2011

The state of rehabilitation in New Zealand

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The State Rehabilitation in New Zealand

Presentation to NZRA
Biennial Conference, Auckland
4-6 March 2011

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What is AROC ?

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- AROC began as a joint initiative of the whole Australian rehabilitation sector (providers, payers, regulators and consumers) with support from key New Zealand providers
- Established 1 July 2002 as a not-for-profit Centre
- The Australasian Faculty of Rehabilitation Medicine (AFRM) is the auspice body and data custodian
- The Centre for Health Service Development (CHSD) at the University of Wollongong is the data manager and responsible for AROC's day to day operations

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Purpose and Aims of AROC

The basic purpose and aims of AROC were established as, and continue to be:

- To provide national benchmarking systems to improve clinical rehabilitation outcomes
- To produce information on the efficacy of interventions through the systematic collection of outcomes information in both the inpatient and ambulatory settings
- To provide annual reports that summarise the data at a national level

Benchmarking Reports

- AROC provides analysis of each individual member facilities data for that member, and also compares that data to:
  - analysis of a benchmark group
  - the national data
  - industry developed impairment specific target outcomes
- AROC Benchmarking Reports distributed to facility members electronically twice yearly

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Australasian Rehabilitation Outcomes Centre

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AROC Report

Anywhere Hospital

January 2008 – December 2008

Australasian Faculty of Rehabilitation Medicine

University of Wollongong

AROC Coverage

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- AUSTRALIA
  - There are approximately 190 rehabilitation units in Australia
  - 183 currently belong to AROC and of those 163 submitted data to AROC in the 2010 calendar year
  - In 2010 data describing more than 65,000 episodes was submitted to AROC
- NEW ZEALAND
  - There are 31 currently identified rehabilitation units in New Zealand
  - Currently 24 units are members of AROC, with 17 submitting data in 2010
  - In 2010 data describing almost 3,000 episodes was submitted to AROC
  - Since Jan 2009 data describing more than 6,000 episodes has been submitted to AROC

AROC Coverage in NZ

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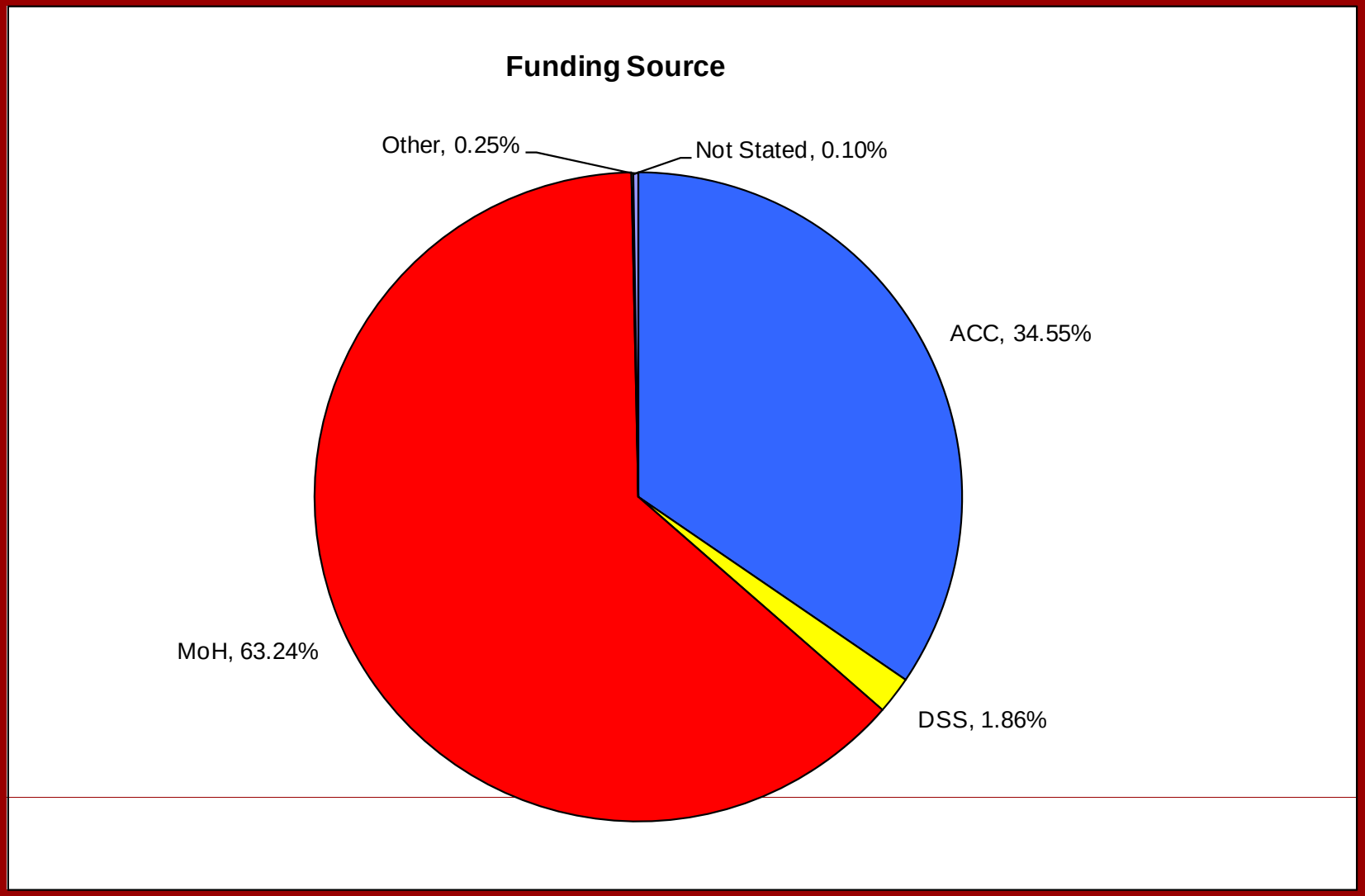
- There are 24 AROC members in NZ
- 18 are collecting and submitting
- 3 are expected to collect and begin submitting next quarter
- 1 very new member

