

Pathways to Recovery  
TBI in Ireland

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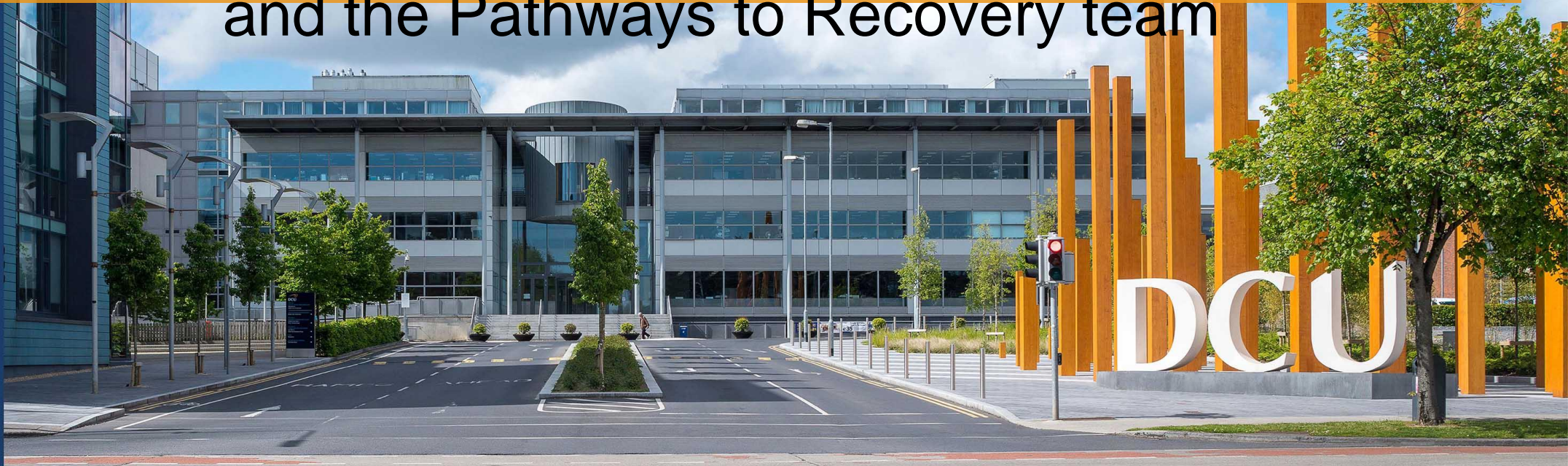
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# Aims – what we wanted to do

- ♦ Assess the burden of TBI in Ireland
- ♦ Understand the impacts of TBI on the lives of survivors and their families
- ♦ See how and when people with TBI accessed rehabilitation services



# Objectives – how we meant to do it

- ♦ Recruit two groups of people
  - Recently head injured people
  - People with head injuries in the more distant past
- ♦ From
  - three acute hospitals
  - three rehabilitation services
- ♦ Review records
- ♦ Document current status
- ♦ Administer questionnaires twice

# What we did

- ♦ Recruited from two acute hospitals, and three rehabilitation services
- ♦ Recruited mostly, but not entirely, patients diagnosed more than one year before we saw them
- ♦ Switched, predominantly, to online or phone interviews because of COVID19

# Tools used

- ♦ GCS or CT to determine severity
- ♦ Some details of injury and admission
- ♦ Interview with client
- ♦ Interview with carer/ supporting family member, if the client identified someone
- ♦ Demography
- ♦ Living situation
- ♦ Rehabilitation received
- ♦ Employment





# Tools used (2)

Score	Items	Good	Mean	Range	Administered
<b>EQ5D3L</b>	5	Higher	0.72	0.1 to 1	First
			0.74	0.09 to 1.0	Second
<b>EQ5D3L VAS</b>	1	Higher	68	0 to 100	First
			73	0 to 100	Second
<b>WHOQOL-BREF</b>	26	Higher	14.35	5.7 to 20	First
(Physical health)			15.3	5.7 to 20	Second
<b>MPAI</b>	29	Lower	37.0	0 to 99	Once only
<b>EBIQ</b>	66	Lower	1.71	1 to 2.6	First
(Core symptoms)			1.68	1 to 2.76	Second

