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Outcomes of rehabilitation for reconditioning: falls, frailty, care service requirements - what does the national data tell us?

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Outcomes of rehabilitation for reconditioning: falls, frailty, care service requirements - what does the national data tell us?

Abstract

Presentation Outline

- What is AROC?
- AROC data collection
- AROC reconditioning impairment specific data:
- Question -> does the data show any association between level of frailty, falls or weight loss and outcomes (LOS, function, services required)?

Keywords

aroc, frailty, care, service, outcomes, requirements, tell, rehabilitation, reconditioning, does, falls, national, data, us

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5 March 2015

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Presentation Outline

- What is AROC?
- AROC data collection
- AROC reconditioning impairment specific data:
- Question -> does the data show any association between level of frailty, falls or weight loss and outcomes (LOS, function, services required)?

What is AROC?

Australasian **R**ehabilitation **O**utcomes **C**entre

- National rehabilitation clinical registry
 - Established 2002
 - Australian and New Zealand
- Almost 100% coverage inpatient rehab units (219 units in Aus, 41 in NZ)
- Receives data describing more than 100,000 episodes of rehab per year
- Database now holds nearly 1 million records – a rich source of data

What does AROC do?

- Established and manages national benchmarking system whose objective is to improve clinical rehabilitation outcomes for patients
- Produces information on the efficacy of interventions through the systematic collection of outcomes information in both the inpatient and ambulatory settings
- Provides annual reports that summarise the Australasian data

AROC Dataset

- De-identified dataset ... part of routine clinical data collection
- Core data items:
 - Demographic items eg age, gender
 - Process items
 - Outcomes eg LOS, FIM, discharge destination
- Impairment specific data items

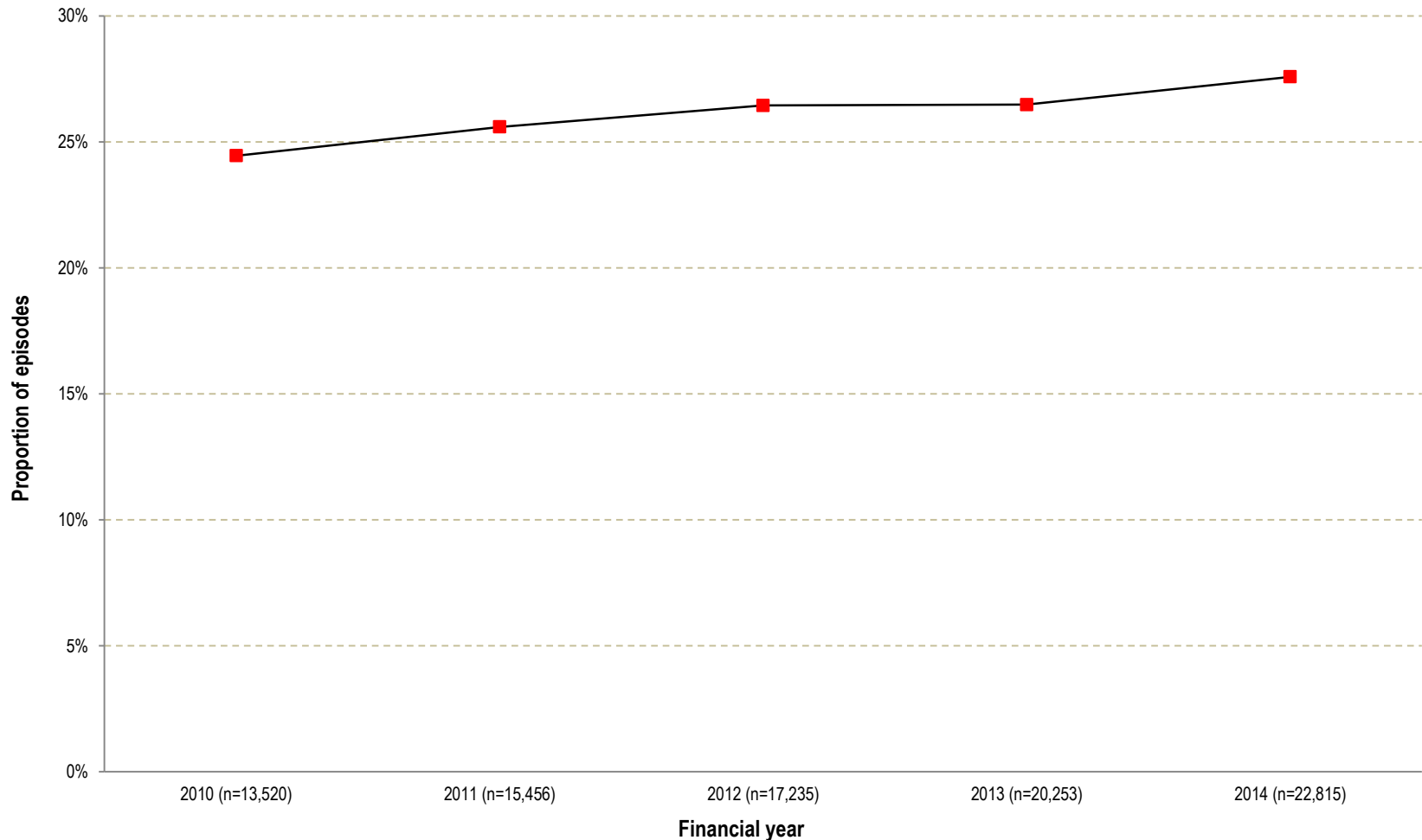
Reconditioning specific data items

- Rockwood Frailty Score (pre-morbid)
- Ability to participate in therapy from Day 1?
- Fallen in past 12 months?
- Lost > 10% of body weight in past 12 months?

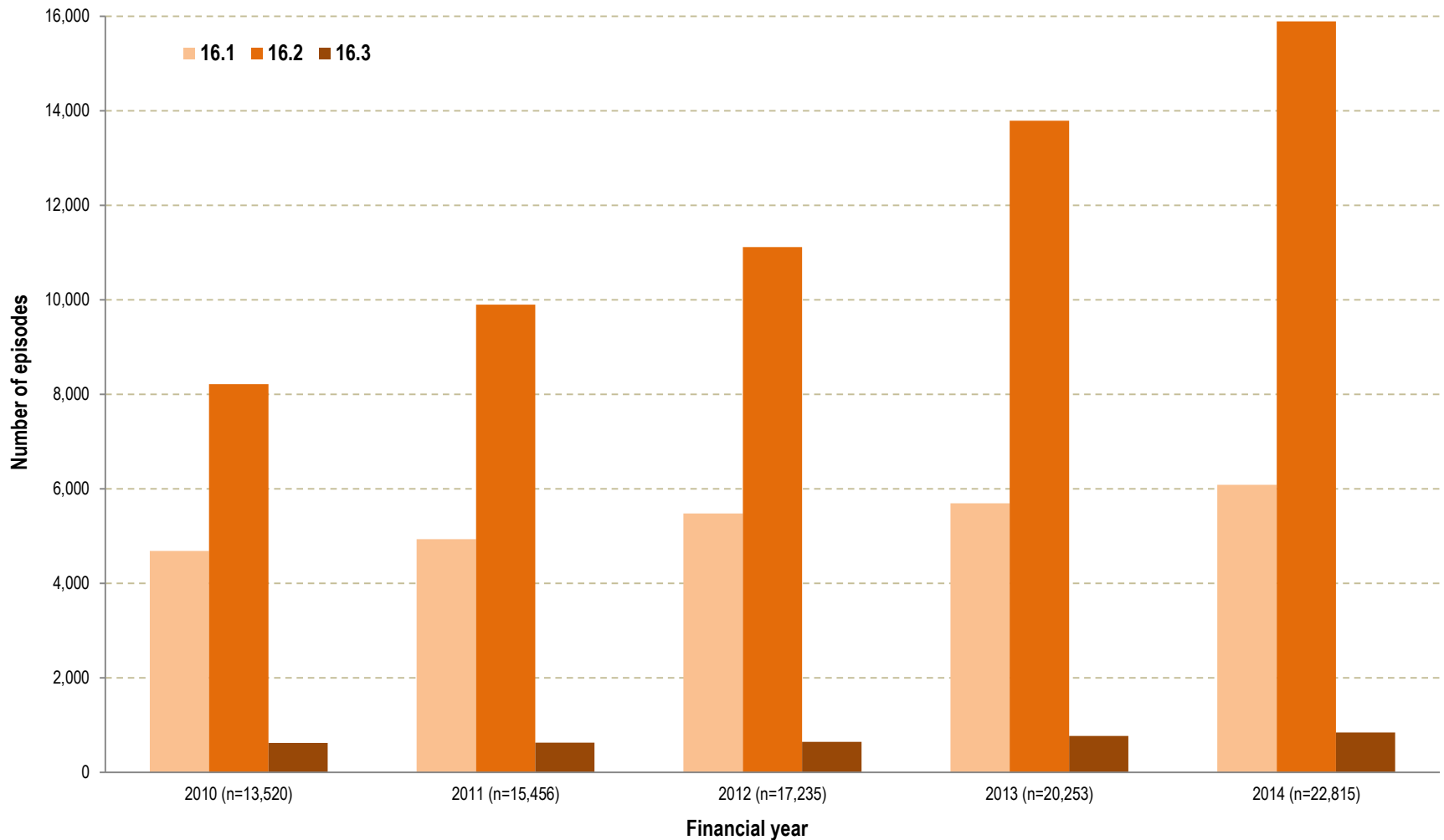
Data

- Financial Year 2013/2014 (AUS)
- All reconditioning episodes, age 65+
- AROC reconditioning codes:
 - 16.1 Reconditioning following surgery
 - 16.2 Reconditioning following medical illness
 - 16.3 Cancer rehabilitation

