Outcomes of rehabilitation for reconditioning: falls, frailty, care service requirements - what does the national data tell us?
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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?
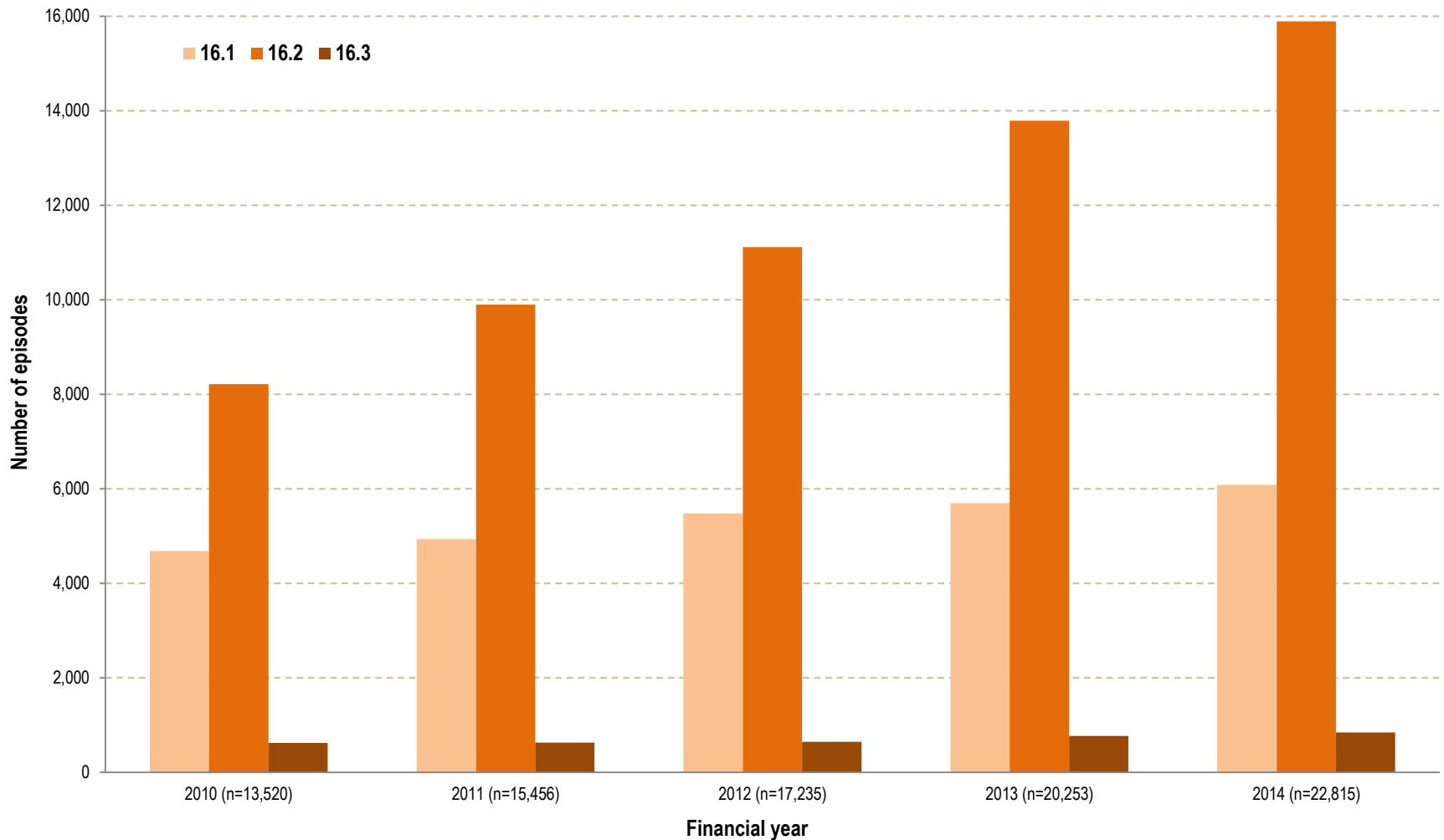
- Lost > 10% of body weight in past 12 months?

