

# Assessment of quality of life after intensive care

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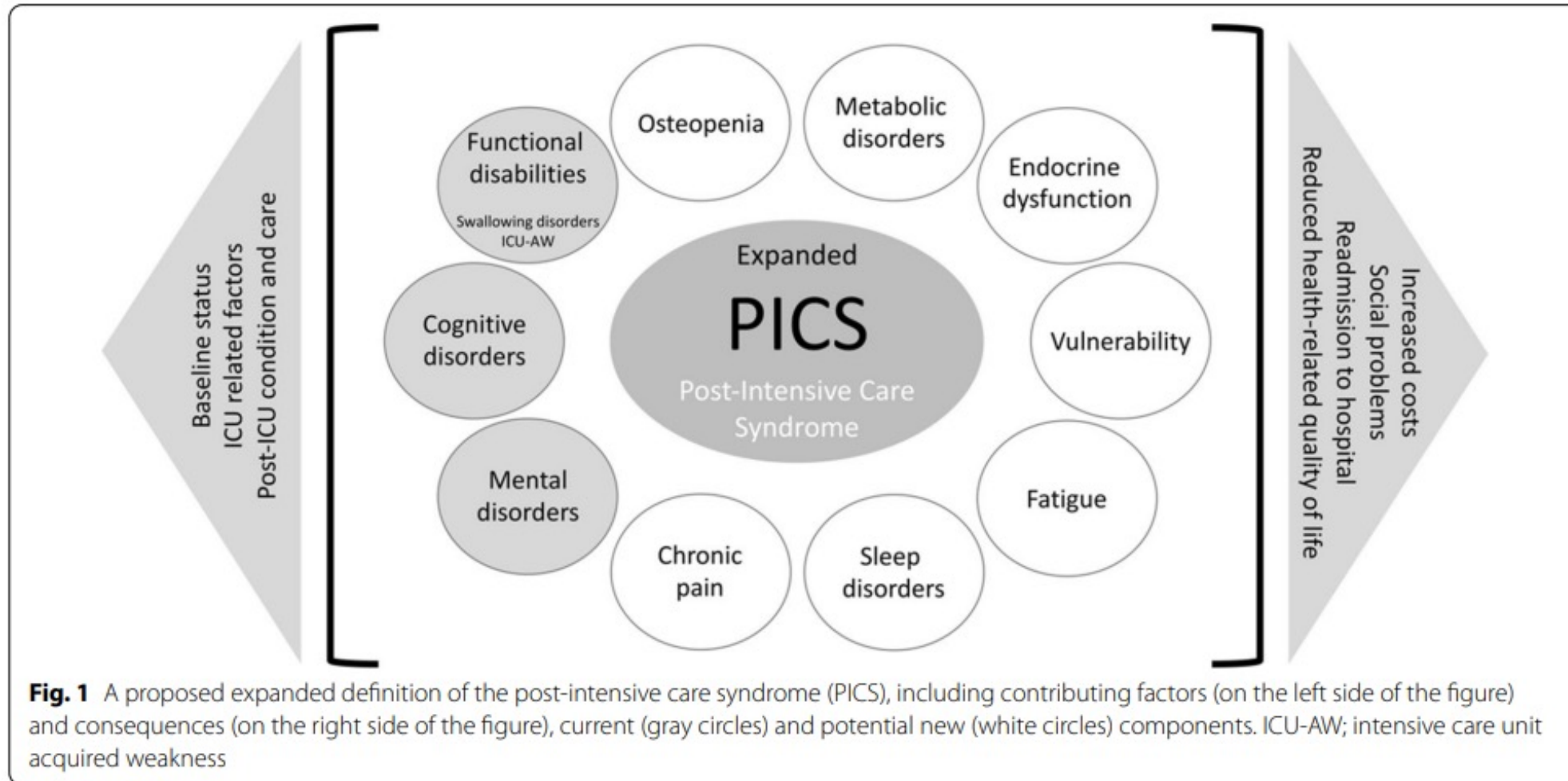
Each year - millions of patients survive critical illness

After critical illness:

- new or worsening impairments in physical
- impairments in cognitive
- impairments in mental health function are common among survivors

Acute illness and the hazards of bed rest and hospitalization:

- survivors of critical illness experience impairments in one or more post intensive care syndrome (PICS) domains




# Survival $\neq$ Recovery

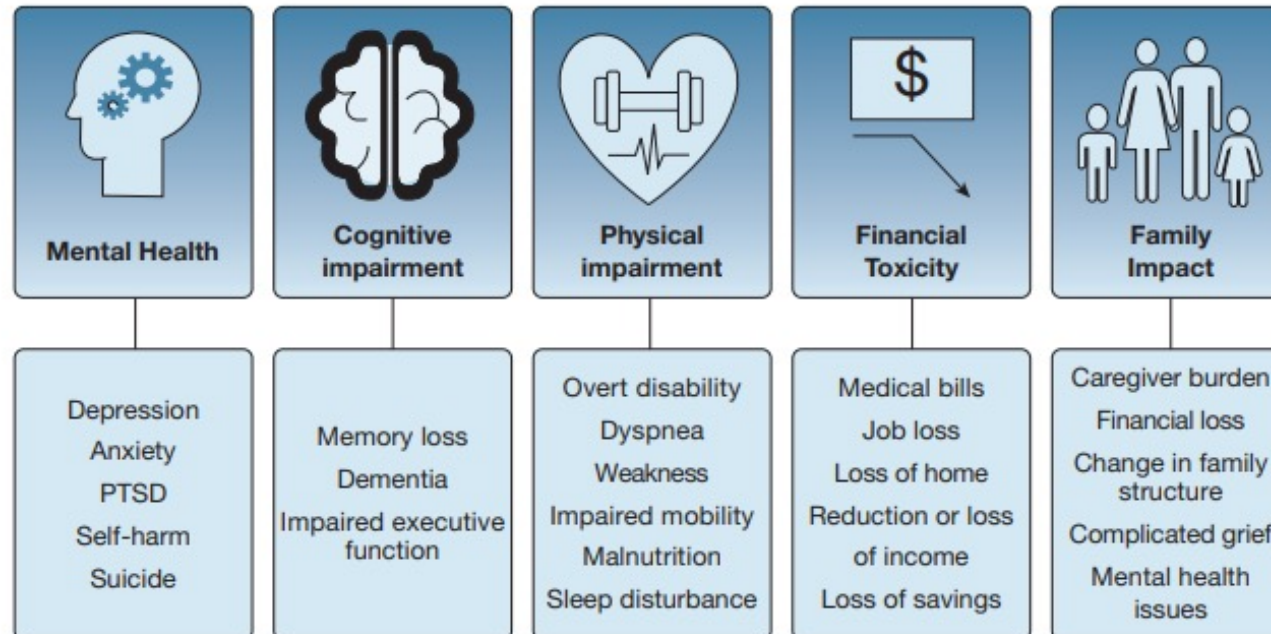
## A Narrative Review of Post-Intensive Care Syndrome



