

The logo for the Australasian Rehabilitation Outcomes Centre (AROC) is located in the top right corner. It consists of the lowercase letters "aroc" in a white, italicized, sans-serif font, enclosed within a white oval shape that has a subtle drop shadow against the dark red background.

Australasian Rehabilitation Outcomes Centre

**Presentation to the
Australian Association of Gerontology
Conference
1-2 April 2008**

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Tara Stevermuer, AROC Data Manager**

Medical Rehabilitation

- Rehabilitation medicine aims to provide people with loss of function or ability due to injury or disease with the highest possible level of independence (physically, Psychologically, socially and economically).
- Achieved through combined and coordinated use of medical, nursing, and allied health professional skills
- Involves individual assessment, treatment, regular review, discharge planning, community integration and follow up

What is AROC ?

- AROC began as a joint initiative of the whole Australian rehabilitation sector (providers, payers, regulators and consumers)
- 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

Purpose and Aims of AROC

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

- To provide a national benchmarking system 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 Australasian data.

AROC has 5 roles

1. A national data bureau that receives and manages data on rehabilitation services in Australia
2. The national benchmarking centre providing for rehabilitation services
3. The national certification centre for the Functional Independence Measures (FIM)
4. An education and training and research centre for the FIM and other rehabilitation outcome measures
5. A research and development centre that develops research and development proposals and seeks external funding for its research agenda

AROC Coverage

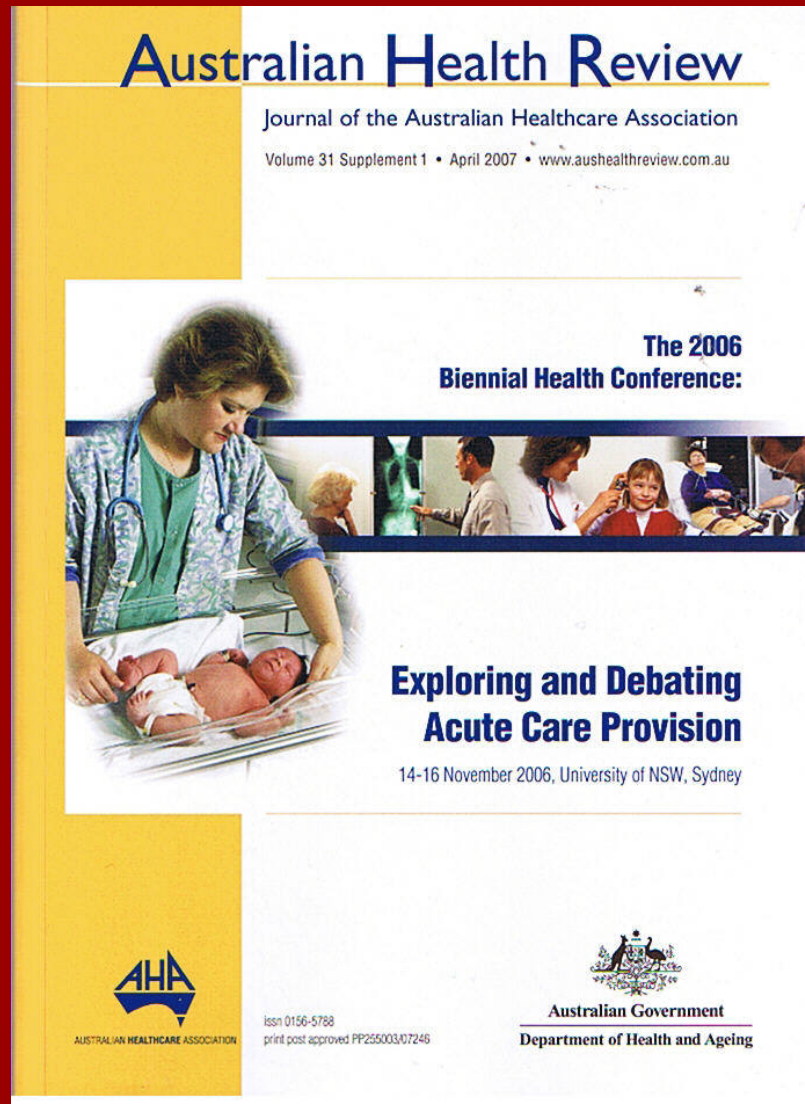
- There are approximately 150 rehabilitation units in Australia, 88 public sector and 62 private sector units
- 135 submitted data to AROC in the 2006 calendar year (75 public sector units, 60 private sector units)
- In 2006 data describing some 50,500 episodes was submitted to AROC.
- AROC is funded by contributions from all stakeholders, facilities, health funds, DVA, health departments (state and commonwealth), some general insurers, and AFRM

Dissemination of Information

- AROC provides analysis of each individual member facilities data for that member, and also compares that data to analysis of the overall sector (public or private), and to the national data.
 - AROC Benchmarking Reports distributed electronically twice yearly
 - Health Funds also receive Benchmarking Reports
- Last year AROC published, in a national publication, the inaugural comprehensive AROC Annual report, describing the 2005 data
- In February this year, the second AROC Annual Report was published, describing the 2006 data

AROC “State of the Nation” inaugural publication

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**Australian Health Review
April 2007:
31 Suppl 1:S31-S53**

AROC as sector advocate

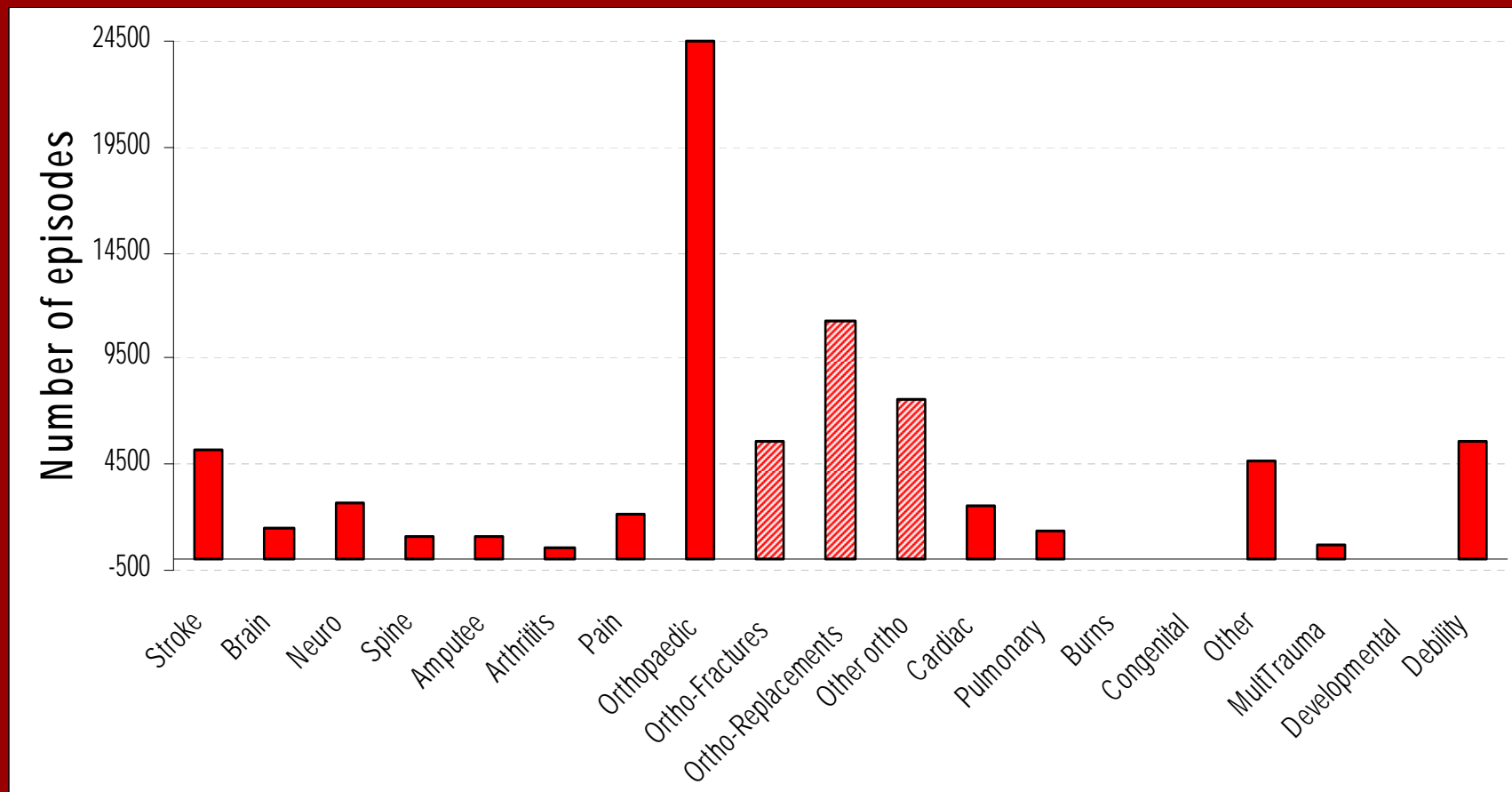
- AROC well positioned to promote the importance of rehabilitation in the continuum of care
- Well provided rehabilitation is the 'glue' that sticks together acute care and community services
- Well provided rehabilitation results in people with greater functional ability and more independence and thus:
 - lowers the incidence of readmission back to acute care
 - minimises the requirement (and cost) of community services required