- There are 7 identified non AROC member rehab units

Funding Source



Episodes by Impairment

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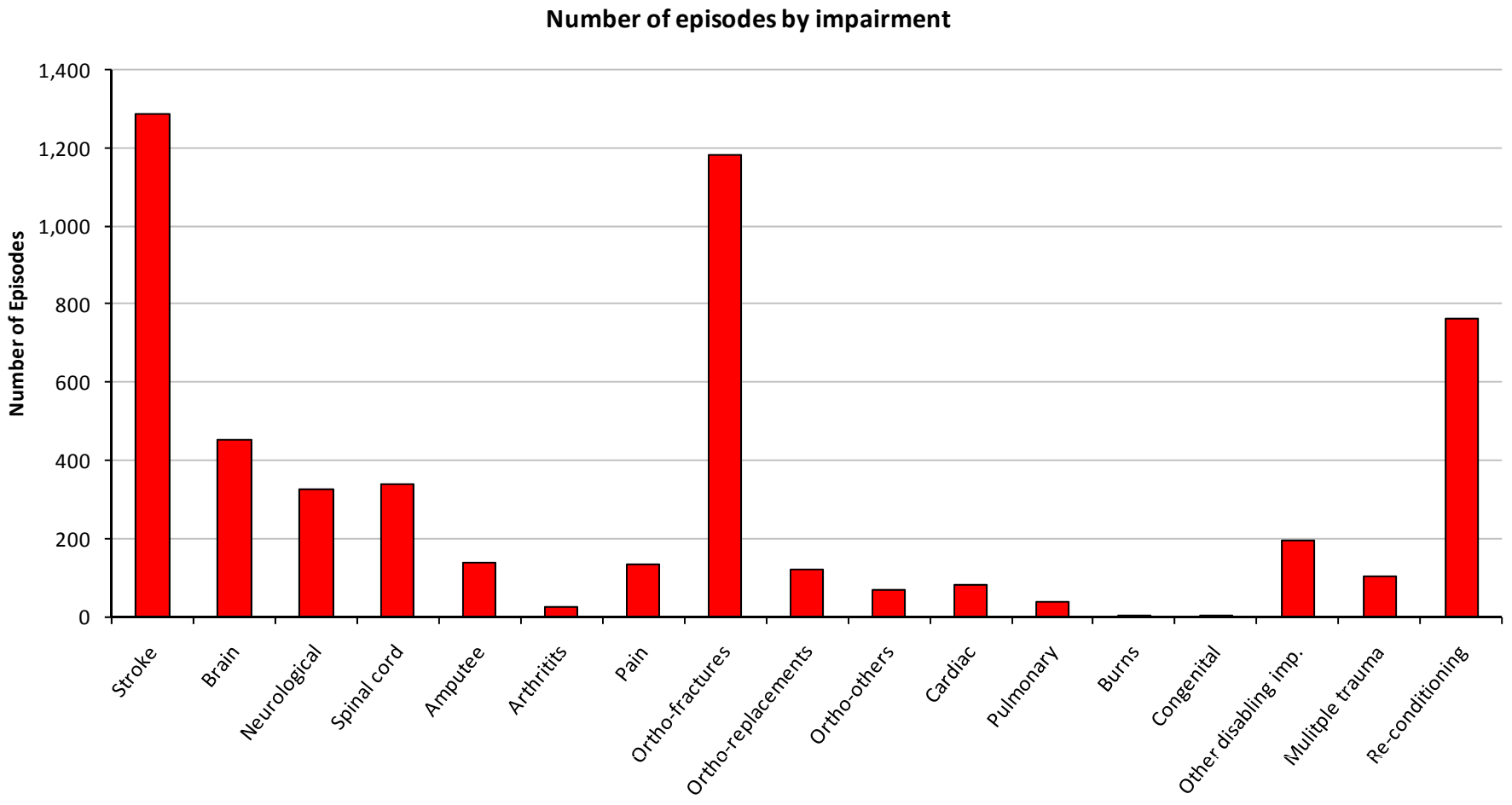

Episodes by Facility

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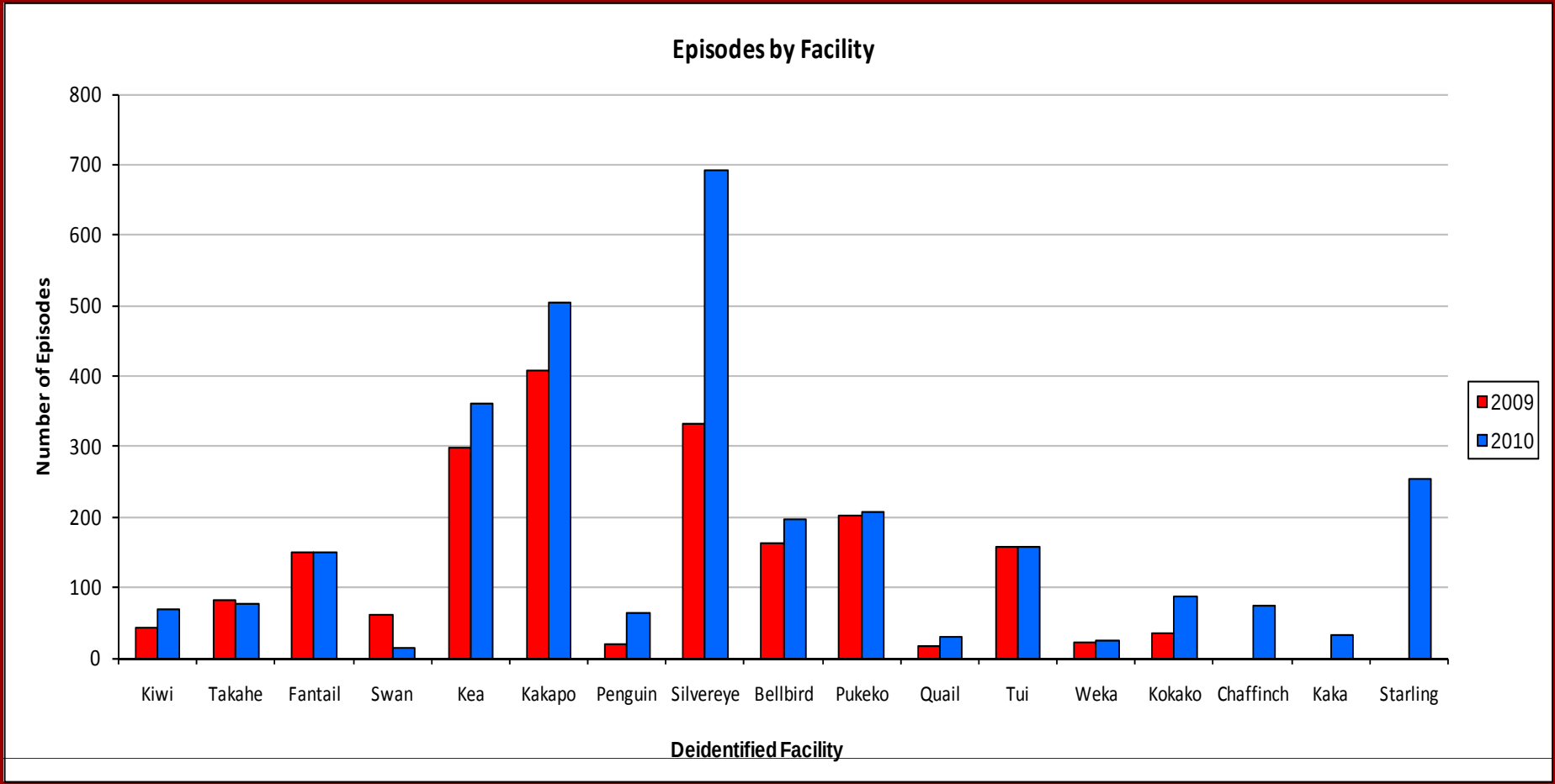

