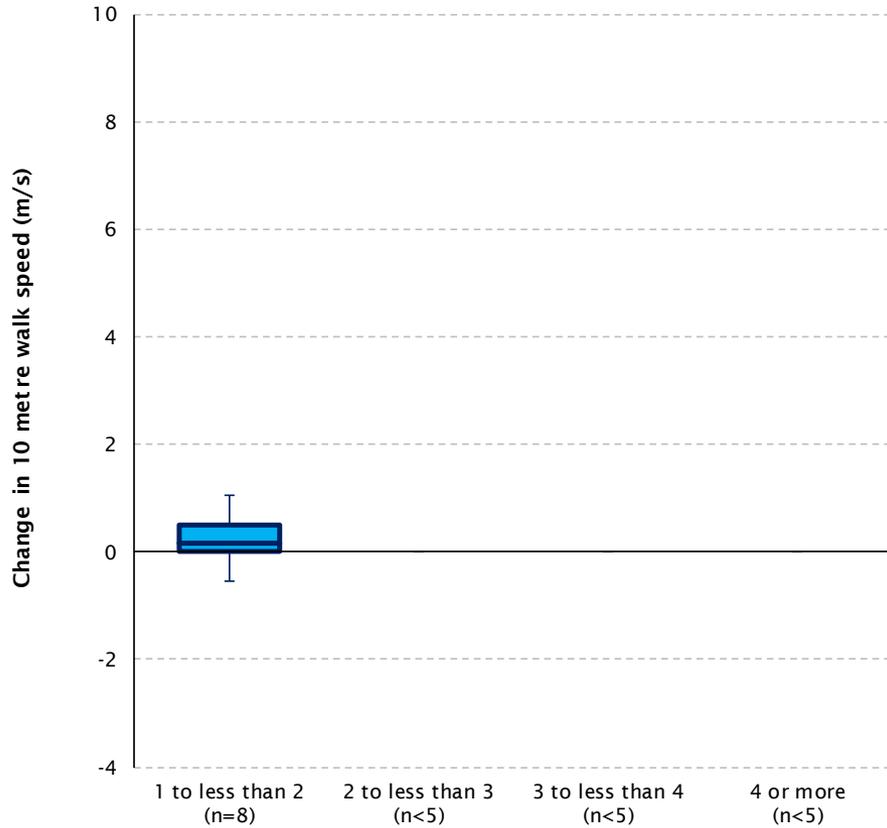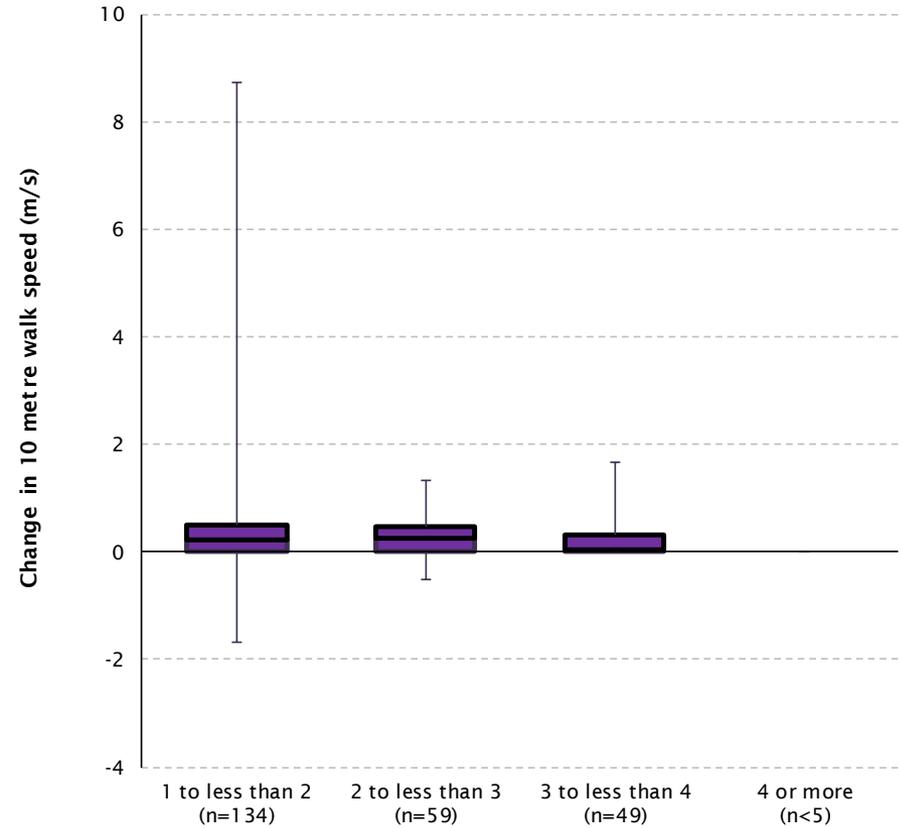
All Ambulatory 2019