AROC Database

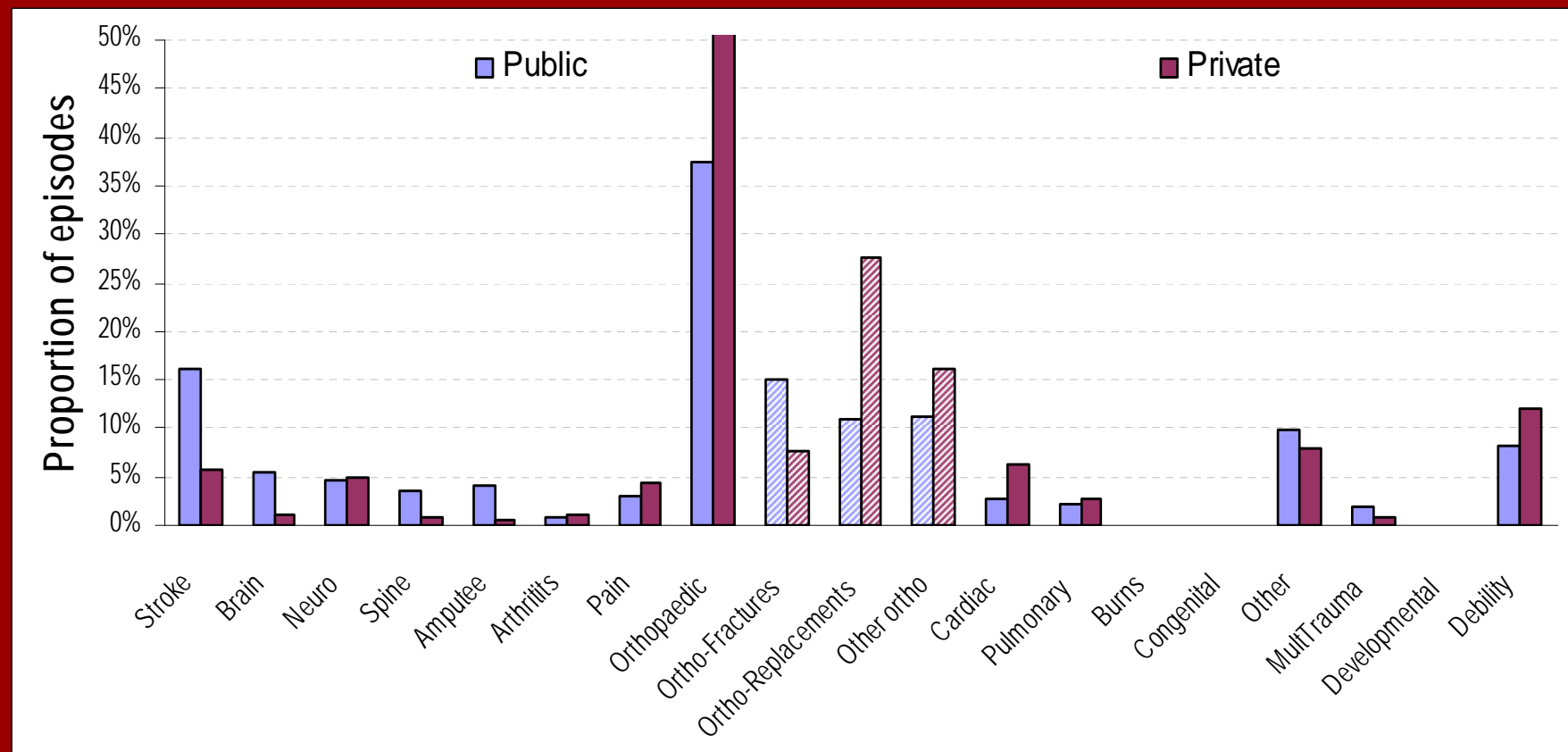
- In 2006 data describing some 50,500 episodes was submitted to AROC
- The AROC data base now contains more than 400,000 overnight episodes of care
- The presentation will include analysis of the 2006 data, with comparisons over the last 6 years of data

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Episodes by impairment group, 2006