# Key results

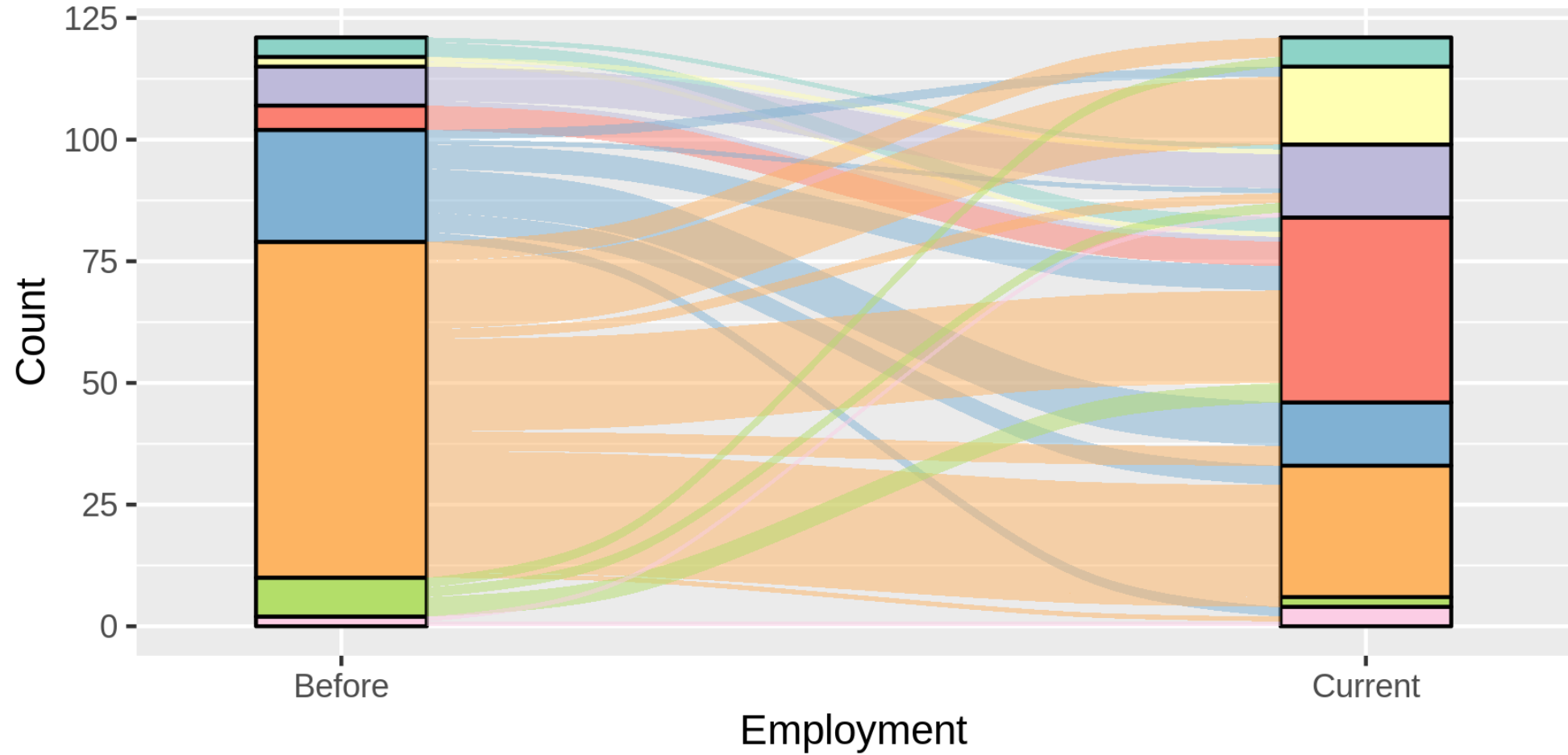
- ♦ 121 interviews completed
- ♦ 33 Female; 88 Male
- ♦ Median Age 43, Range 18 to 86
- ♦ Best estimate is 81 had a severe TBI
- ♦ Typical causes were falls and RTI
- ♦ Median time from injury to interview is 3.7 years
- ♦ High completion rate
- ♦ Response rate not known, but definitely low.

# Rehabilitation sequencing

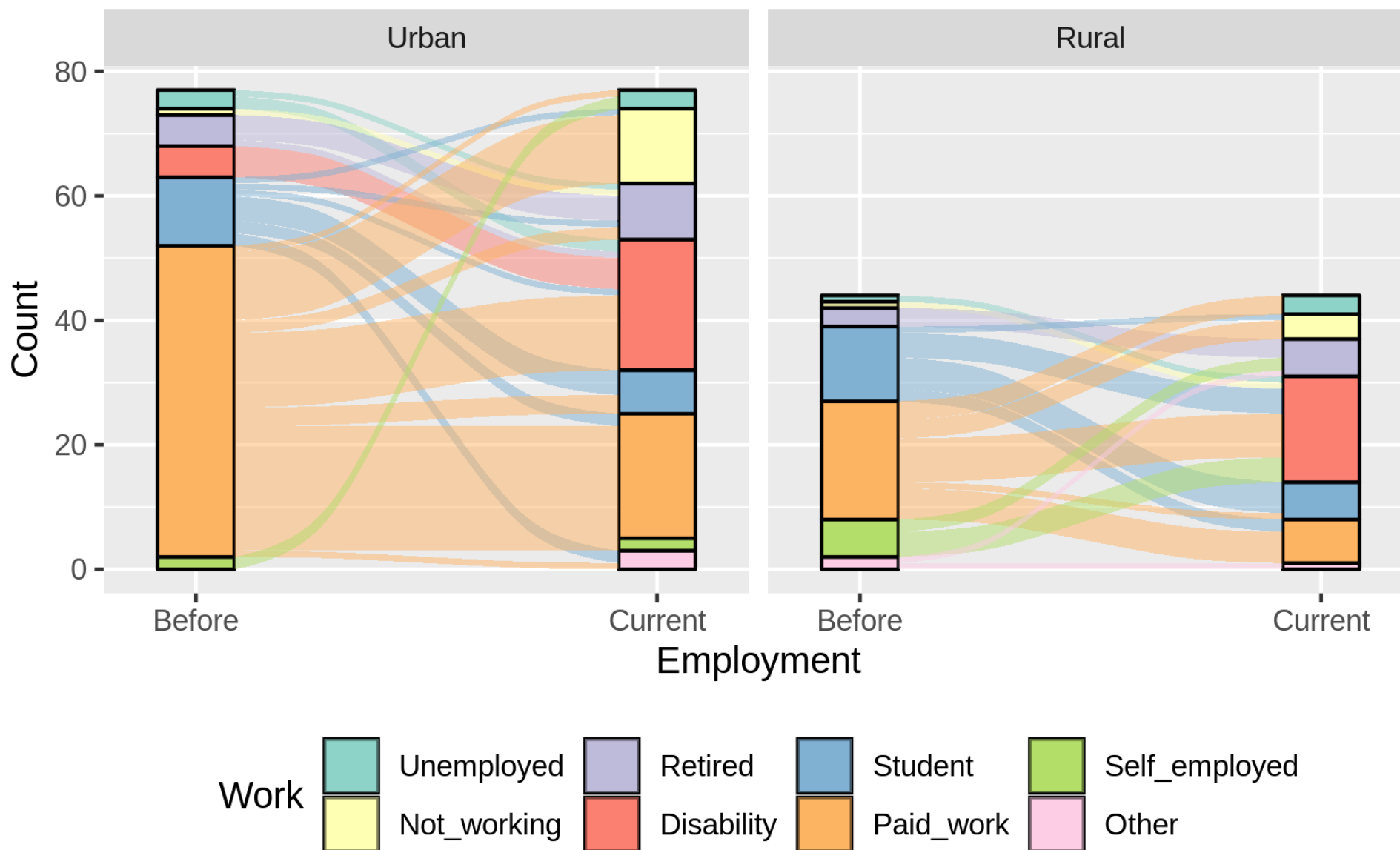
	First	Second	Third	Fourth
Inpatient	50	3	1	0
Outpatient	23	20	7	0
Community	18	30	14	6
None				