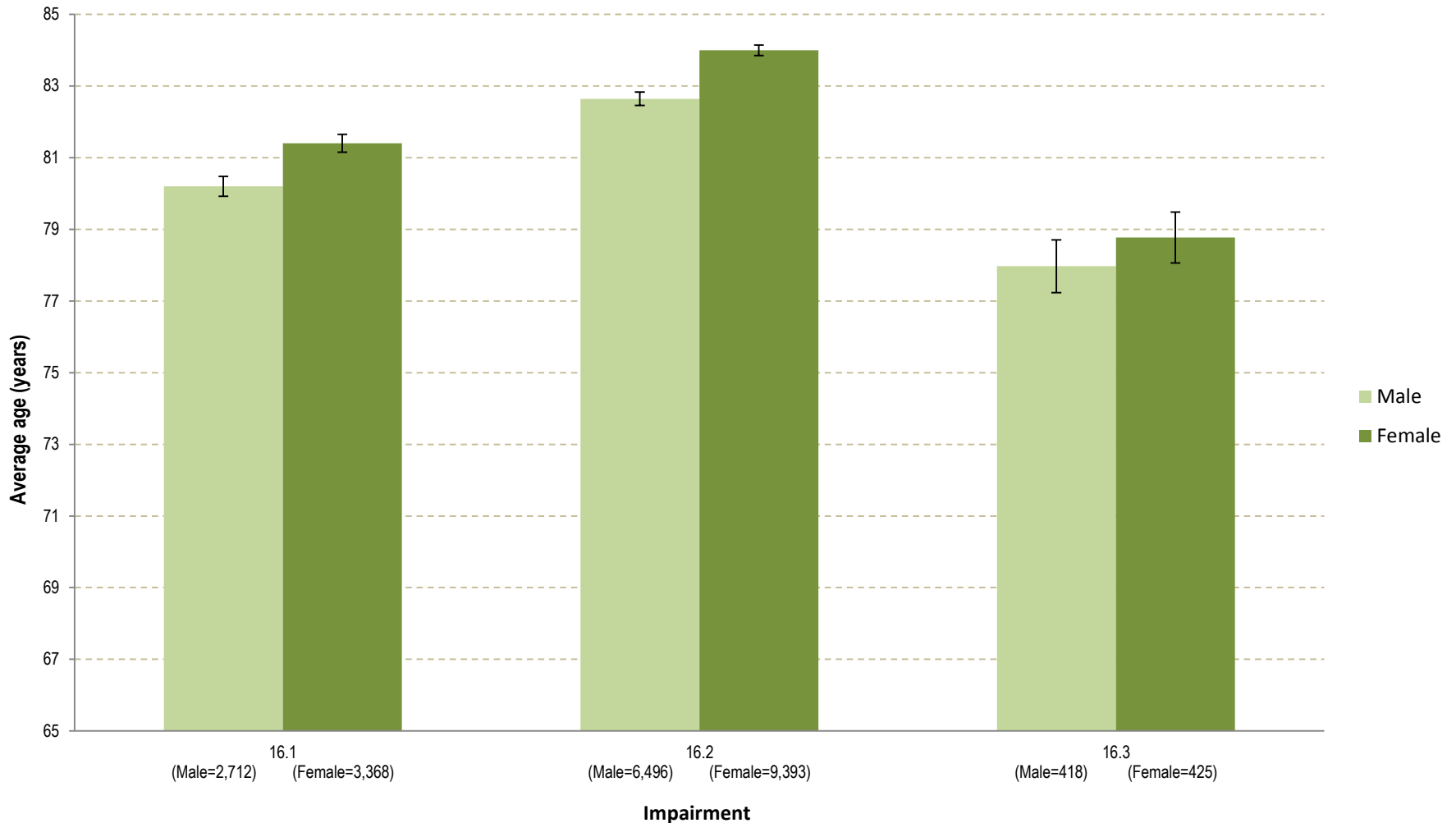
Reconditioning: proportion of AROC episodes FY2010-2014



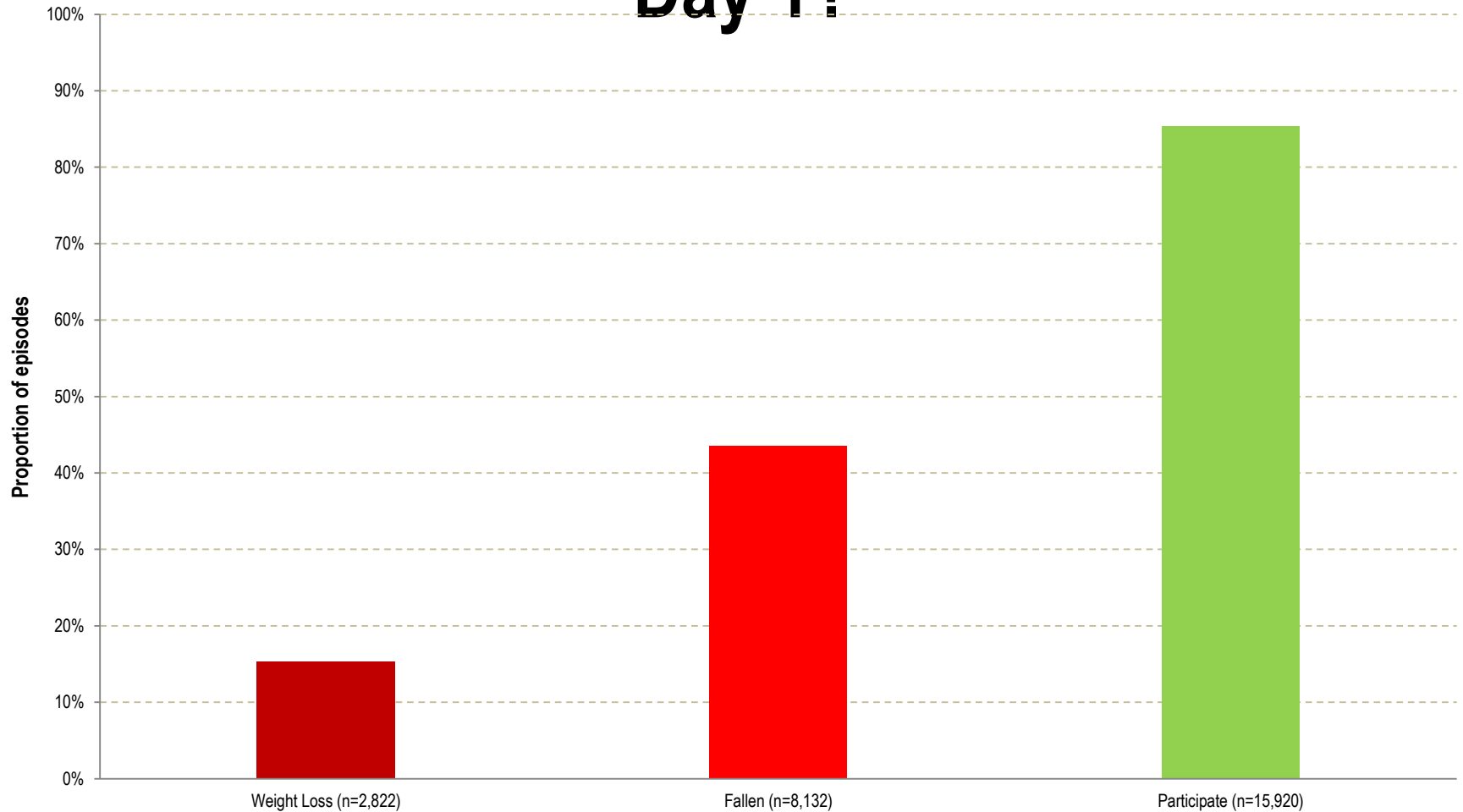
Reconditioning episodes by code: FY2010-2014



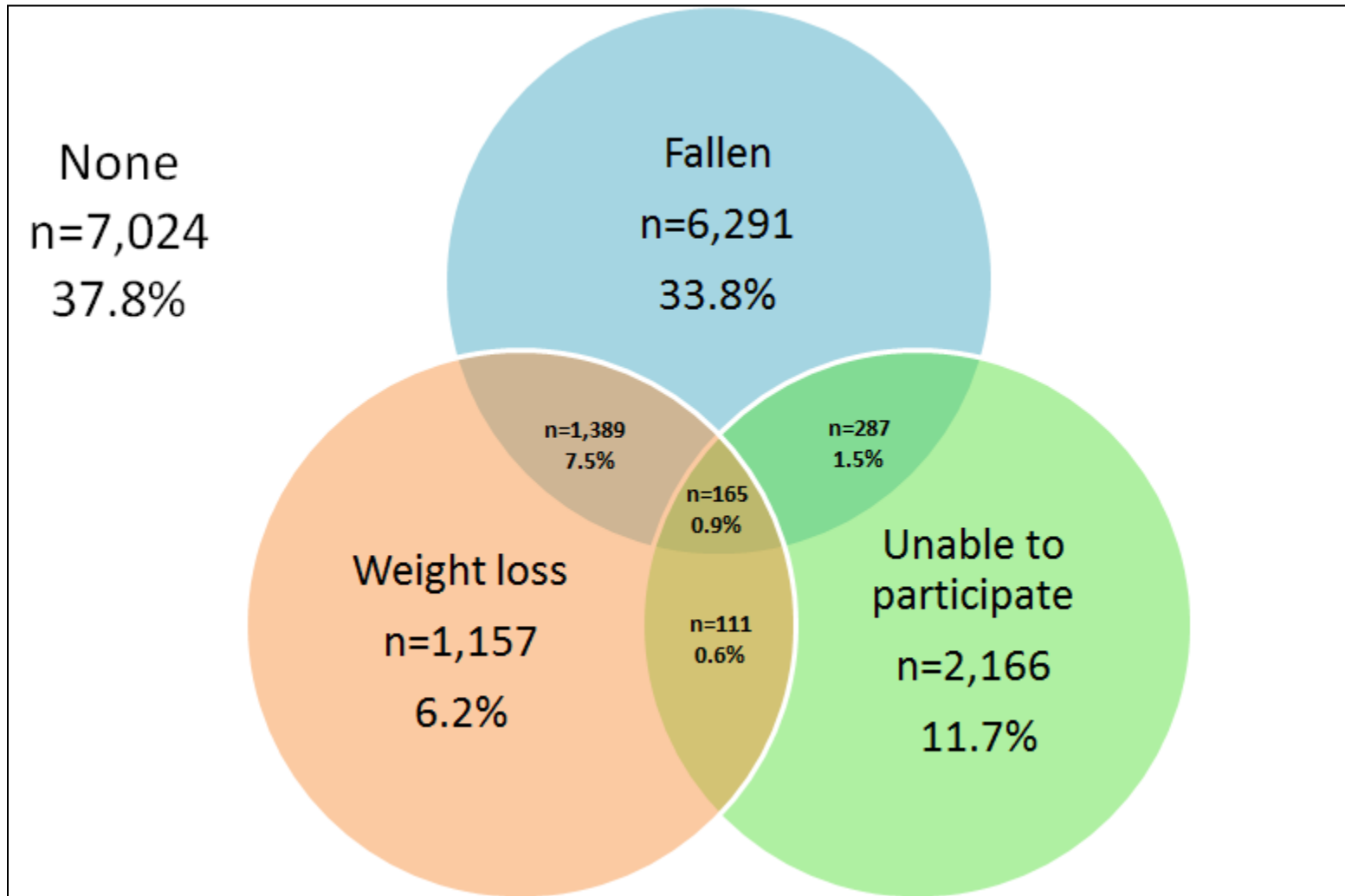
Average age by gender and impairment code FY2104



Weight loss, falls, ability to participate from Day 1?