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

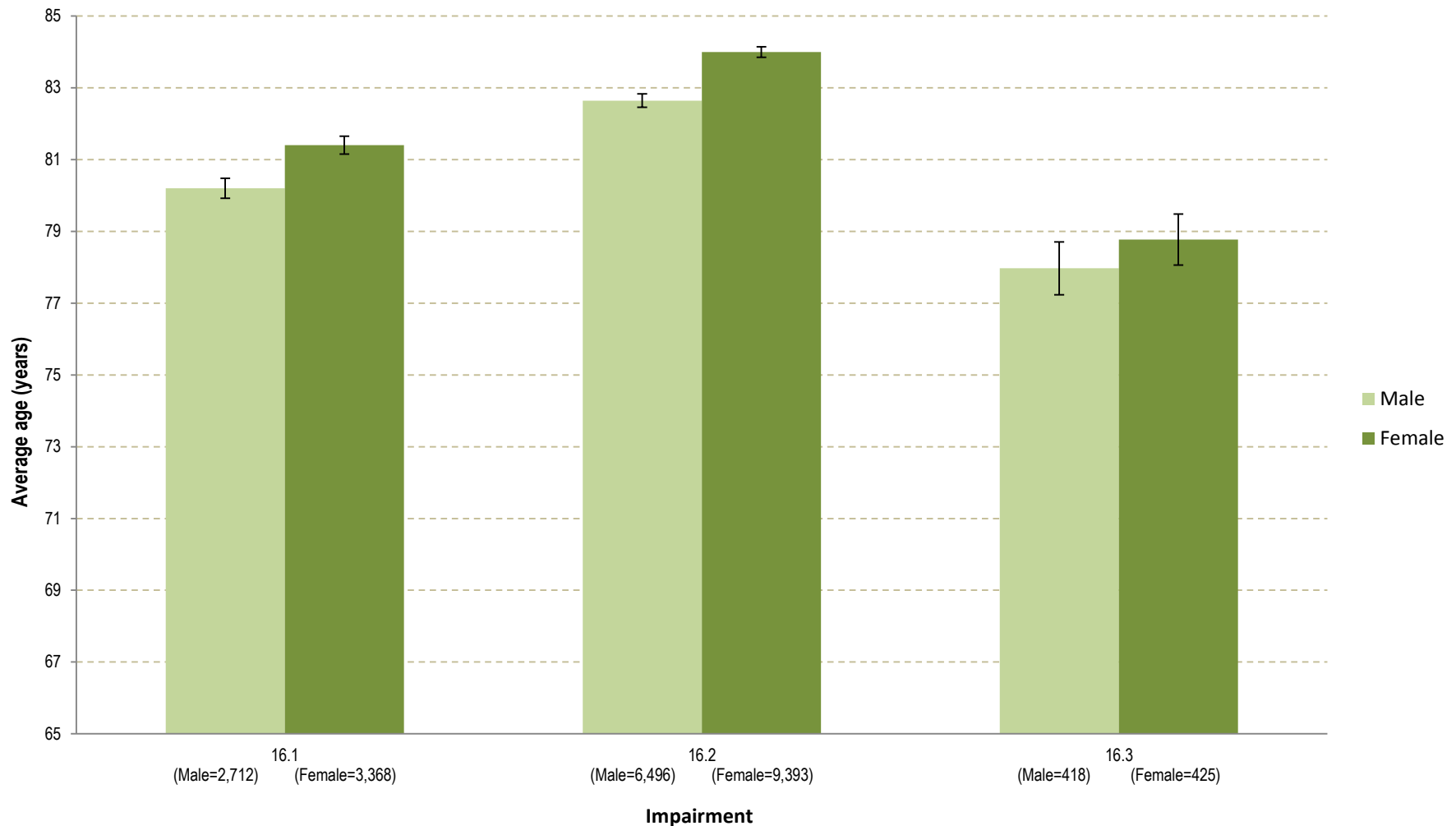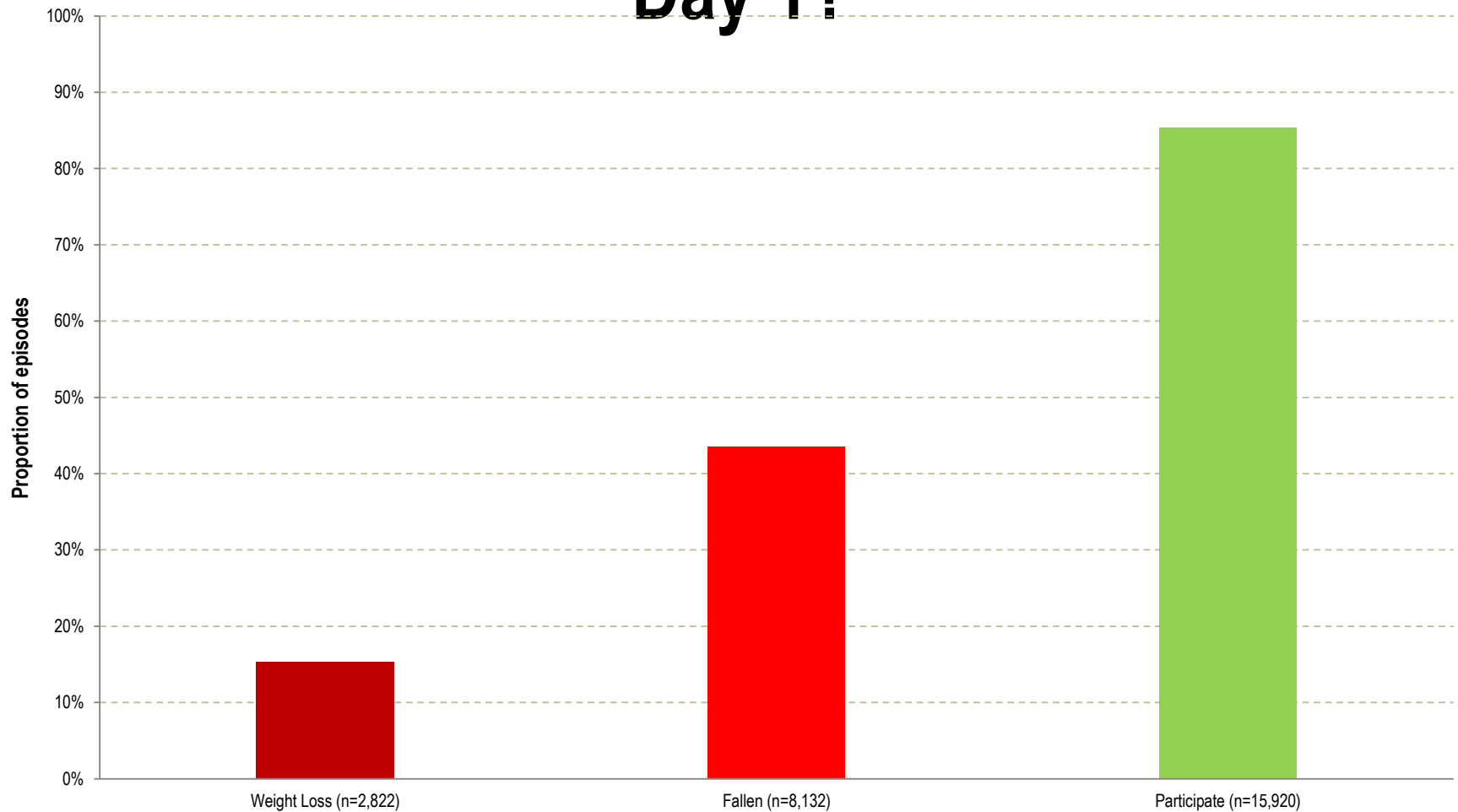# Reconditioning:
proportion of AROC episodes FY2010-2014
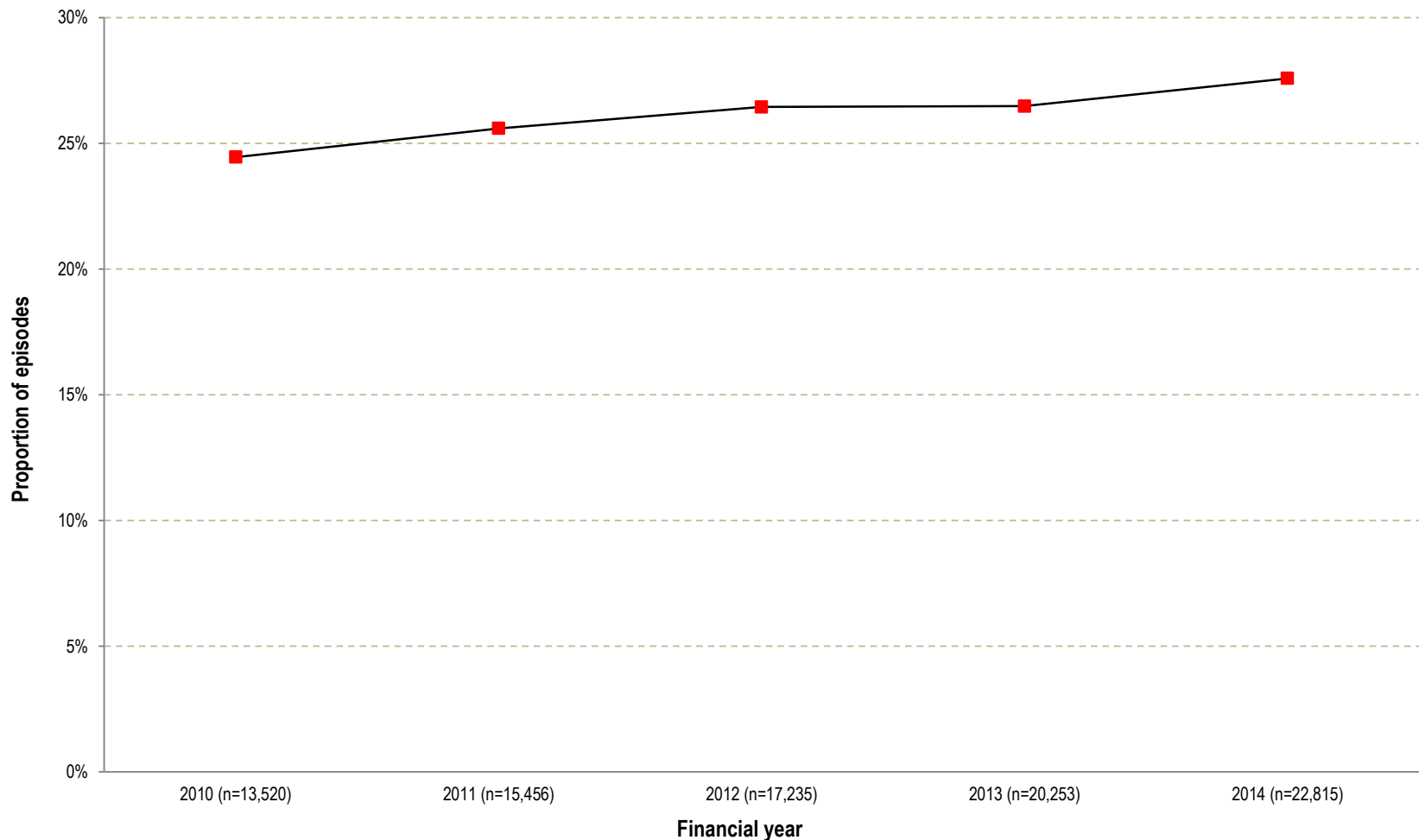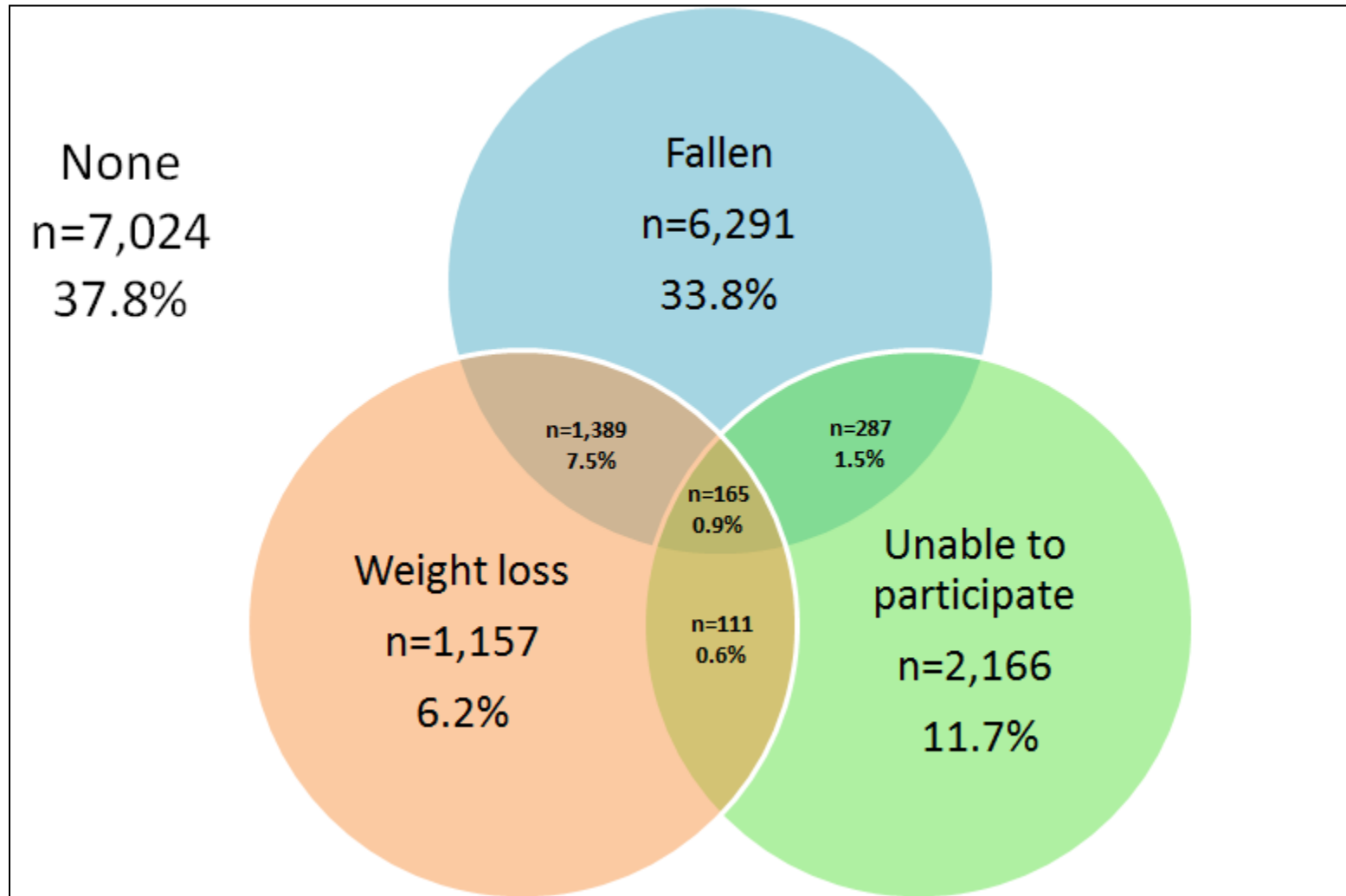
Reconditioning episodes by code: FY2010-2014