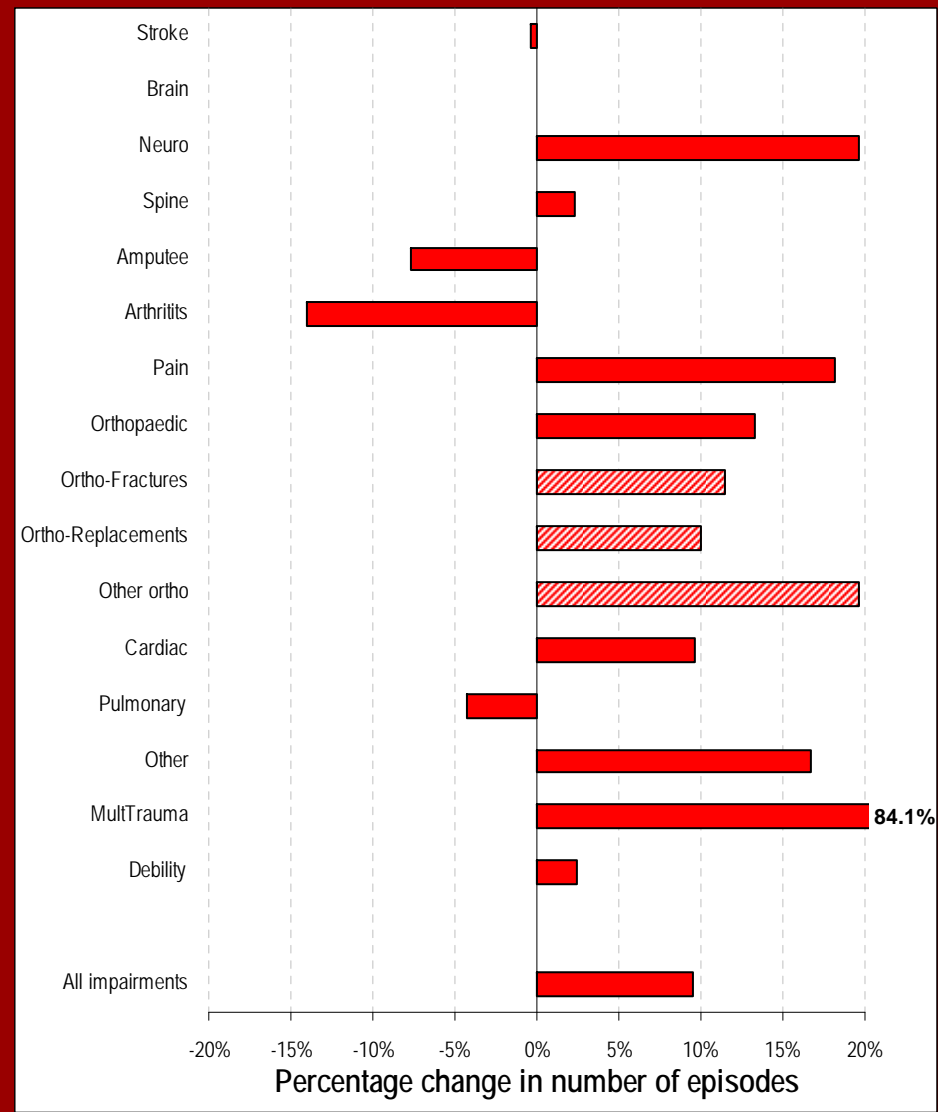


Proportion of episodes by impairment group, by sector, 2006

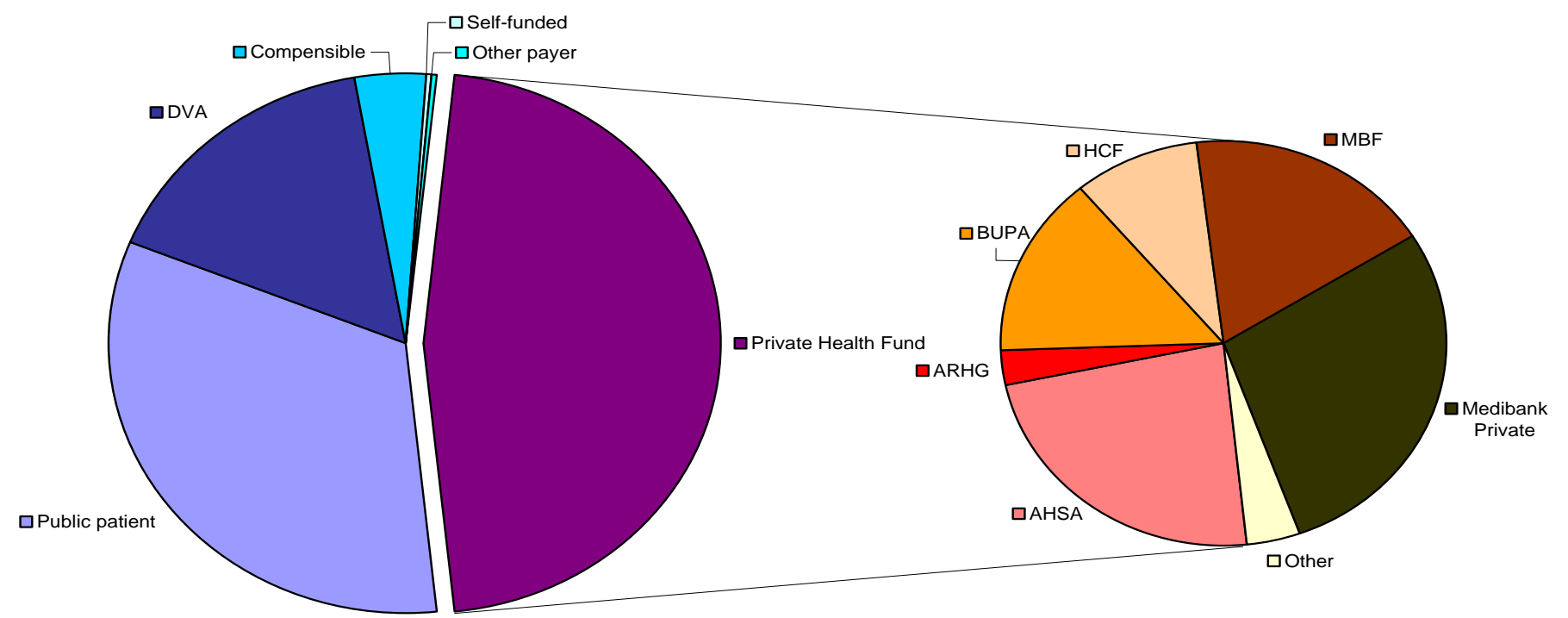


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% Change from 2005 to 2006 in number of episodes by impairment



Funding Source



What is the FIM?

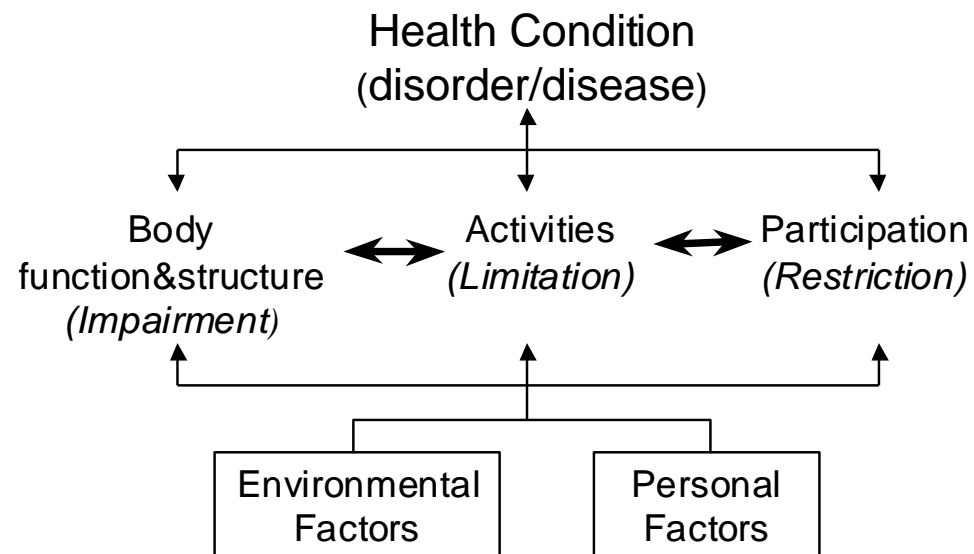
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- Developed in the U.S. in the 1980's by a task force of the American Academy of Physical Medicine and Rehabilitation and the American Congress of Rehabilitation Medicine.
- The aim was to develop a reliable and valid instrument that could be used to document the severity of disability as well as the outcomes of rehabilitation treatment.
- Maintained now by the University of Buffalo, New York and in Australia by CHSD.

FIM Development

Based on ICIDH (precursor of ICF) which classifies *consequence of disease (disability)*

Interaction of Concepts ICF 2001



Functional Independence Measure

18 items

– 13 form the FIM Motor sub-scale

- Eating
- Grooming
- Bathing
- Dressing Upper Body
- Dressing Lower Body
- Toileting
- Bladder Management
- Bowel Management
- Transfer - Bed/chair/wheelchair
- Transfer toilet
- Transfer tub/shower
- Walk/Wheelchair
- Stairs

– 5 form the FIM Cognition sub-scale

- Comprehension
- Expression
- Social interaction
- Problem solving
- Memory

Scoring the FIM

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NO HELPER

Score of 7 - Complete Independence

Score of 6 - Modified Independence

HELPER

Score of 5 - Supervision or setup

Score of 4 - Minimal assistance

Score of 3 - Moderate assistance

Score of 2 - Maximal assistance

Score of 1 - Total assistance

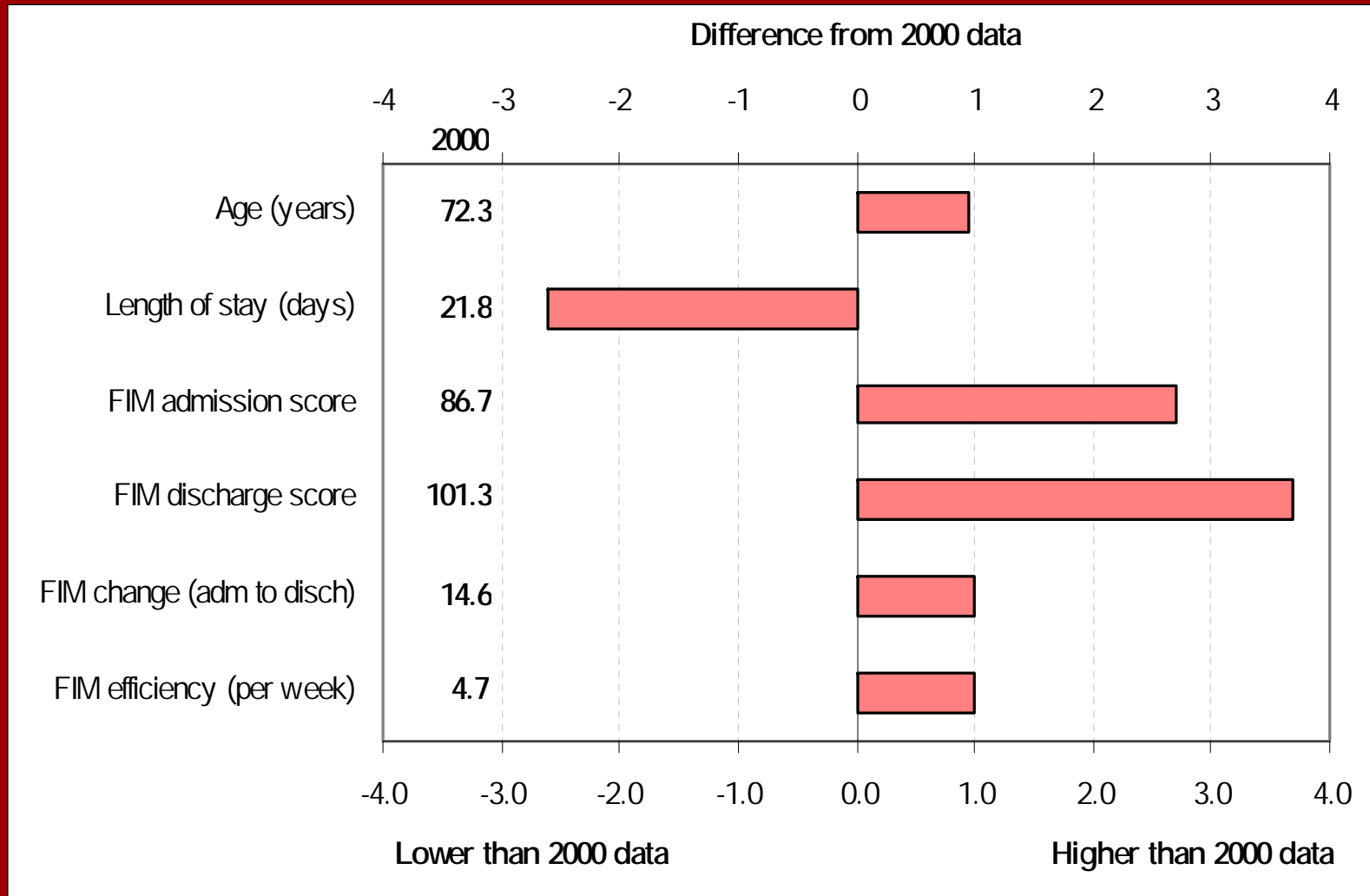
- Scored on entry to rehabilitation and prior to discharge
- Difference between scores = FIM change, which is a measure of the functional improvement achieved by the patient during their rehabilitation