# Employment status before injury, and currently

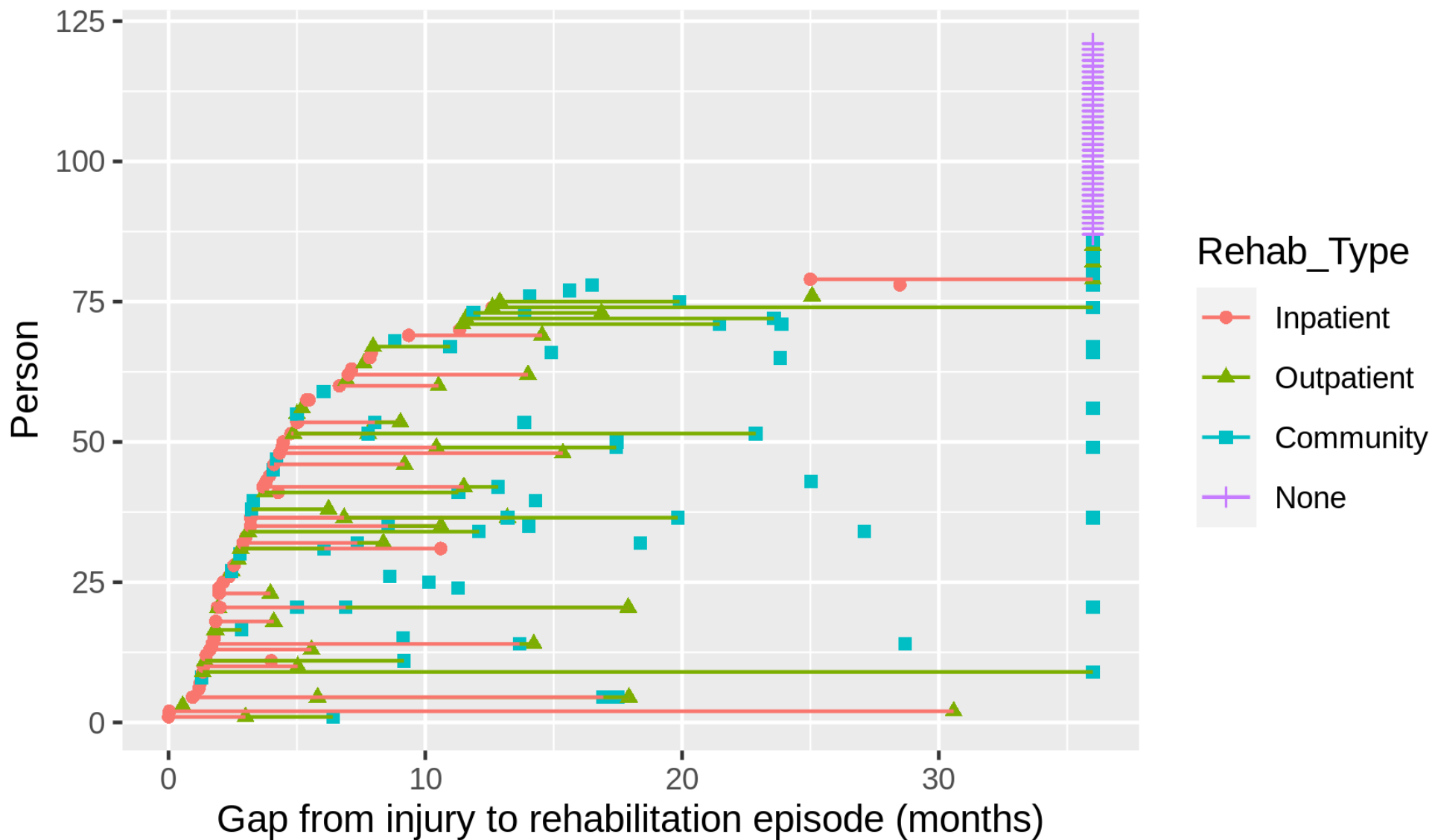


## Employment status before injury, and currently, by area of residence



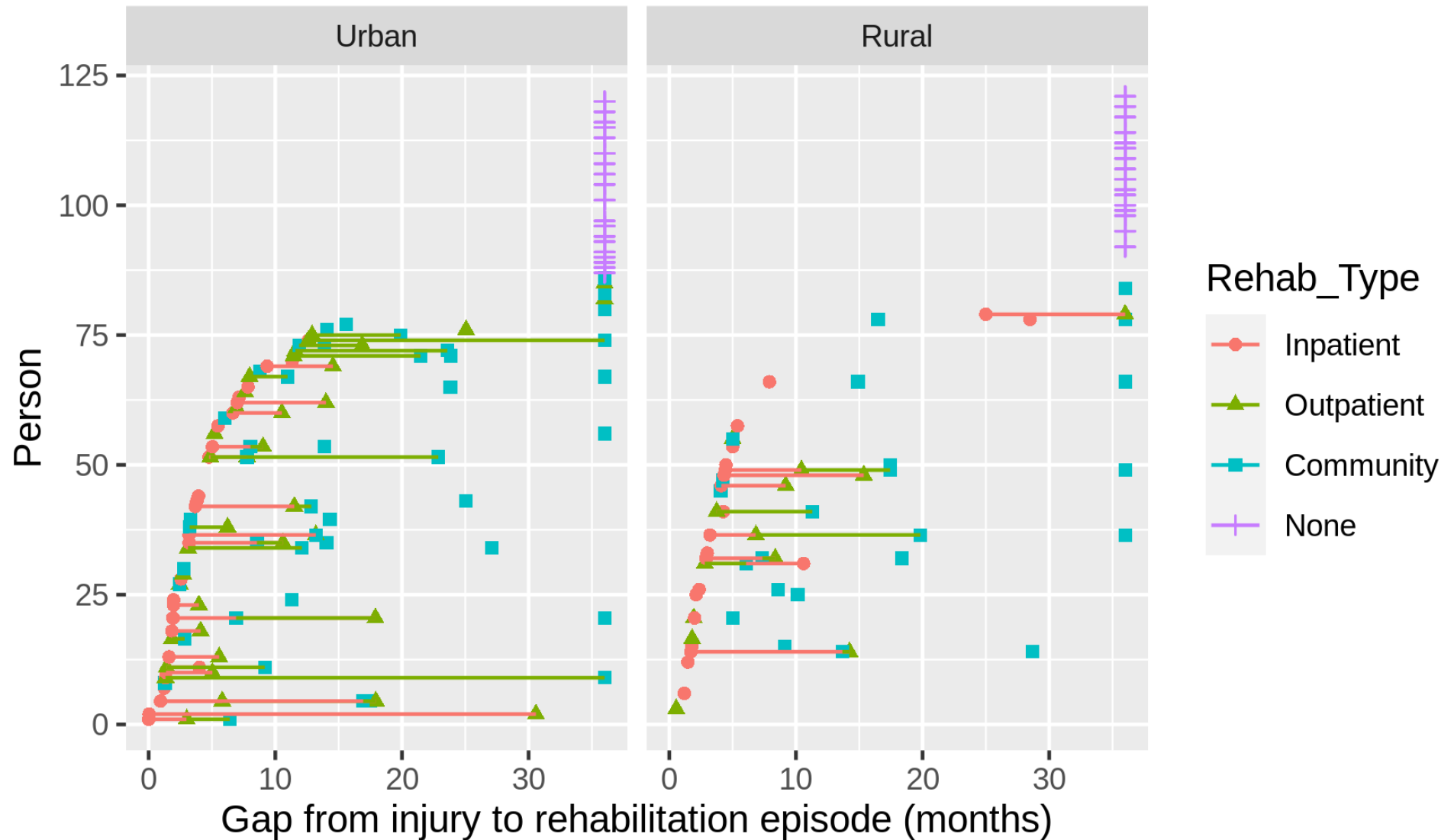
# Gap from injury date to rehabilitation episodes