Weight loss, falls, unable to participate



The CSHA Clinical Frailty Scale



1 Very Fit – robust, active, energetic, well motivated and fit; these people commonly exercise regularly and are in the most fit group for their age



2 Well – without active disease, but less fit than people in category 1



3 Well, with treated comorbid disease – disease symptoms are well controlled compared with those in category 4



4 Apparently vulnerable – although not frankly dependent, these people commonly complain of being “slowed up” or have disease symptoms



5 Mildly frail – with limited dependence on others for instrumental activities of daily living



6 Moderately frail – help is needed with both instrumental and non-instrumental activities of daily living

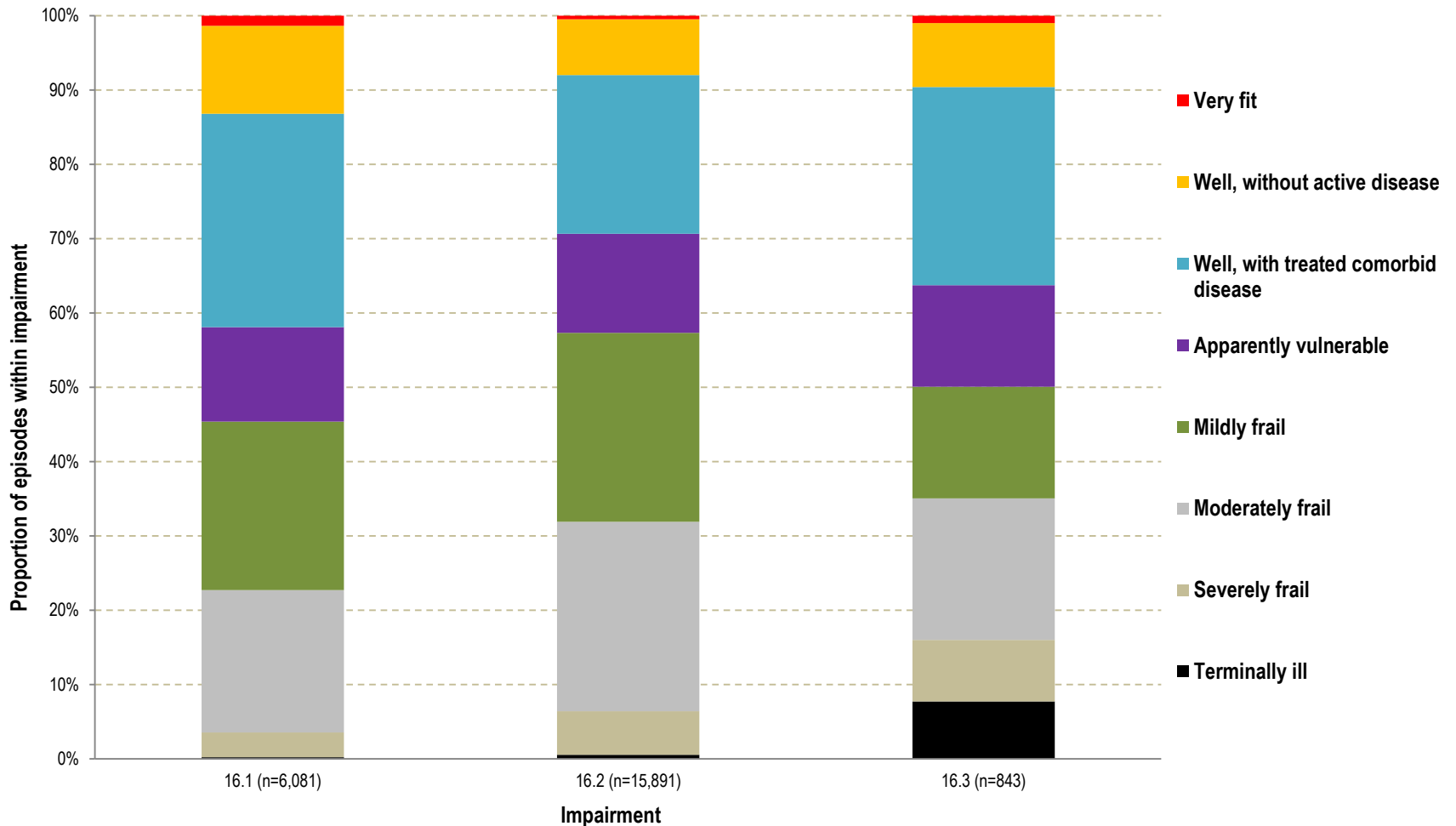


7 Severely frail – completely dependent on others for the activities of daily living

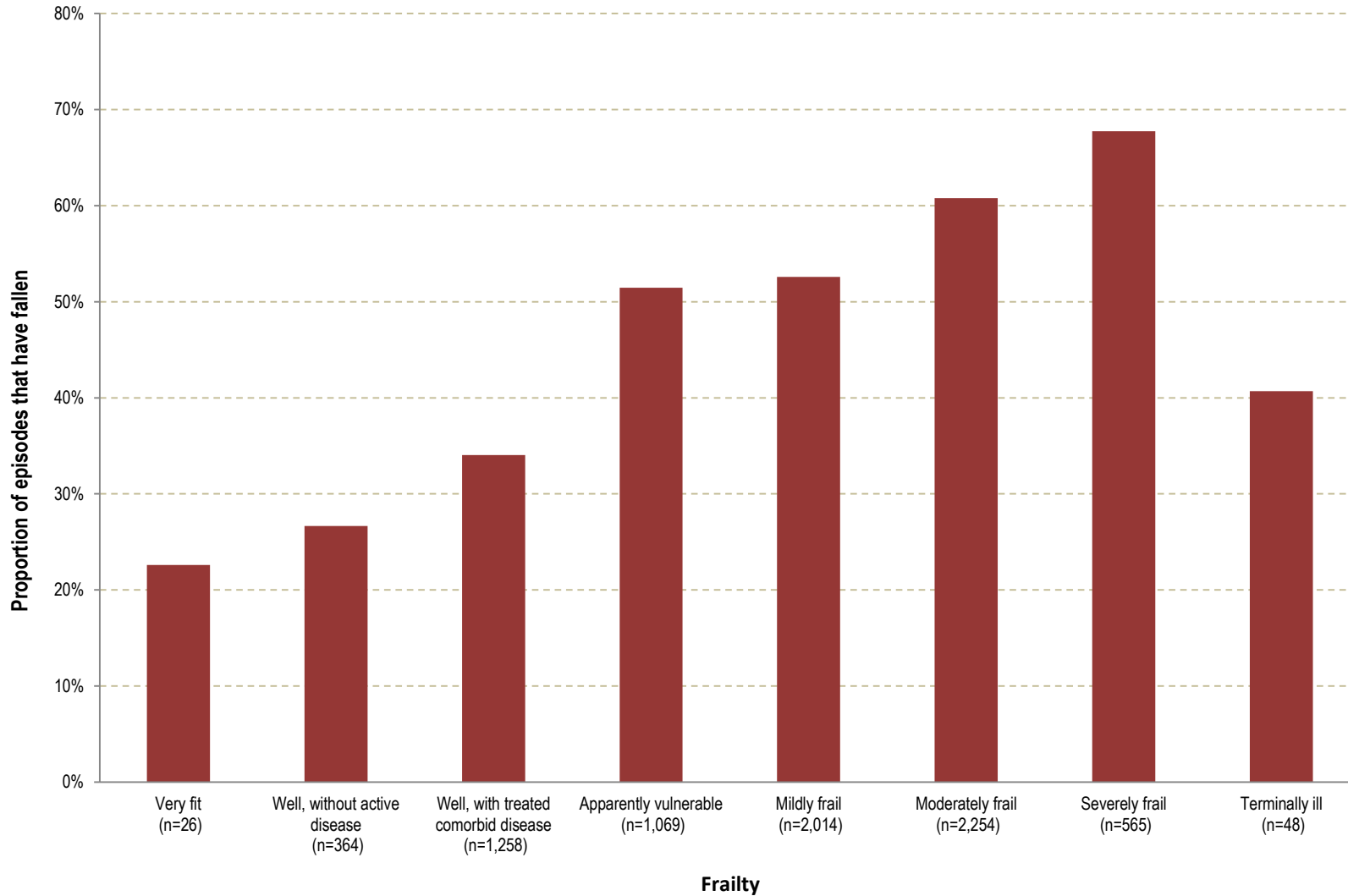
8 Terminally ill

Note: 1. Canadian Study on Health and Aging
2. K Rockwood et al. A global clinical measure of fitness and frailty in elderly people. CMAJ 2005;173:489-495.