Outcomes in Rehabilitation

- Outcomes in rehabilitation cannot be measured by any single measure. It is the combination of elements that tell the story
 - Admission FIM
 - FIM change
 - LOS
 - Discharge destination
 - Age and co-morbidities also add context.
- Rehabilitation episodes are categorised by the AROC impairment code
- Episodes can also be categorised by AN-SNAP class, the sub-acute sector's version of casemix

Overall Rehabilitation Outcomes Summary - change in measures 2000-2006

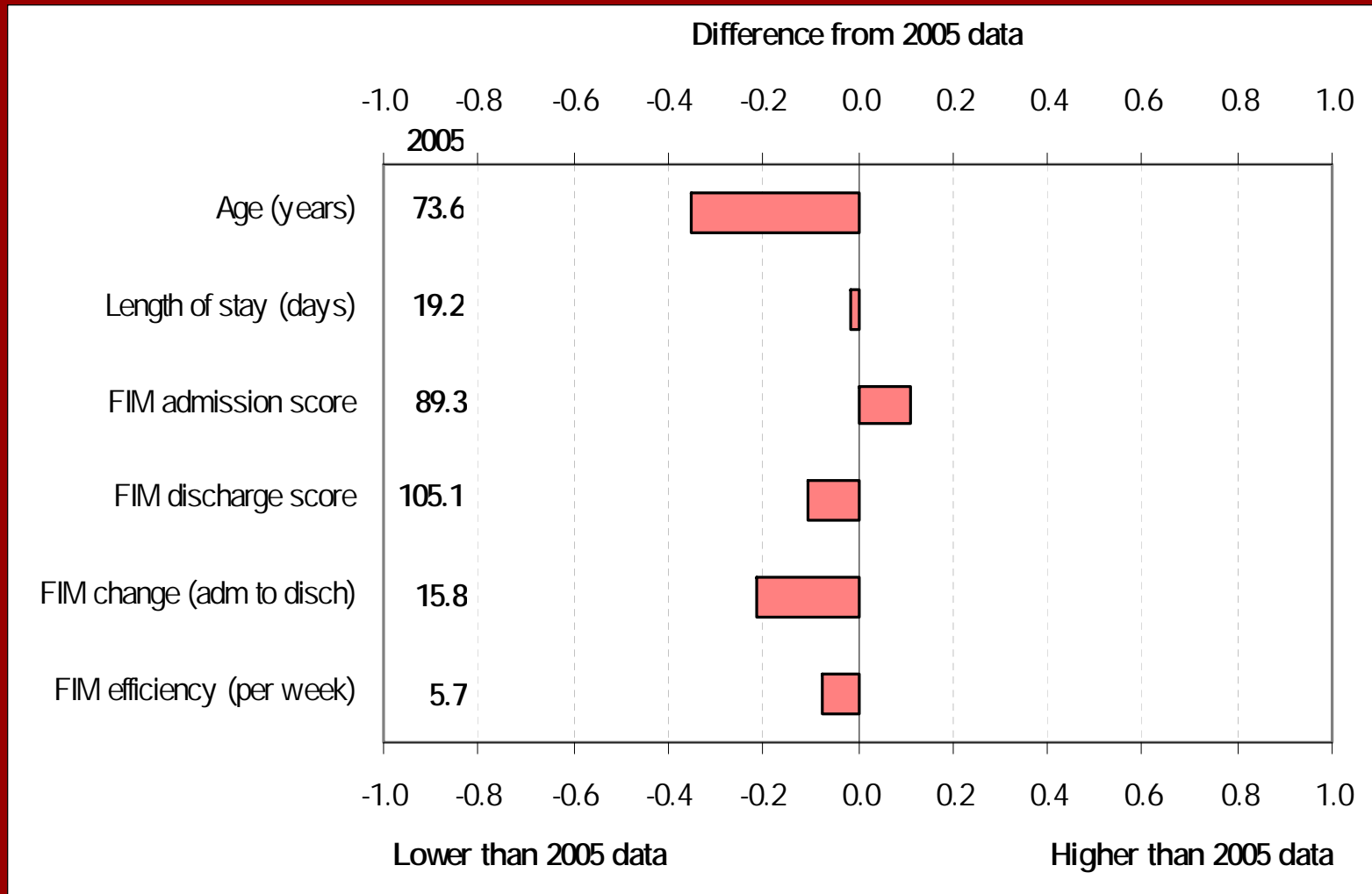
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Overall Rehabilitation Outcomes