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

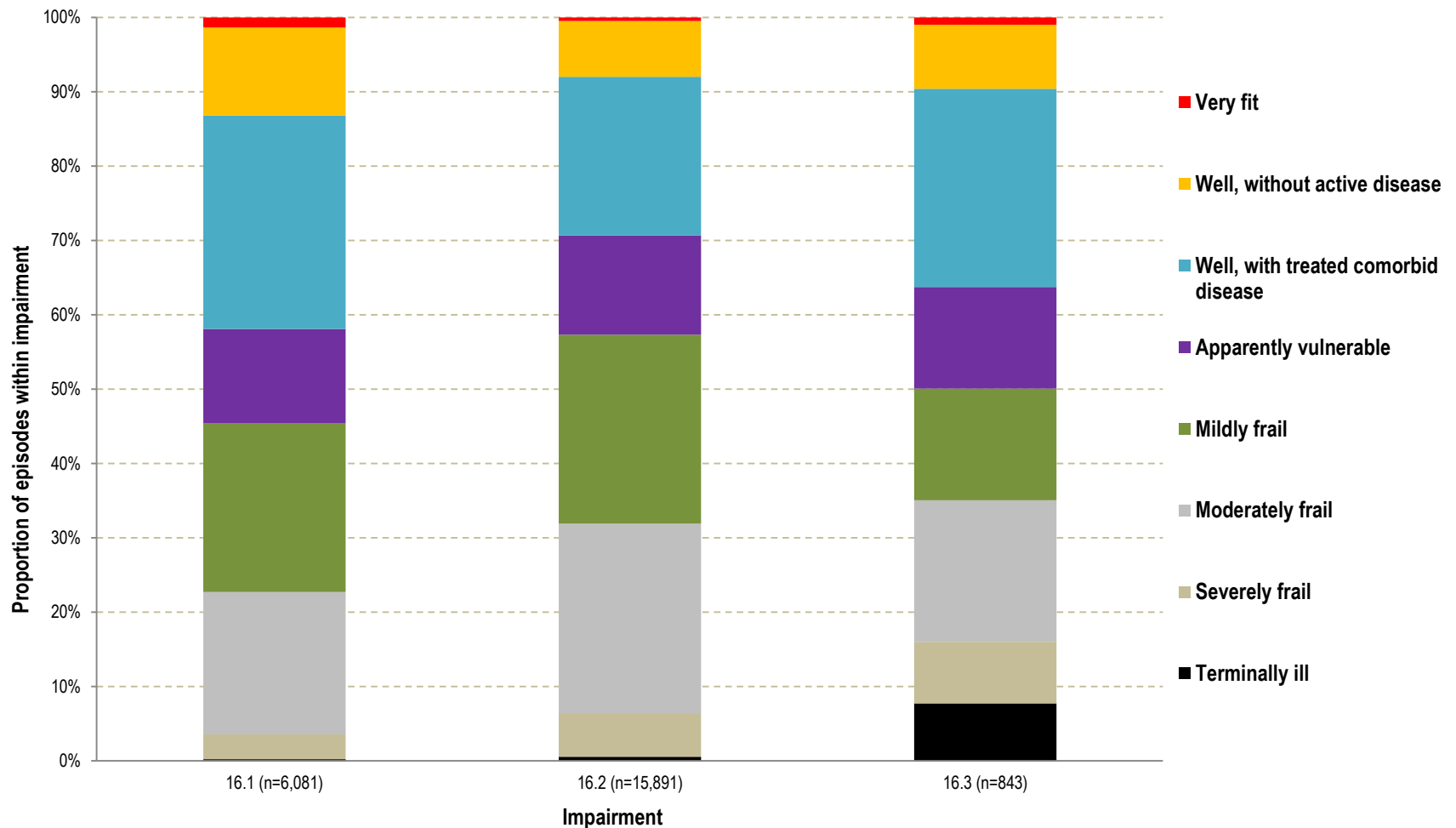6 Moderately frail — help is needed with both instrumental and non-instrumental activities of daily living

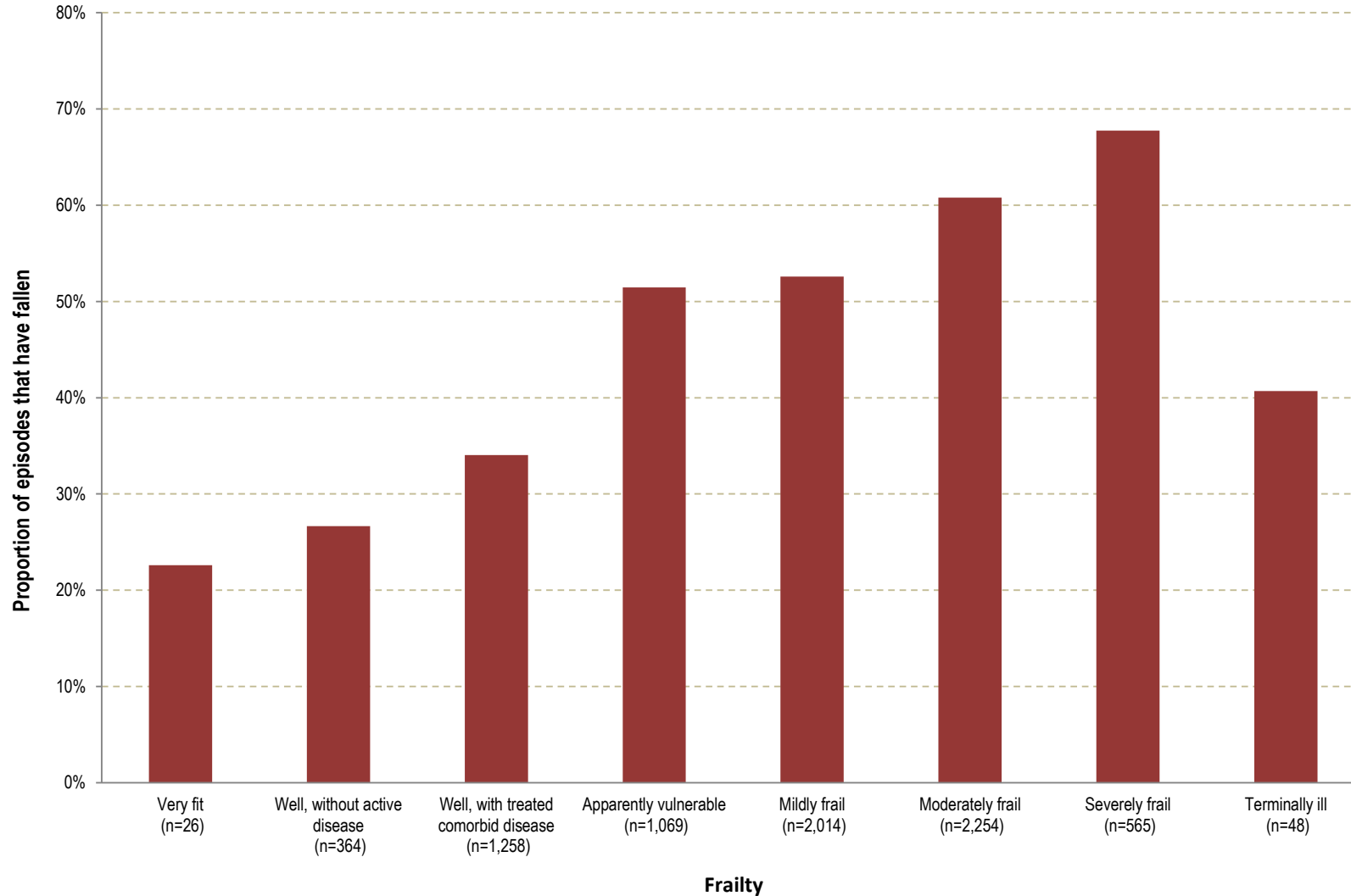7 Severely frail — completely dependent on others for the activities of daily living

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.

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Impairment code by frailty

Proportion of episodes within impairment chart with categories:
- Very fit (red)
- Well, without active disease (yellow)
- Well, with treated comorbid disease (teal)
- Apparently vulnerable (purple)
- Mildly frail (olive green)
- Moderately frail (grey)
- Severely frail (tan)
- Terminally ill (black)

X-axis (Impairment): 16.1 (n=6,081), 16.2 (n=15,891), 16.3 (n=843)