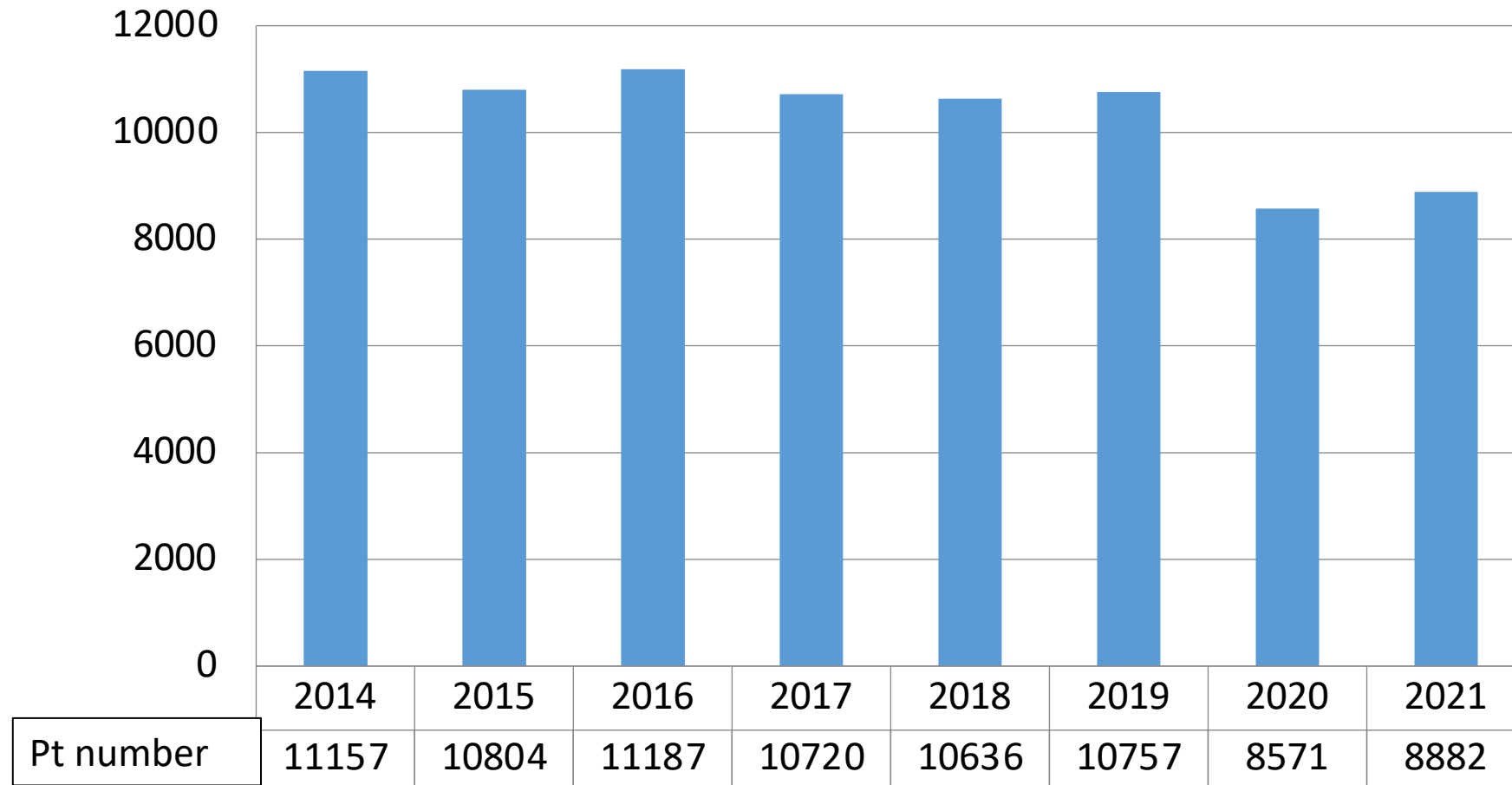
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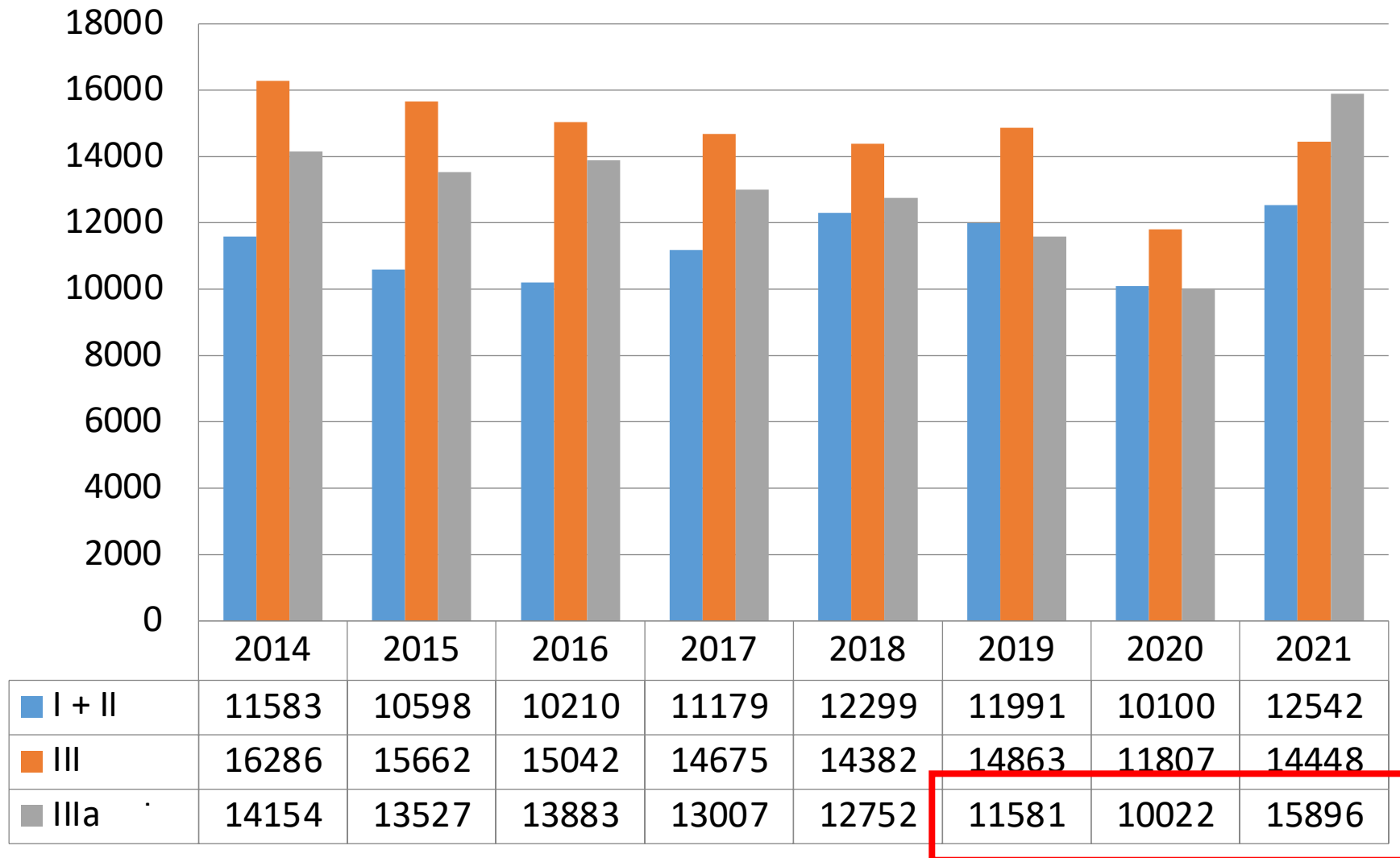
A