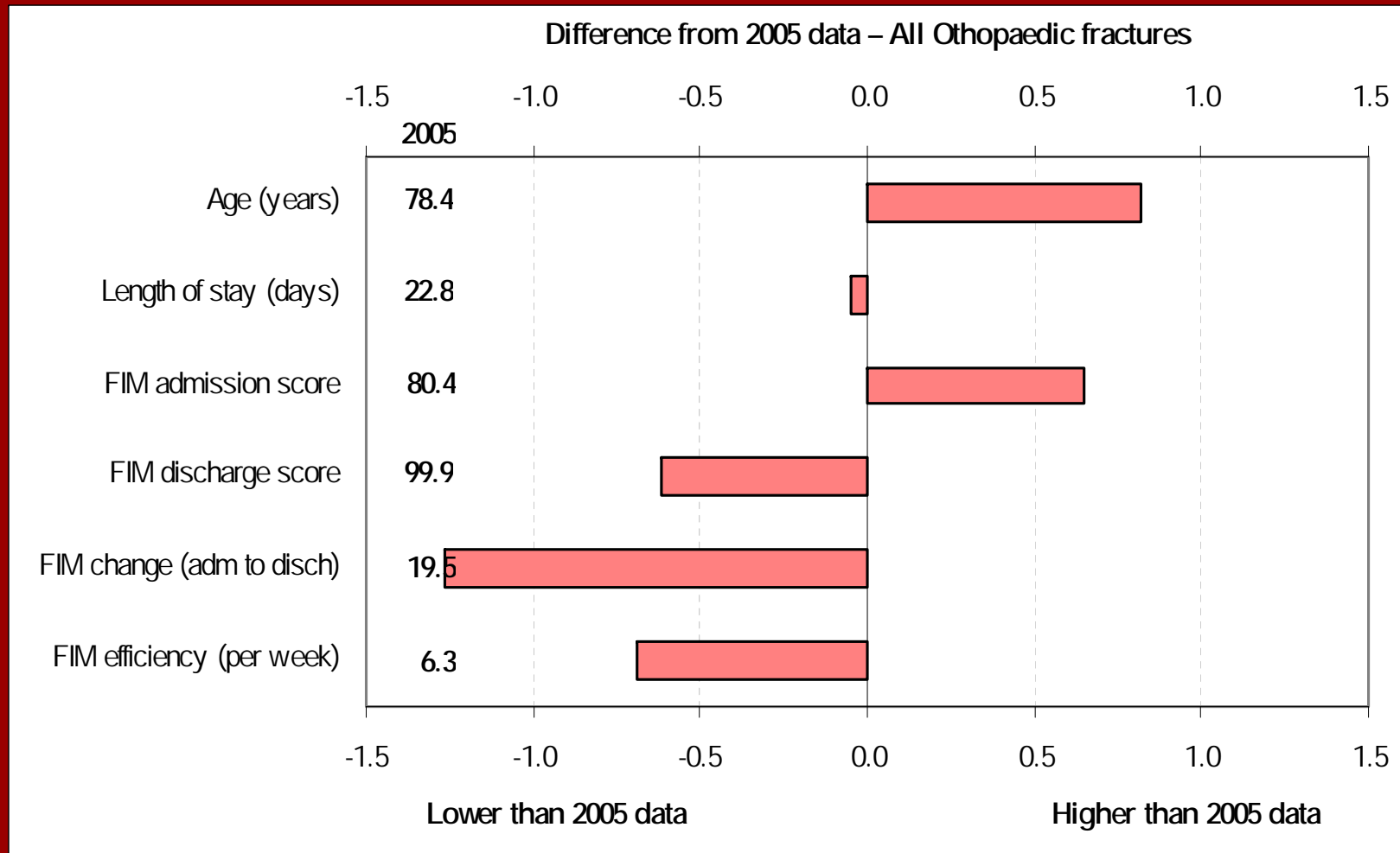
Summary - change in measures 2005-2006

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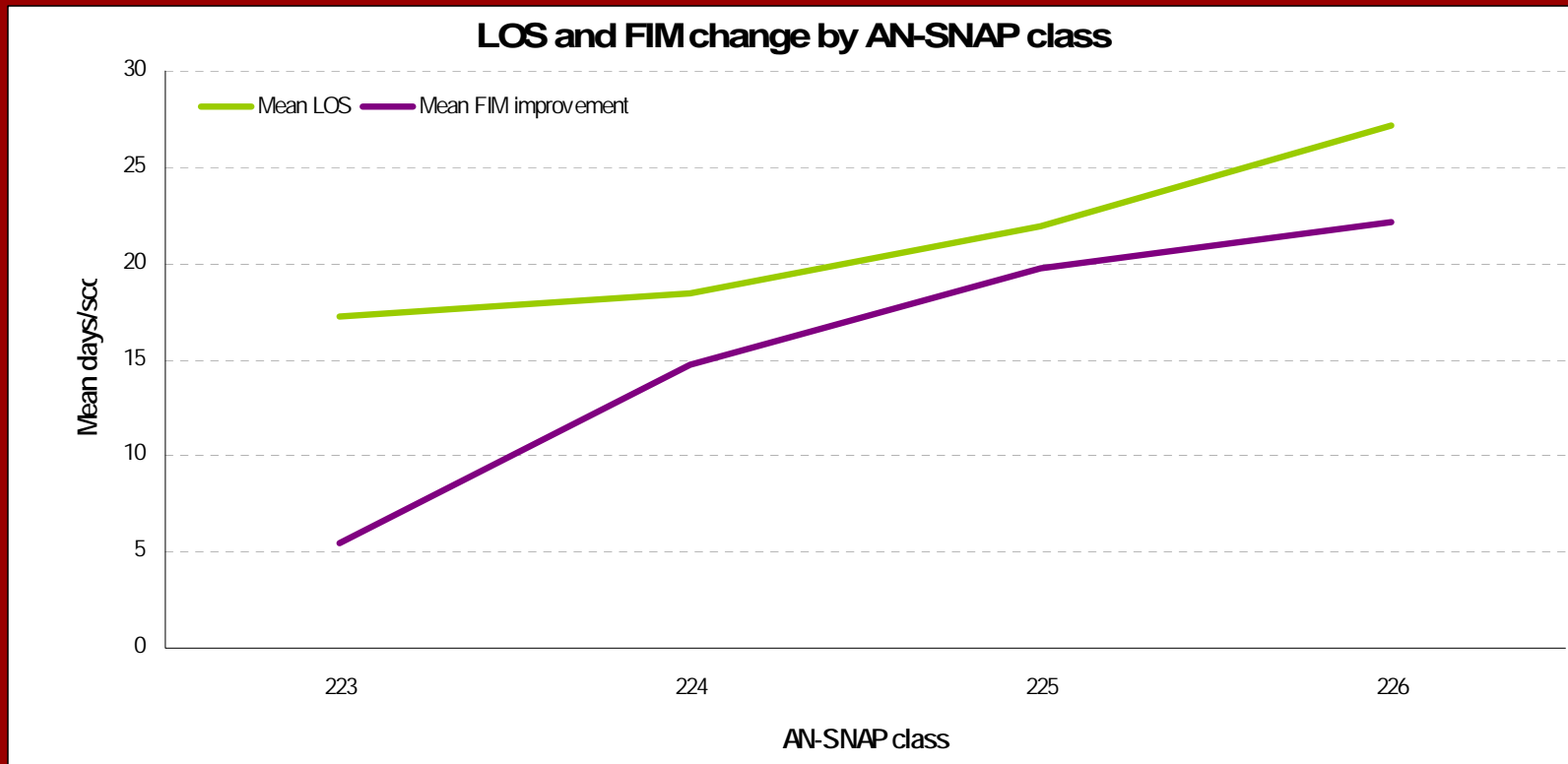
Orthopaedic Fractures Rehabilitation Outcomes Summary - change in measures 2005-2006

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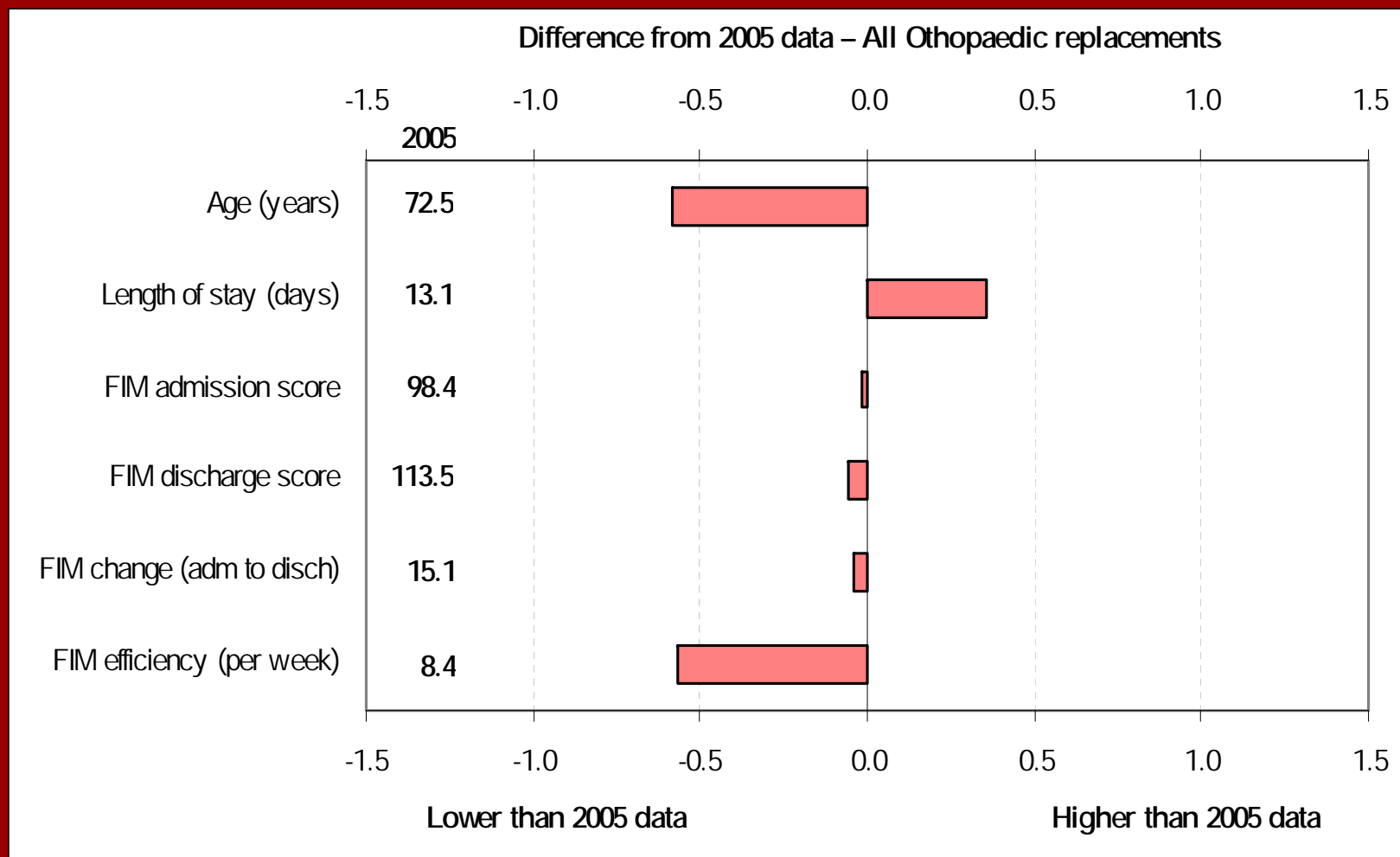
Orthopaedic Fractures