Falls by frailty

Able to participate from Day 1 by frailty and impairment code
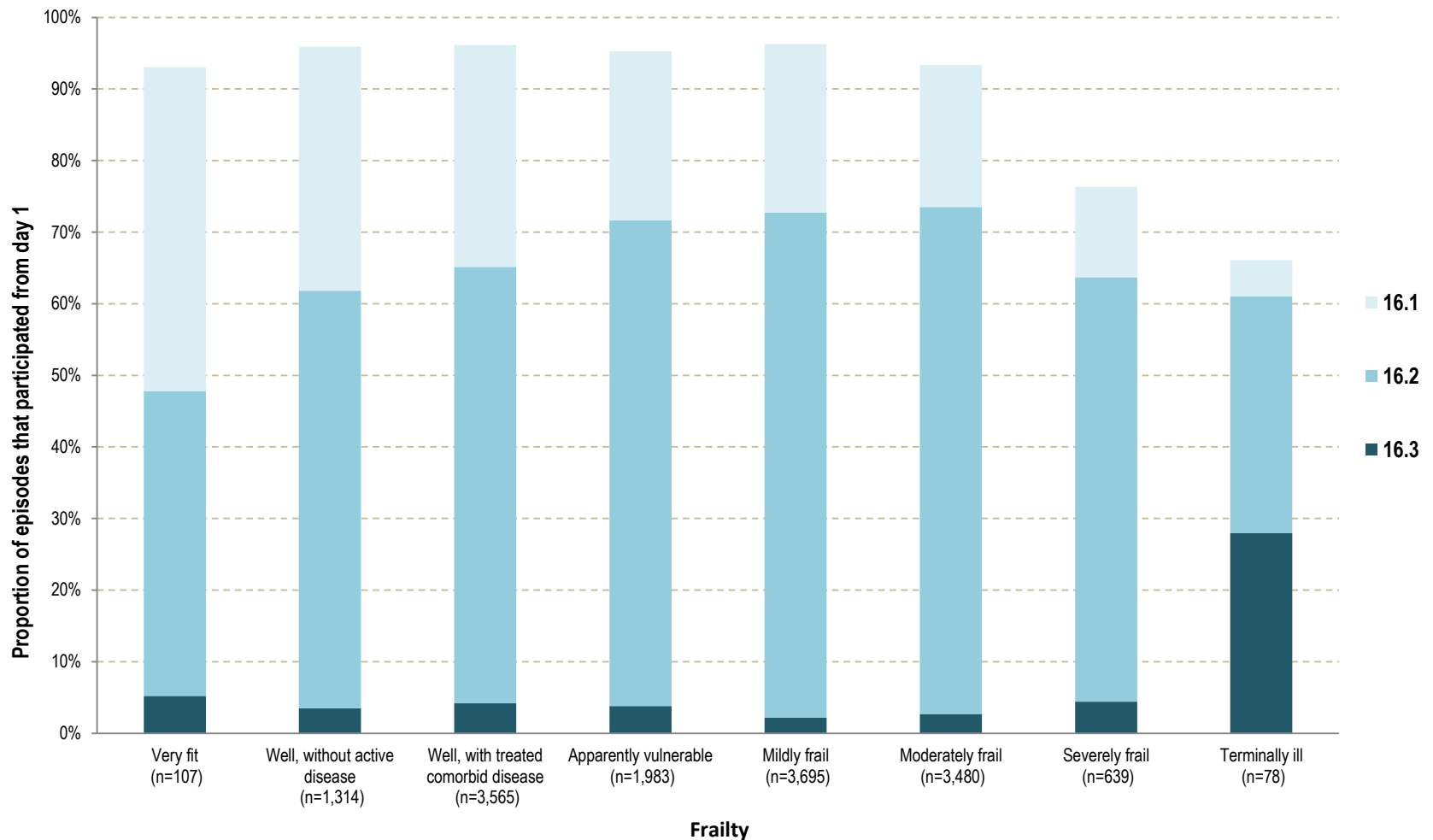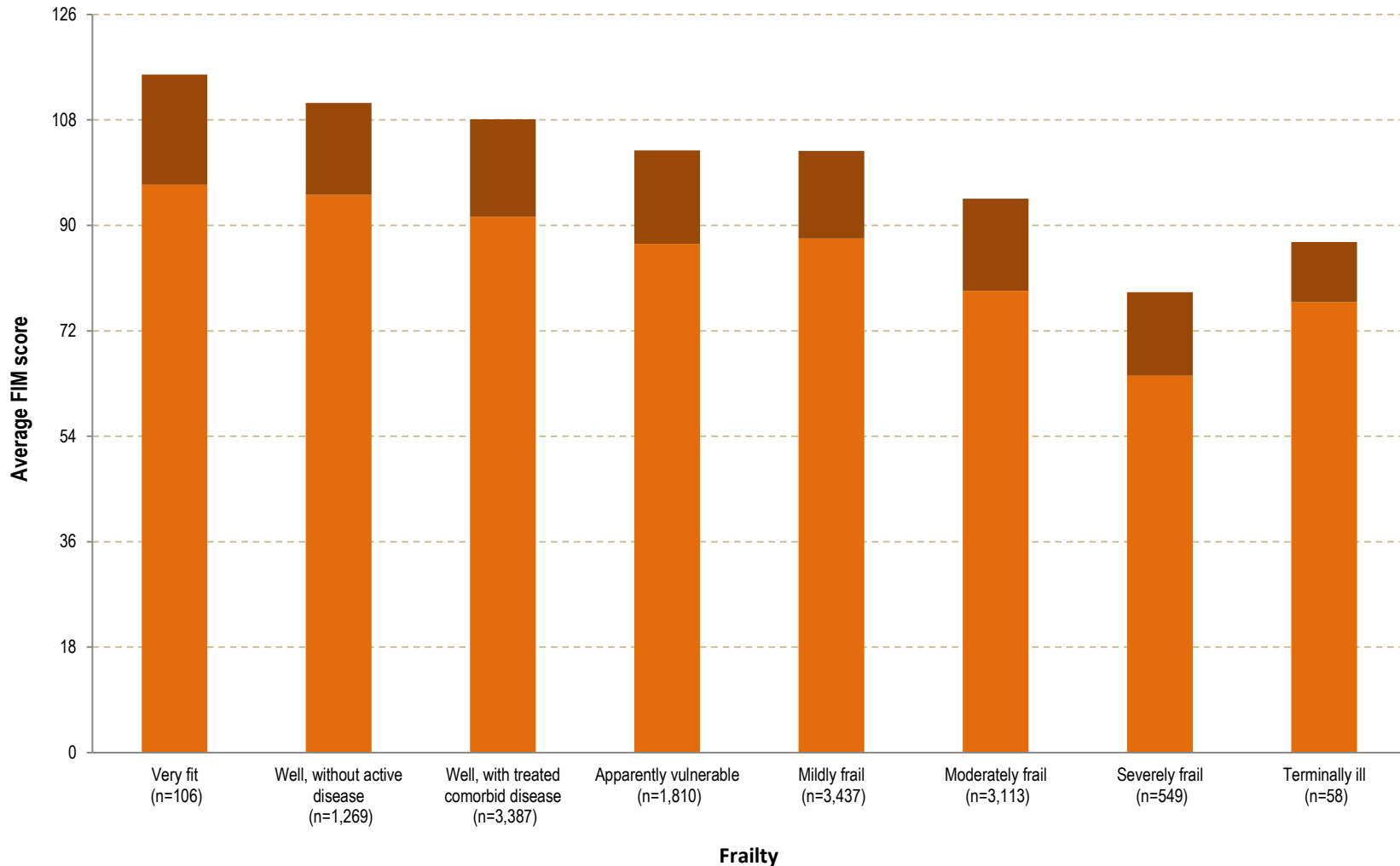
AROC Dataset