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

Your Service 2019
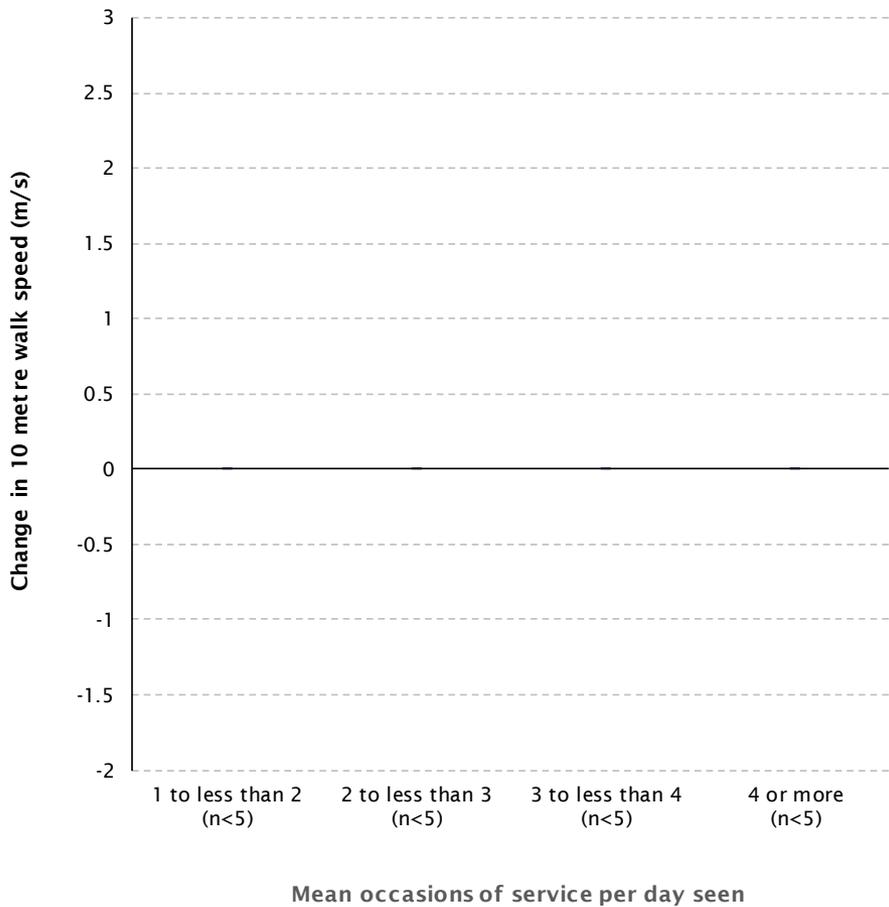
All Ambulatory 2019
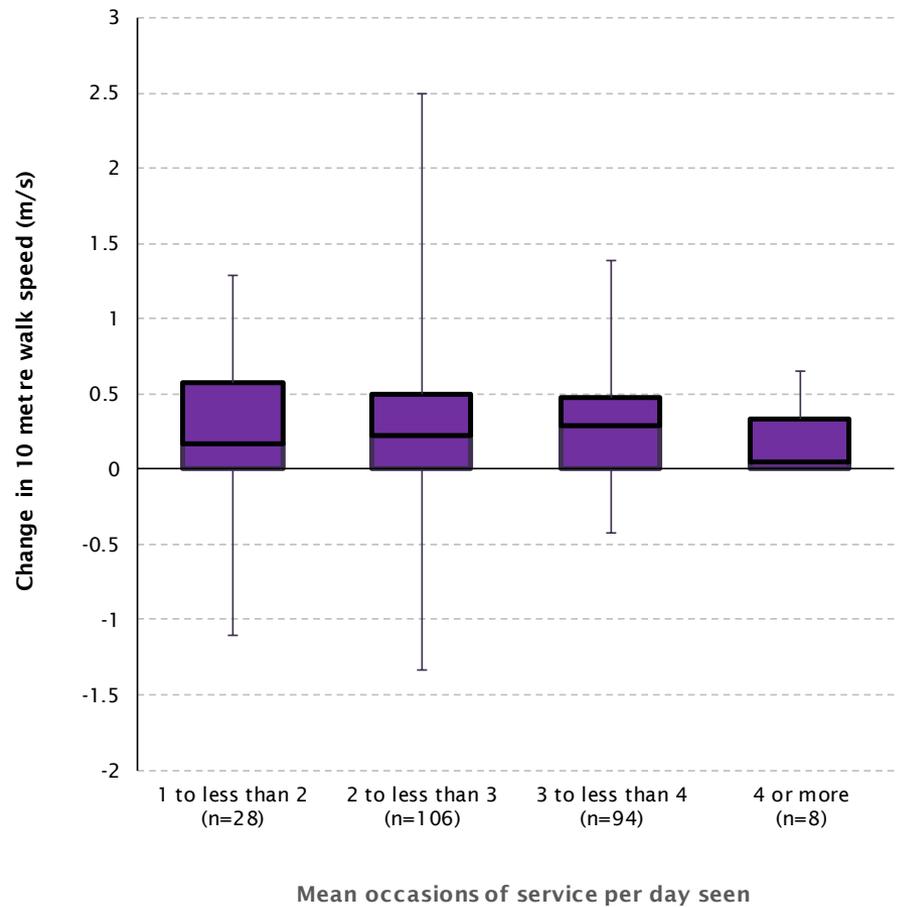
Change in 10 metre walk speed by OOS/day seen – Orthopaedic replacements

Your Service 2019
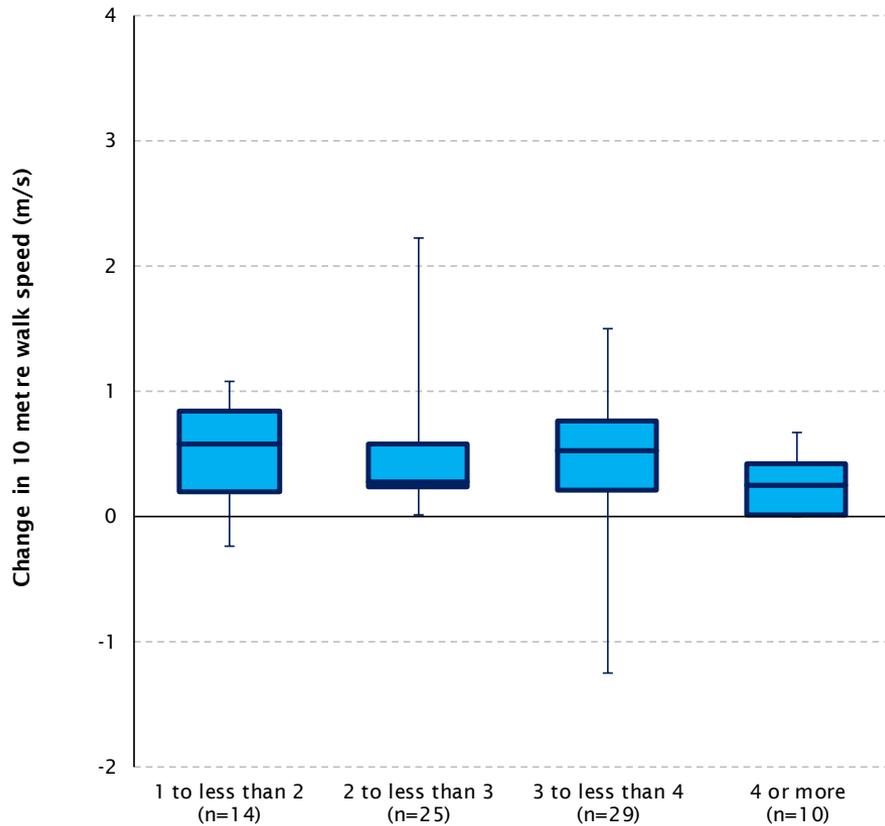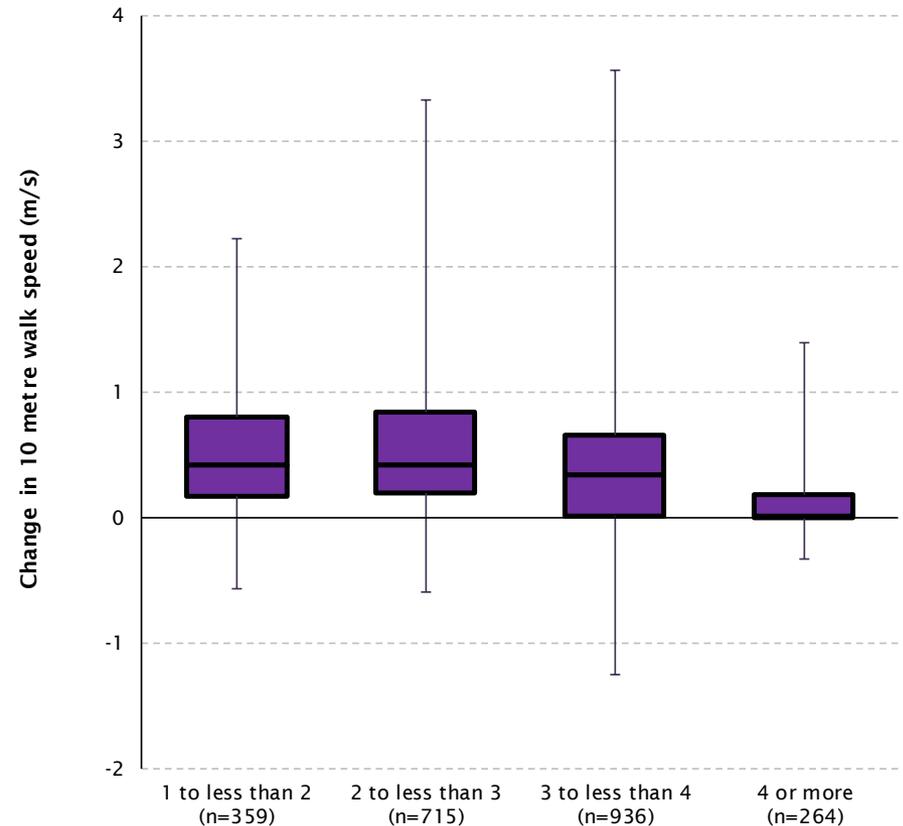
All Ambulatory 2019