# Intensive care patients in Estonia



# Intensive care treatment days, 42 878 (38435)



# How to measure quality of life after ICU?

## The RAND-36 measure of health-related quality of life

Ron D Hays and Leo S Morales

36 items

8 health concepts:

- physical functioning
- role limitations caused by physical health problems
- role limitations caused by emotional problems
- social functioning
- emotional well-being
- energy/fatigue
- pain
- general health perceptions

Physical and mental health summary scores are also derived from the eight RAND-36 scales.

Appendix: RAND-36 items

**Your Health**

This survey includes a wide variety of questions about your health and your life. We are interested in how you feel about each of these issues.

1. In general, would you say your health is: [Mark an  in the one box that best describes your answer.]

Excellent Very good Good Fair Poor  
1 2 3 4 5

2. Compared to one year ago, how would you rate your health in general now?

Much better Somewhat About the Somewhat Much  
 now than better now same as worse now worse now  
 one year than one one year than one than one  
 ago year ago ago year ago year ago  
1 2 3 4 5

3. The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much? [Mark an  in a box on each line.]

Yes, Yes, No, not  
 limited limited limited  
 a lot a little at all

a Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports 1 2 3

b Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf 1 2 3

c Lifting or carrying groceries 1 2 3

d Climbing several flights of stairs 1 2 3

e Climbing one flight of stairs 1 2 3

f Bending, kneeling, or stooping 1 2 3

g Walking more than a mile 1 2 3

h Walking several blocks 1 2 3

i Walking one block 1 2 3

j Bathing or dressing yourself 1 2 3

4. During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

Yes No  
1 2

a Cut down the amount of time you spent on work or other activities 1 2

b Accomplished less than you would like 1 2

c Were limited in the kind of work or other activities 1 2

d Had difficulty performing the work or other activities (for example, it took extra effort) 1 2

5. During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

Yes No  
1 2

a Cut down the amount of time you spent on work or other activities 1 2

b Accomplished less than you would like 1 2

c Didn't do work or other activities as carefully as usual 1 2

6. During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?

Not at all Slightly Moderately Quite a bit Extremely  
1 2 3 4 5

7. How much bodily pain have you had during the past 4 weeks?

None Very mild Mild Moderate Severe Very severe  
1 2 3 4 5 6

8. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

Not at all A little bit Moderately Quite a bit Extremely  
1 2 3 4 5

9. These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling.

How much of the time during the past 4 weeks...