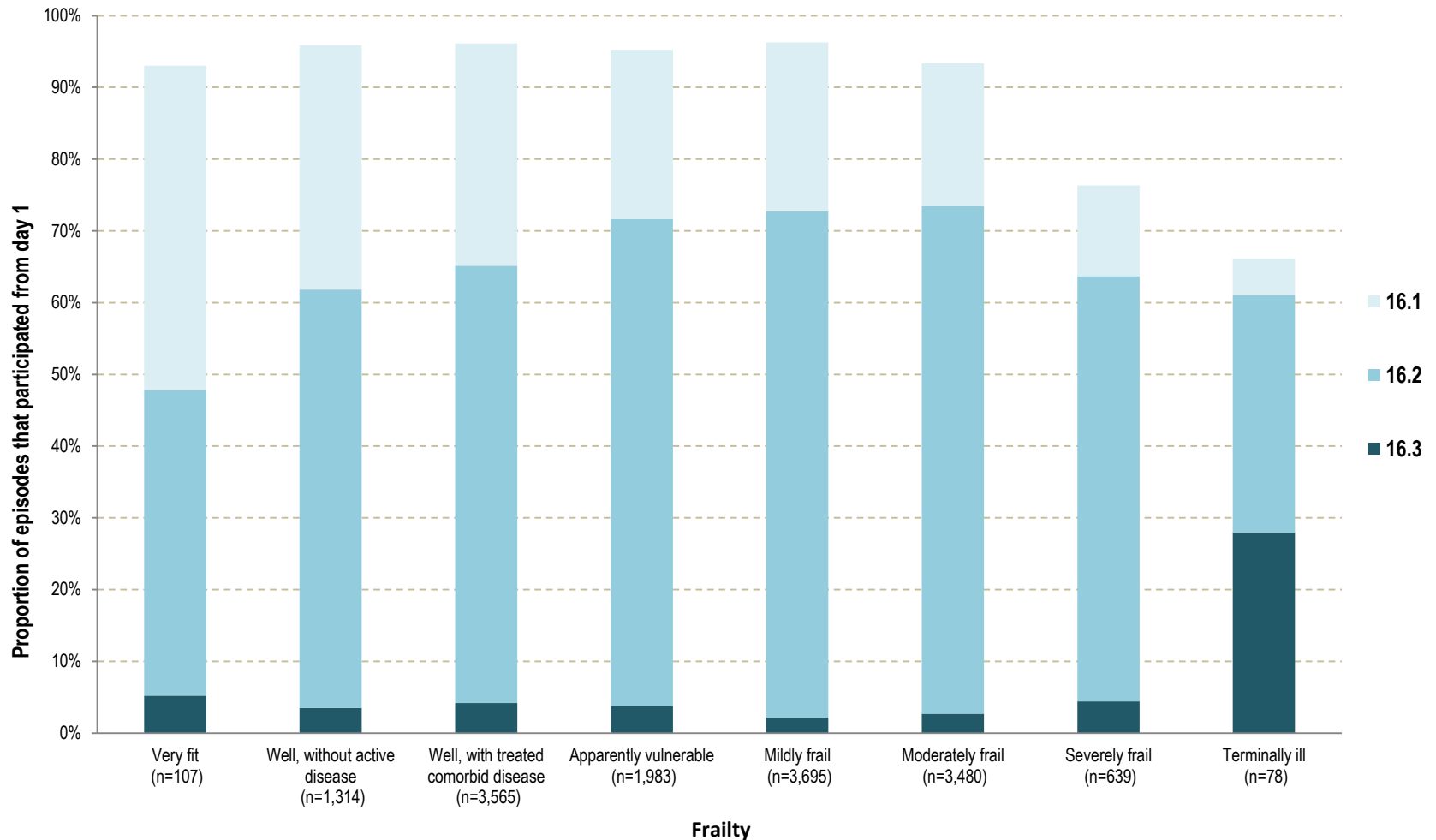
Impairment code by frailty



Falls by frailty



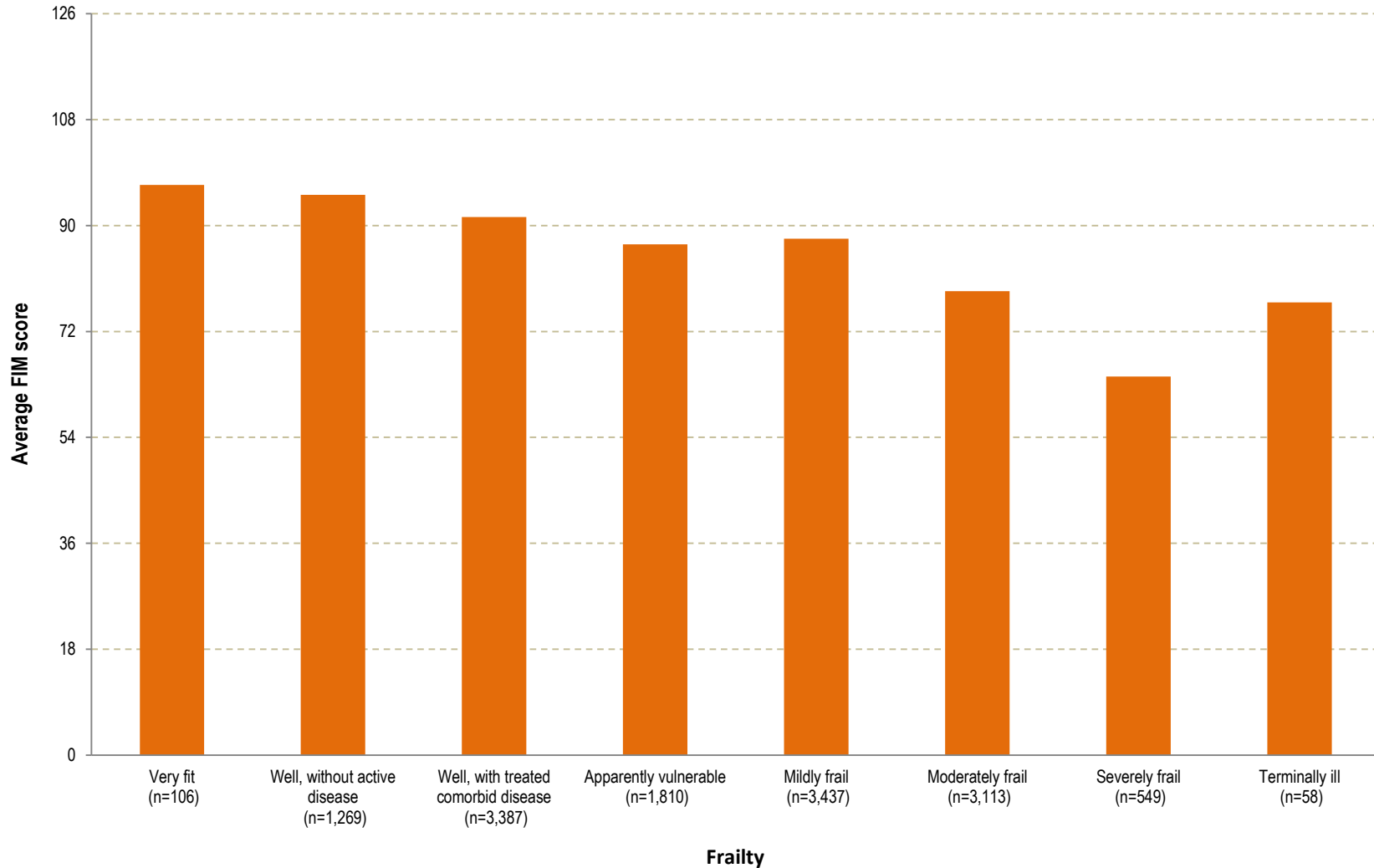
Able to participate from Day 1 by frailty and impairment code



AROC Dataset

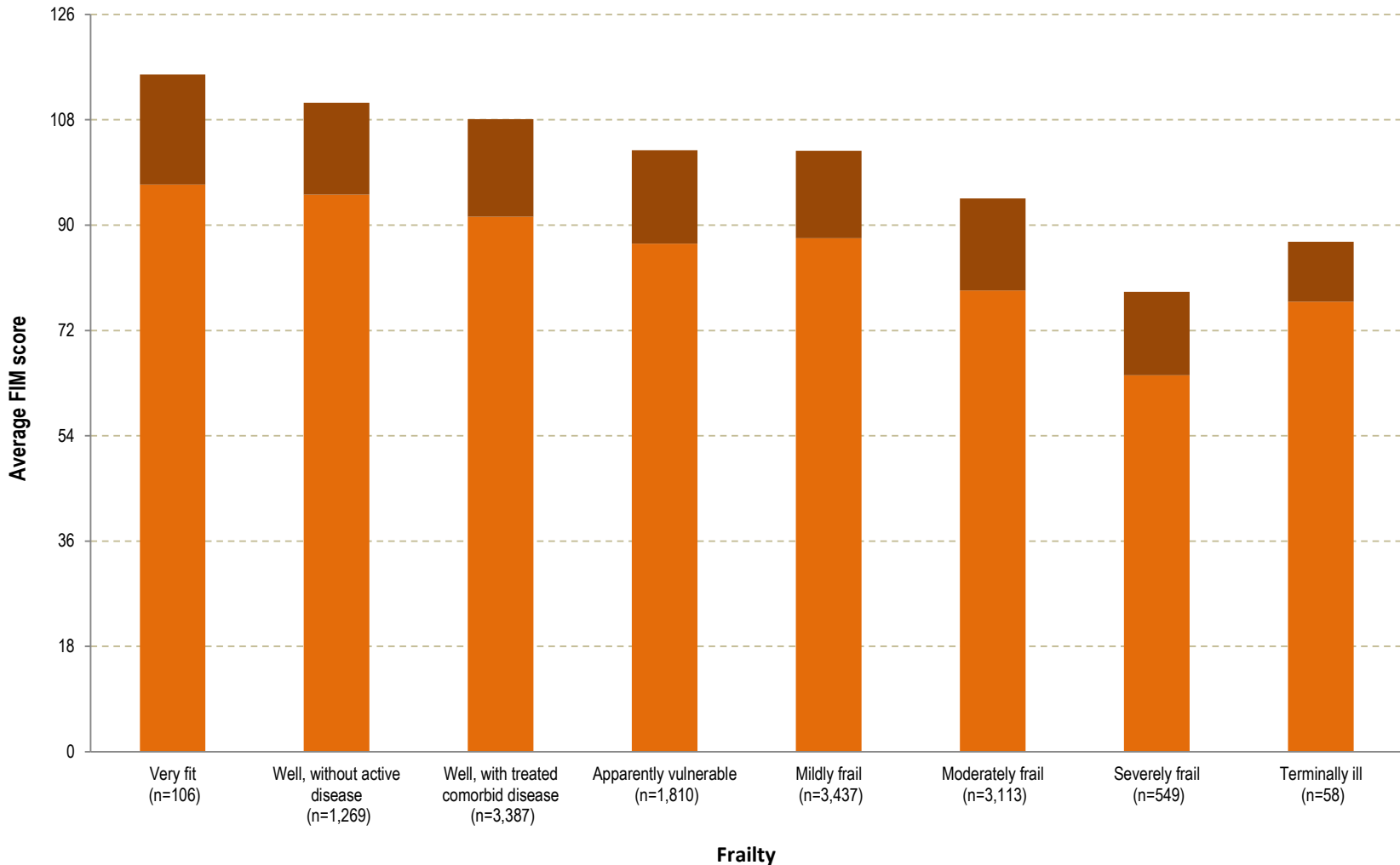
- Functional Independence Measure (FIM)
 - 18 items (minimum data set)
 - 13 physical and 5 cognitive items
 - Ordinal scale 1 – 7
 - 1 = Total Assistance
 - 7 = Total Independence
- Summed score of 18 - 126