Gap trimmed to a maximum of 3 years from injury



# Gap from injury date to rehabilitation episodes - by Area of residence

Gap trimmed to a maximum of 3 years from injury

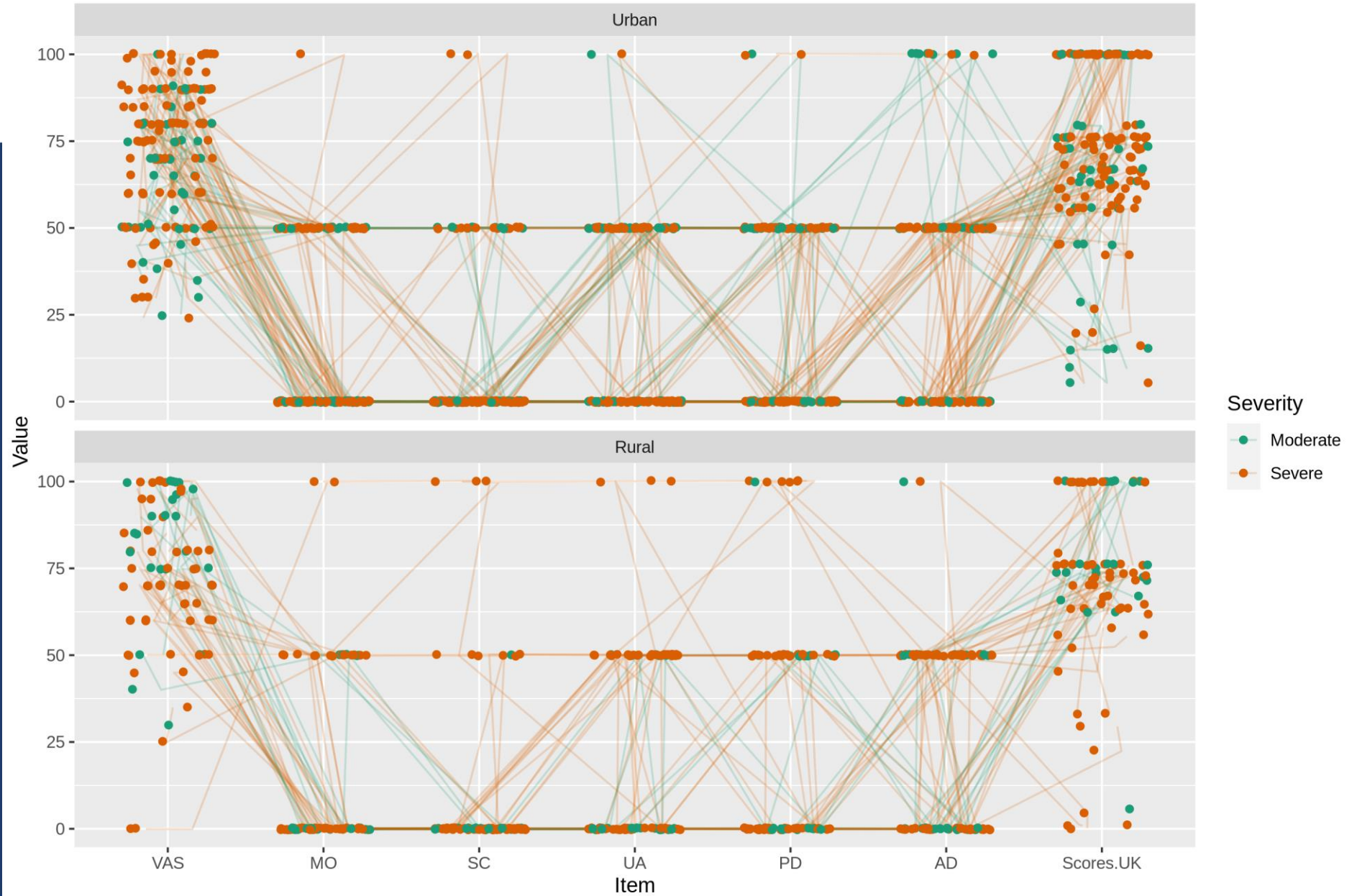


# Two quality of life scales

- ♦ Higher scores are better, except for individual EQ5D3L items, for which they are worse