All of the time Most of the time A good bit of the time Some of the time A little of the time None of the time  
1 2 3 4 5 6

a Did you feel full of pep? 1 2 3 4 5 6

b Have you been a very nervous person? 1 2 3 4 5 6

c Have you felt so down in the dumps that nothing could cheer you up? 1 2 3 4 5 6

d Have you felt calm and peaceful? 1 2 3 4 5 6

e Did you have a lot of energy? 1 2 3 4 5 6

f Have you felt downhearted and blue? 1 2 3 4 5 6

g Did you feel worn out? 1 2 3 4 5 6

h Have you been a happy person? 1 2 3 4 5 6

i Did you feel tired? 1 2 3 4 5 6

10. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)?

All of the time Most of the time Some of the time A little of the time None of the time  
1 2 3 4 5

11. Please choose the answer that best describes how true or false each of the following statements is for you.

Definitely true Mostly true Don't know Mostly false Definitely false  
1 2 3 4 5

a I seem to get sick a little easier than other people 1 2 3 4 5

b I am as healthy as anybody I know 1 2 3 4 5

c I expect my health to get worse 1 2 3 4 5

d My health is excellent 1 2 3 4 5

Thank you for completing these questions!



# EQ-5D

- **EQ-5D** is a standardised measure of health-related quality of life developed by the [EuroQol Group](#)
- questionnaire for use in clinical and economic appraisal and population health surveys
- EQ-5D assesses health status in terms of five dimensions of health

## Box 1.1. What are EQ-5D profiles?

A set of responses to the statements given in the descriptive system element of the EQ-5D questionnaire describes a health state or 'profile' as a combination of dimensions and levels within dimensions. For example, a completed questionnaire may be like this:

Under each heading, please tick the ONE box that best describes your health TODAY.

<b>MOBILITY</b>		
I have no problems in walking about	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Level 1 is coded as a '1'
I have some problems in walking about	<input type="checkbox"/>	
I am confined to bed	<input type="checkbox"/>	
<b>SELF-CARE</b>		
I have no problems with self-care	<input checked="" type="checkbox"/>	<input type="checkbox"/> Level 2 is coded as a '2'
I have some problems washing or dressing myself	<input type="checkbox"/>	
I am unable to wash or dress myself	<input type="checkbox"/>	
<b>USUAL ACTIVITIES</b> (e.g. work, study, housework, family or leisure activities)		
I have no problems with performing my usual activities	<input type="checkbox"/>	<input type="checkbox"/> Level 3 is coded as a '3'
I have some problems with performing my usual activities	<input checked="" type="checkbox"/>	
I am unable to perform my usual activities	<input type="checkbox"/>	
<b>PAIN/DISCOMFORT</b>		
I have no pain or discomfort	<input type="checkbox"/>	
I have moderate pain or discomfort	<input type="checkbox"/>	
I have extreme pain or discomfort	<input checked="" type="checkbox"/>	
<b>ANXIETY/DEPRESSION</b>		
I am not anxious or depressed	<input type="checkbox"/>	
I am moderately anxious or depressed	<input checked="" type="checkbox"/>	
I am extremely anxious or depressed	<input type="checkbox"/>	

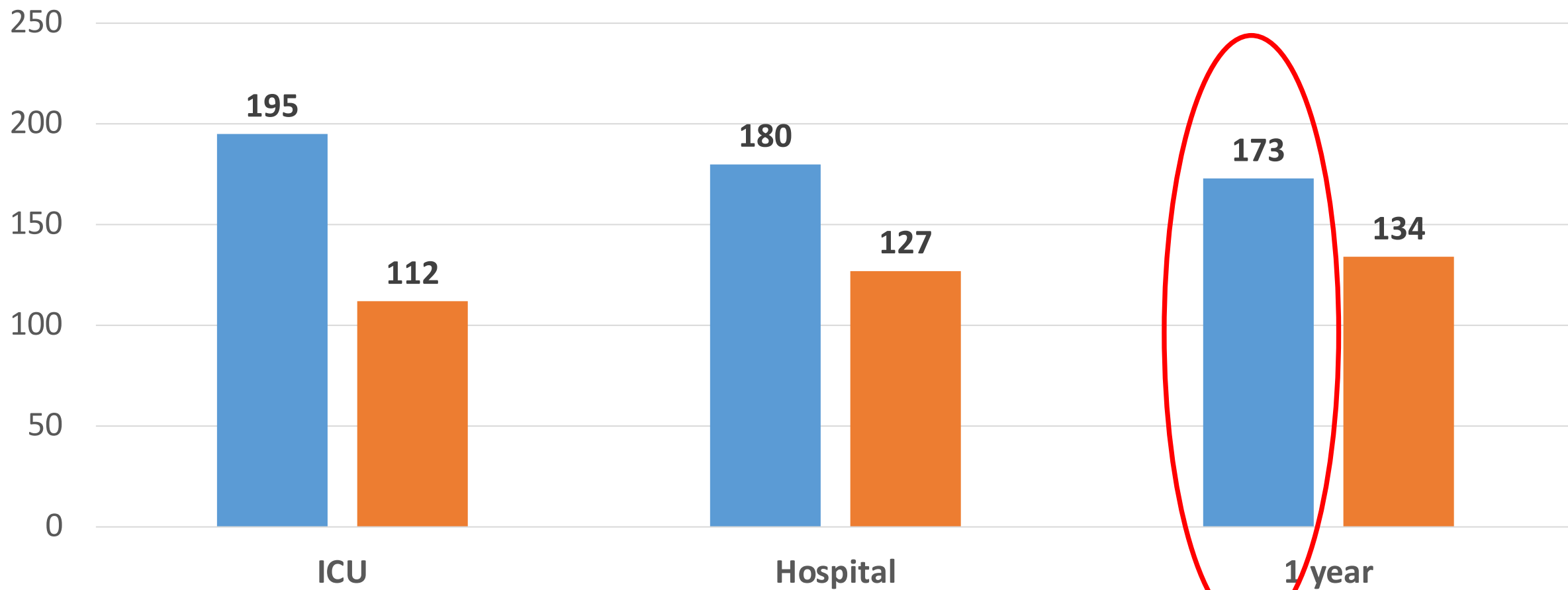


# COVID-19 follow up

- North Estonia Medical Centre, 2 covid-ICUs
- 23.03.2020 – 31.12.2021
- Patients: 307
  