ALOS by Impairment

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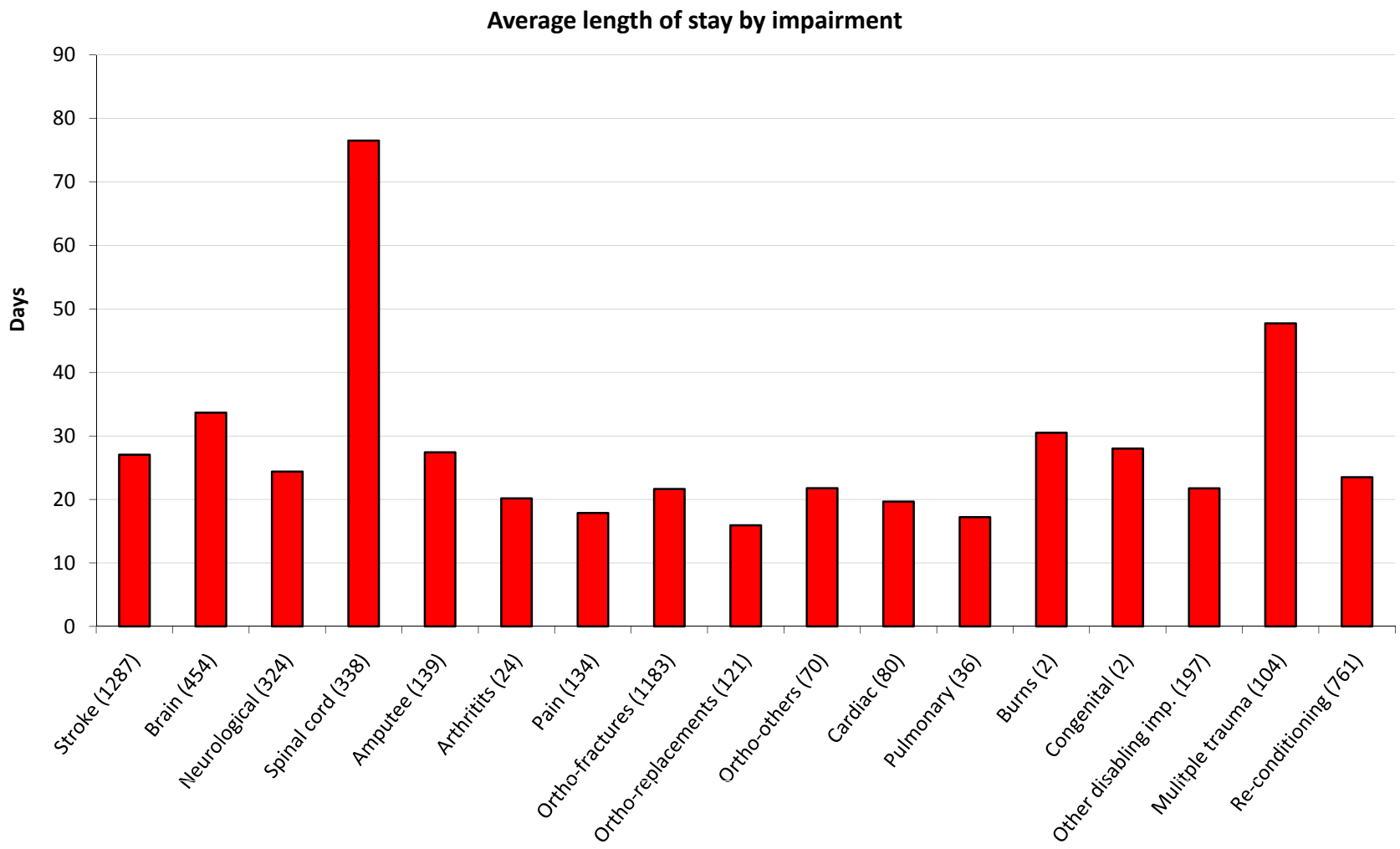
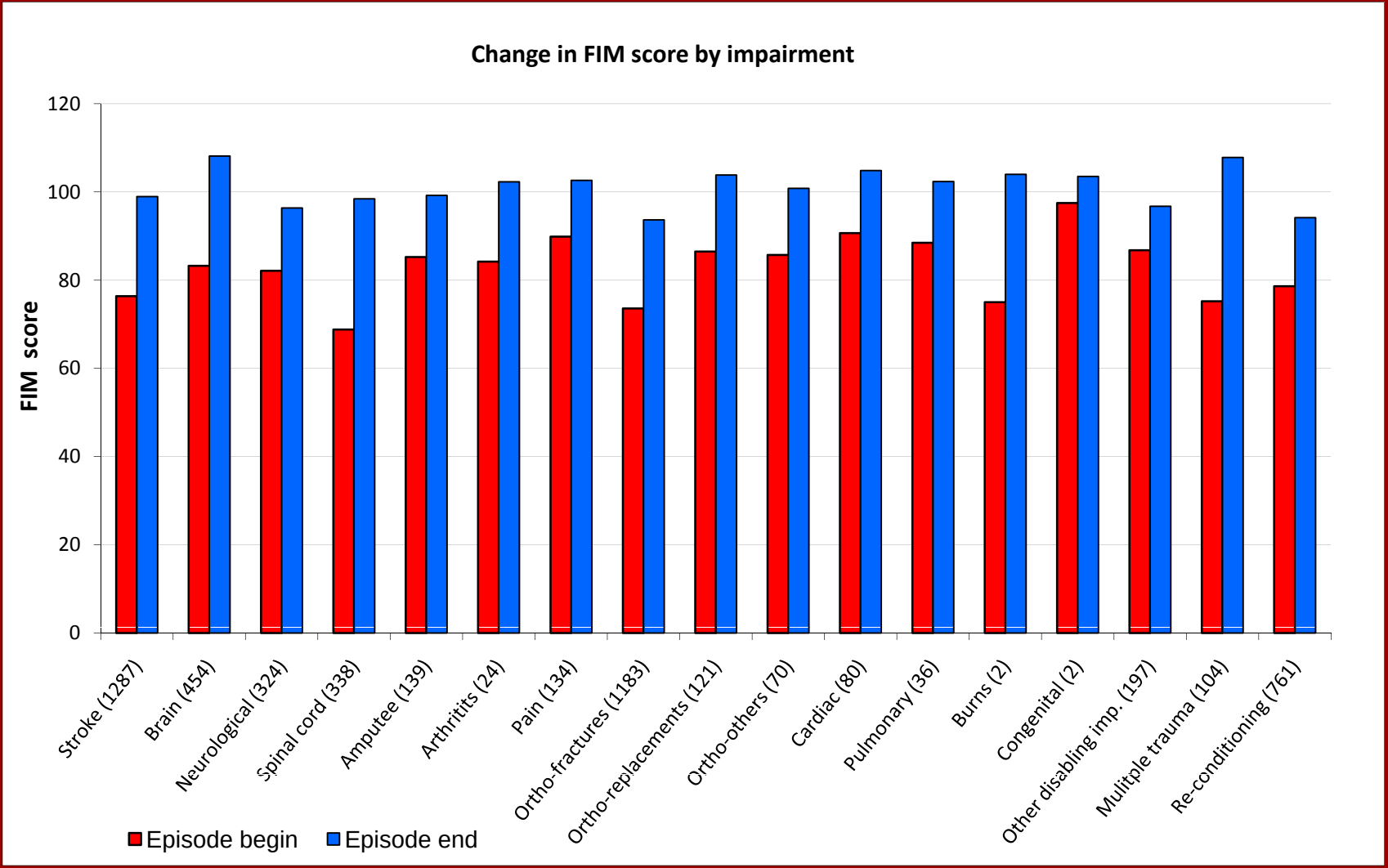