- ♦ All scores scaled to 0 -100 – not a standard scaling
- ♦ Presented for urban and rural areas separately, with severity of injury indicated by colour



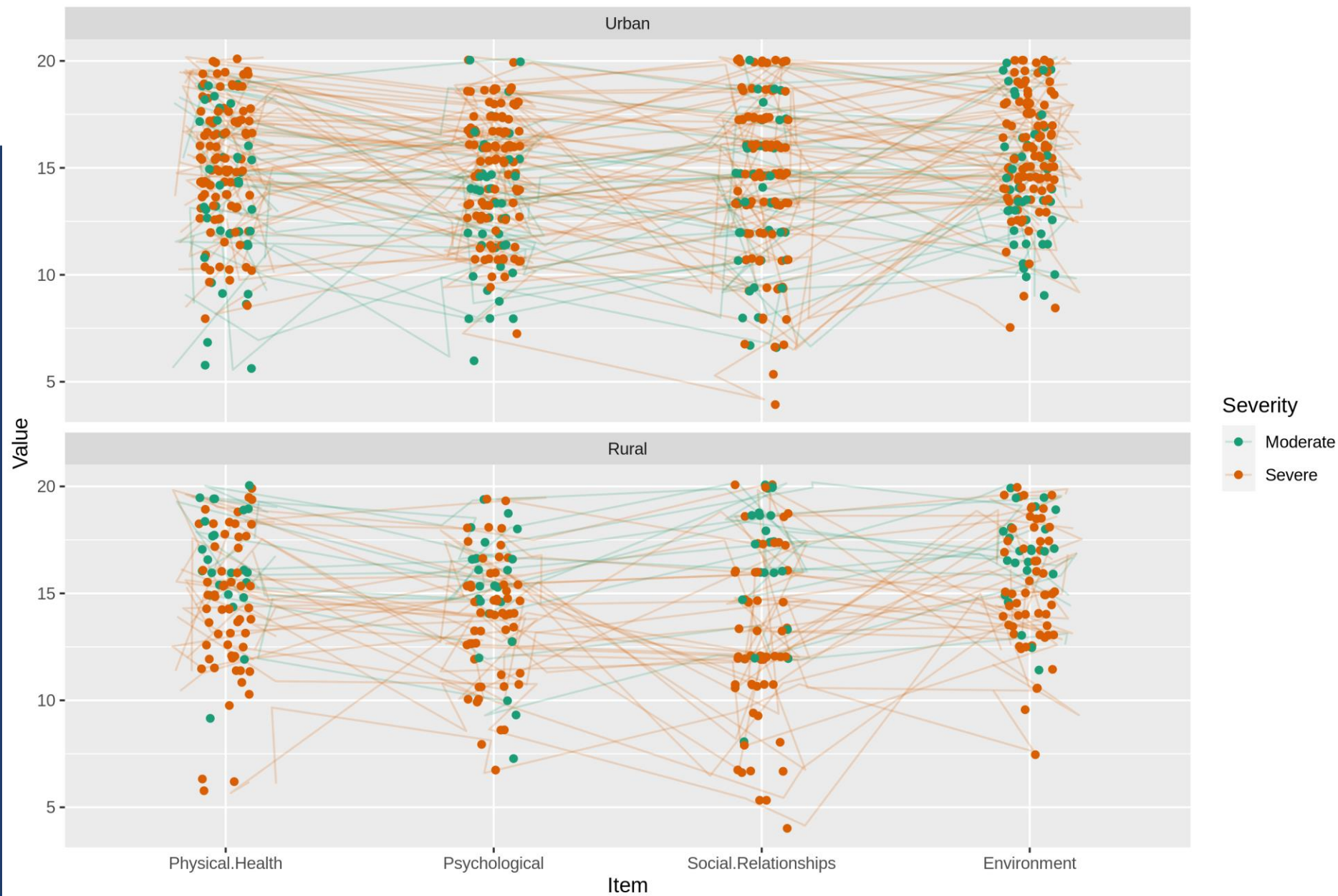
# EQ5D3L VAS, Item, and Overall Results by Location and Severity