De Morton Mobility Index (DEMMI)

- 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 2019 (n=31)
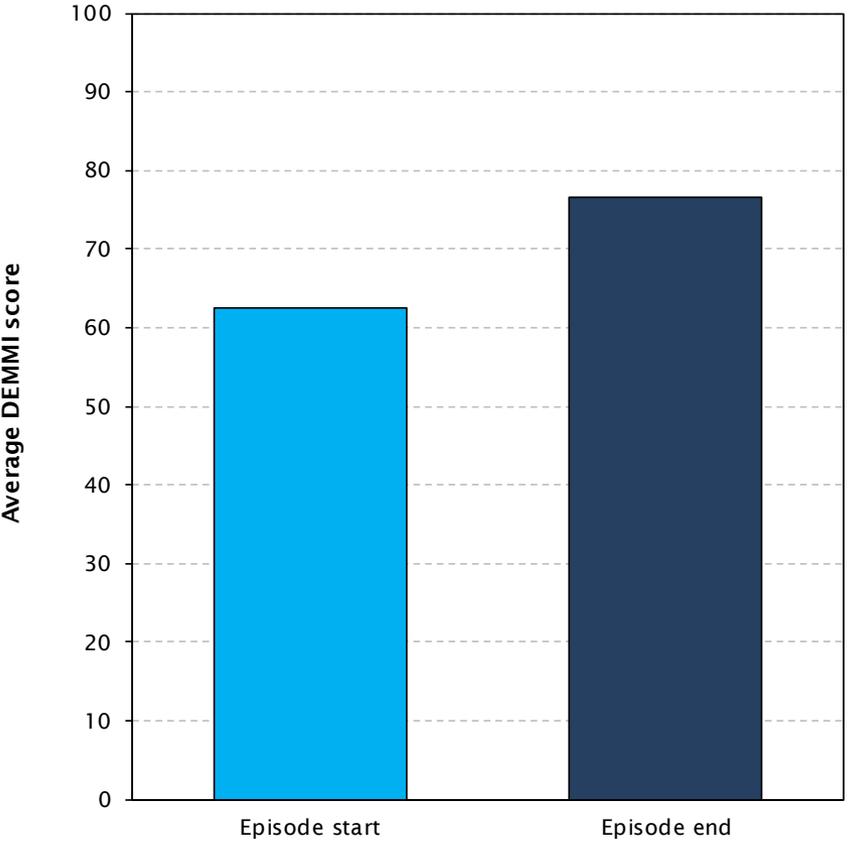
All Ambulatory 2019 (n=747)
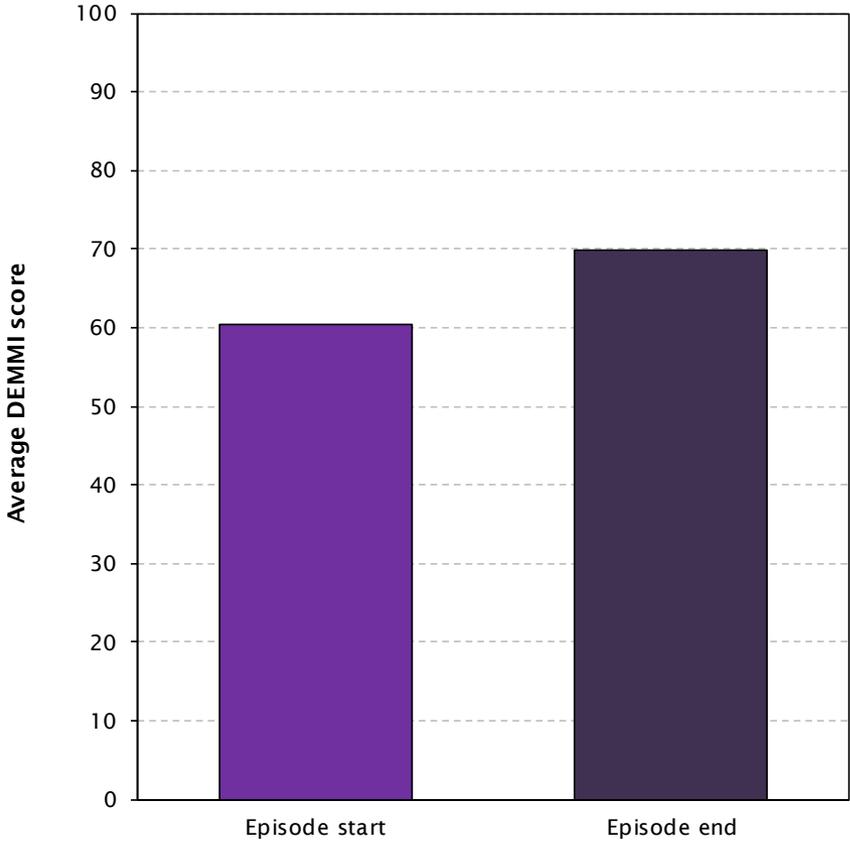
DEMMI start and end total – all episodes
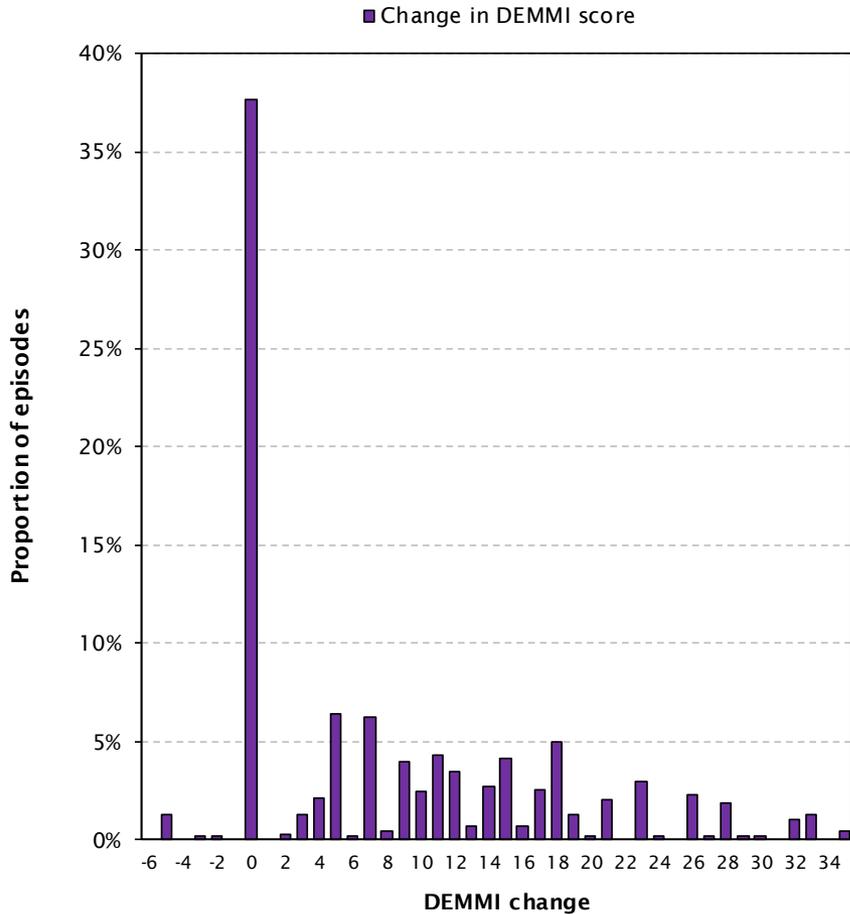