- 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
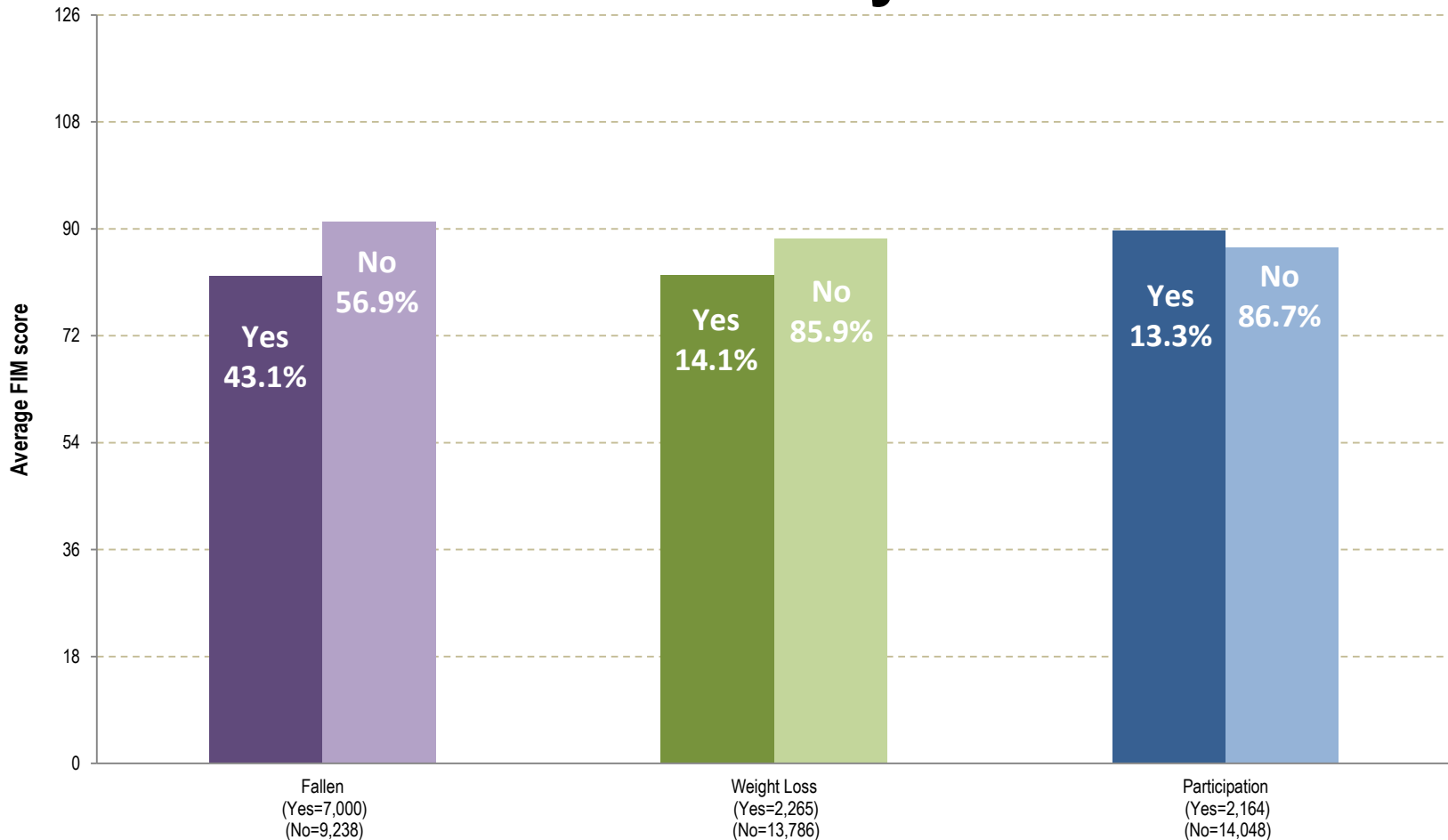
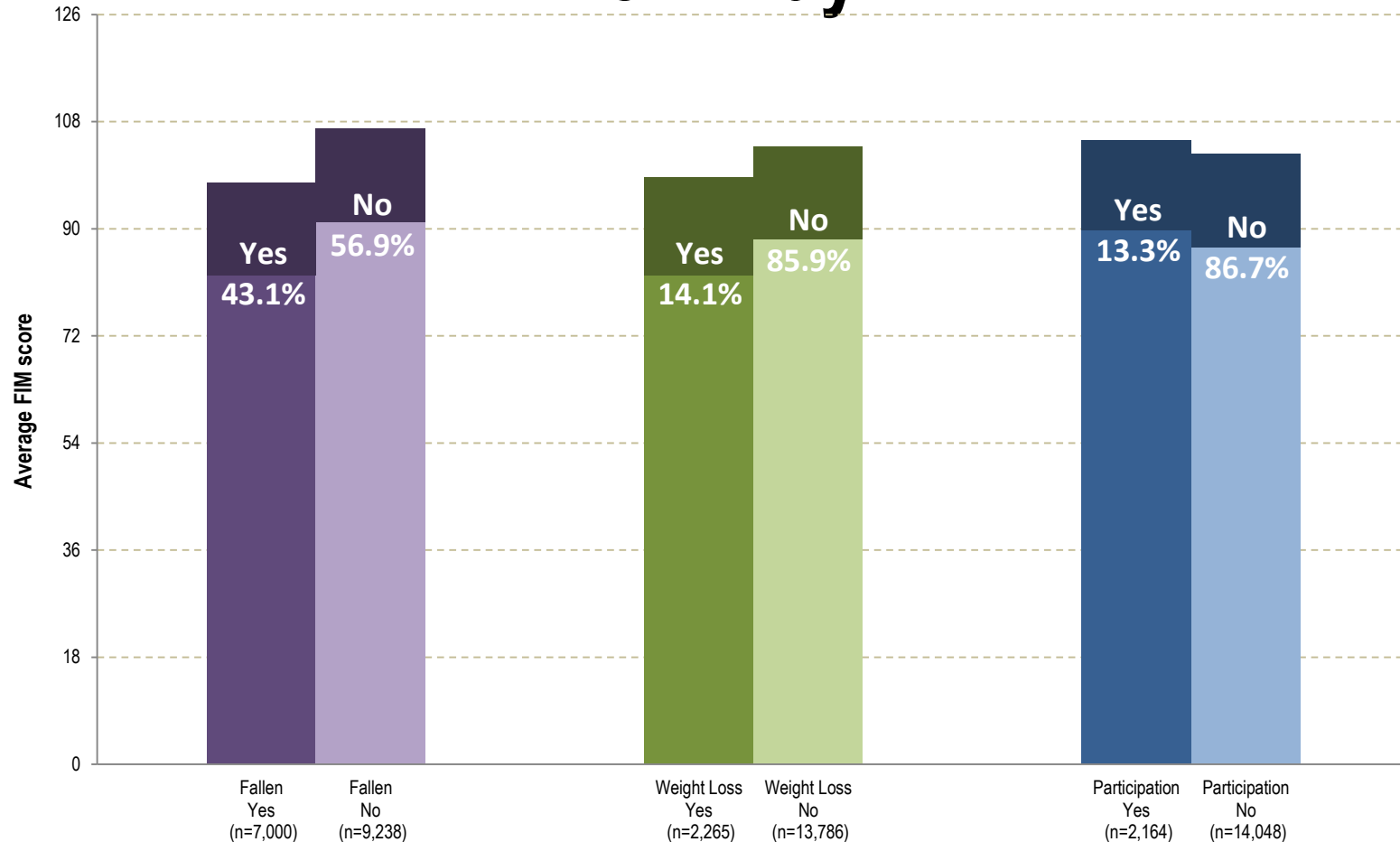# Average admission FIM by frailty
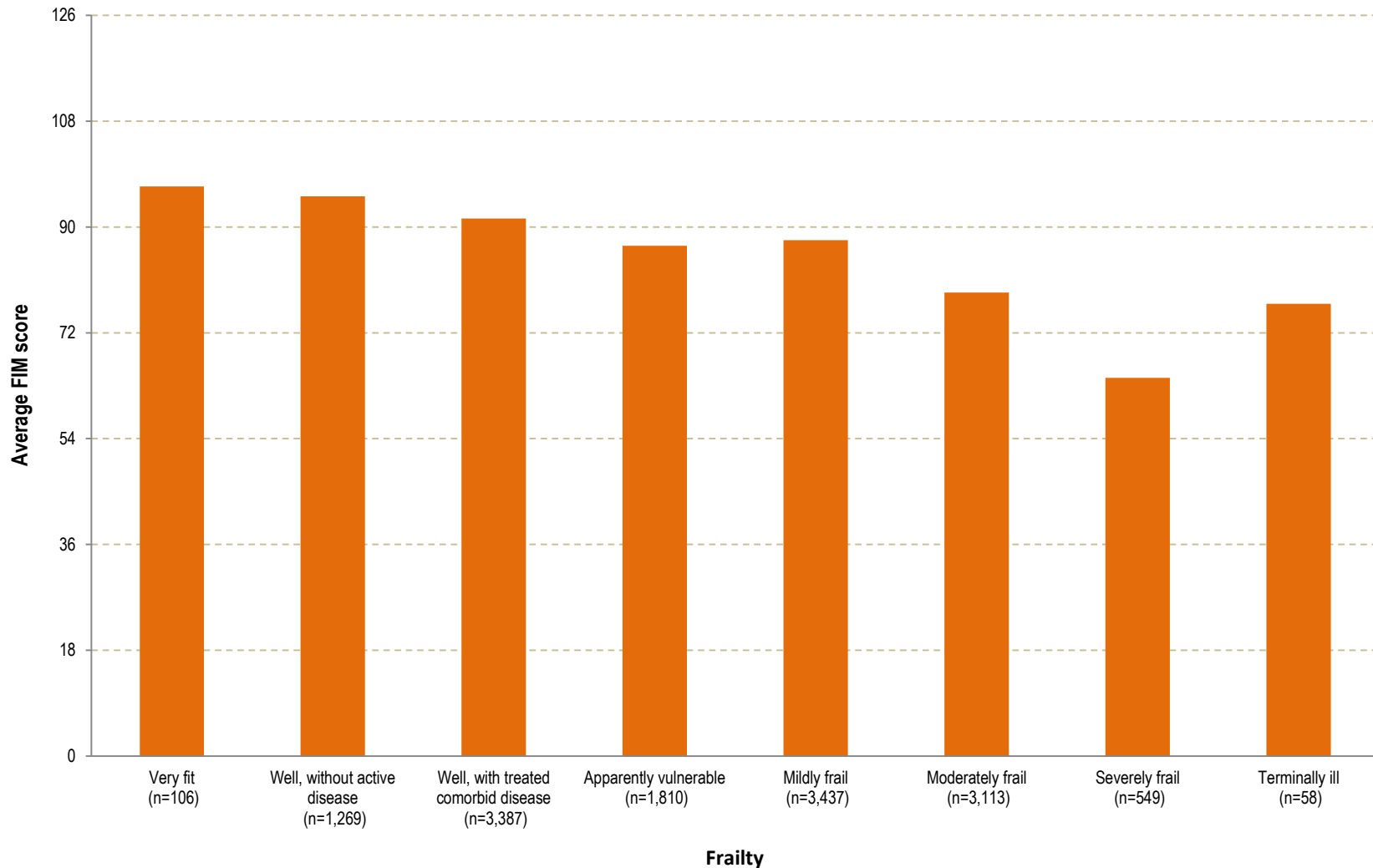
Average discharge FIM by frailty

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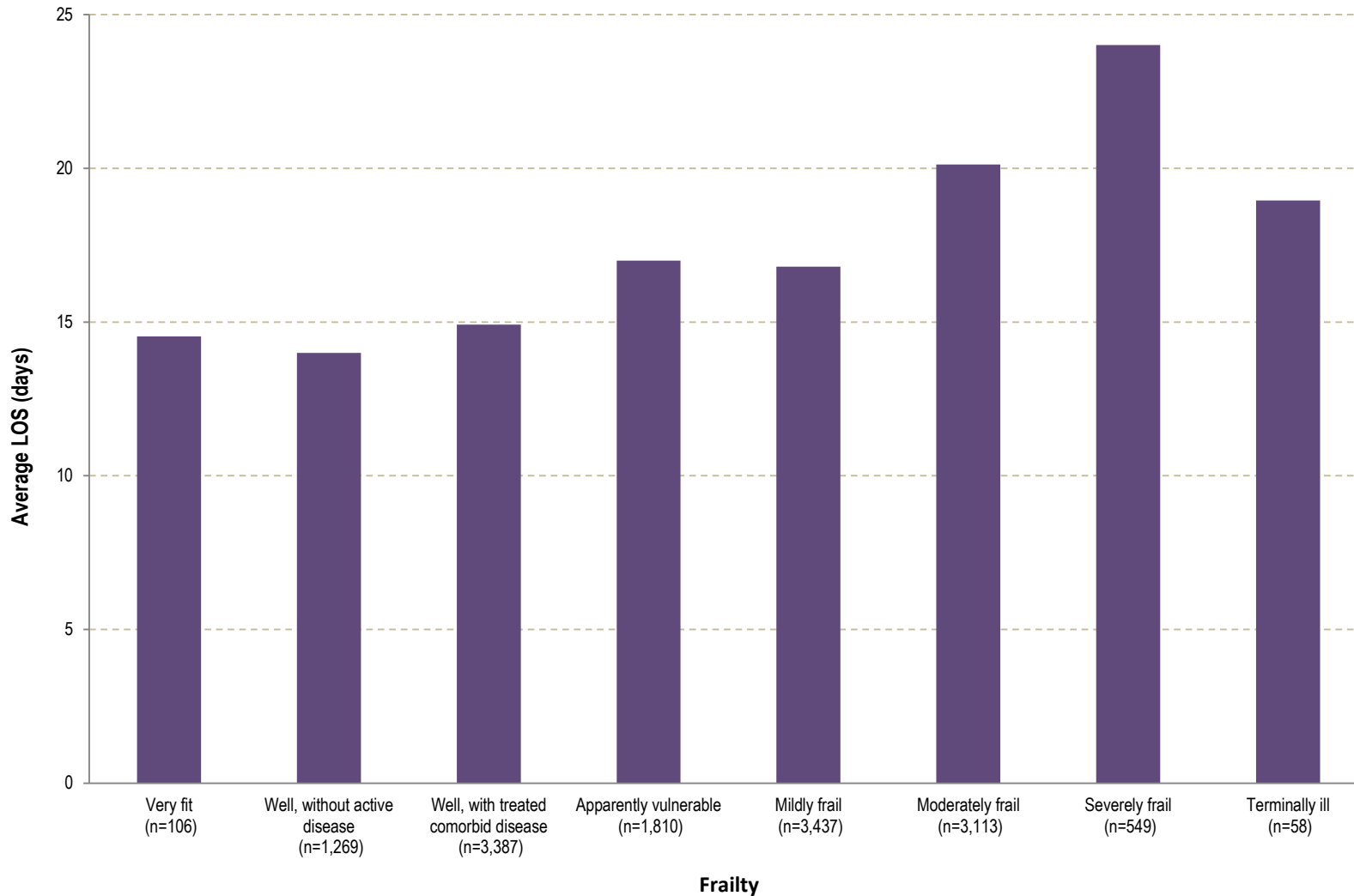# by falls, weight loss & inability to participate from Day 1

