



EQ-5D reported outcome after injury: an individual patient data meta-analysis

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*Joint Meeting of the International Collaborative Effort on
Injury Statistics (ICE) and the Global Burden of Diseases
Injury Expert Group (GBD-IEG),
Swansea University, 2010*

EQ-5D and Injury Outcome

- Growing influence of patients perspective
 - Growth of Health-Related Quality of Life (HRQoL) measures
 - Lack of information for injury populations
- An earlier systematic literature search
 - Derrett, Black & Herbison. *Journal of Trauma* (2009)
 - 44 injury studies included
 - Study heterogeneity prevented pooling published data into a meaningful meta-analysis

Mobility

- Have no problems walking about (1)
- Have some problems walking about (2)
- Extreme problems walking about (3)

Self-care

- Have no problems with self-care (1)
- Had some problems washing or dressing yourself (2)
- Are unable to wash or dress yourself (3)

Usual activities

Pain and discomfort

Anxiety or depression

$3^5 = 243$ possible health states from the 5 official dimensions



Cognitive function

EQ-5D: Visual Analogue Score

- Overall self-rated health status
- Worst imaginable health state (0)
- Best imaginable health state (100)

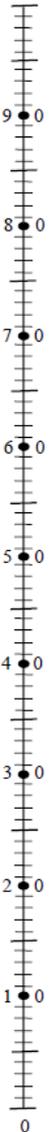
To help people say how good or bad a health state is, we have drawn a scale (rather like a thermometer) on which the best state you can imagine is marked 100 and the worst state you can imagine is marked 0.

We would like you to indicate on this scale how good or bad your own health is today, in your opinion. Please do this by drawing a line from the box below to whichever point on the scale indicates how good or bad your health state is today.