FIM Change by Impairment



Discharge Destination

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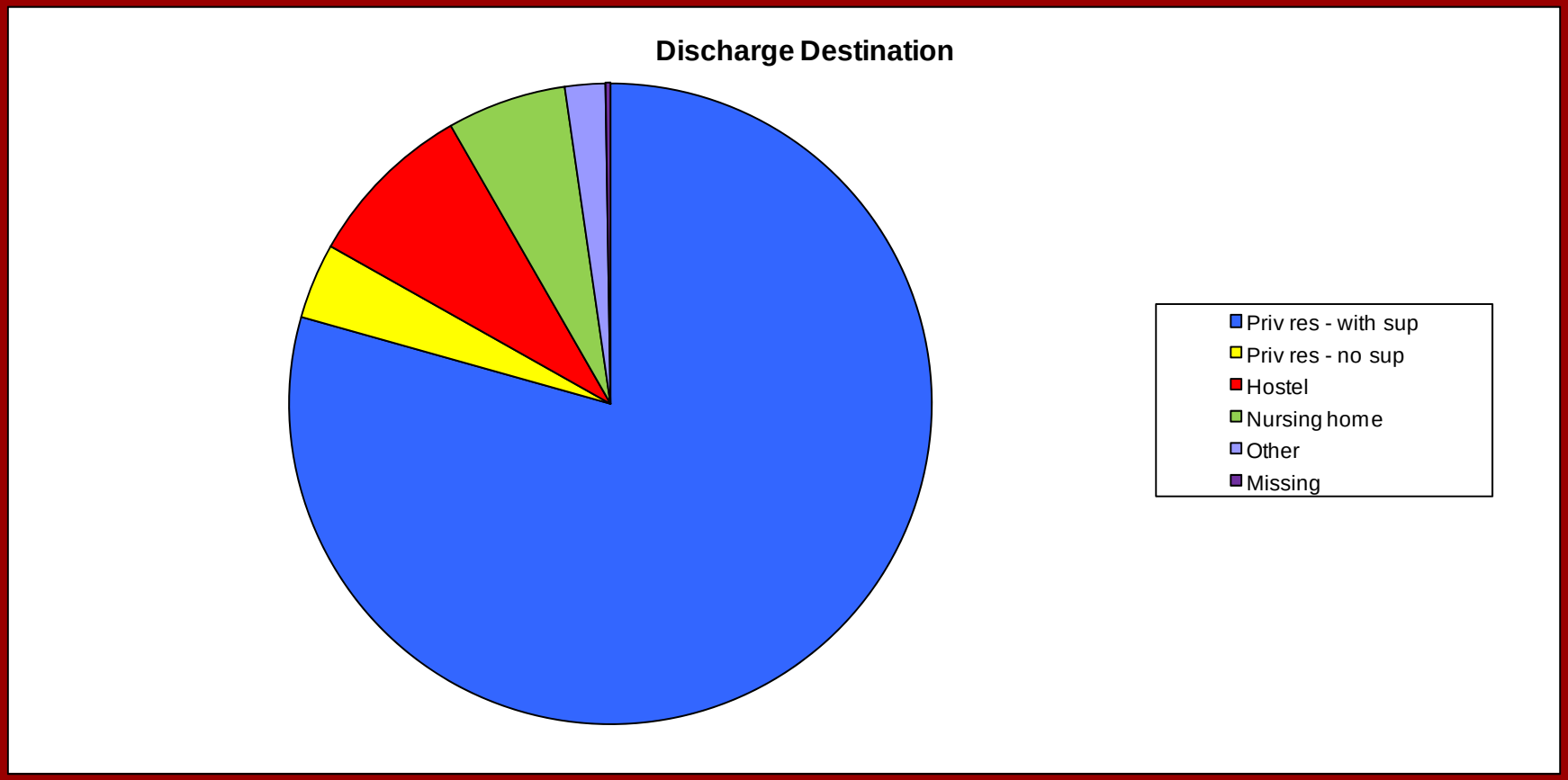

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SNAP class		# episodes	ALOS
S2-227	Ortho fracture, FIM motor 59-91	361	14.9
S2-228	Ortho fracture, FIM motor 48-57	227	20.7
S2-229	Ortho fracture, FIM motor 14-47, FIM cog 5-18	437	26.8
S2-230	Ortho fracture, FIM motor 14-47, FIM cog 19-36	140	23.9
Grand Total		1165	21.6

- Less readmissions (n=59) – ALOS 25.9 days
- Less those that stayed in the hospital system after discharge (n=43)
- Of the remainder
  - Discharged to usual accommodation:
    - private residence (n=806) – ALOS 20.6 days
    - rest home (n=142) – ALOS 22.4 days
    - hospital level care (n=106) – ALOS 22 days
  - Discharged to interim accom (n=85, ALOS 23.7 days)

Orthopaedic Fracture

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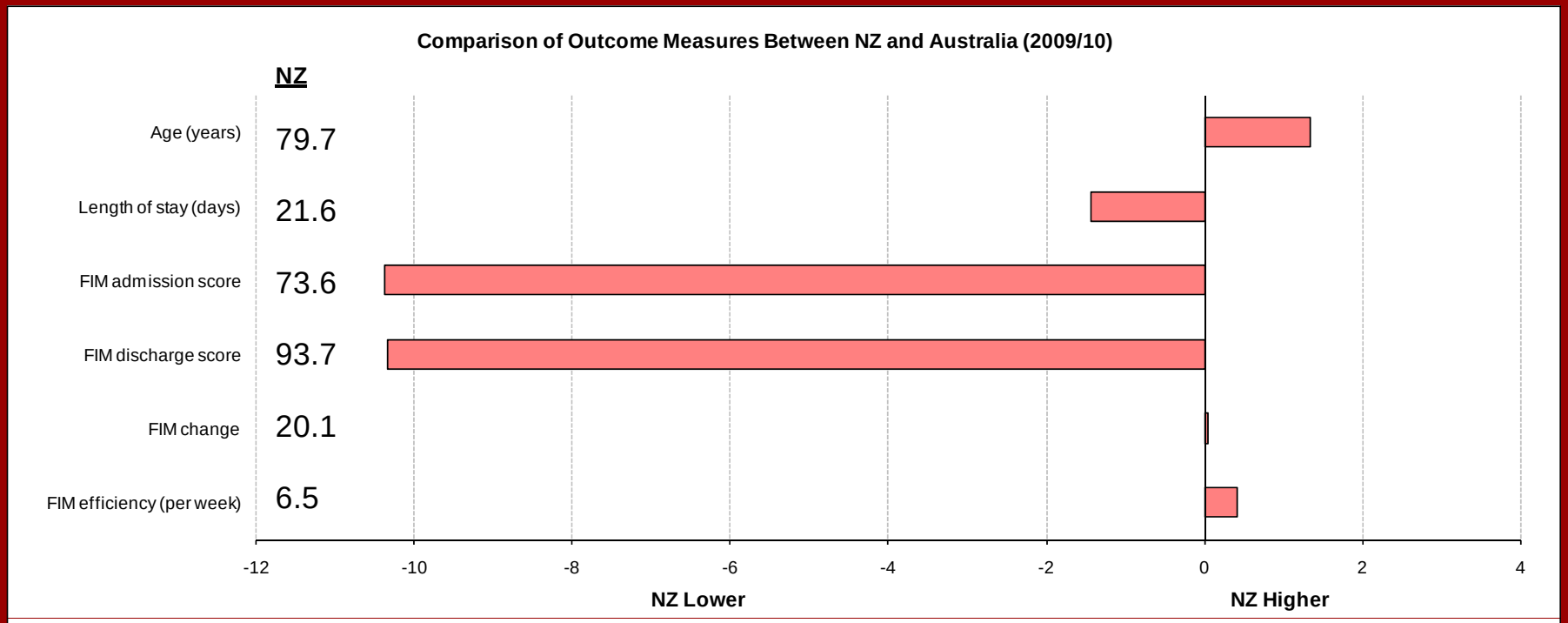