- Age at admission: 63y (min 11- max 89y)
- Women 106, men 201
- APACHE-II 14 (7-32)
- ICU LOS 13 (1-47)
- Hospital LOS 22 (4-90)

# Mortality

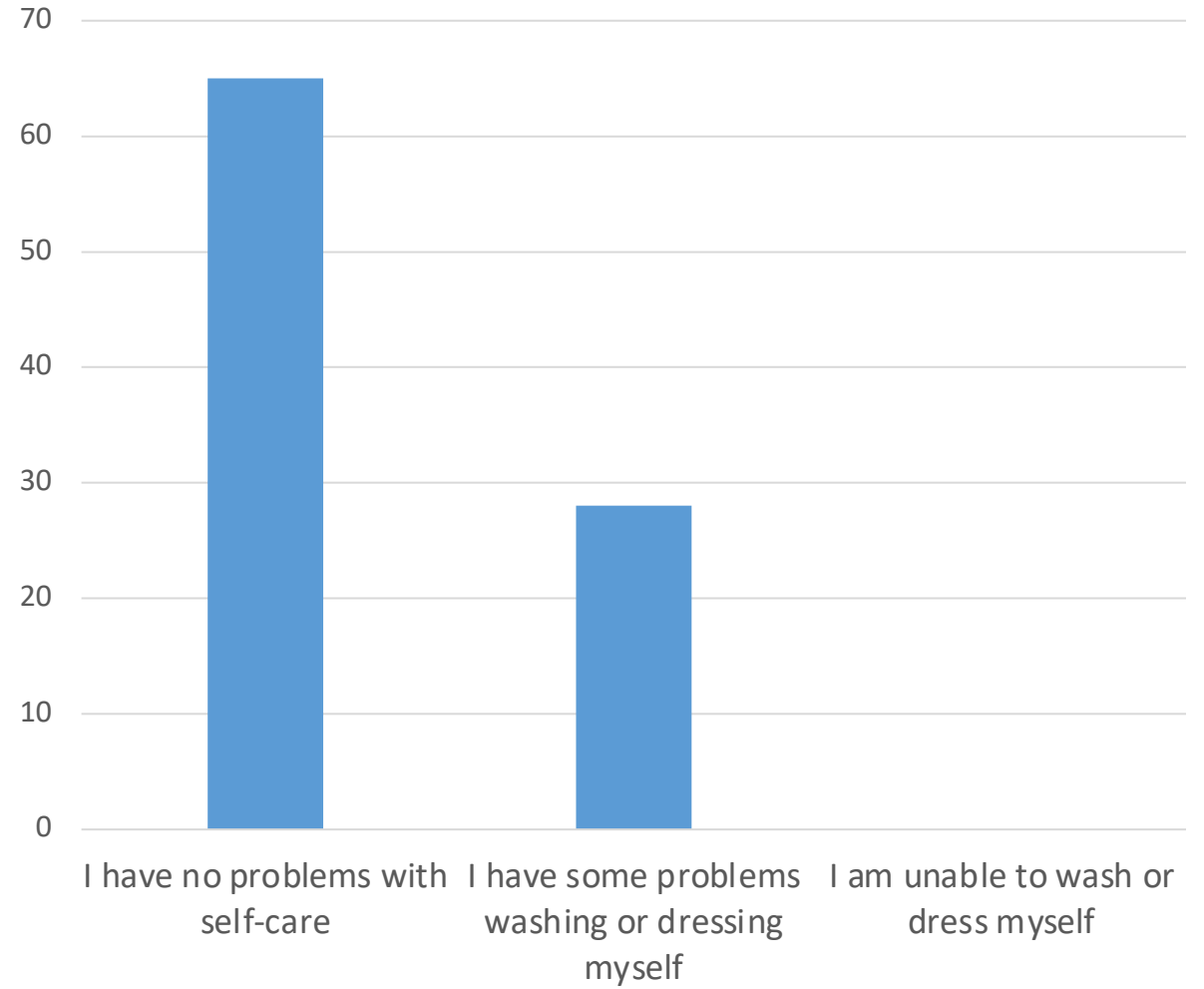