Average admission FIM by frailty

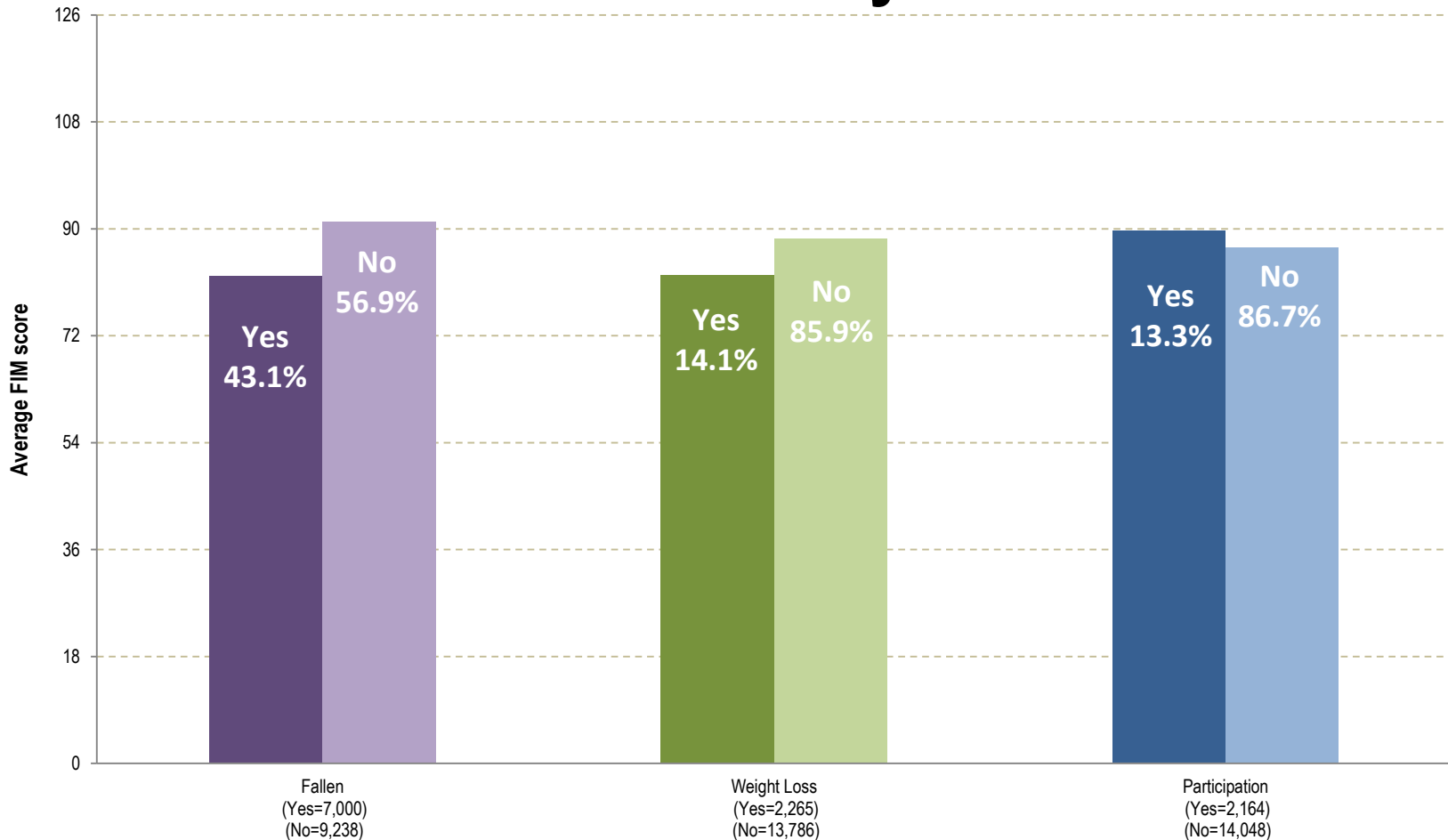


Average discharge FIM by frailty

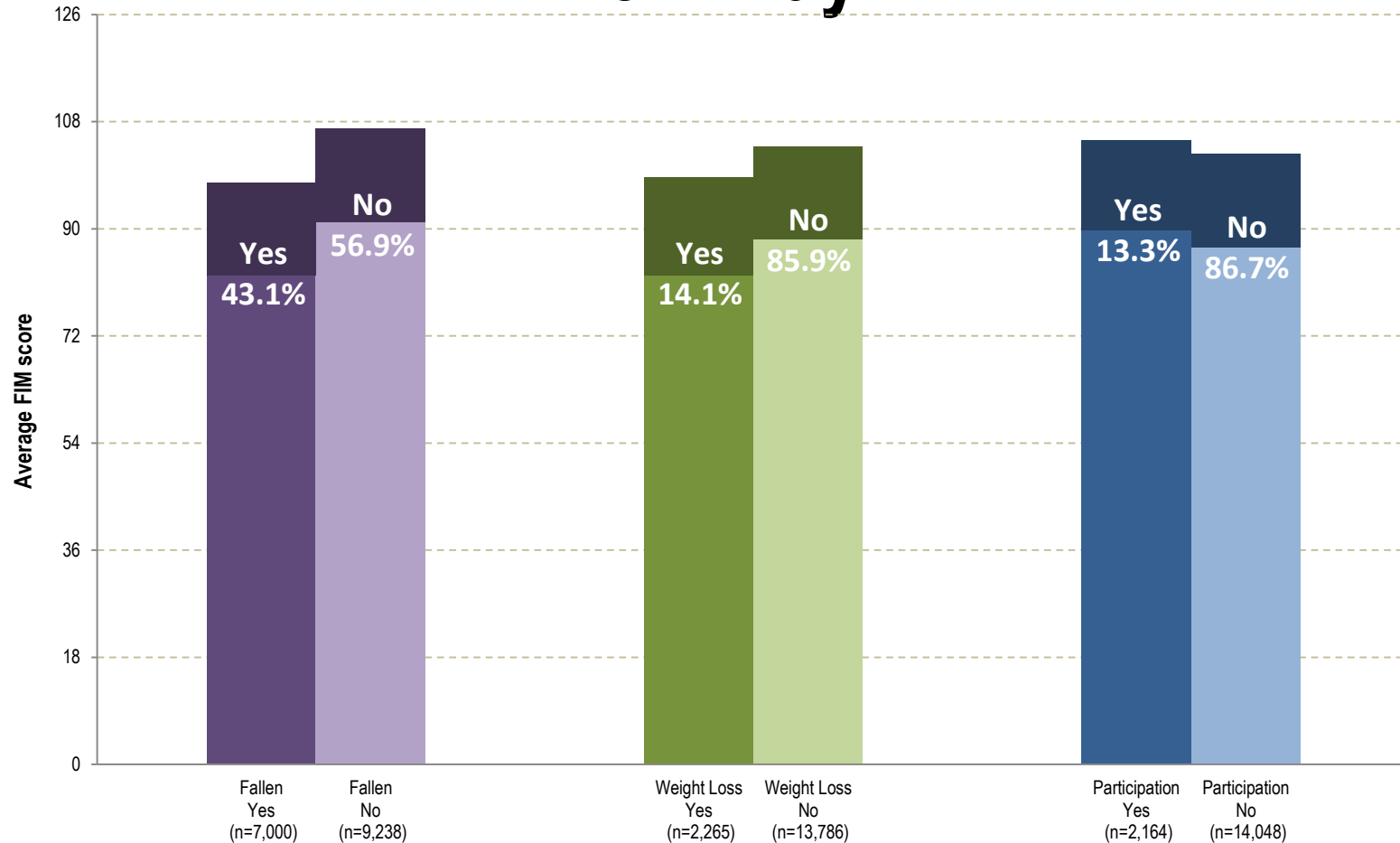
Admission Total Change



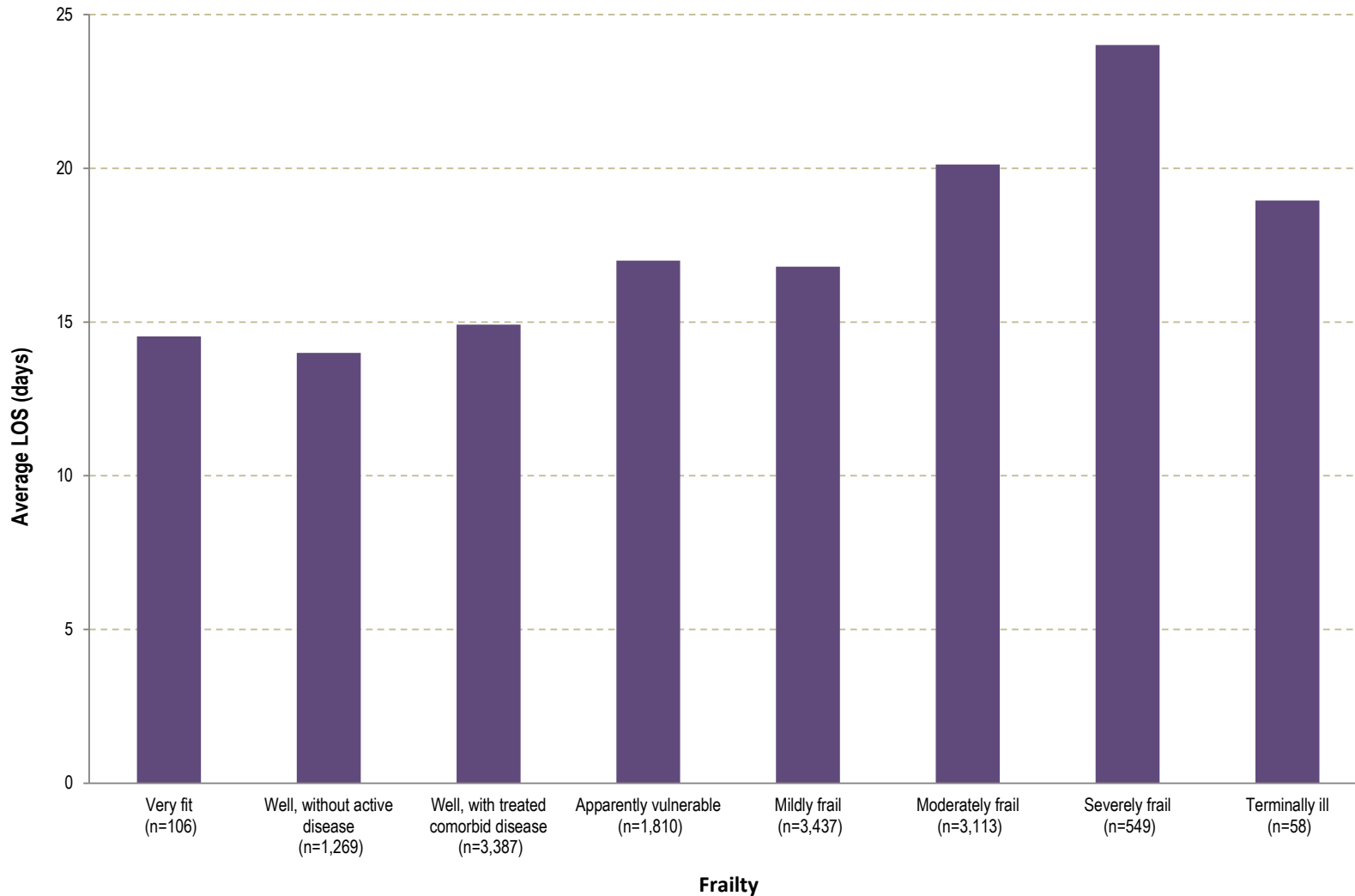
Average admission FIM by falls, weight loss & inability to participate from Day 1



Average discharge FIM by falls, weight loss & inability to participate from Day 1