Your Service 2019 (n=31)
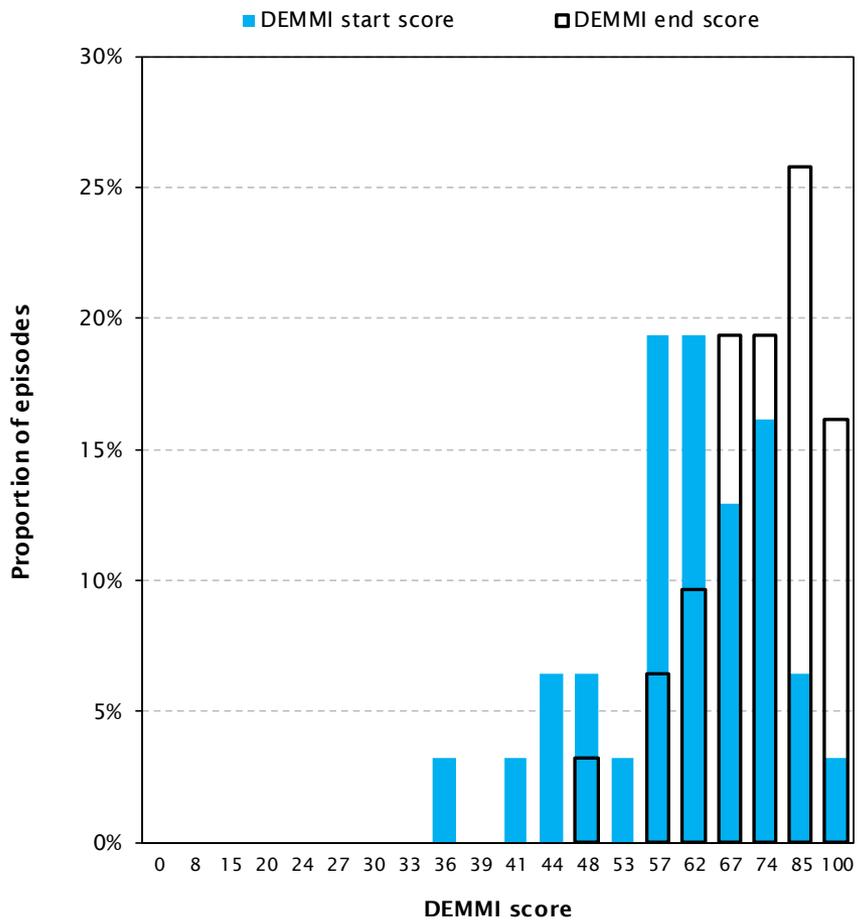
All Ambulatory 2019 (n=747)

Change in DEMMI score – all episodes

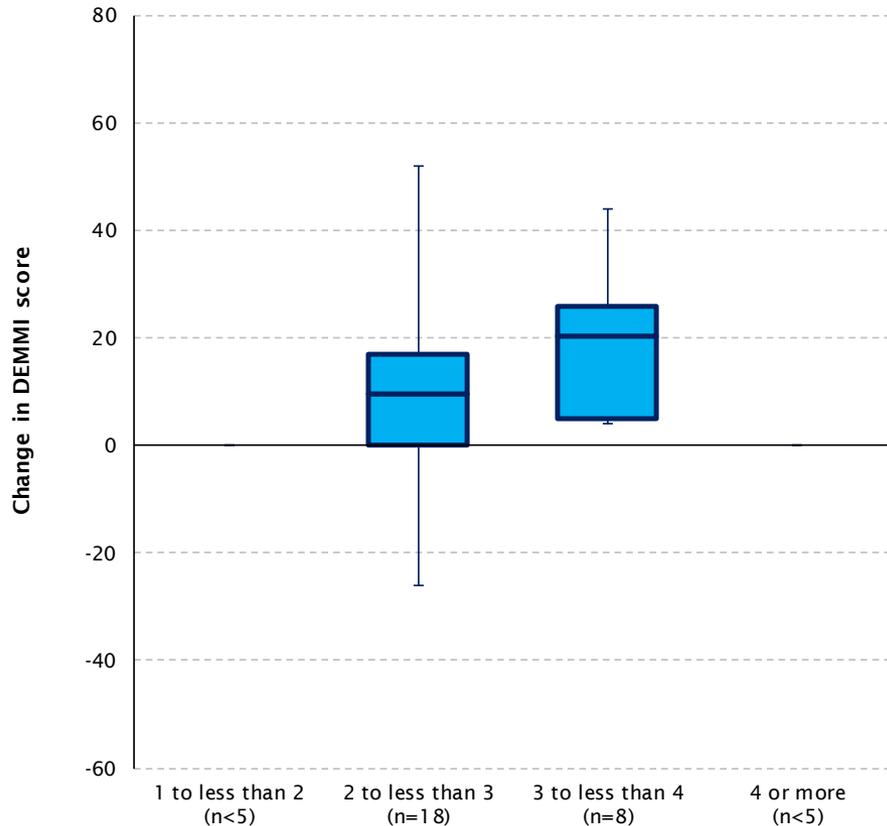# Change in DEMMI score by OOS/day seen – all episodes
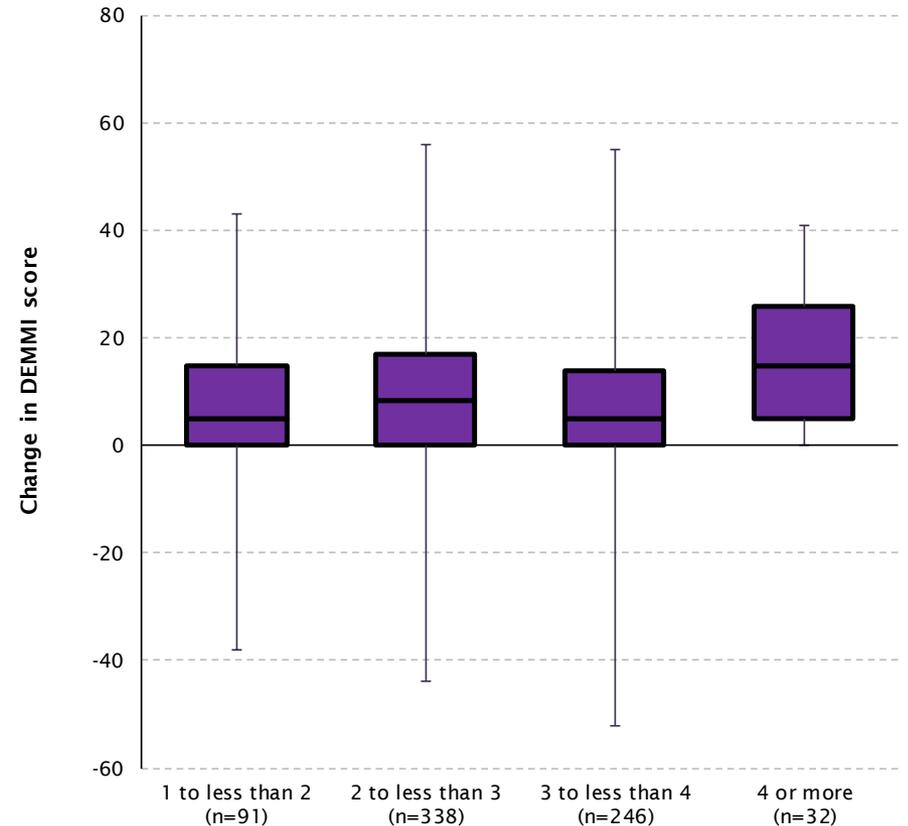
Your Service 2019