■ Alive ■ Dead



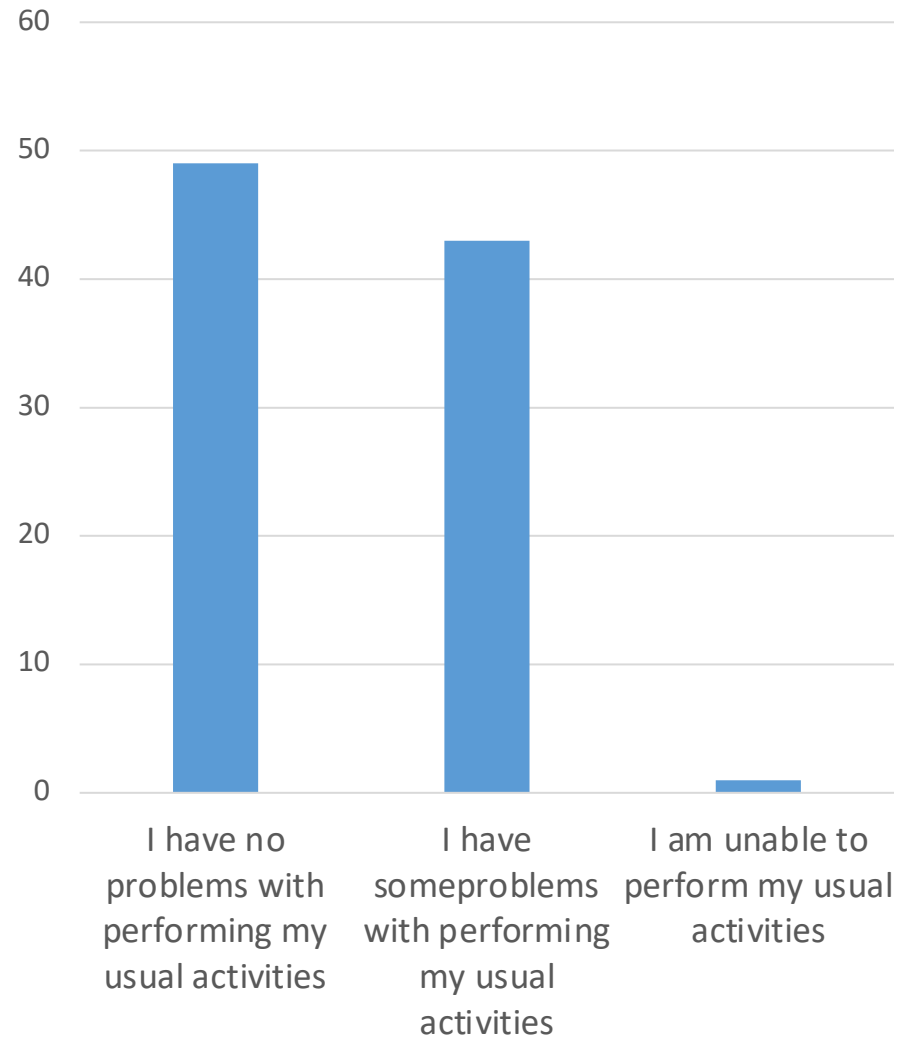
## EQ-5D – Mobility



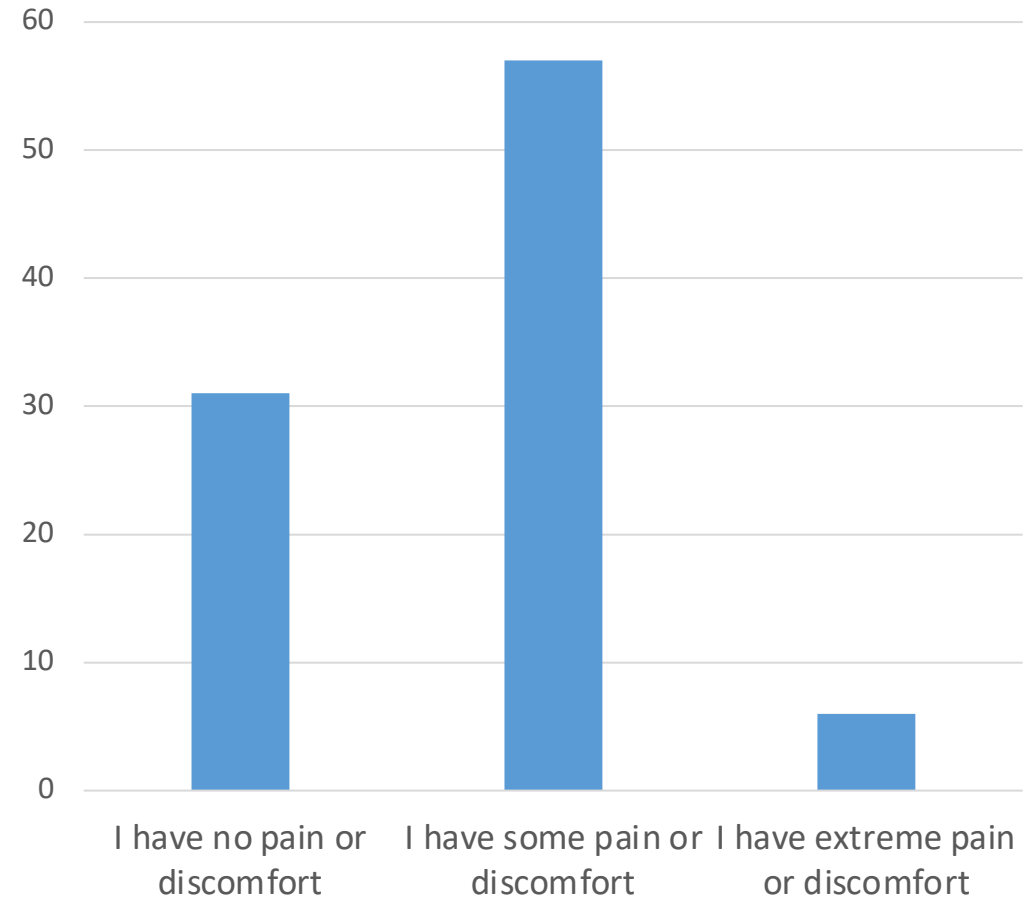
## EQ-5D - Self-care



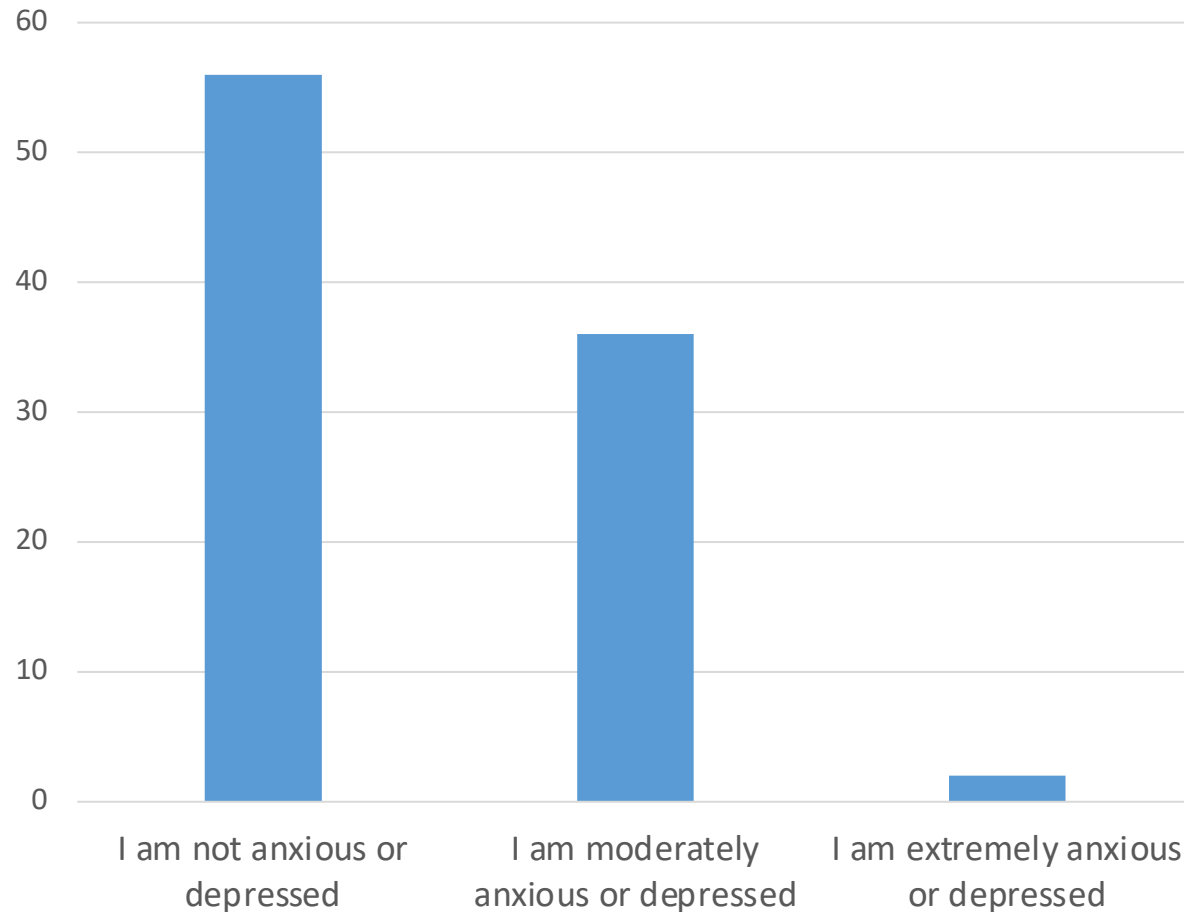