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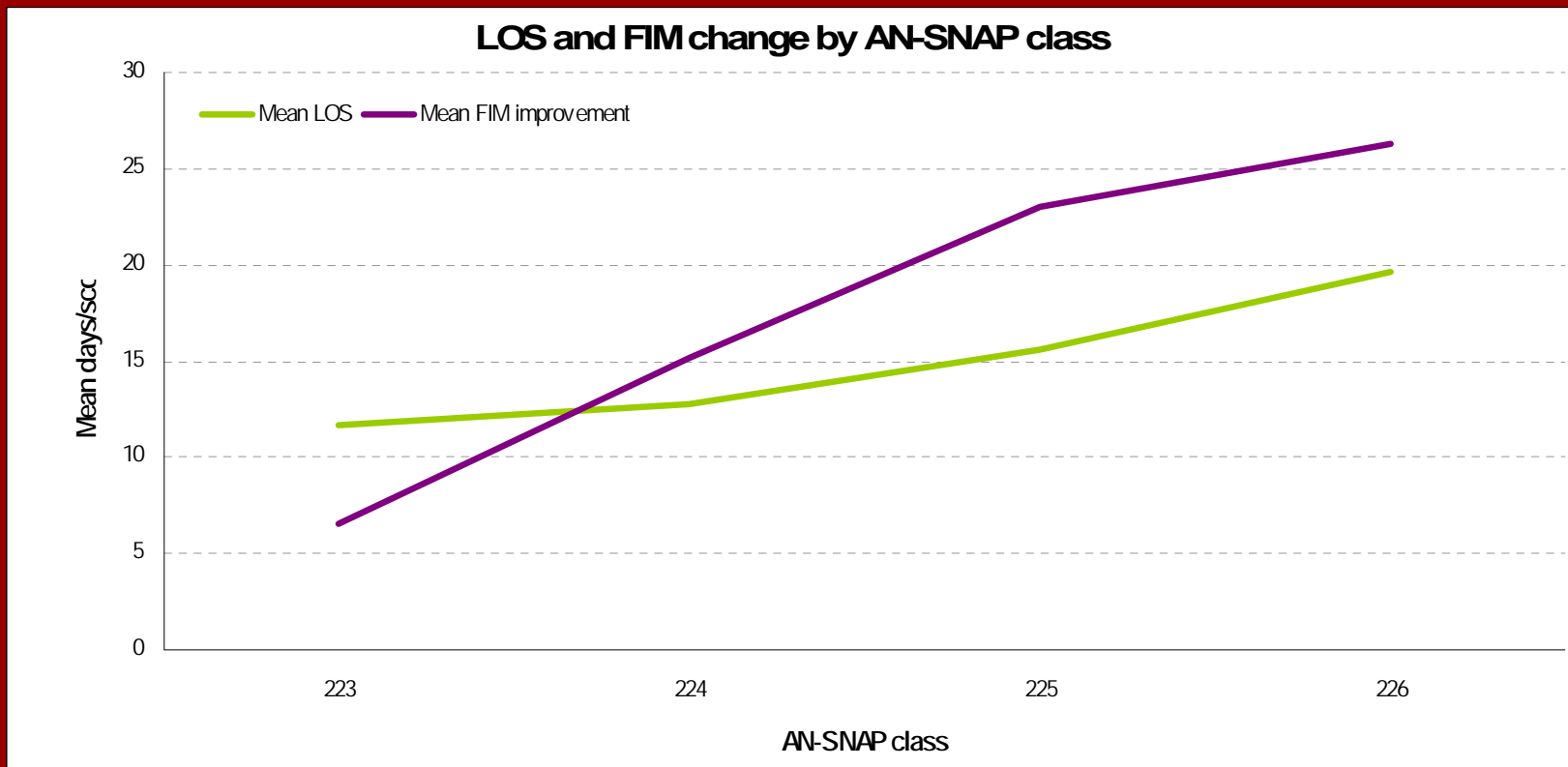
% Female	64.5%	73.6%	75.8%	73.0%
Mean Age	73.3	77.1	79.3	81.8

Orthopaedic Joint Replacements Rehabilitation Outcomes Summary - change in measures 2005-2006



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Orthopaedic Joint Replacements