All Ambulatory 2019
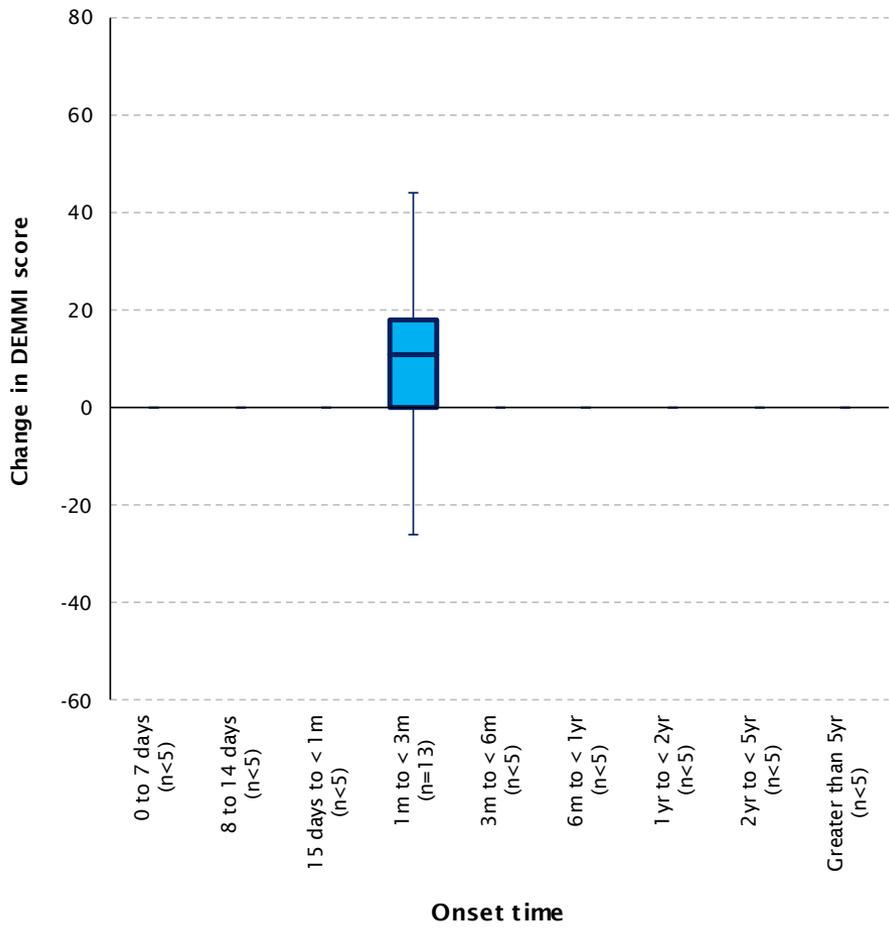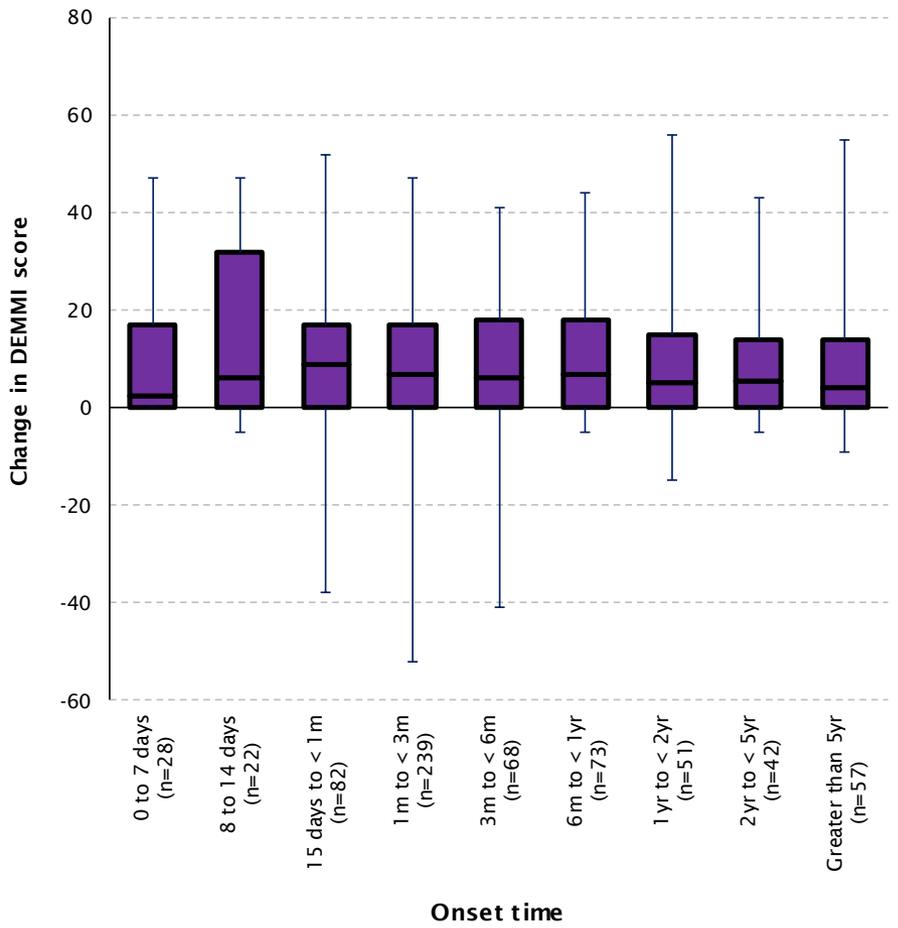
Change in DEMMI score by onset time – all episodes