**Your own
health state
today**

Best
imaginable
health state

100



9

8

7

6

5

4

3

2

1

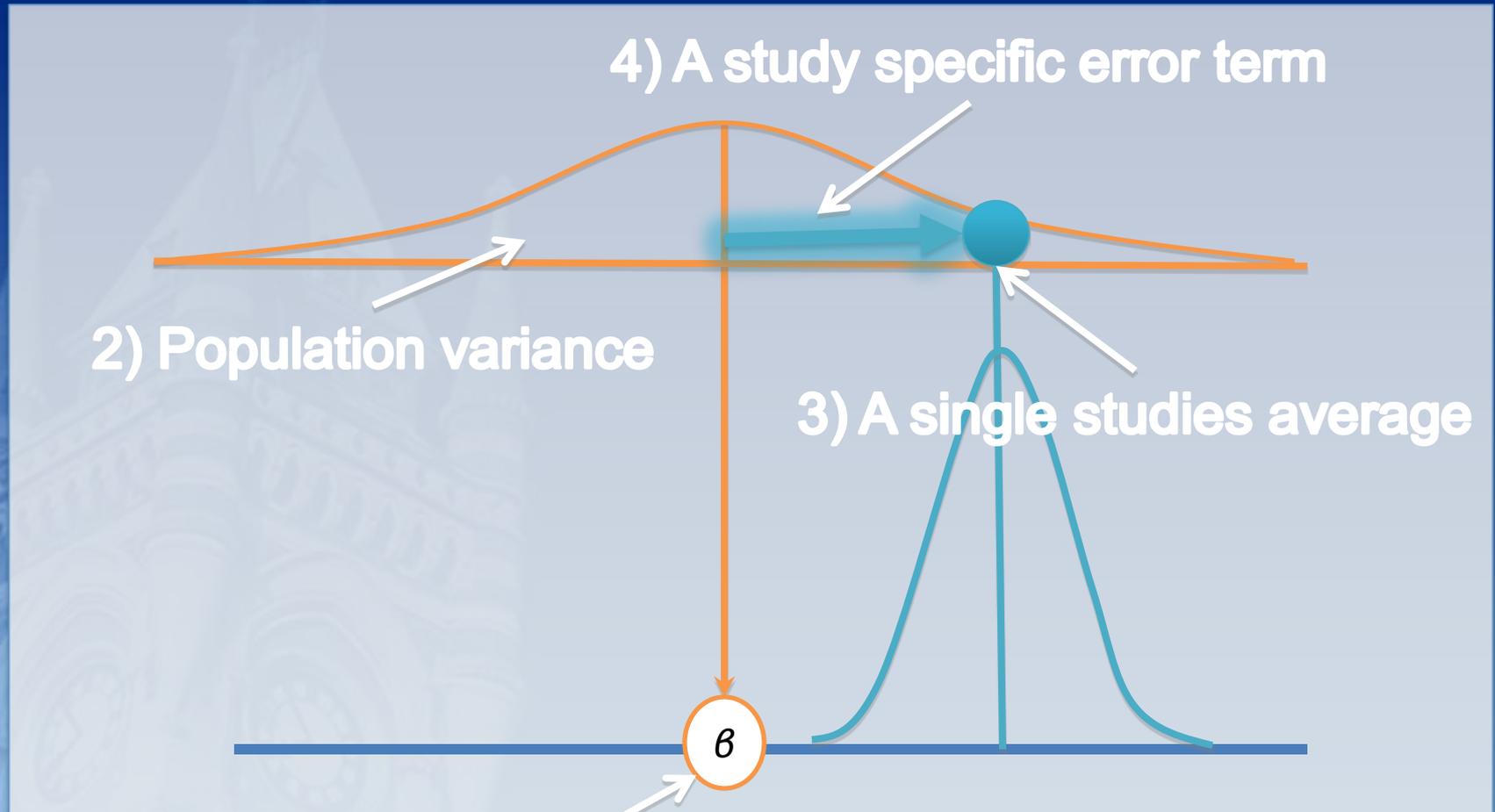
0

Worst
imaginable
health state

Have analysed

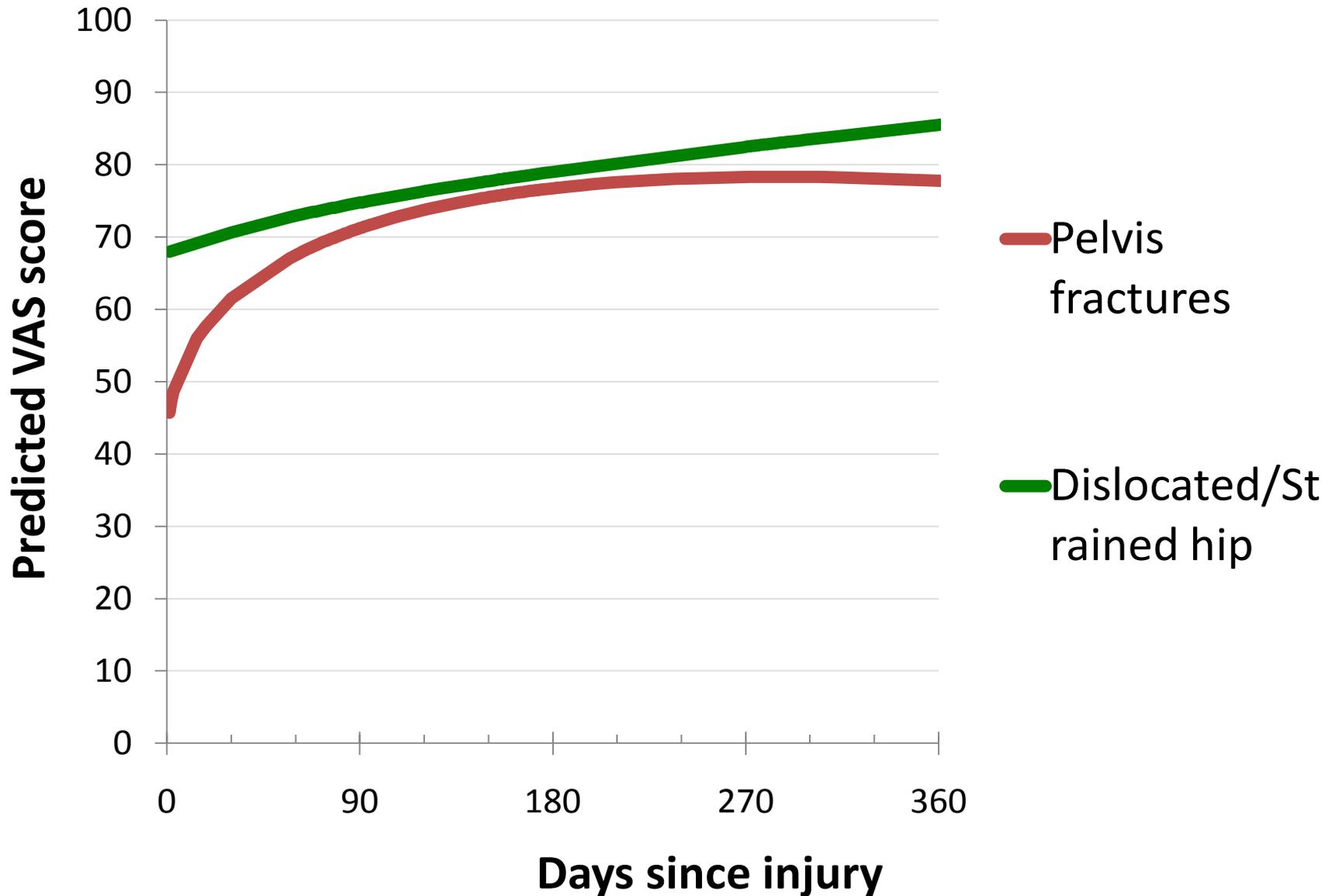
- 21 datasets
 - Ranging from spinal cord injuries to simple strains
- 10,496 injured person's EQ-5D injury data
 - 1500+ beyond one year
 - Predictions produced for 25 (of 39) injury categories