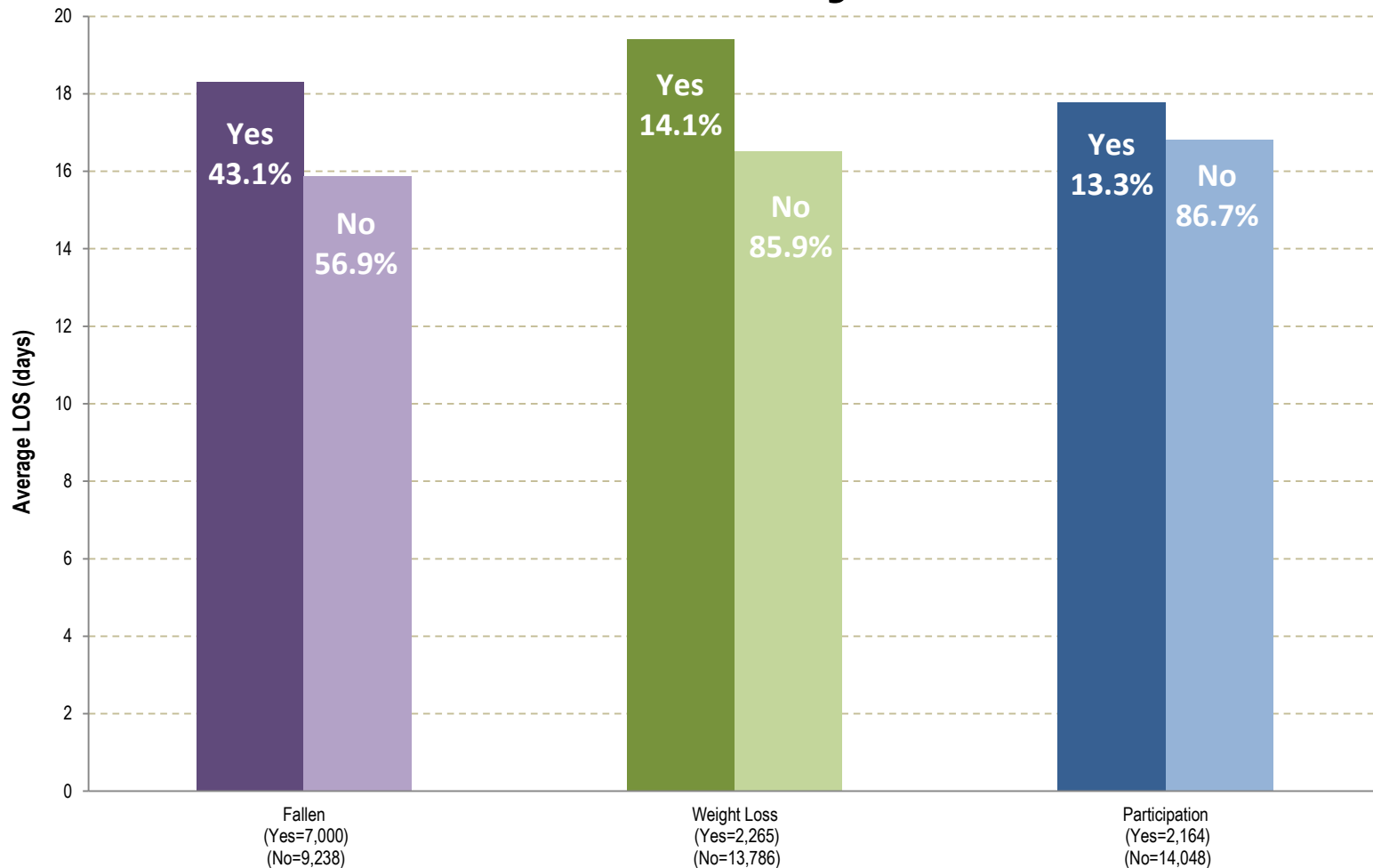


Average LOS by frailty

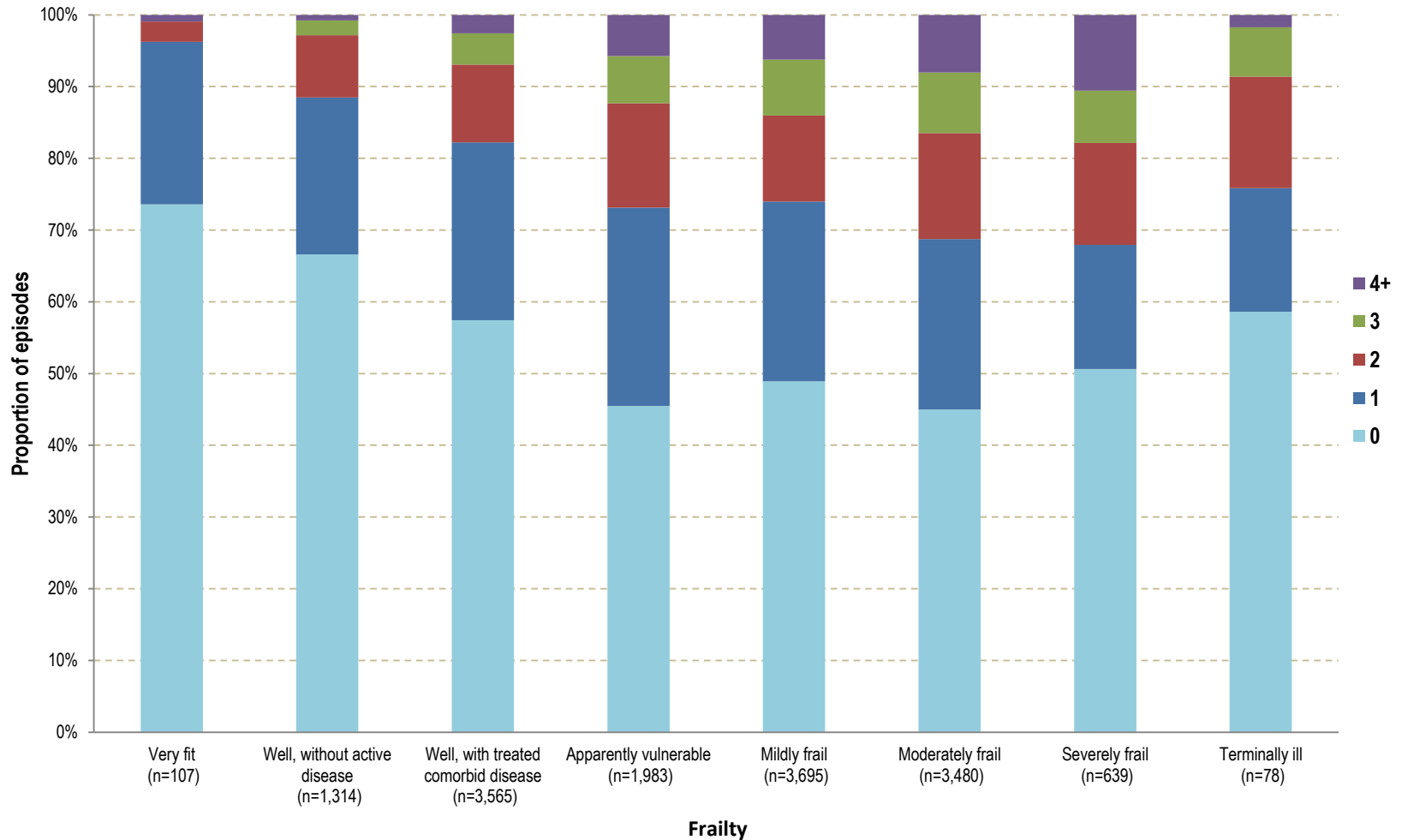


Average LOS

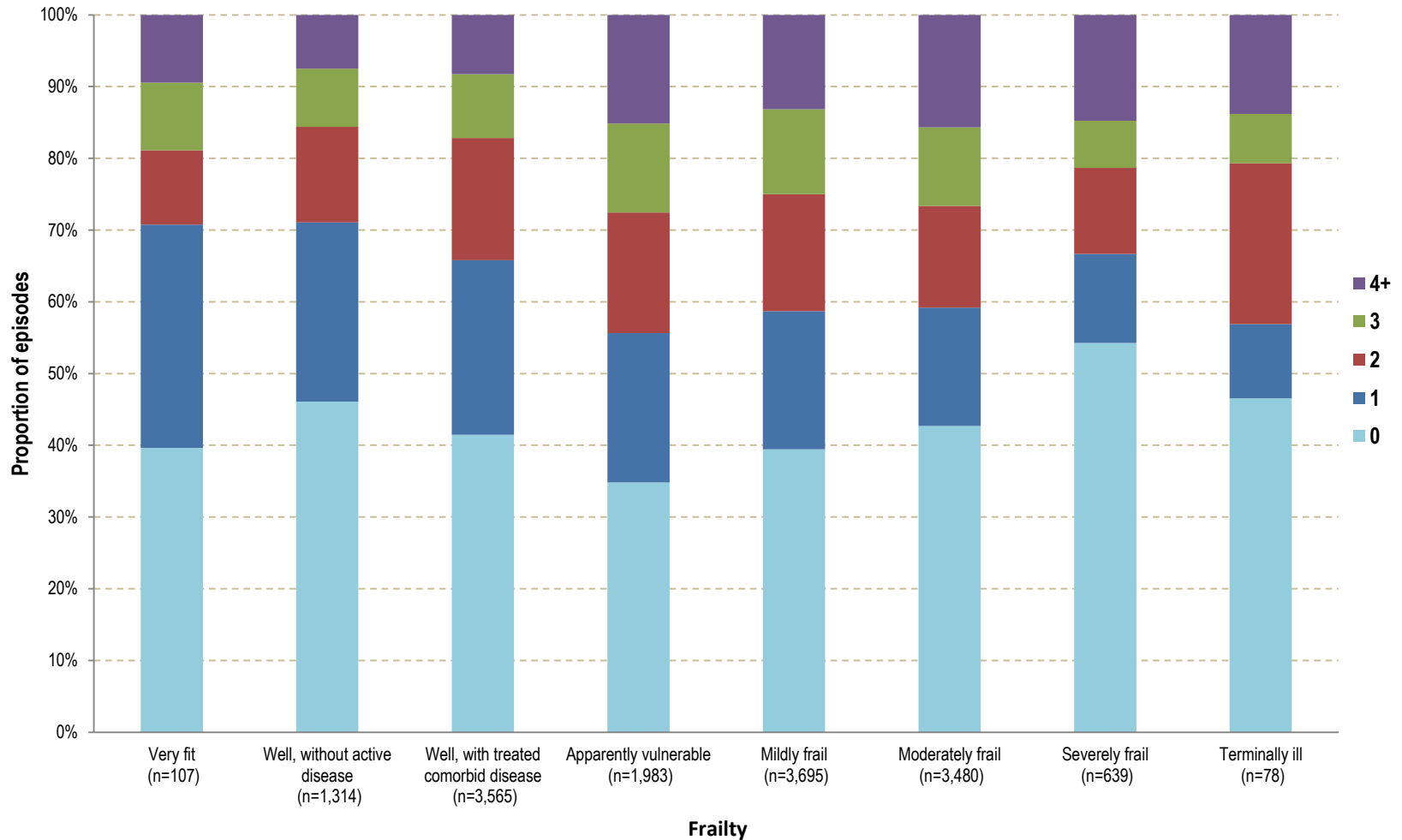
by falls, weight loss & inability to participate from Day 1