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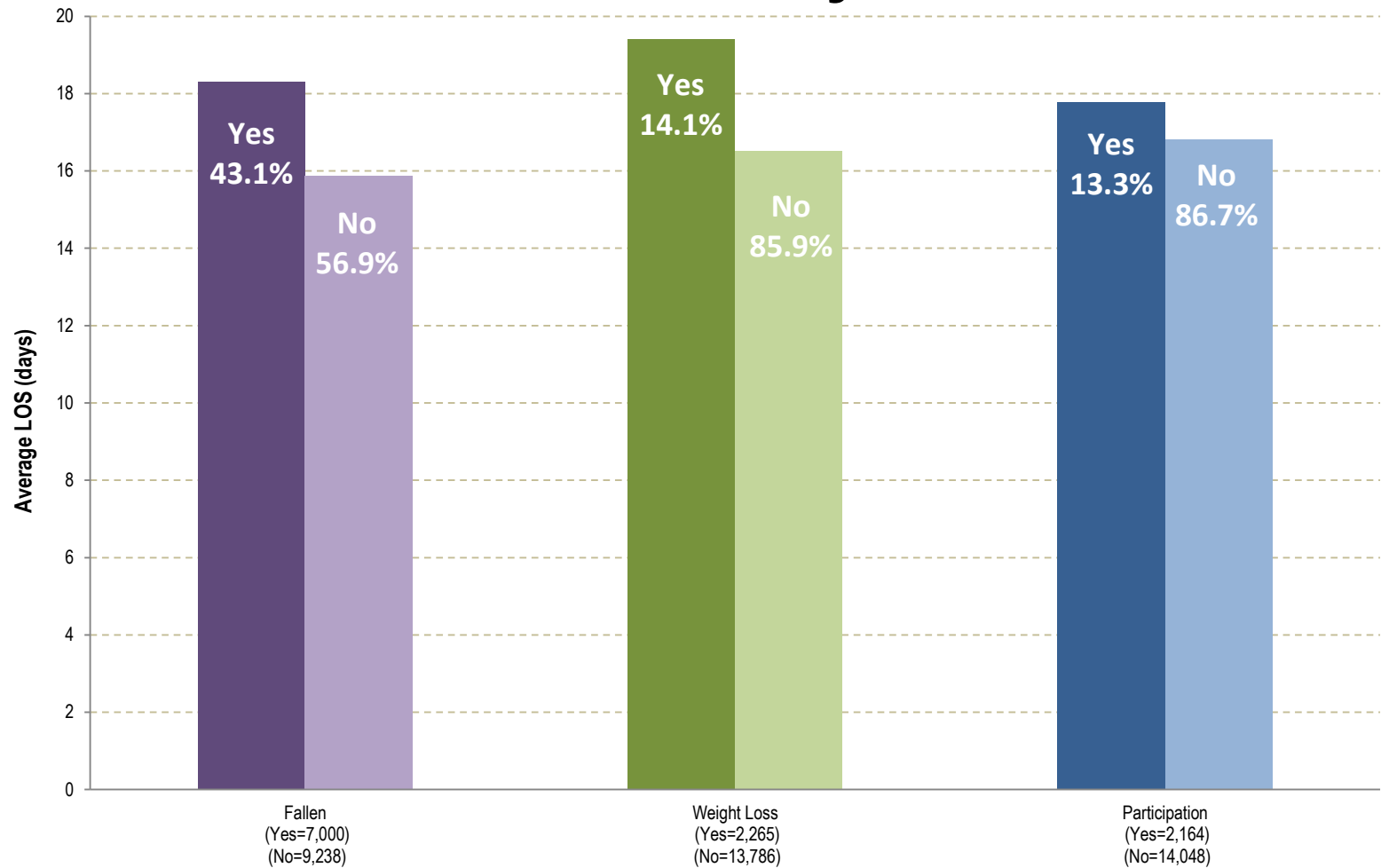

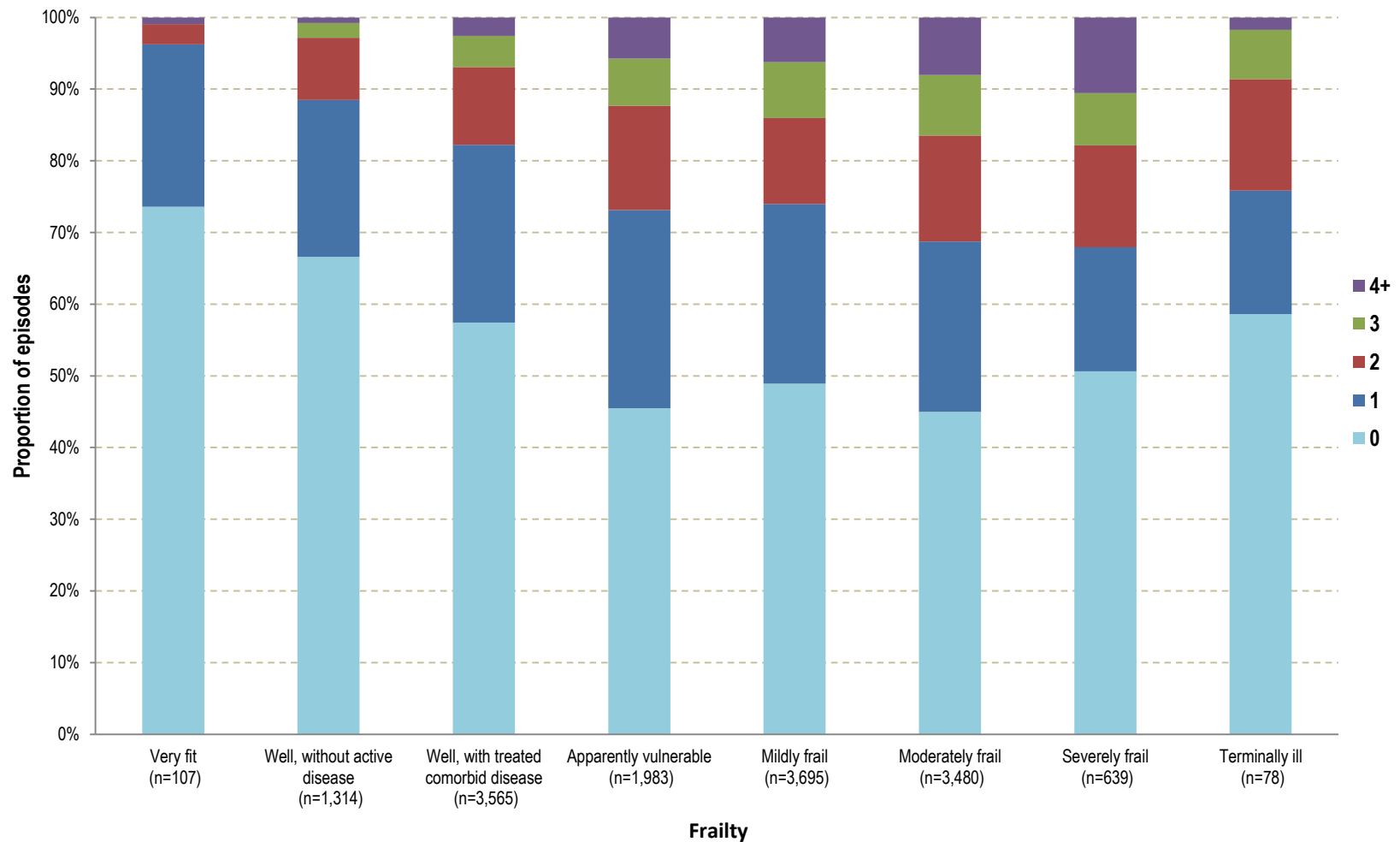AAG & ACS Regional Conference Batemans Bay