Difference from Australia data - Ortho Fracture

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Ortho fracture	NZ	Aus	Difference
Age (years)	79.7	78.4	1.3
Length of stay (days)	21.6	23.1	-1.4
FIM admission score	73.6	84.0	-10.4
FIM discharge score	93.7	104.0	-10.3
FIM change	20.1	20.0	0.0
FIM efficiency (per week)	6.5	6.1	0.4

Stroke

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SNAP class		# episodes	ALOS
S2-204	Stroke, FIM motor 63-91, FIM cog 20-35	479	15.6
S2-205	Stroke, FIM motor 63-91, FIM cog 5-19	53	20.5
S2-206	Stroke, FIM motor 47-62, FIM cog 16-35	244	22.8
S2-207	Stroke, FIM motor 47-62, FIM cog 5-15	19	25.8
S2-208	Stroke, FIM motor 14-46, age >=75	160	31.2
S2-209	Stroke, FIM motor 14-46, age <=74	280	44.7
Grand Total		1235	26.0

- Less readmissions (n=132) – ALOS 19.2 days
- Less those that stayed in the hospital system after discharge (n=184)
- Of the remainder
  - Discharged to usual accommodation:
    - private residence (n=1001) – ALOS 26.1 days
    - rest home (n=54) – ALOS 30.9 days
    - hospital level care (n=62) – ALOS 30.1 days
  - Discharged to interim accom (n=74, ALOS 43.3 days)

Stroke

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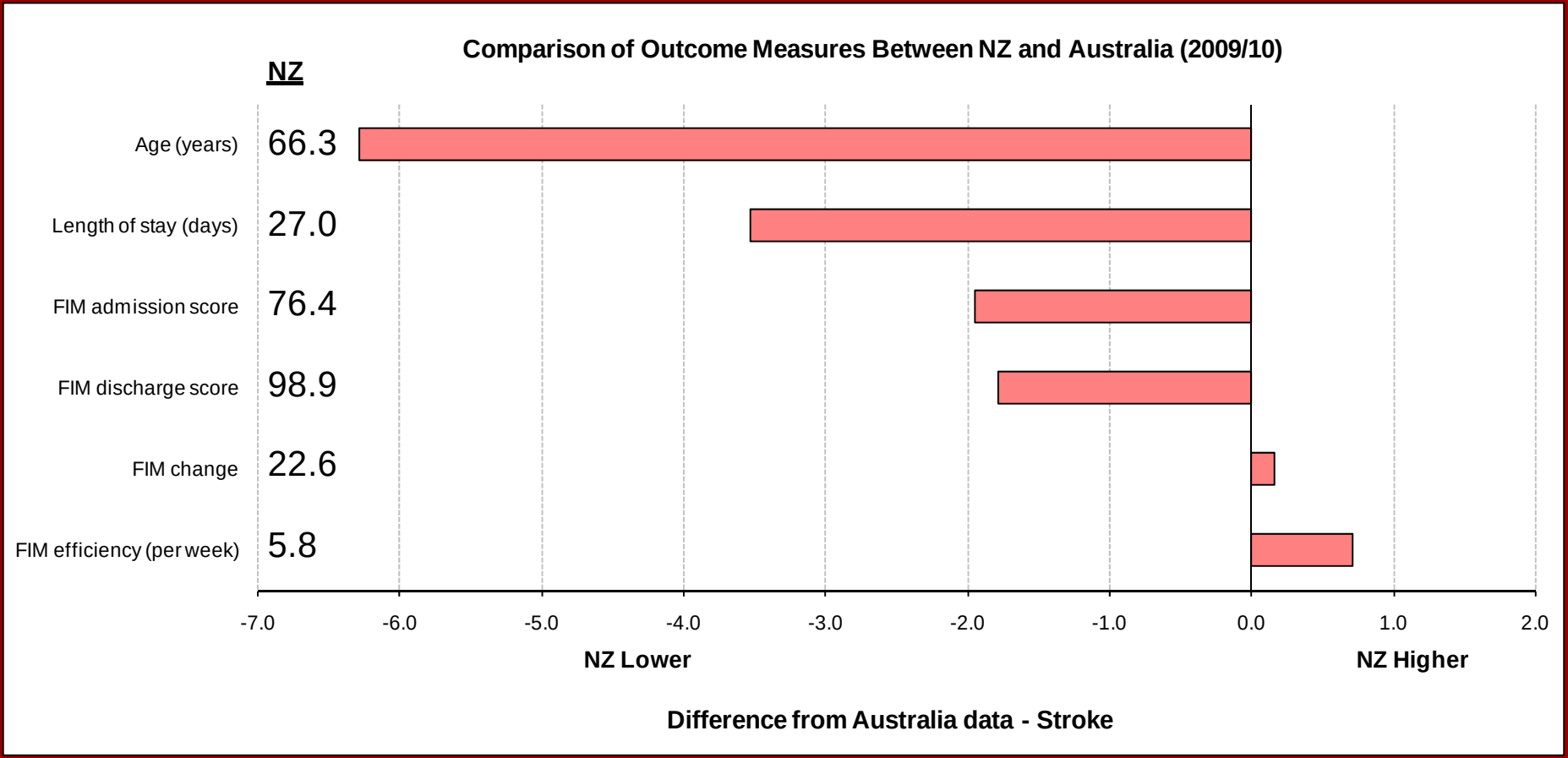
Comparison of Outcome Measures Between NZ and Australia (2009/10)
NZ
Age (years)
66.3
Length of stay (days)
27.0
FIM admission score
76.4
FIM discharge score
98.9
FIM change
22.6
FIM efficiency (per week)
5.8
-7.0
-6.0
-5.0
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
NZ Lower
NZ Higher
Difference from Australia data - Stroke

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Stroke	NZ	Aus	Difference
Age (years)	66.3	72.6	-6.3
Length of stay (days)	27.0	30.6	-3.5
FIM admission score	76.4	78.3	-1.9
FIM discharge score	98.9	100.7	-1.8
FIM change	22.6	22.4	0.2
FIM efficiency (per week)	5.8	5.1	0.7

Brain Injury

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SNAP class		# episodes	ALOS
S2-210	Brain Dysfunction, FIM motor 6-91, FIM cog 32-35	50	14.5
S2-211	Brain Dysfunction, FIM motor 56-91, FIM cog 24-31	149	18.7
S2-212	Brain Dysfunction, FIM mptpr 56-91, FIM cog 20-23	37	27.8
S2-213	Brain Dysfunction, FIM motor 56-91, FIM cog 5-19	75	36.5
S2-214	Brain Dysfunction, FIM motor 24-55	88	37.4
S2-215	Brain Dysfunction, FIM motor14-23	35	69.9
Grand Total		434	30.0

- Less readmissions (n=48) – ALOS 24.9 days
- Less those that stayed in the hospital system after discharge (n=55)
- Of the remainder
  - Discharged to usual accommodation:
    - private residence (n=352) – ALOS 30.8 days
    - rest home (n=7) – ALOS 116.5 days
    - hospital level care (n=3) – ALOS 26.3 days
  - Discharged to interim accom (n=47, ALOS 50.4 days)