## EQ-5D - Usual Activities



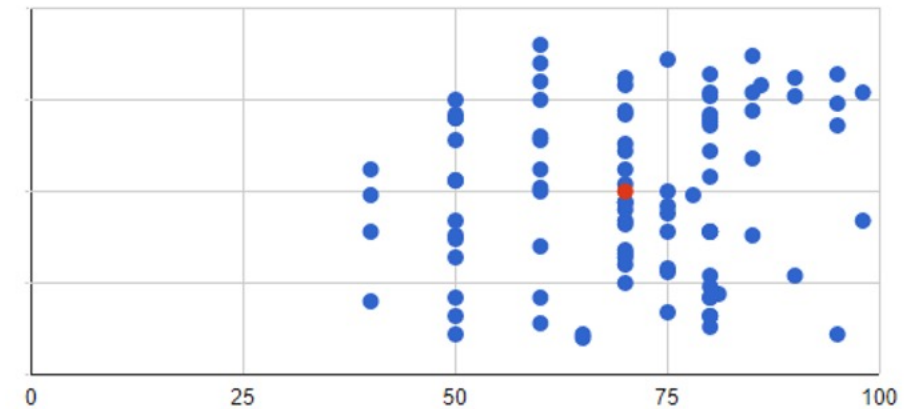
## EQ-5D - Pain & Discomfort



## EQ-5D - Anxiety & Depression

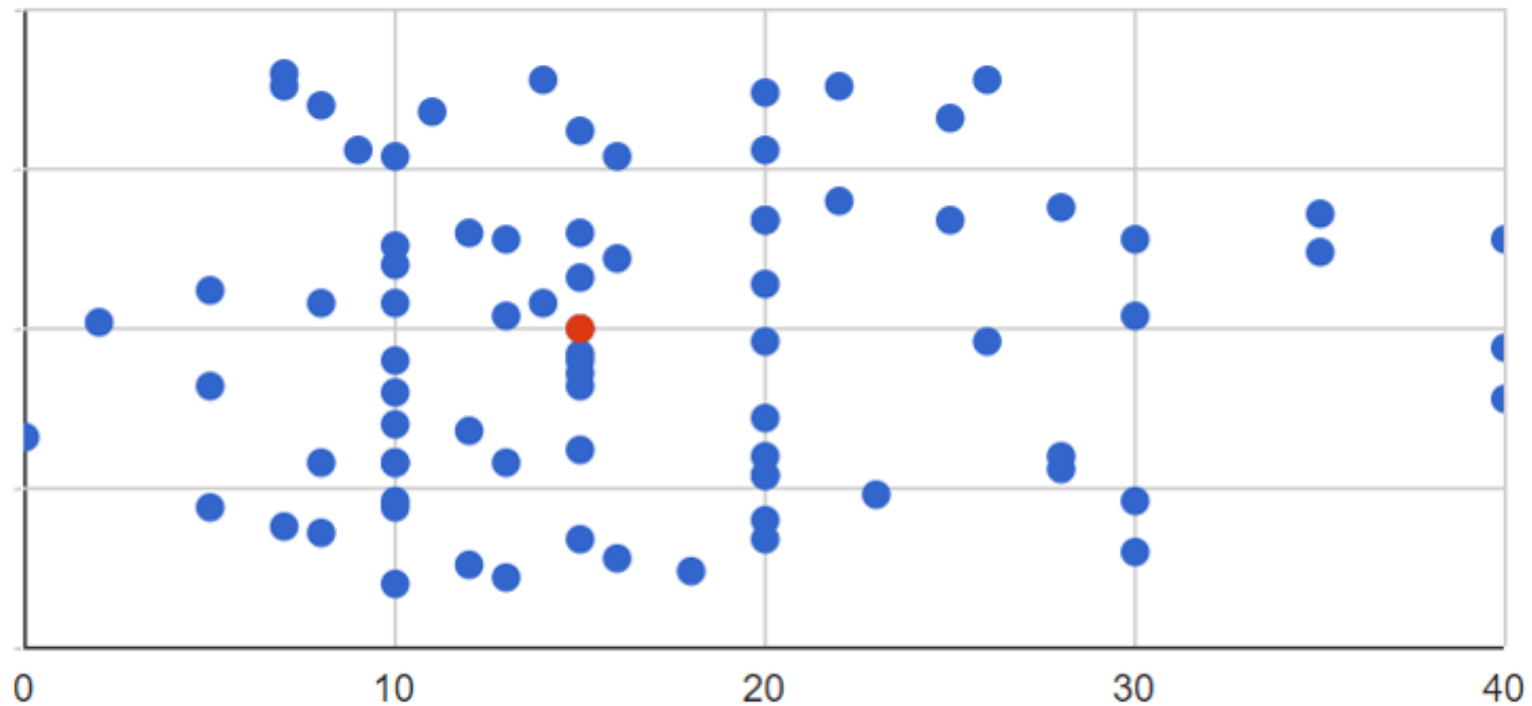