Average LOS by frailty

Average LOS
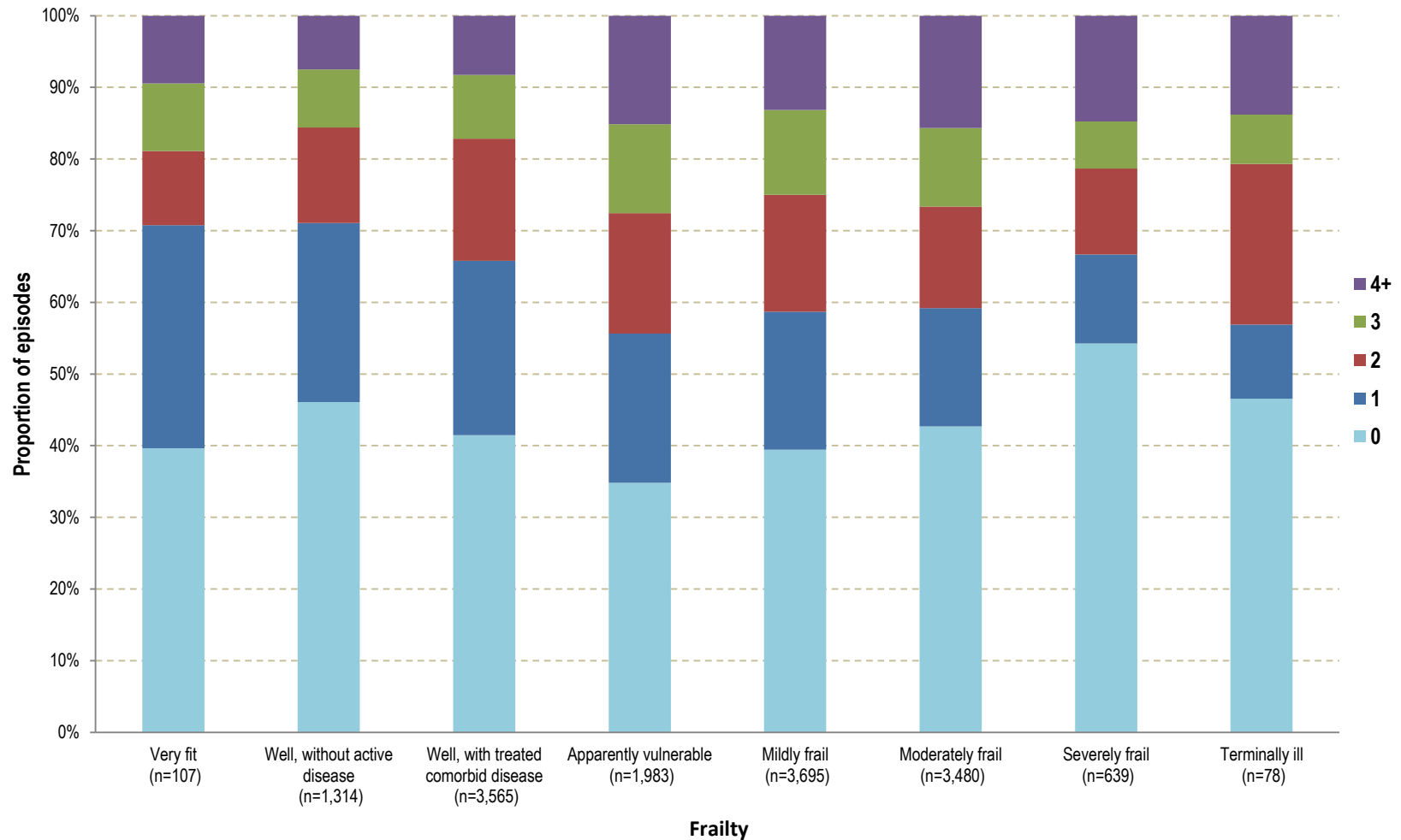# by falls, weight loss & inability to participate from Day 1
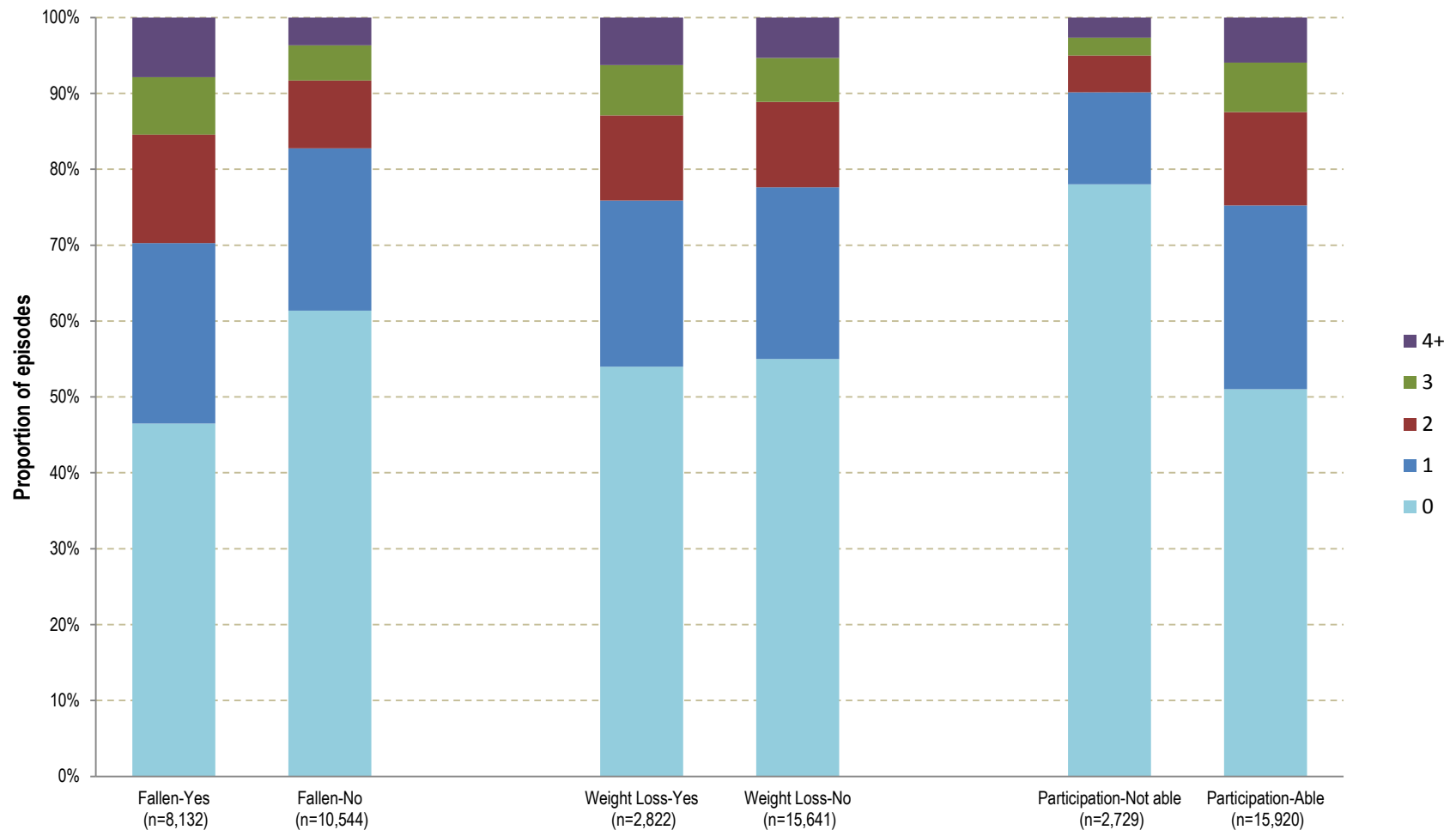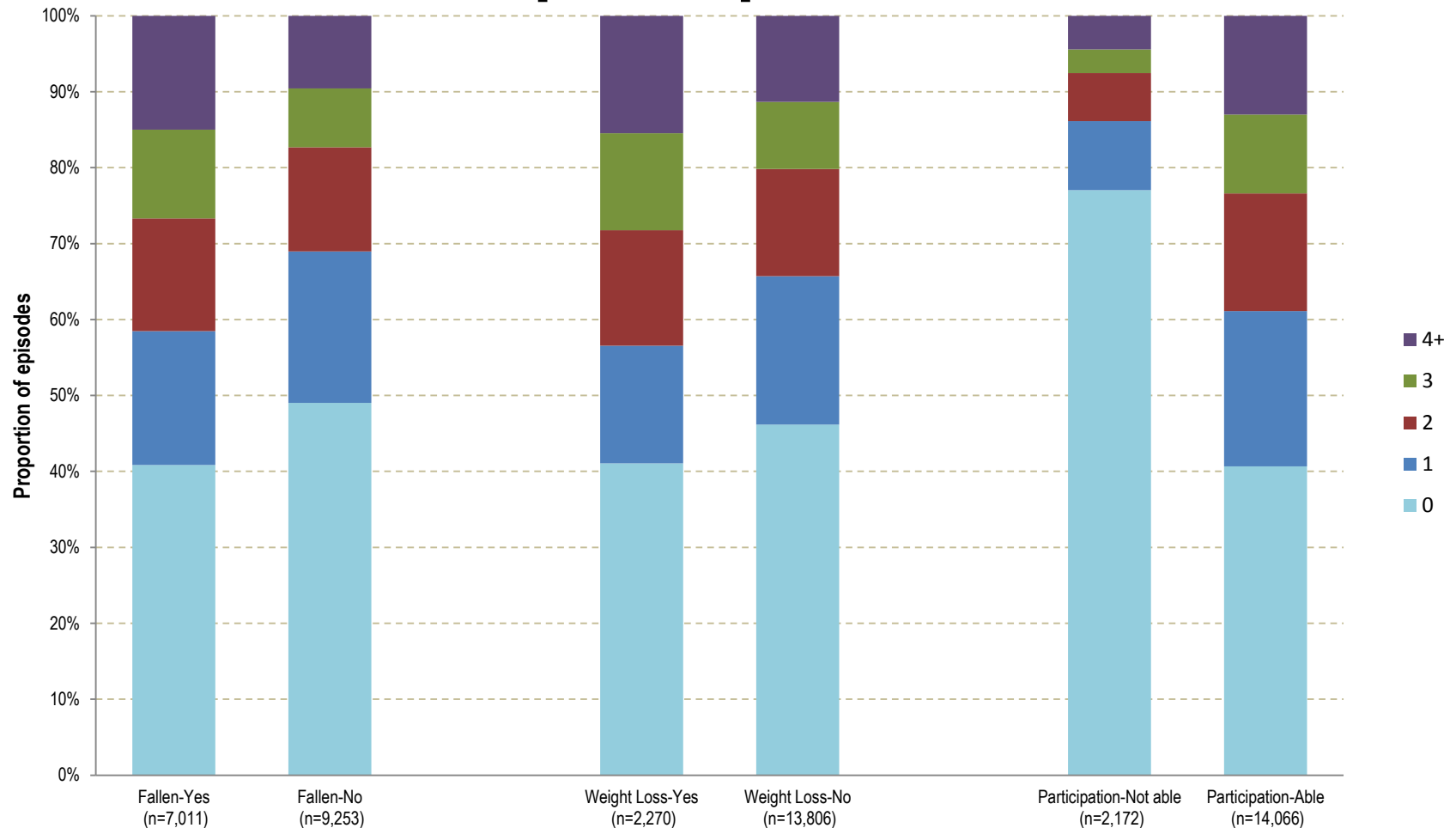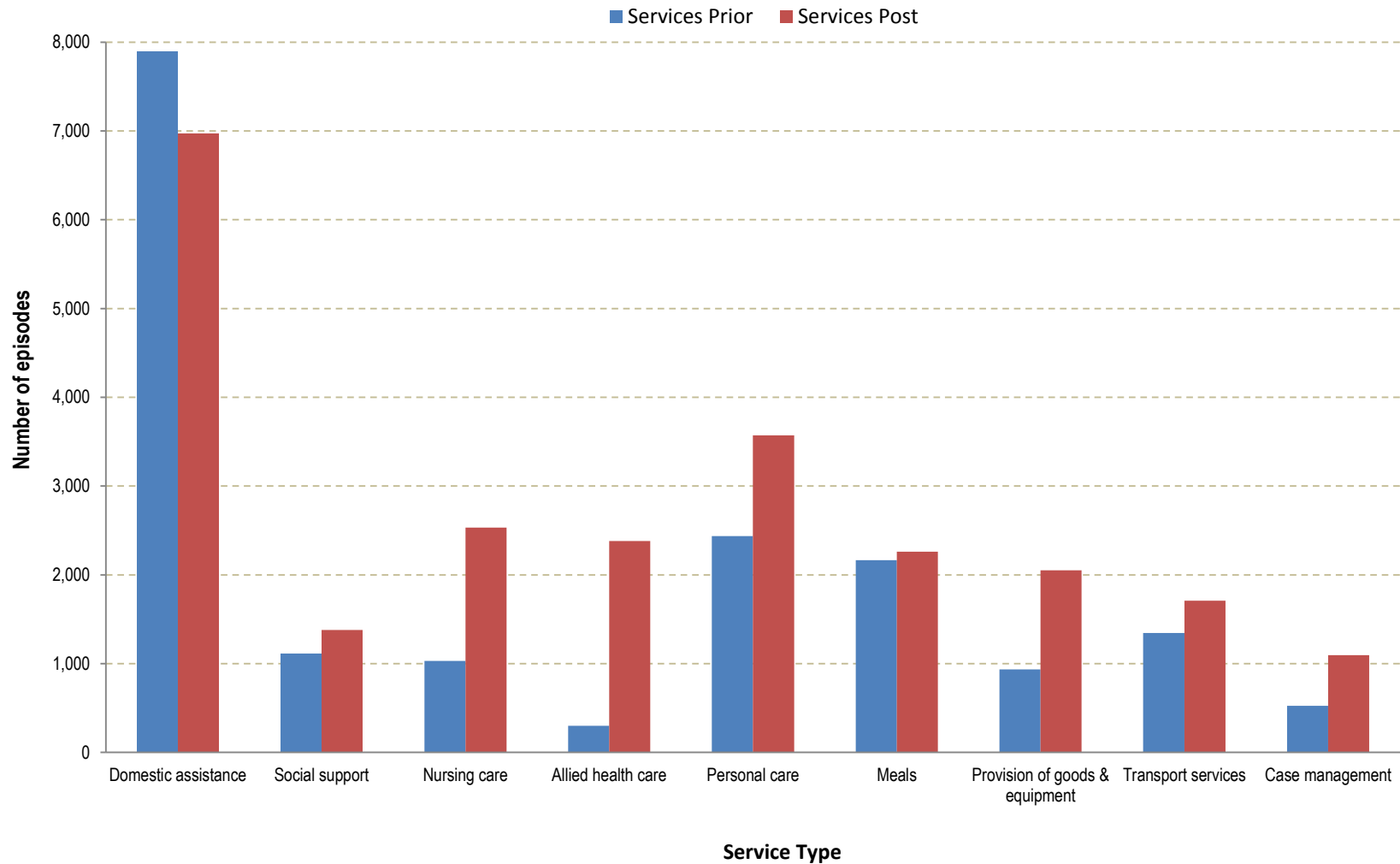
Services prior by frailty