Brain

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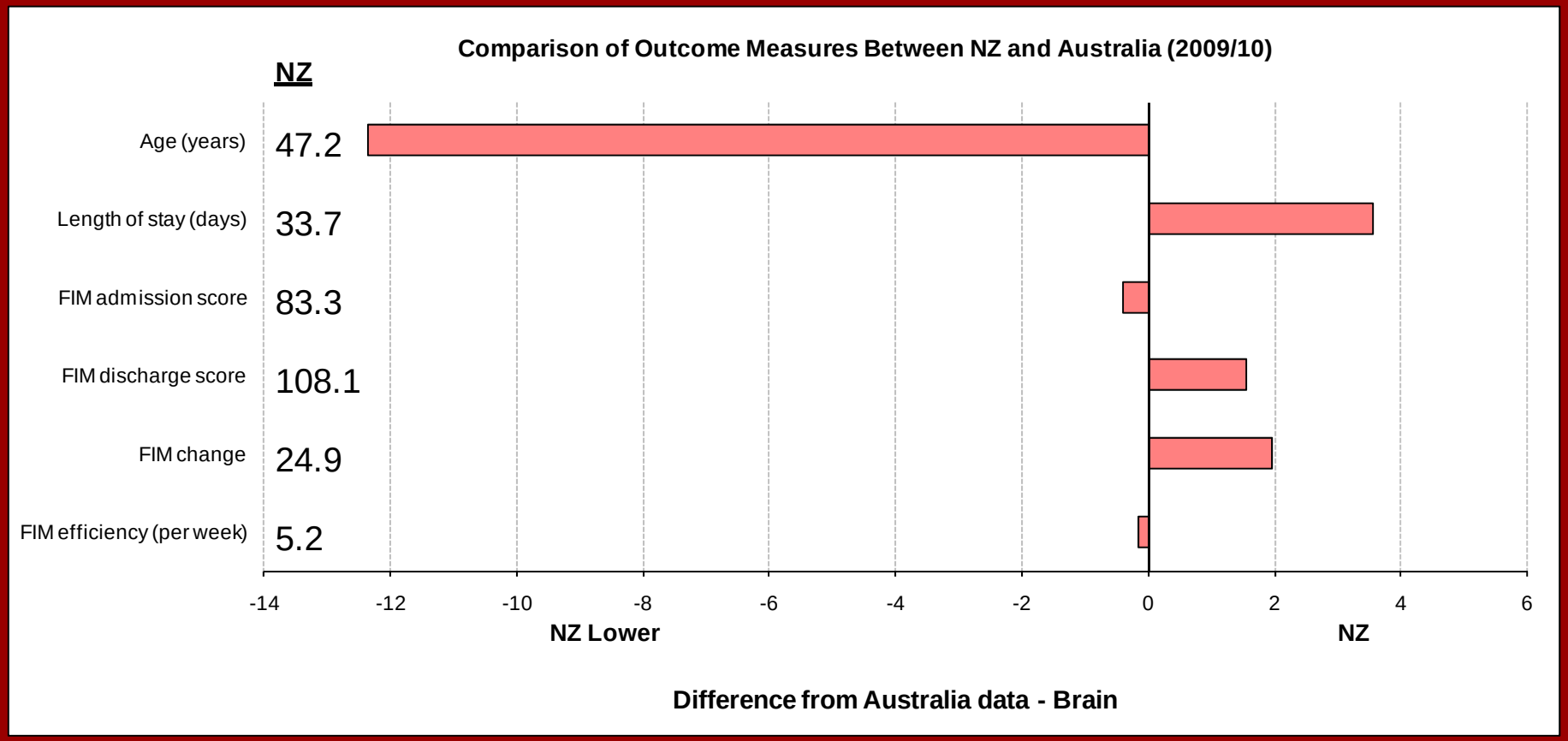
Comparison of Outcome Measures Between NZ and Australia (2009/10)
NZ
Age (years)
47.2
Length of stay (days)
33.7
FIM admission score
83.3
FIM discharge score
108.1
FIM change
24.9
FIM efficiency (per week)
5.2
-14
-12
-10
-8
-6
-4
-2
0
2
4
6
NZ Lower
NZ
Difference from Australia data - Brain

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Brain	NZ	Aus	Difference
Age (years)	47.2	59.6	-12.4
Length of stay (days)	33.7	30.1	3.6
FIM admission score	83.3	83.7	-0.4
FIM discharge score	108.1	106.6	1.5
FIM change	24.9	22.9	1.9
FIM efficiency (per week)	5.2	5.3	-0.2

Spinal Cord Injury

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SNAP class		# episodes	ALOS
S2-220	Spinal Cord Dysfunction, FIM motor 81-91	10	21.7
S2-221	Spinal Cord Dysfunction, FIM motor 47-80	99	33.5
S2-222	Spinal Cord Dysfunction, FIM motor 14-46, age>=33	126	80.6
S2-223	Spinal Cord Dysfunction, FIM motor 14-46, age<=32	43	80.0
Grand Total		278	61.6

	LOS < 90 days		LOS >= 90 days		Total	
SNAP class	#	ALOS	#	ALOS	#	ALOS
S2-220	10	21.7			10	21.7
S2-221	95	29.6	4	124.8	99	33.5
S2-222	81	53.0	45	130.5	126	80.6
S2-223	30	61.7	13	122.4	43	80.0
Grand Total	216	42.4	62	128.4	278	61.6

Spinal Cord Injury

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SNAP class		# episodes	ALOS
S2-220	Spinal Cord Dysfunction, FIM motor 81-91	10	21.7
S2-221	Spinal Cord Dysfunction, FIM motor 47-80	99	33.5
S2-222	Spinal Cord Dysfunction, FIM motor 14-46, age>=33	126	80.6
S2-223	Spinal Cord Dysfunction, FIM motor 14-46, age<=32	43	80.0
Grand Total		278	61.6

- Less readmissions (n=17) – ALOS 71.6 days
- Less those that stayed in the hospital system after discharge (n=34)
- Of the remainder
  - Discharged to usual accommodation:
    - private residence (n=247) – ALOS 67.2 days
    - rest home (n=1) – ALOS 164 days
    - hospital level care (n=6) – ALOS 70 days
  - Discharged to interim accom (n=70, ALOS 112.6 days)