% Female

58.3%

68.0%

69.1%

69.1%

Mean Age

68.0

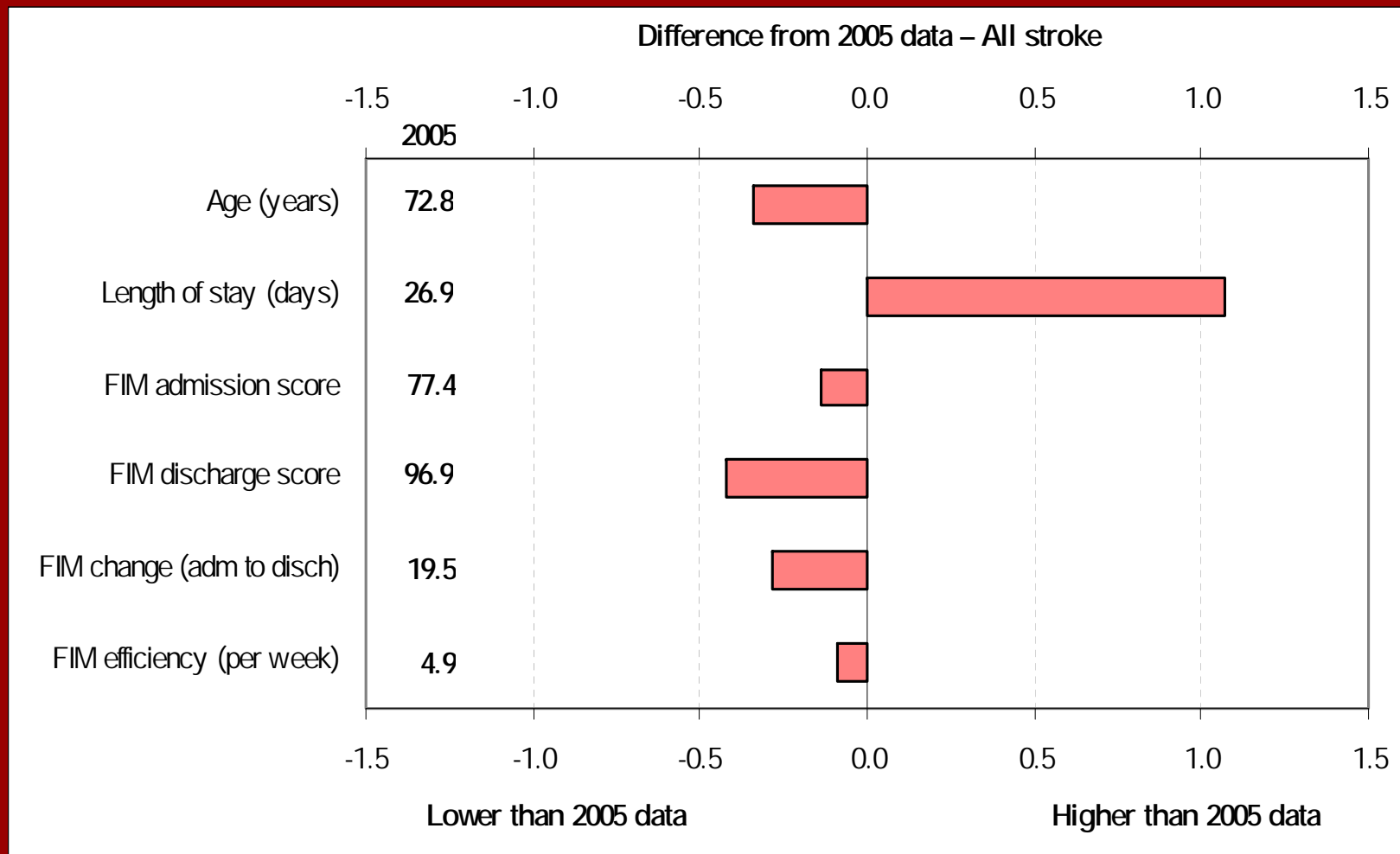
72.5

76.1

78.5

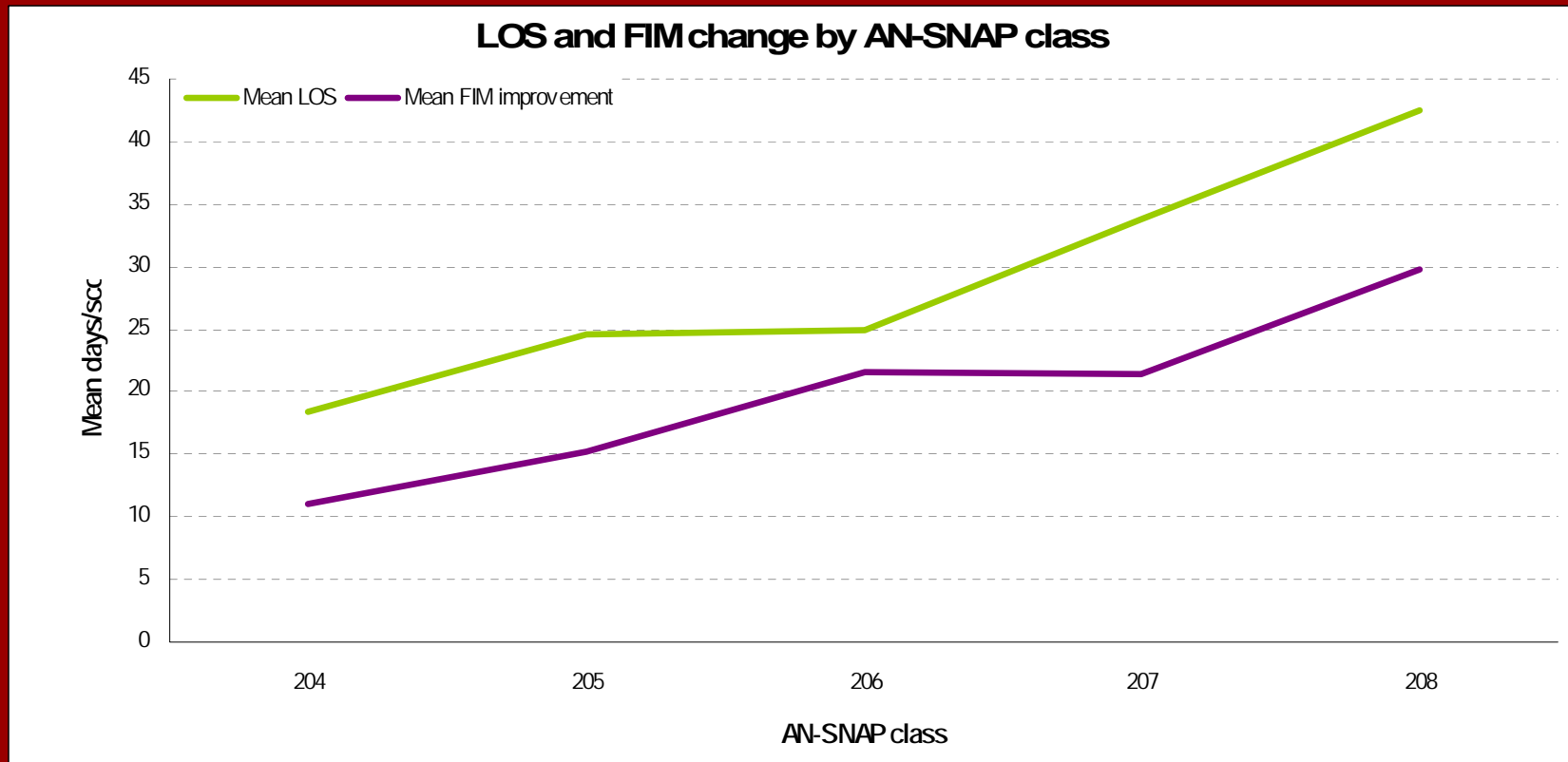
Stroke Rehabilitation Outcomes

Summary - change in measures 2005-2006



Stroke

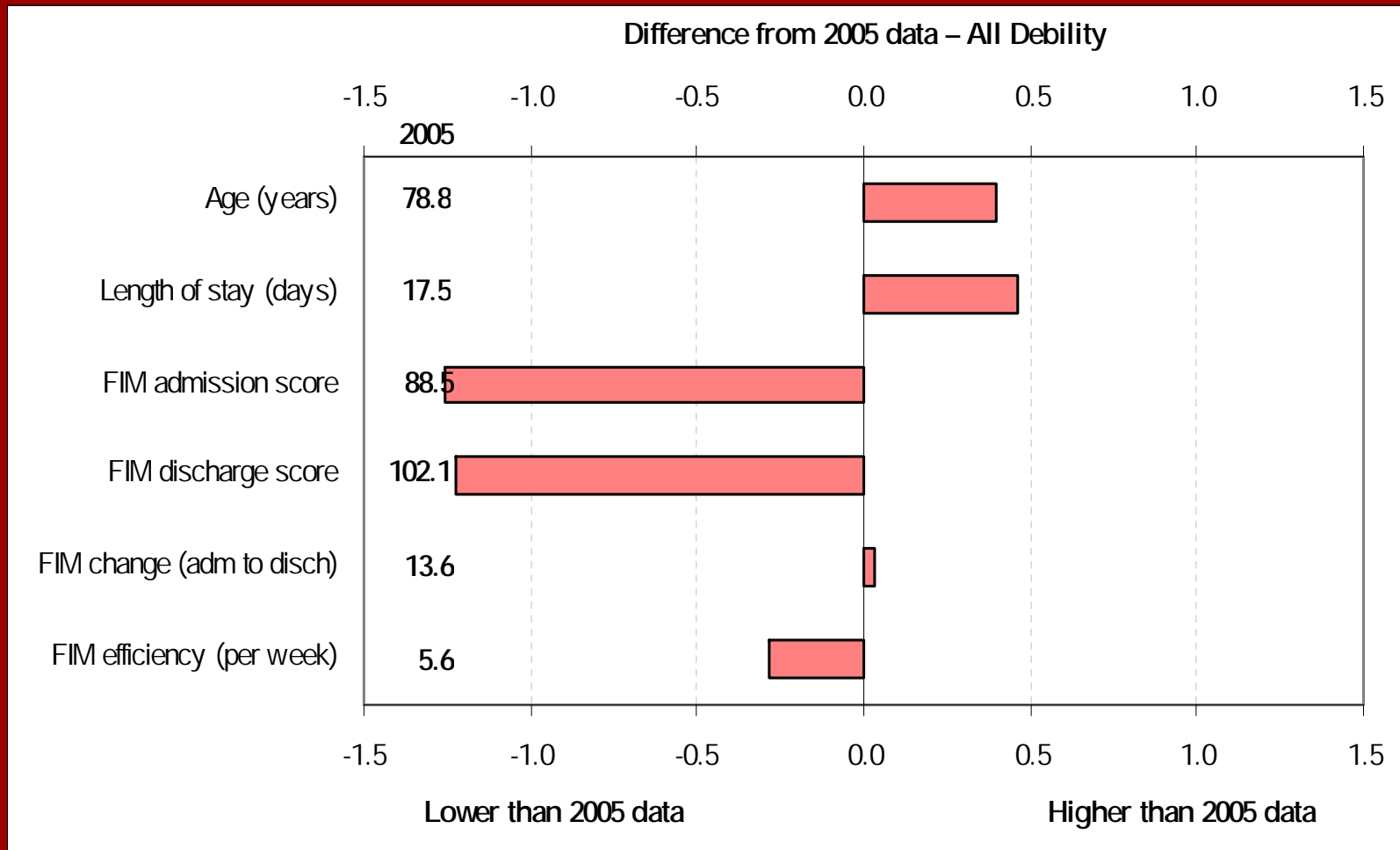
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% Female	47.7%	47.3%	49.2%	54.9%	38.0%
Mean Age	71.0	69.0	75.3	82.8	61.2