Services post by frailty

Services prior by falls, weight loss & participation

Services post by falls, weight loss & participation

Service type
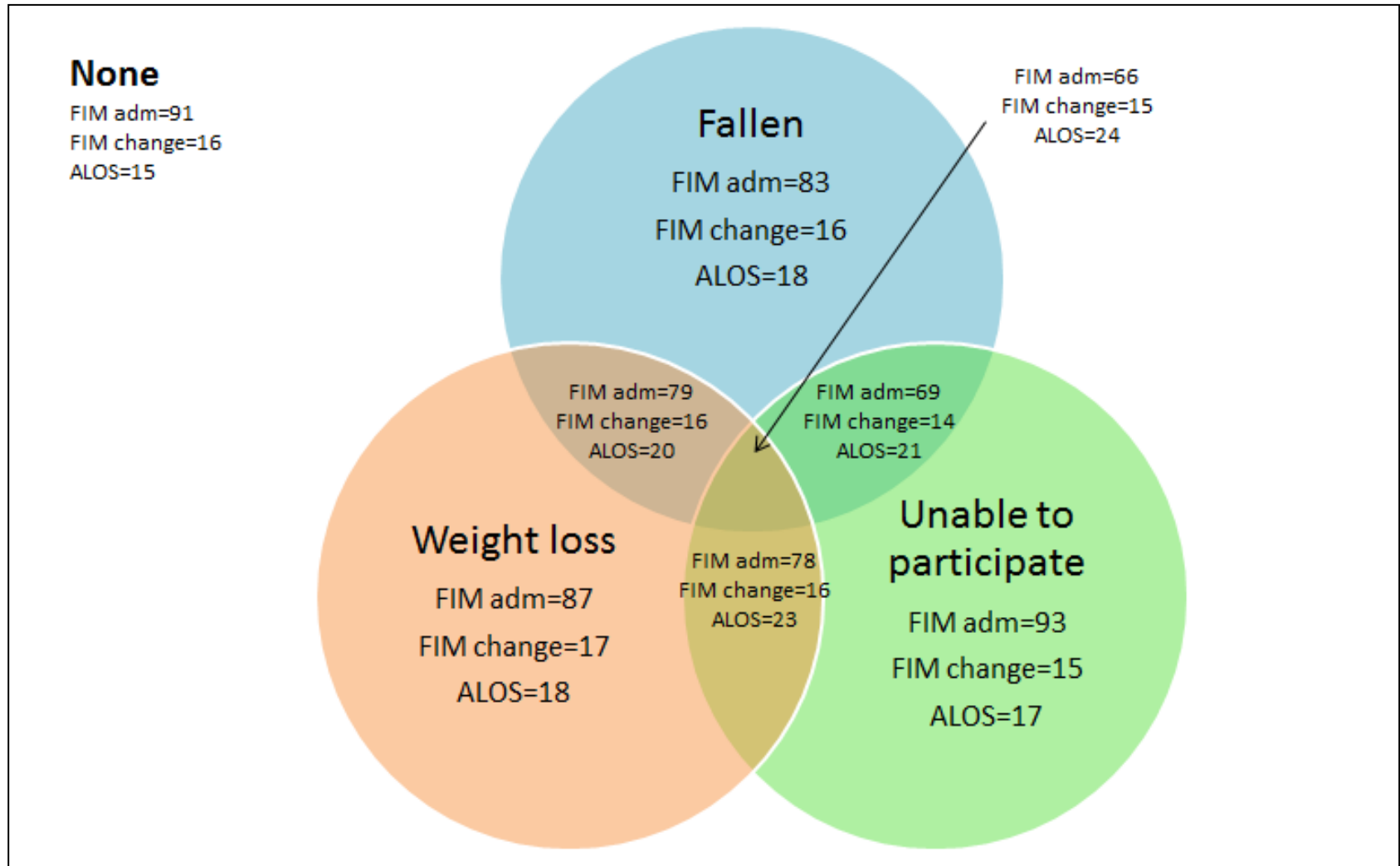
Summary FIM, ALOS
weight loss, falls, unable to participate

None
FIM adm=91
FIM change=16
ALOS=15

Fallen
FIM adm=83
FIM change=16
ALOS=18

FIM adm=66
FIM change=15
ALOS=24

FIM adm=79
FIM change=16
ALOS=20

FIM adm=69
FIM change=14
ALOS=21

Weight loss
FIM adm=87
FIM change=17
ALOS=18

FIM adm=78
FIM change=16
ALOS=23

Unable to participate
FIM adm=93
FIM change=15
ALOS=17

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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