Spine

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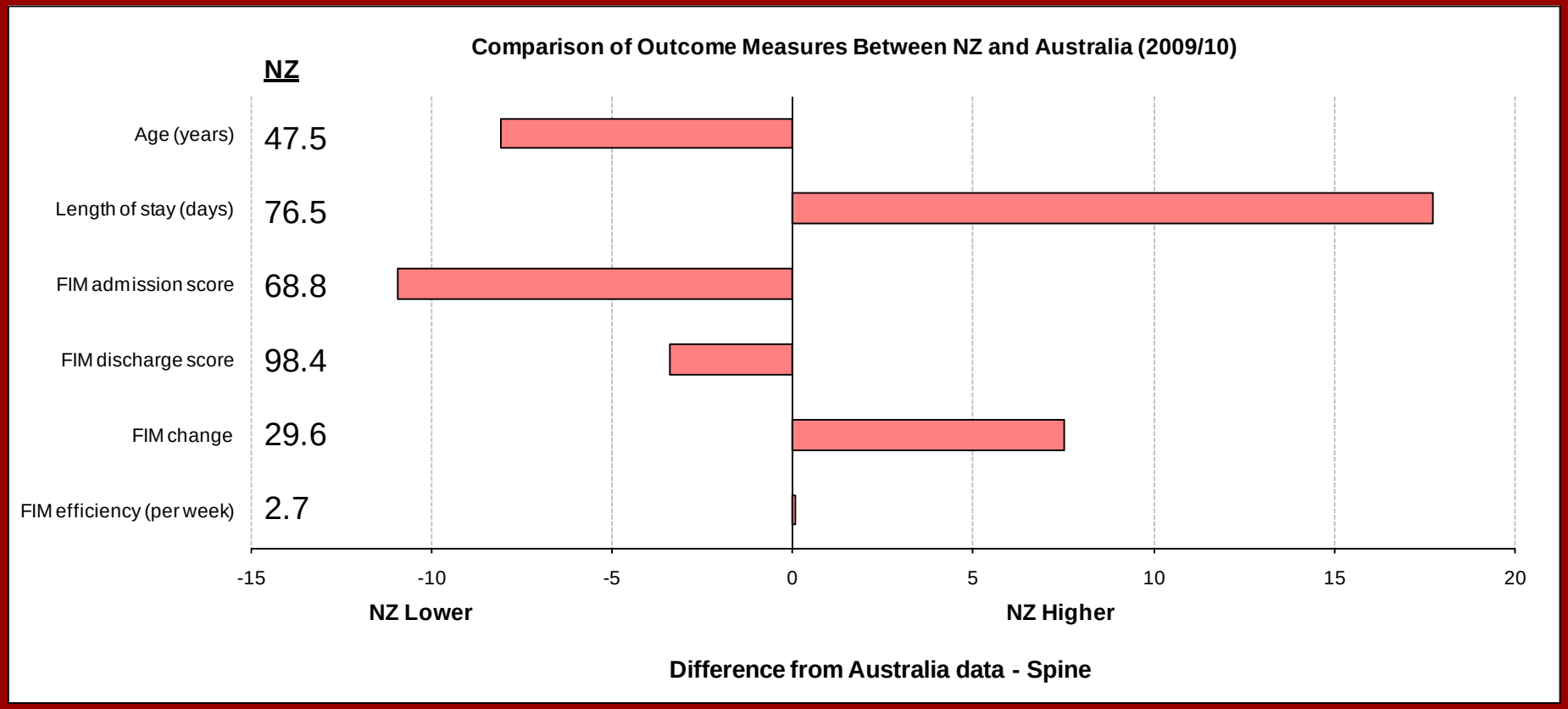
Comparison of Outcome Measures Between NZ and Australia (2009/10)
NZ
Age (years)
47.5
Length of stay (days)
76.5
FIM admission score
68.8
FIM discharge score
98.4
FIM change
29.6
FIM efficiency (per week)
2.7
-15
-10
-5
0
5
10
15
20
NZ Lower
NZ Higher
Difference from Australia data - Spine

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Spine	NZ	Aus	Difference
Age (years)	47.5	55.6	-8.1
Length of stay (days)	76.5	58.8	17.7
FIM admission score	68.8	79.7	-10.9
FIM discharge score	98.4	101.8	-3.4
FIM change	29.6	22.1	7.5
FIM efficiency (per week)	2.7	2.6	0.1

All Impairments

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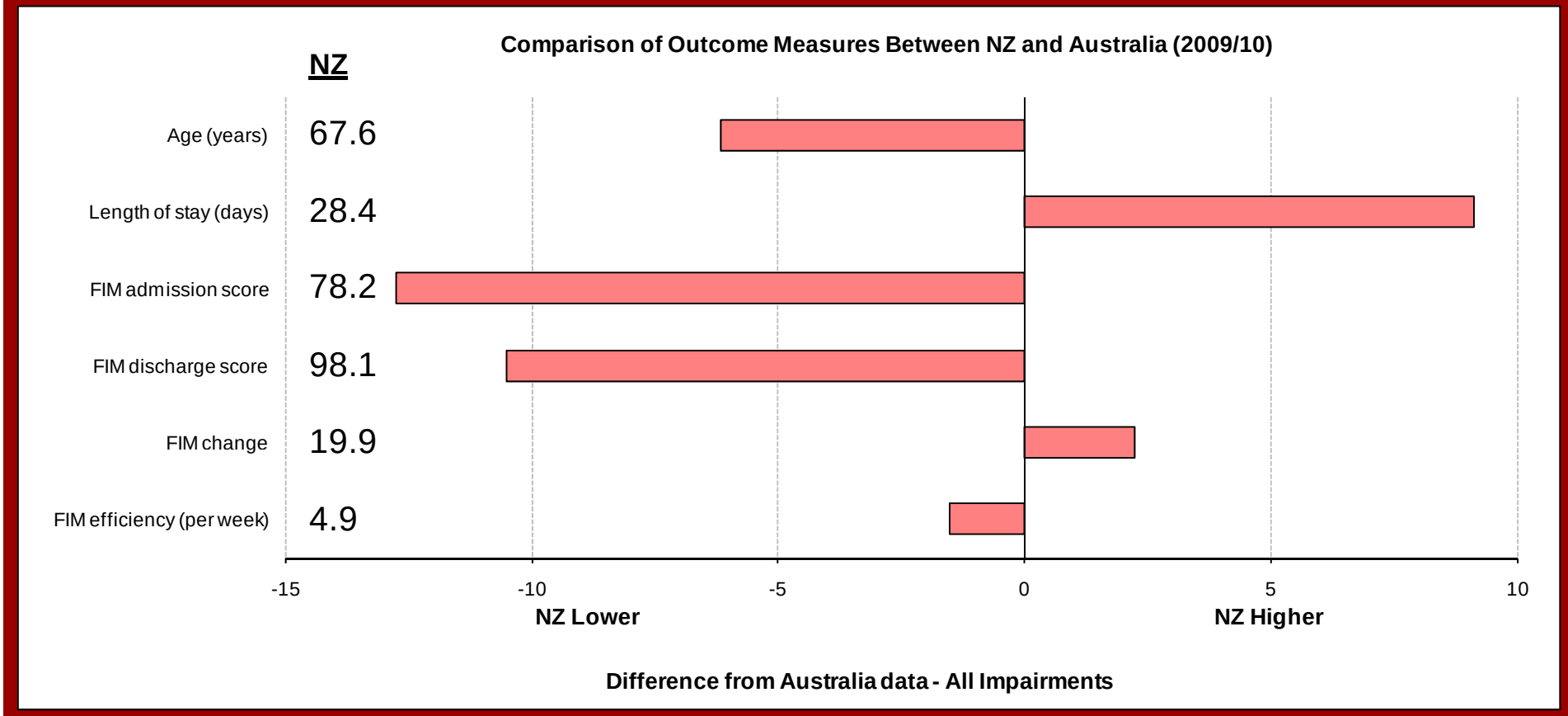

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All Impairments	NZ	Aus	Difference
Age (years)	67.6	73.8	-6.2
Length of stay (days)	28.4	19.2	9.1
FIM admission score	78.2	90.9	-12.7
FIM discharge score	98.1	108.6	-10.5
FIM change	19.9	17.7	2.2
FIM efficiency (per week)	4.9	6.4	-1.5