# WHOQOL Item Results

by Location and Severity



# Quality of life

- ♦ Significantly reduced for most
- ♦ Widespread impact of TBI on all domains assessed
- ♦ No great evidence for differences between groups
- ♦ No evidence of much change in QOL over six months (but may be affected by COVID19).



# Two impact scales

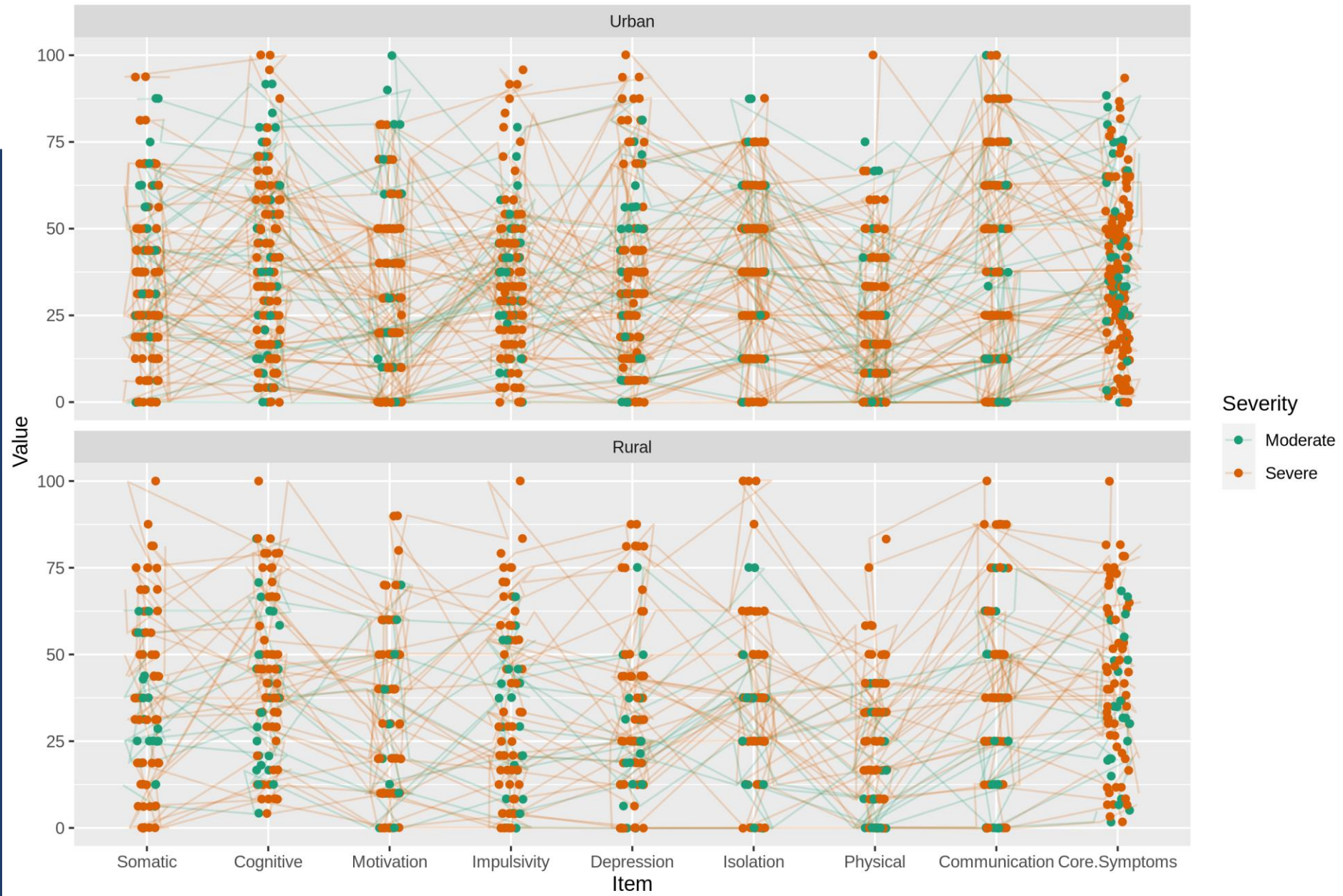
- ♦ Lower scores are better
- ♦ All scores scaled to 0 -100 – not a standard scaling
- ♦ Presented for urban and rural areas separately, with severity of injury indicated by colour