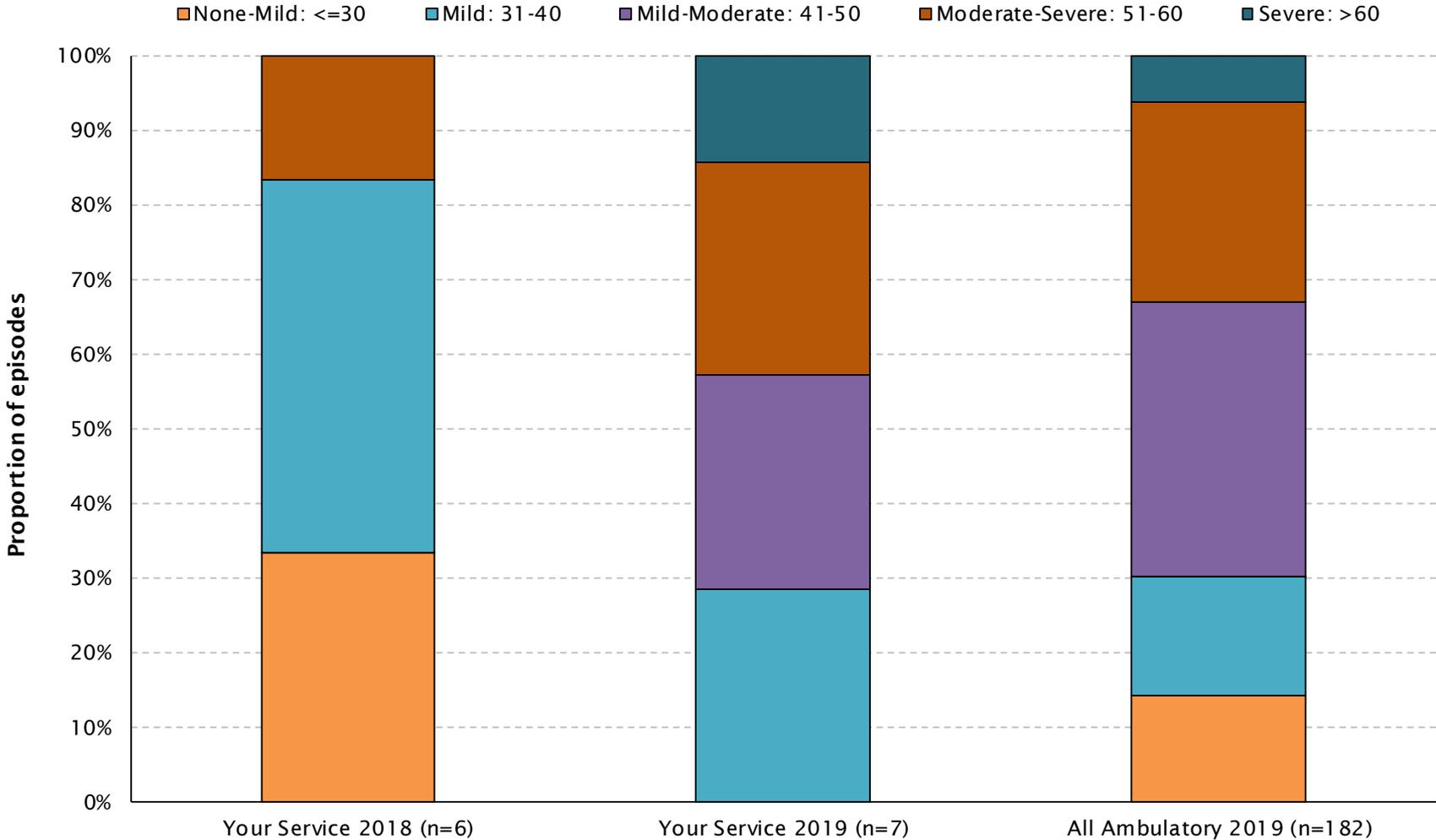Your Service 2019

All Ambulatory 2019

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.