NZ vs Aus Outcomes

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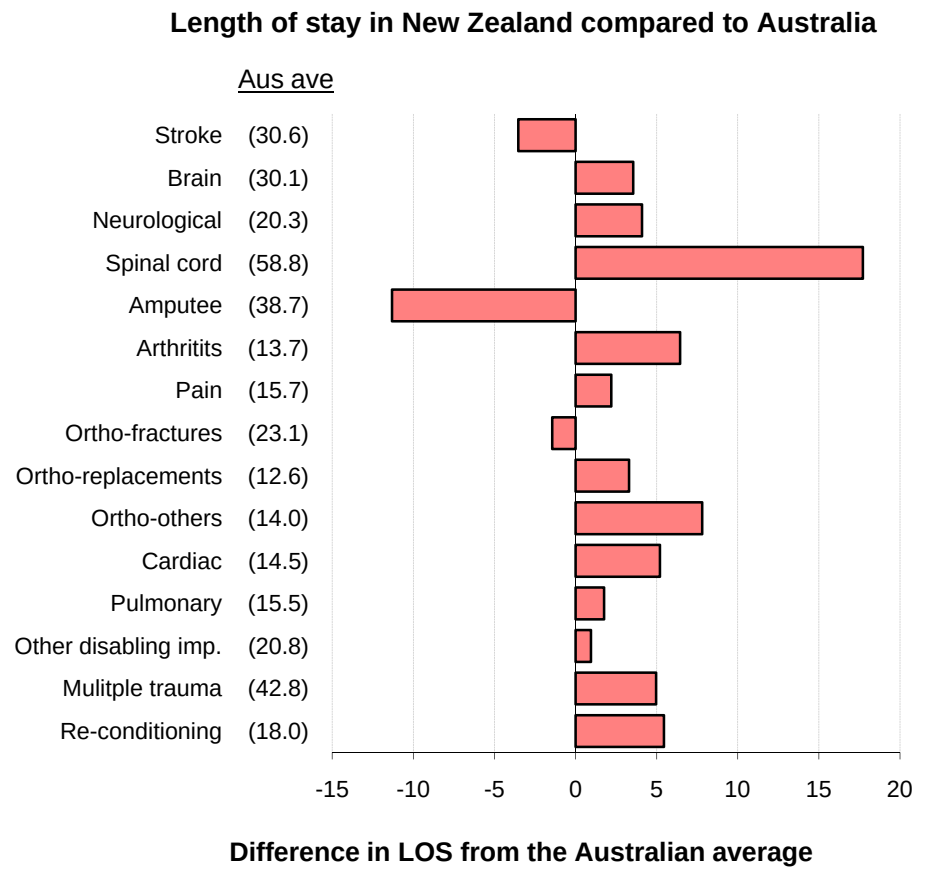

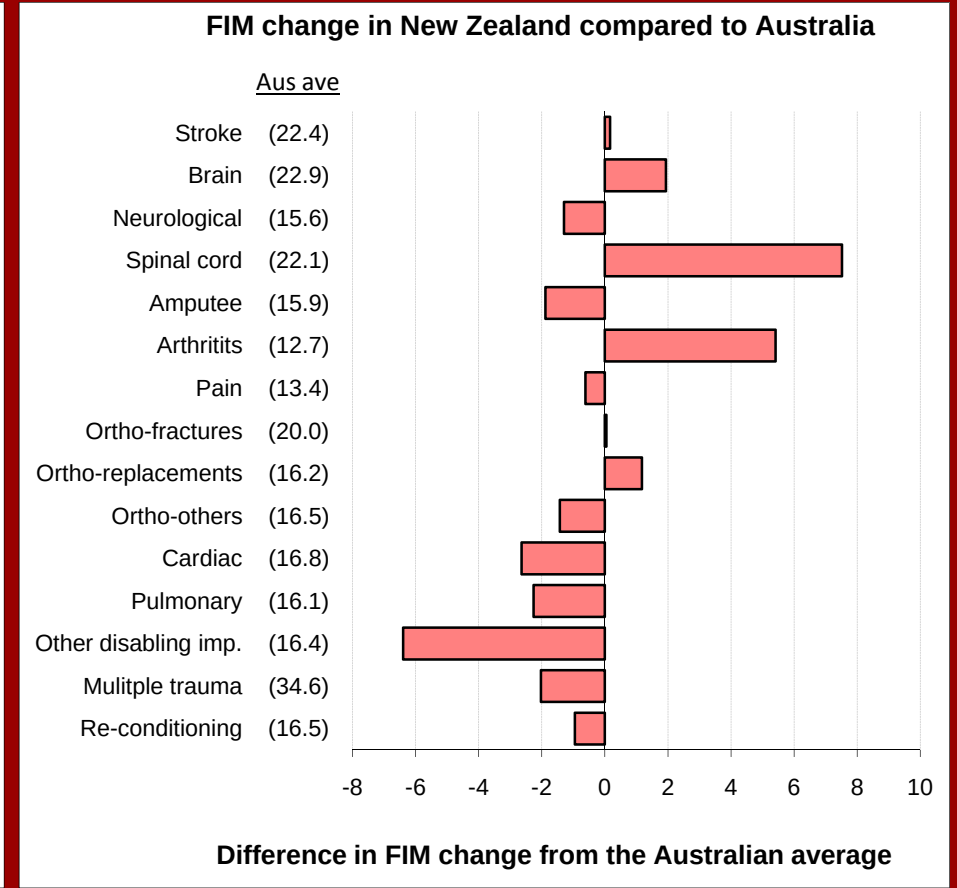

NZ Outcomes - 2009

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Impairment	Count	LOS	FIM Change	FIM Efficiency (per week)
Stroke	514	26.11	21.50	5.76
Ortho fracture	455	21.93	19.03	6.07
Debility	246	23.80	14.98	4.41
Brain	173	35.18	24.73	4.92
Spine	133	72.59	29.49	2.84
Neuro	117	23.77	12.91	3.80
Other	78	23.50	9.69	2.89
MultTrauma	48	42.48	31.50	5.19
Ortho replacement	46	16.67	16.48	6.92
Pain	45	19.07	12.84	4.71
Amputee	44	29.50	11.51	2.73
Cardiac	33	23.09	11.49	3.48
Other ortho	33	18.30	13.89	5.31
Pulmonary	17	16.47	15.55	6.61
Arthritits	12	16.25	18.36	7.91
Total	1,994	28.29	20.21	5.00

NZ Outcomes - 2010

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Impairment	Count	LOS	FIM Change	FIM Efficiency (per week)
Stroke	707	26.62	22.79	5.99
Ortho fracture	713	21.30	20.76	6.82
Debility	502	23.04	15.85	4.82
Brain	219	33.21	25.69	5.42
Spine	148	67.12	31.10	3.24
Neuro	182	25.37	15.14	4.18
Other	112	19.55	10.45	3.74
MultTrauma	45	51.11	32.02	4.39
Ortho replacement	72	15.72	17.70	7.88
Pain	88	17.38	12.74	5.13
Amputee	92	26.64	15.22	4.00
Cardiac	47	20.62	16.15	5.48
Other ortho	34	20.62	16.51	5.61
Pulmonary	19	17.89	11.95	4.67
Arthritits	12	24.08	17.83	5.18
Total	2,992	26.50	20.09	5.30

AROC Contact Details

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