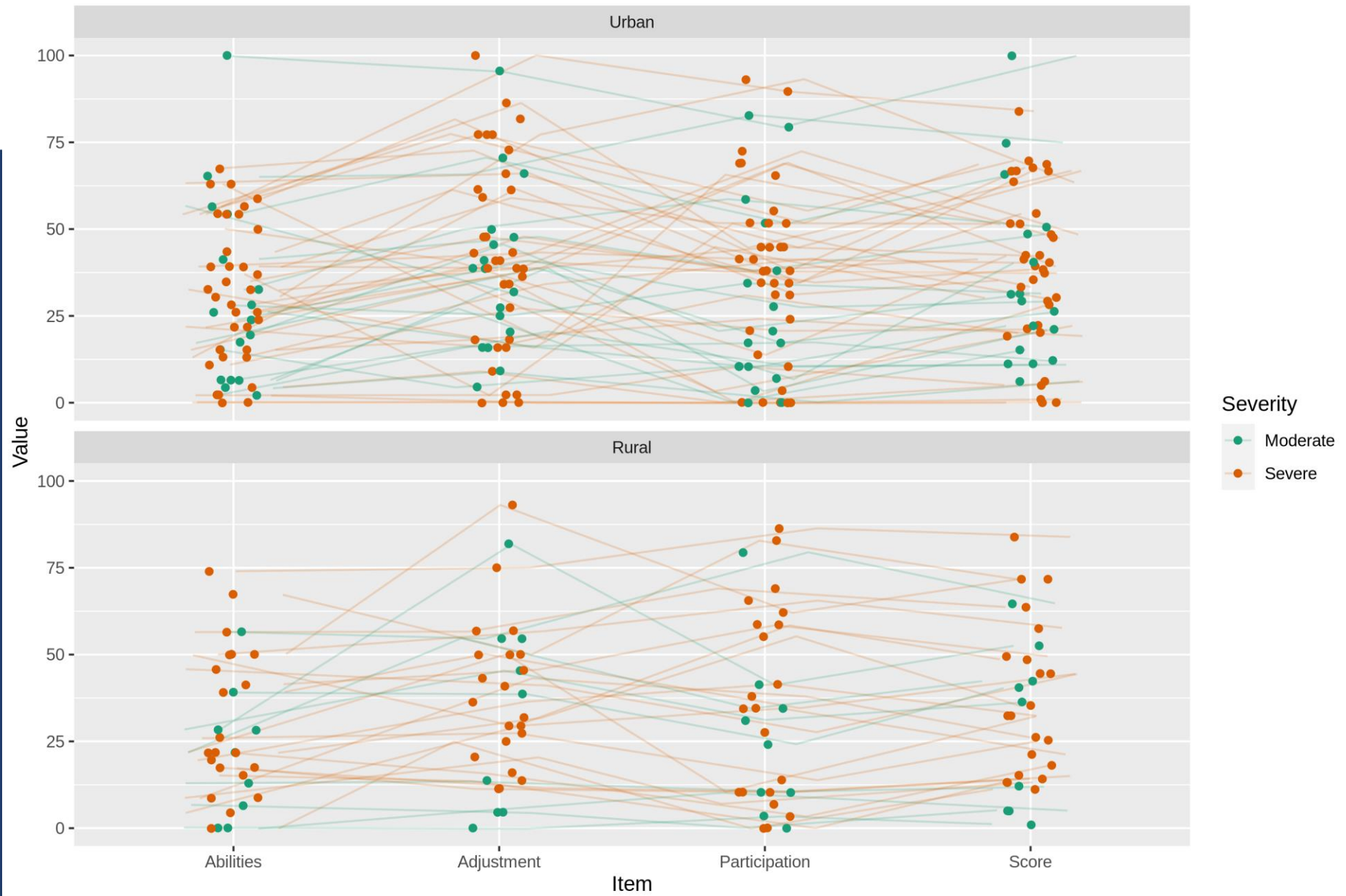
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# EBIQ Item Results by Location and Severity