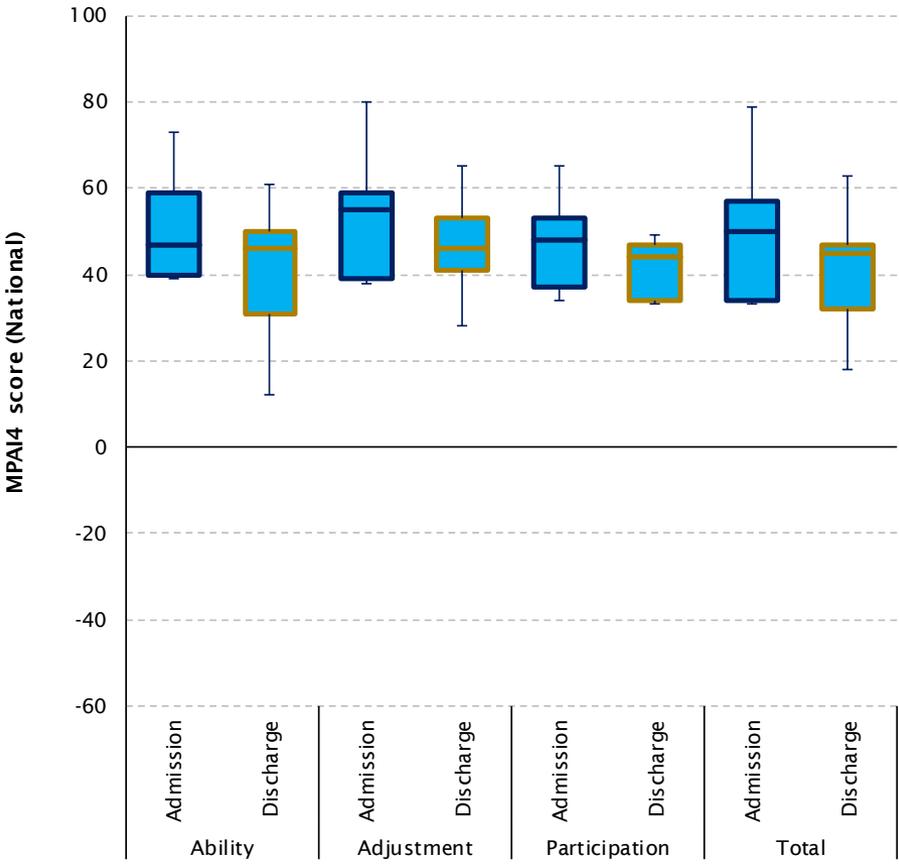# Casemix of episodes submitted MPAI-4

Average program length for episodes with submitted MPAI-4
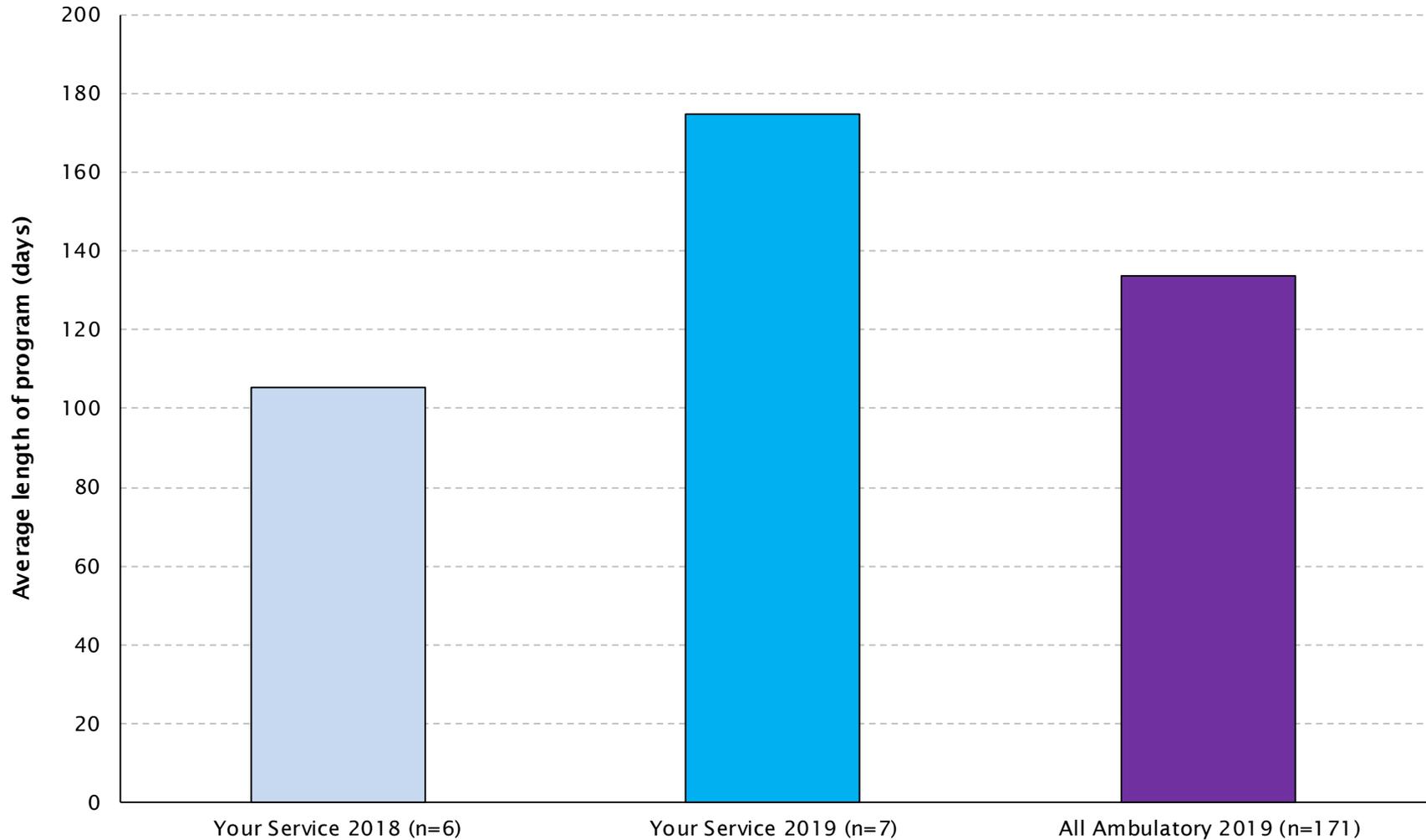
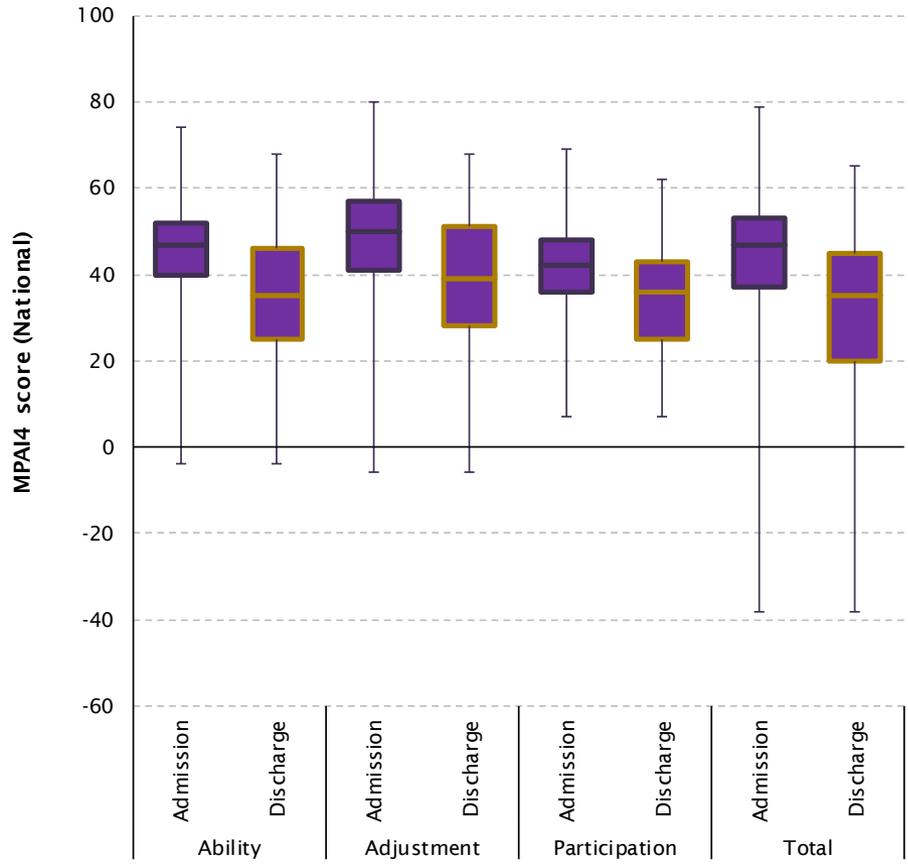# Admission and discharge T score distribution of spread by MPAI-4 index
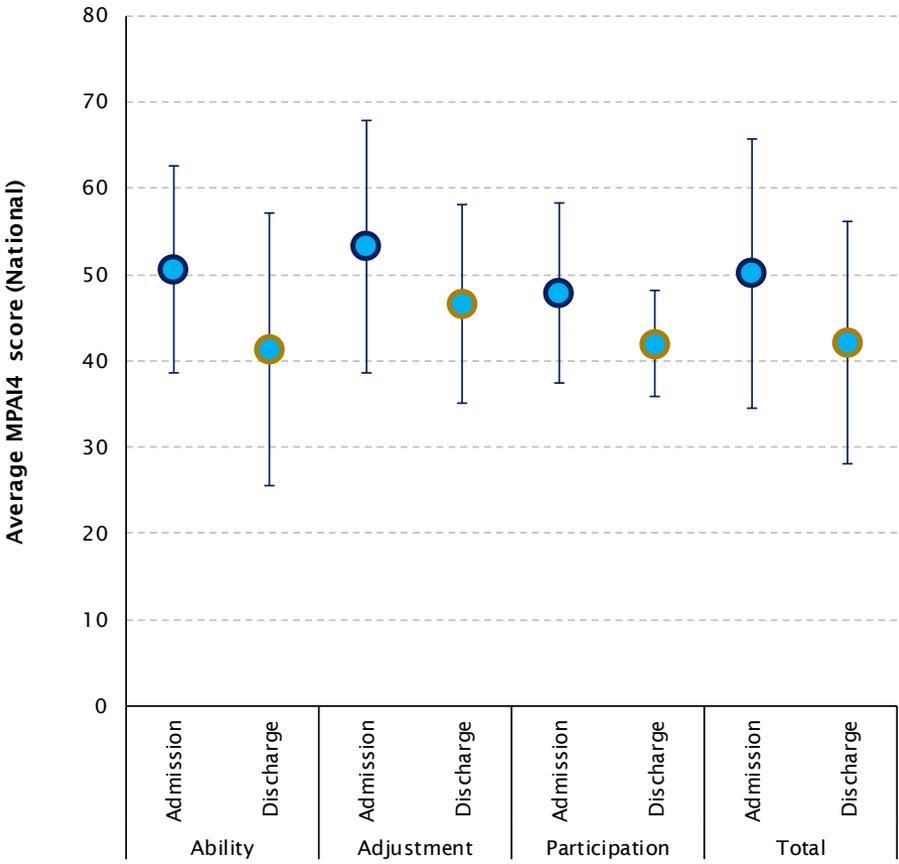