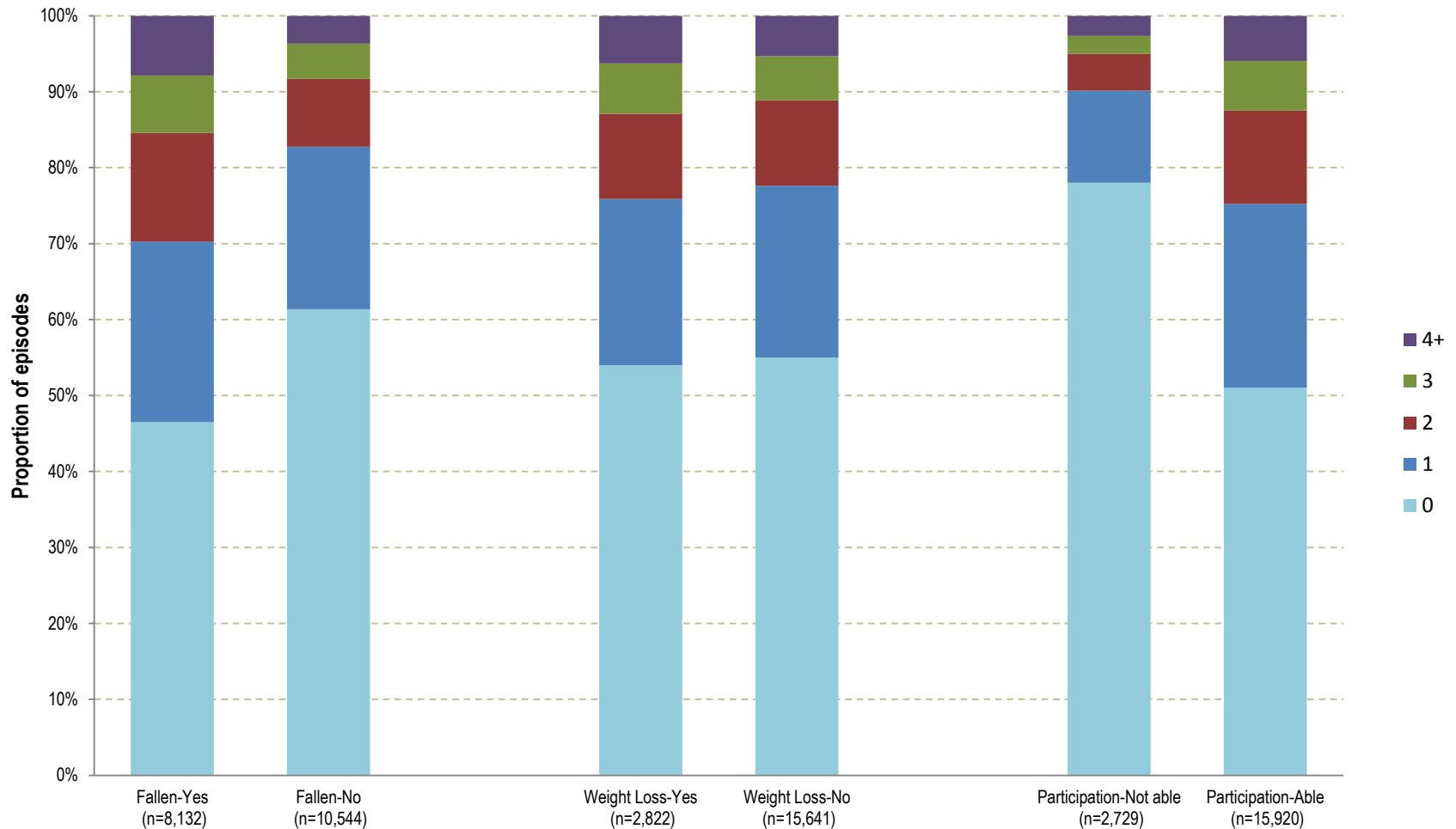
Services prior by frailty



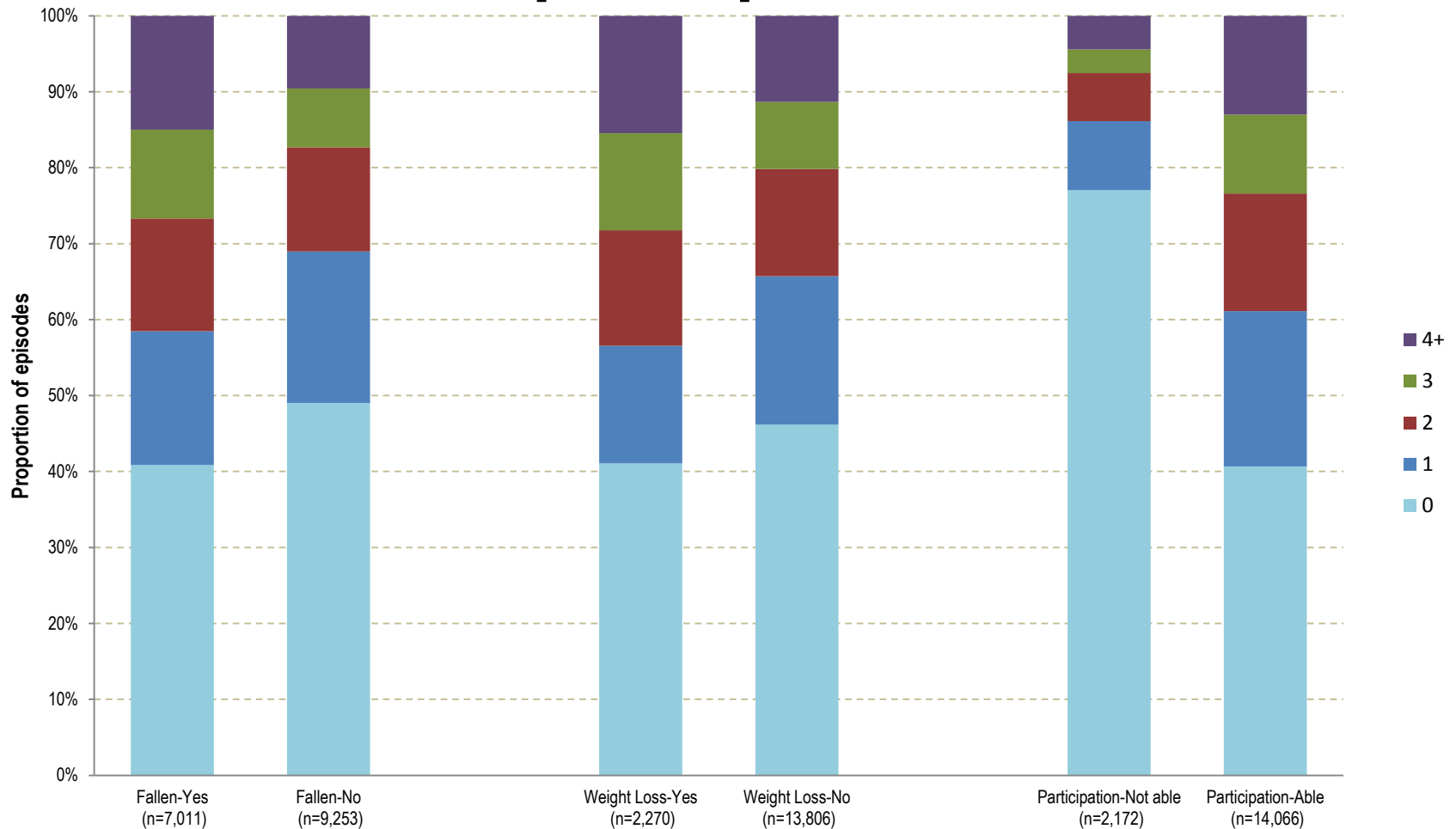
Services post by frailty



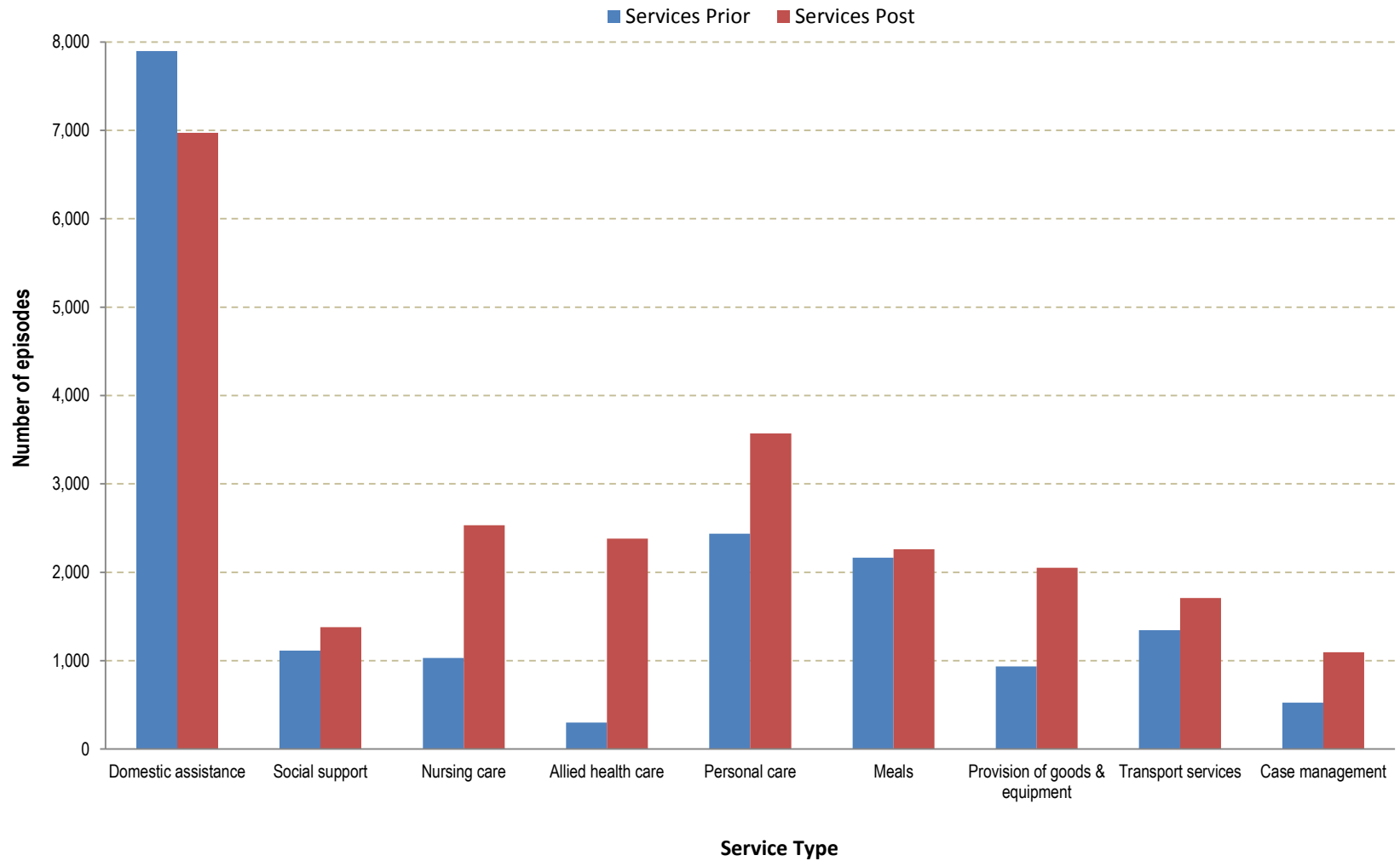
Services prior by falls, weight loss & participation



Services post by falls, weight loss & participation

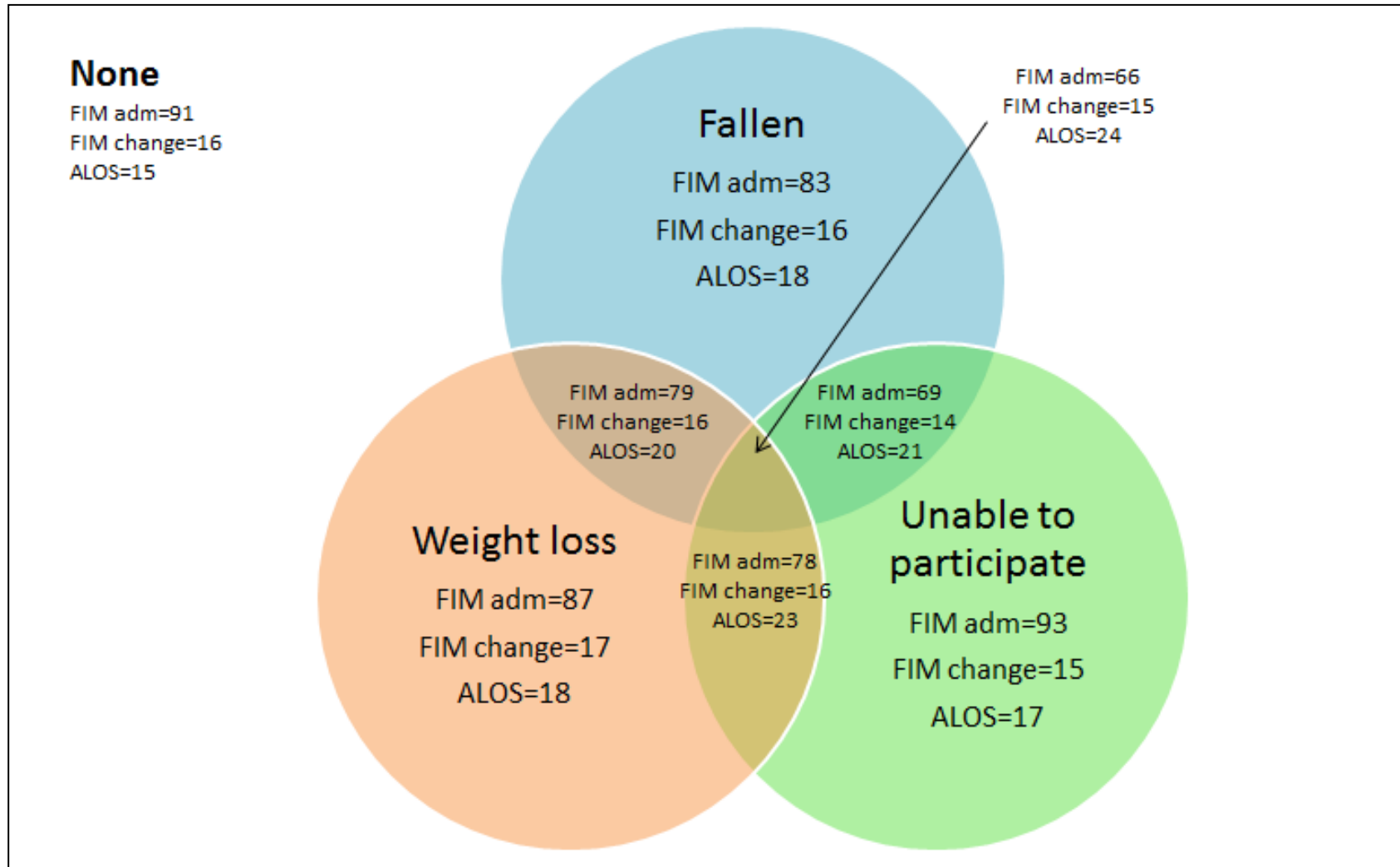


Service type



Summary FIM, ALOS

weight loss, falls, unable to participate



Summary

- Reconditioning impairment specific data items are part of the routine AROC data collection
- The FY 2013/14 data indicates that increasing frailty, falls and weight loss generally associated with:
 - reduced average admission FIM score
 - increased average LOS
- Increasing frailty and falls generally associated with:
 - Increased service needs

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