# MPAI Item Results by Location and Severity



# Two impact scales

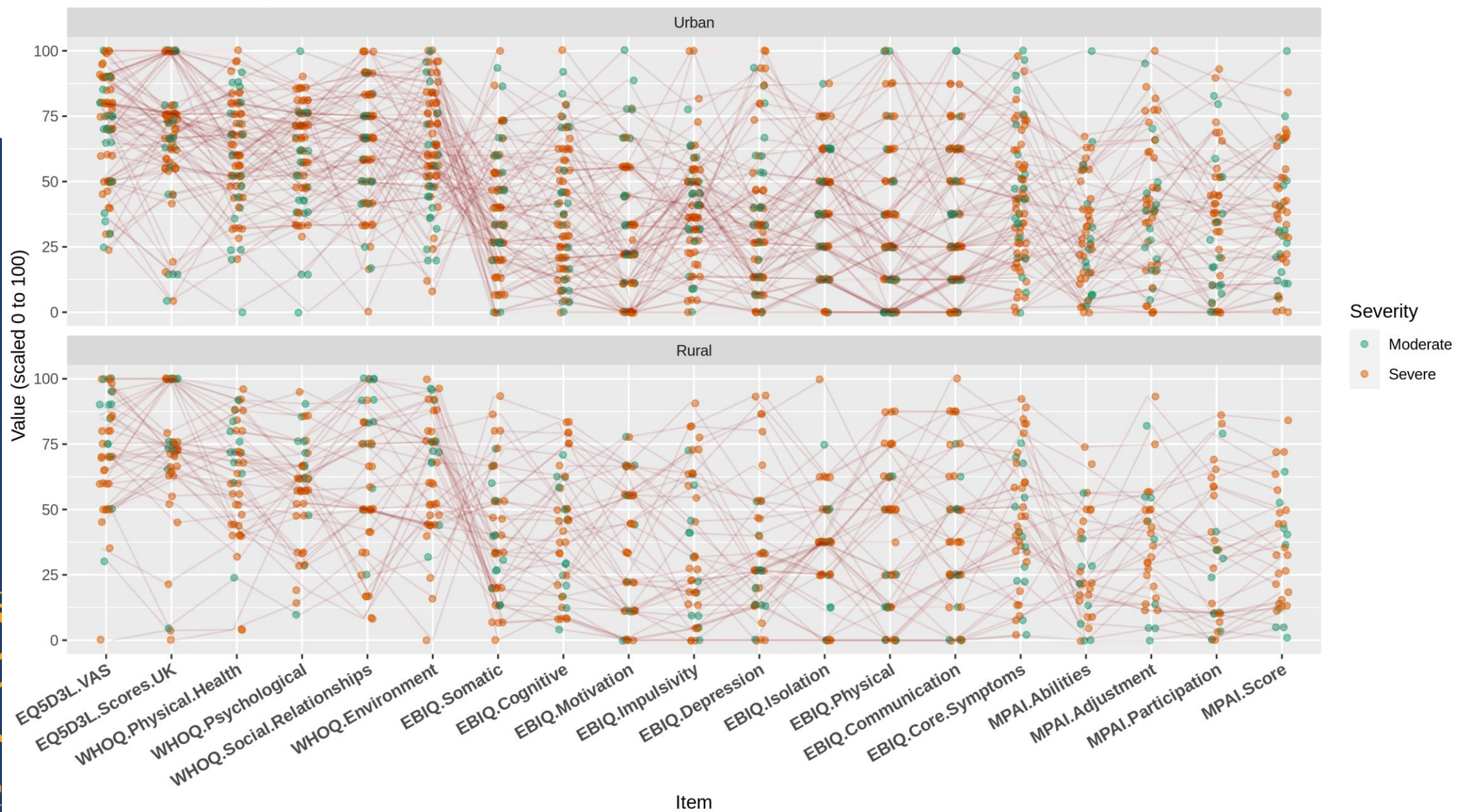
- ♦ Variable, but often very substantial impacts across all domains tested
- ♦ No indication of much change in EBIQ over six months
- ♦ Less severe for Physical measures, perhaps reflecting participant selection bias, perhaps reflecting reality



# All outcome measures

- ♦ The next graph shows each person as a line
- ♦ Their scores on the first occasion for each of the outcome measures are shown as points on those lines
- ♦ In effect these are individual profiles, one per person

Plot of Outcome measures  
by Location and Severity



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# All outcome measures

- ♦ Surprisingly little difference between those with serious and moderate head injuries
- ♦ Very diverse results
- ♦ Less severe for Physical measures, perhaps reflecting participant selection bias, perhaps reflecting reality

# Strengths

- ♦ Detailed study of a range of people with moderate and severe Traumatic Brain Injuries
- ♦ Based in acute hospitals and rehabilitation services
- ♦ People took part on two occasions
- ♦ Wide range of standardized measures used (informed by CDE)
- ♦ Good completion rate of instruments



# Weaknesses

- ♦ Small study – did not achieve intended sample size
- ♦ Impeded by COVID19 outbreak
- ♦ Skewed towards people with longer duration from injury to recruitment
- ♦ Response rate uncertain



# Conclusions

- ♦ The impact of moderate or severe TBI is very substantial
- ♦ There is adequate evidence that intensive rehabilitation can
  - Improve outcomes and quality of life
  - Substantially reduce costs
- ♦ Despite much hard work, there is no evidence of a systematic and accessible care pathway for rehabilitation in Ireland



# Recommendations

- ♦ Rehabilitation needs to be a priority
- ♦ We need a client-centered rights based approach to care and support, with adequate resources
- ♦ Not funding rehabilitation merely shifts costs to other sectors, notably inadequate long-term care, and loss of employment
- ♦ Done right, this will pay for itself in reduced costs elsewhere



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# Collaborators

- ♦ ABI Ireland
- ♦ Headway Ireland
- ♦ National Rehabilitation hospital
- ♦ Beaumont hospital
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- ♦ TARN

Thanks to all of you!

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