Your Service 2019 (n=7)
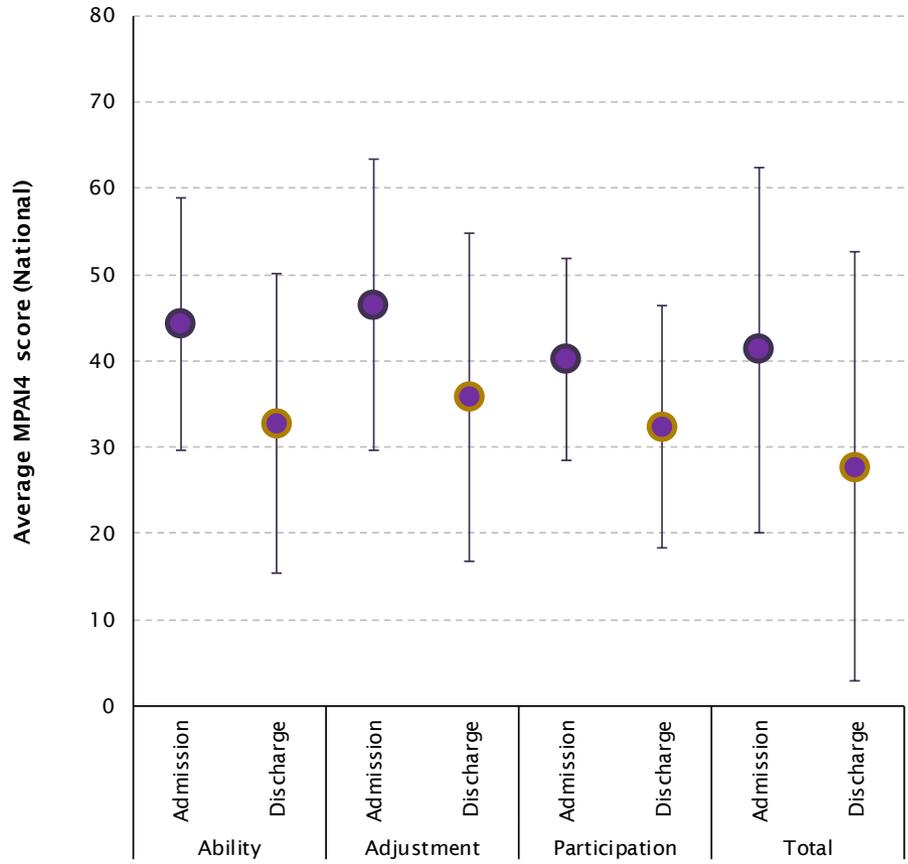
All Ambulatory 2019 (n=171)

Admission and discharge average T score by MPAI-4 index

Your Service 2019 (n=7)

All Ambulatory 2019 (n=171)

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 x 6) + (2 x 6) = 30
The total occasions of service in this instance is (7 x 6) + (4 x 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.
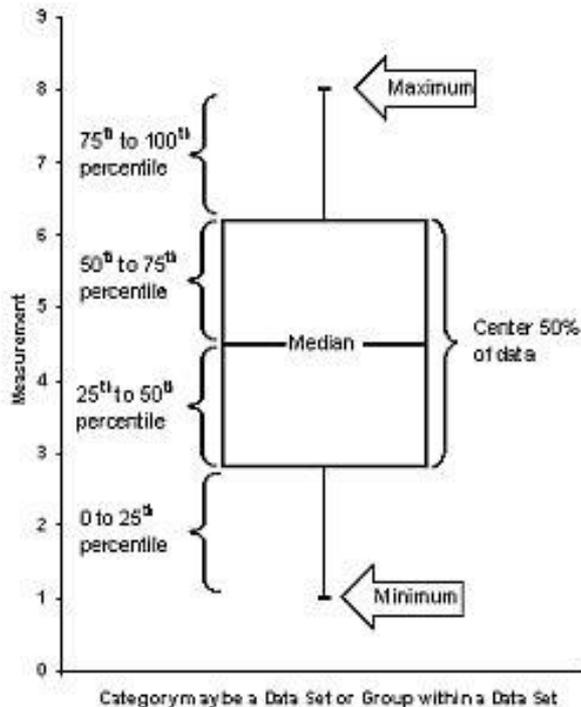
Appendix 4: AROC Impairment Codes

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

Acknowledgements

- **AROC wish to acknowledge the valuable contributions made by:**
    - Members of the Management Advisory Group of the Australasian Rehabilitation Outcomes Centre.
    - Members of the Scientific and Clinical Advisory Committee of the Australasian Rehabilitation Outcomes Centre.
    - The many staff from the rehabilitation services 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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- **Suggested acknowledgement**

    Anywhere Hospital AROC Ambulatory Report, January 2019 – December 2019. Australasian Rehabilitation Outcomes Centre (2020)

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