The added benefit of IPD meta-analysis

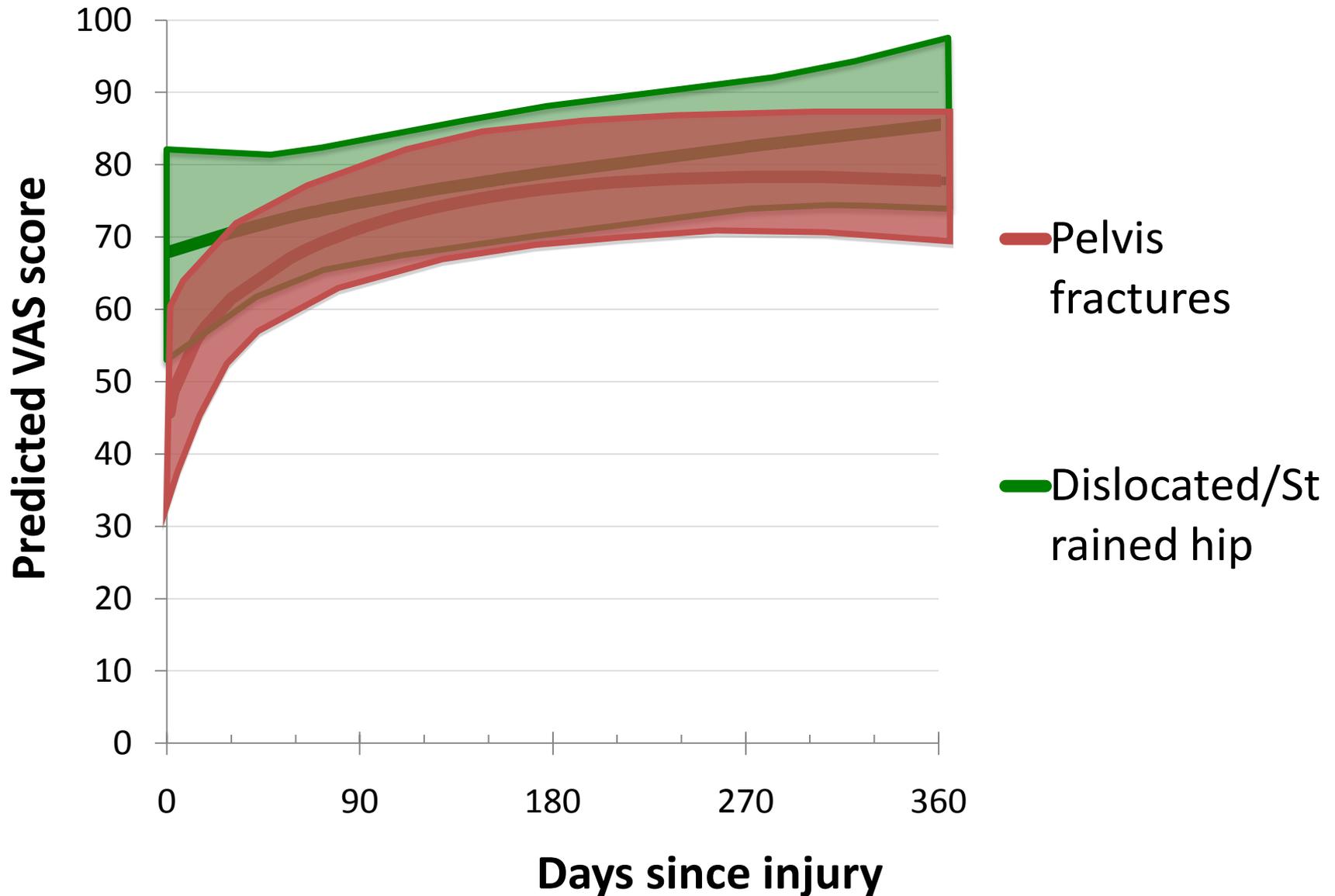


1) The population mean quality of life

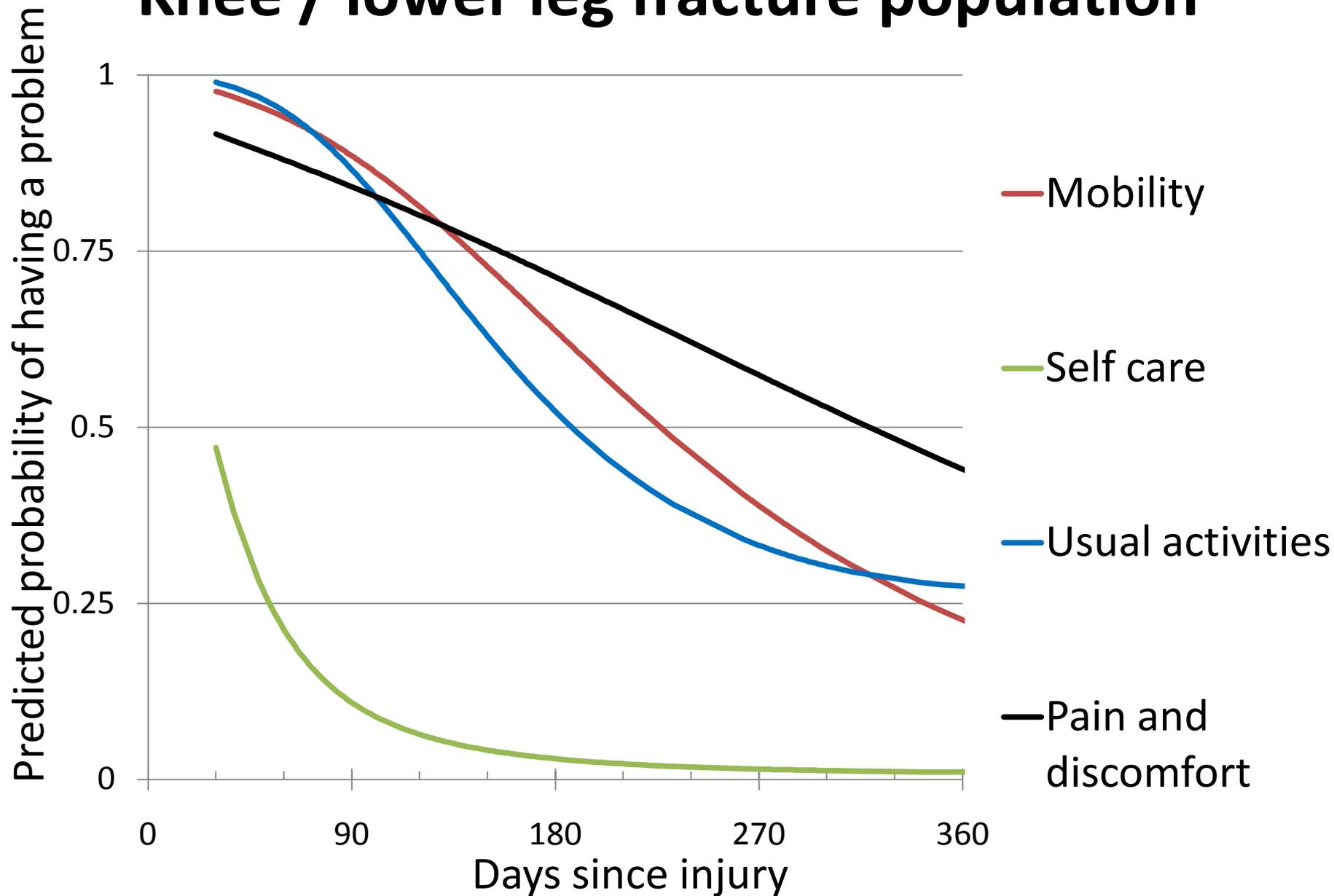
Example VAS scores



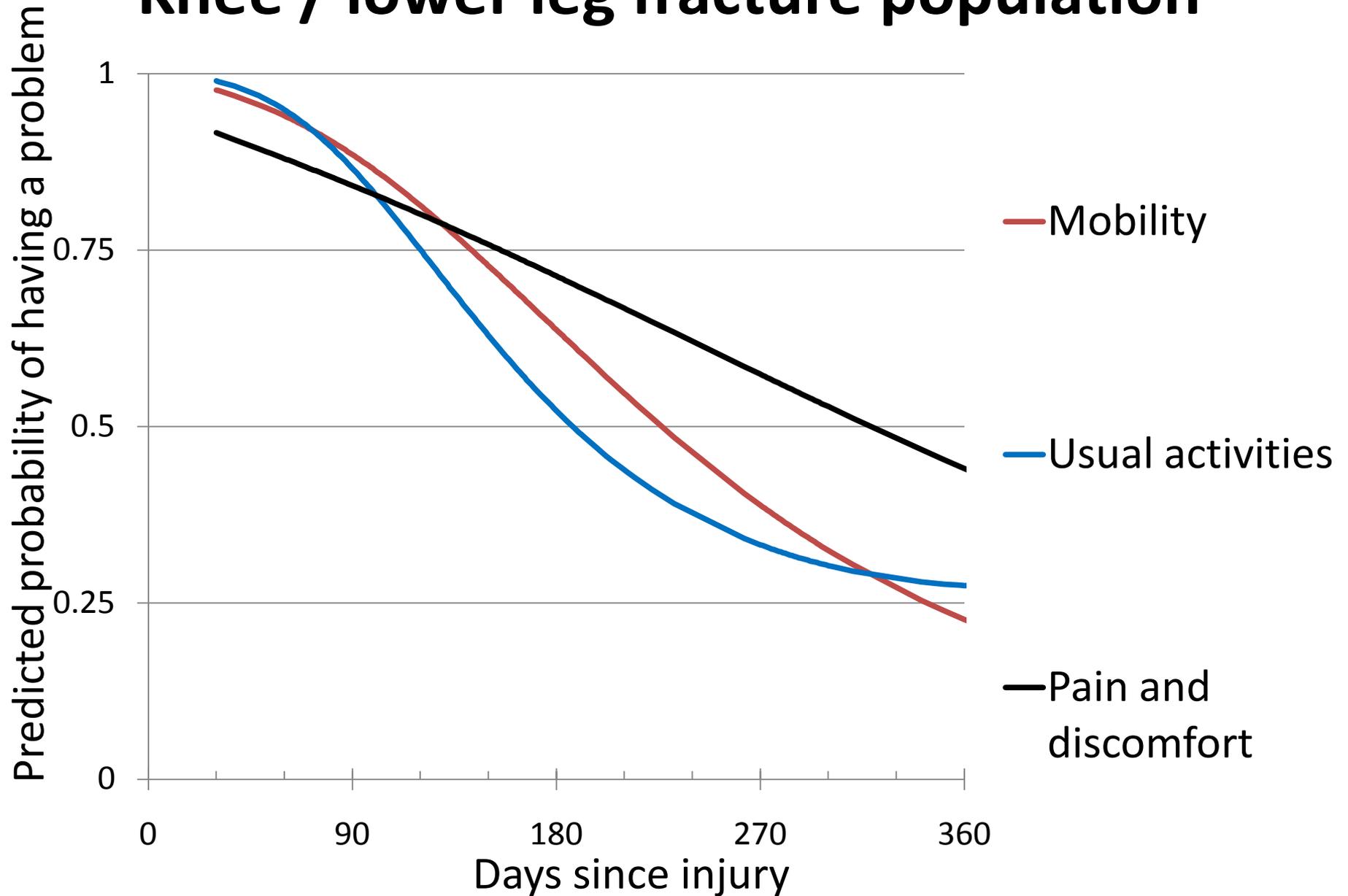
Example VAS scores



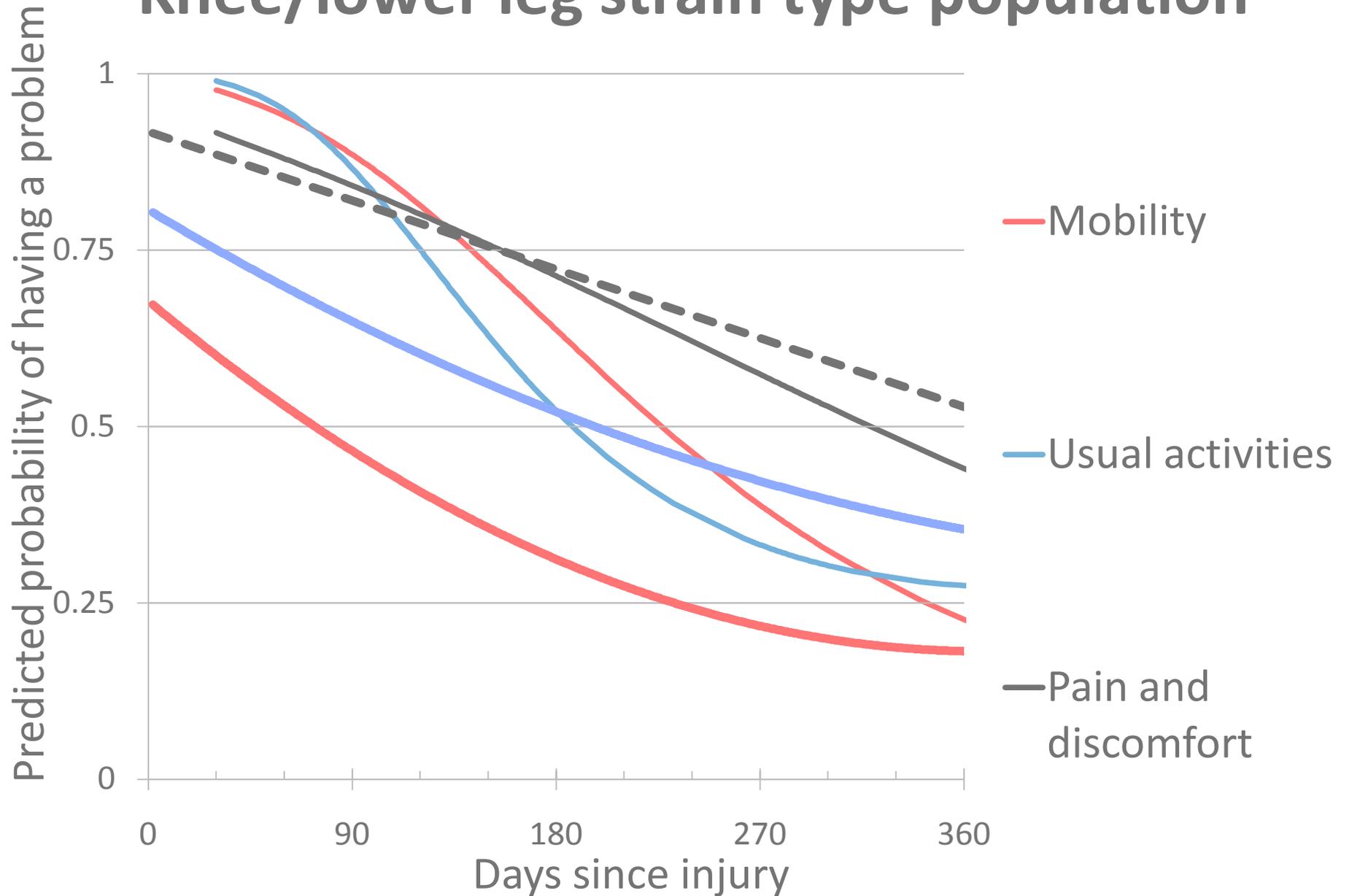
Knee / lower leg fracture population



Knee / lower leg fracture population



Knee/lower leg strain type population



Fracture
type injury

Sprain type
injury

Very poor
initial
HRQoL

Clinical
intervention



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Fracture
type injury

Sprain type
injury

Very poor
initial HRQoL

Residual
impairment
(even at a year)

Clinical
intervention

Slow recovery



Fracture
type injury

Sprain type
injury

Dichotomised
outcome!

Outliers/Hip or
Femur fractures

Very poor initial
HRQoL

Clinical intervention

Residual impairment
(even at a year)

Slow recovery



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Future questions

- The burden of injury / Residual impairment –
 - clinical function balanced with subjective functional health status
- Analytical comparisons of recovery trajectories
 - Cohorts and registries
 - More and more data available

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