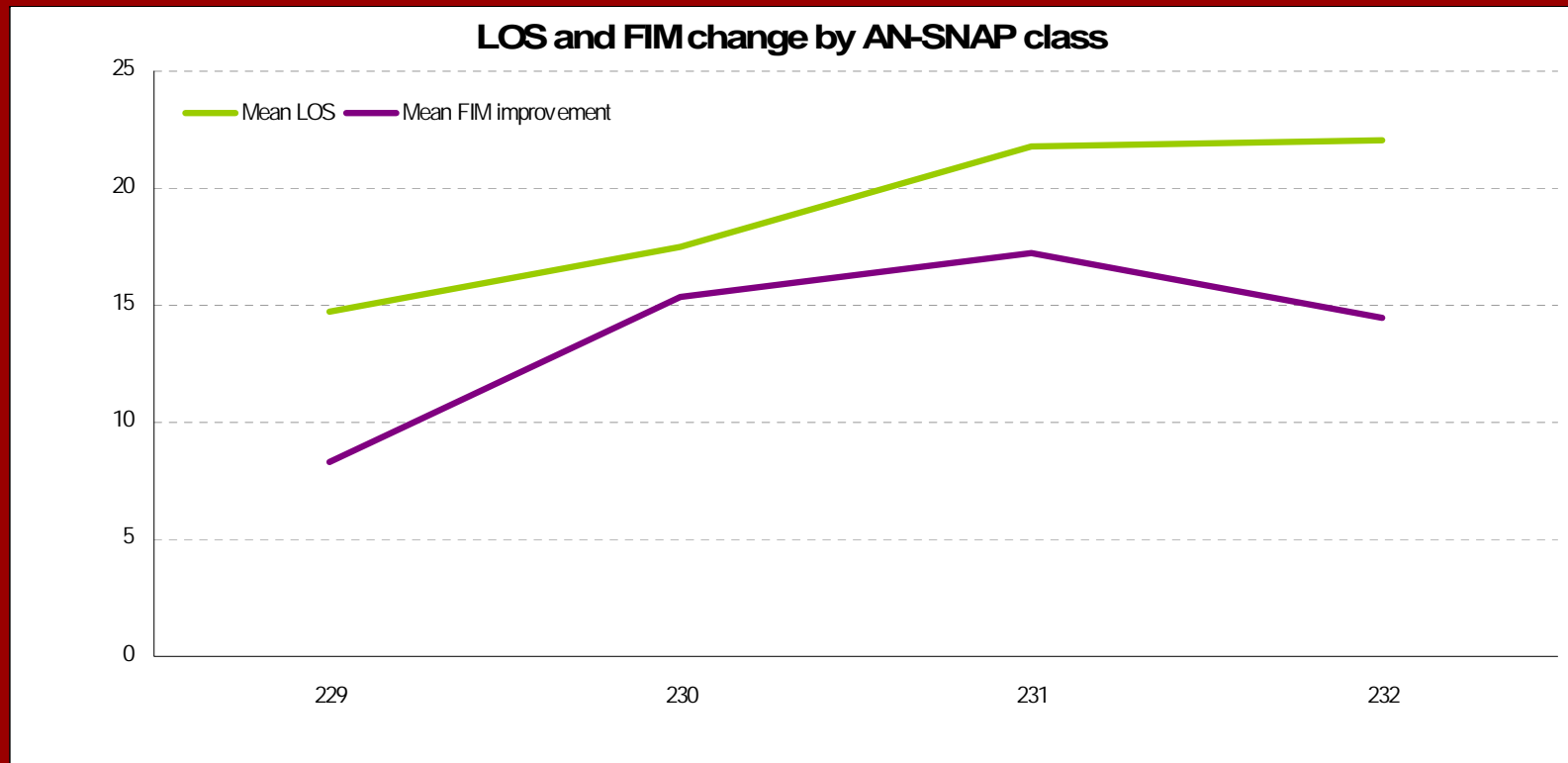
Reconditioning Rehabilitation Outcomes Summary - change in measures 2005-2006

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Reconditioning

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% Female	60.8%	63.1%	58.6%	45.3%
Mean Age	76.4	80.6	80.9	80.9

Impairment Specific Benchmarking Workshops

- Aim - development and quality improvement of outcomes of specific impairments
- Provide a useful guide for services to evaluate their performance in relation to other service providers
- First workshop focused on #NOF
- Second workshop – stroke
- Next workshop – mid year

#NOF Benchmarking Workshop

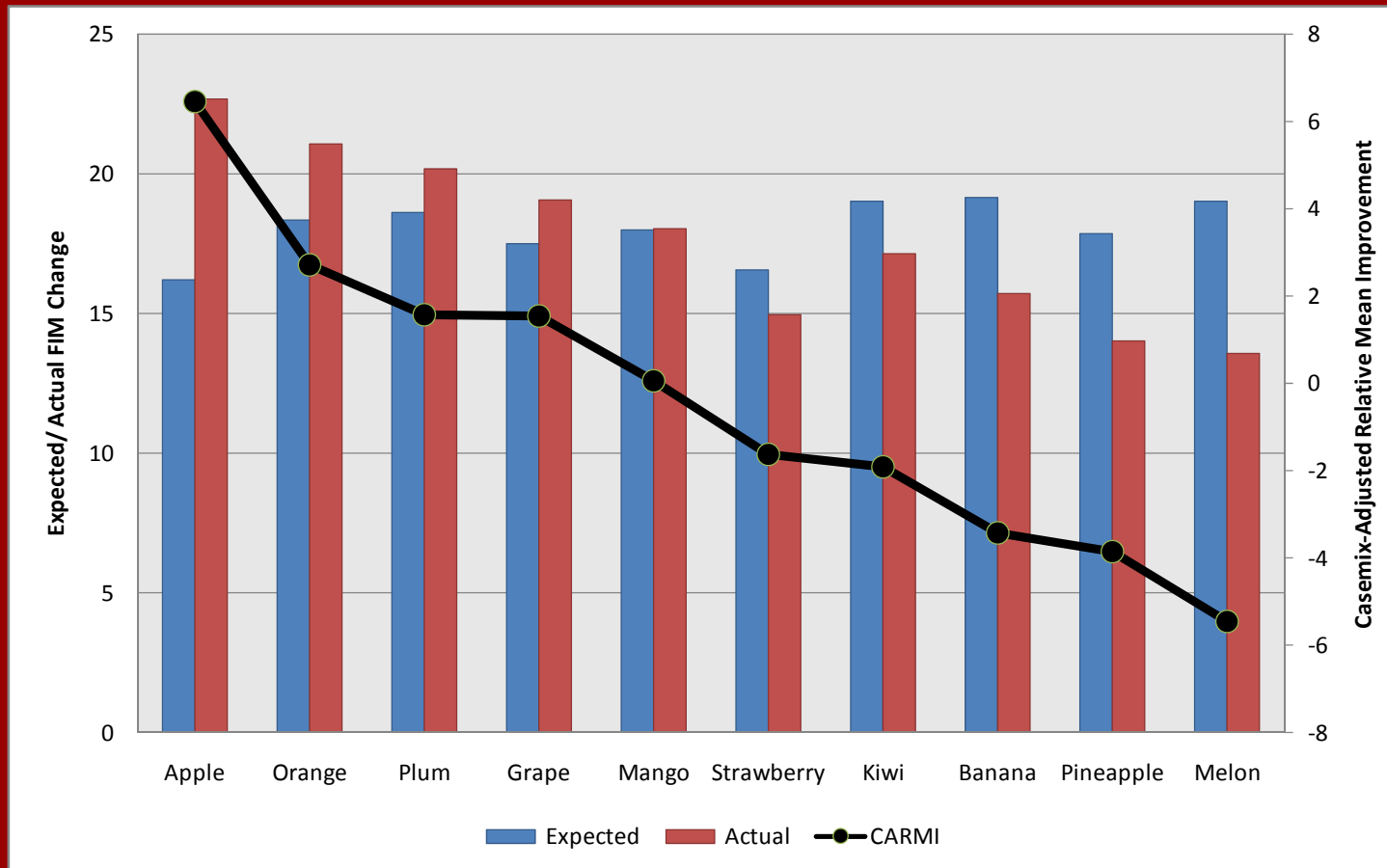
- Hosted in Sydney, October 2007
- Unilateral hip fracture
- 6.6% of all rehabilitation episodes
- Representatives from facilities in both sectors, all states
- Pre-information pack containing analysis of #NOF data, by facility, de-identified
- Pre-workshop survey, process focused

Data Analysis

- National and Sector for 2004, 2005, 2006
 - Average length of stay (ALOS)
 - Average FIM score change
 - FIM efficiency
 - Discharge destination
- Facility level for 2006
 - In-depth analysis using casemix-adjusted relative mean improvement (CARMI)
 - De-identified

Average FIM Score Change - CARMI

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Workshop Activity

- Presentation from expert – summarising latest thinking on #NOF outcomes
- Reviewed results of analysis
- Information exchange, networking
- Identified process issues impacting outcome
- Drafted target outcomes
- Required some additional analysis, results of which discussed via email and follow up teleconference

Outcome of Workshop

- Draft targets for:
 - Time since surgery to admission to rehabilitation (days)
 - Average length of stay
 - Average FIM score change
 - Discharge Destination to pre-impairment form of accommodation or better
- Set at National level by v2 AN-SNAP class

Process of Finalisation

- Presented to AROC Scientific and Clinical Advisory Committee
- Circulation to all providers of #NOF rehabilitation for input and feedback
- Wider circulation to broader stakeholder group
- Finalisation and publication of targets
- AROC benchmarking reports to include specific reports against targets

AROC – Projects and Products

- Expansion to include New Zealand units
- Implementation of AROC ambulatory dataset, commencing this year
- Annual State of Rehabilitation Nation reports
- FIM Credentialing Audit
- WeeFIM

- Impairment specific benchmarking workshops
- Process and outcome improvement workshops for individual facilities
- Ad hoc reports, as commissioned

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