- Subjective assessment to health from patients in scale 1....100
- 1- the worst; 100 – the best
- Median 70 (50-95)

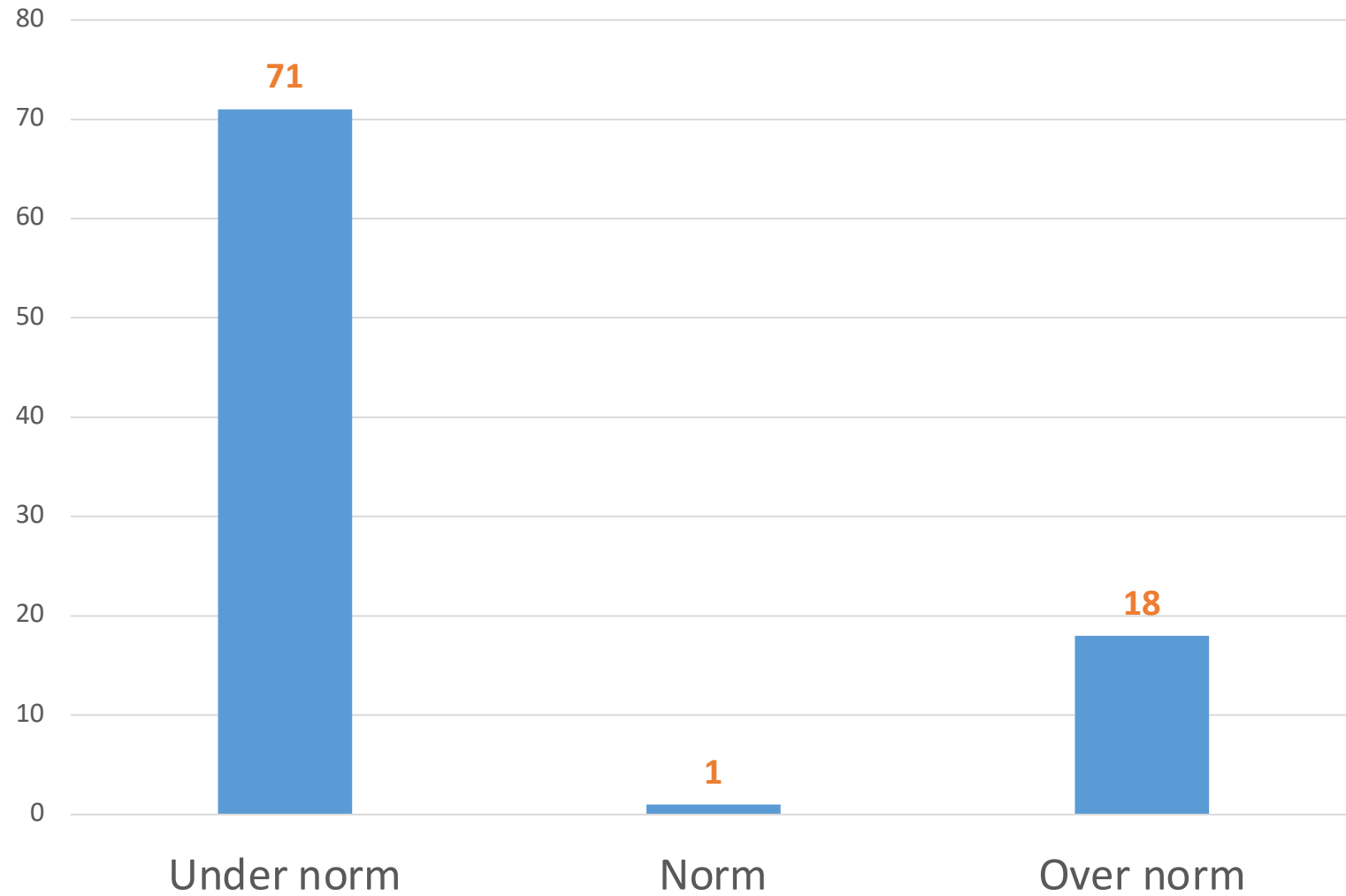


# Weight loss during ICU stay

Median 15 kg (5...35kg)

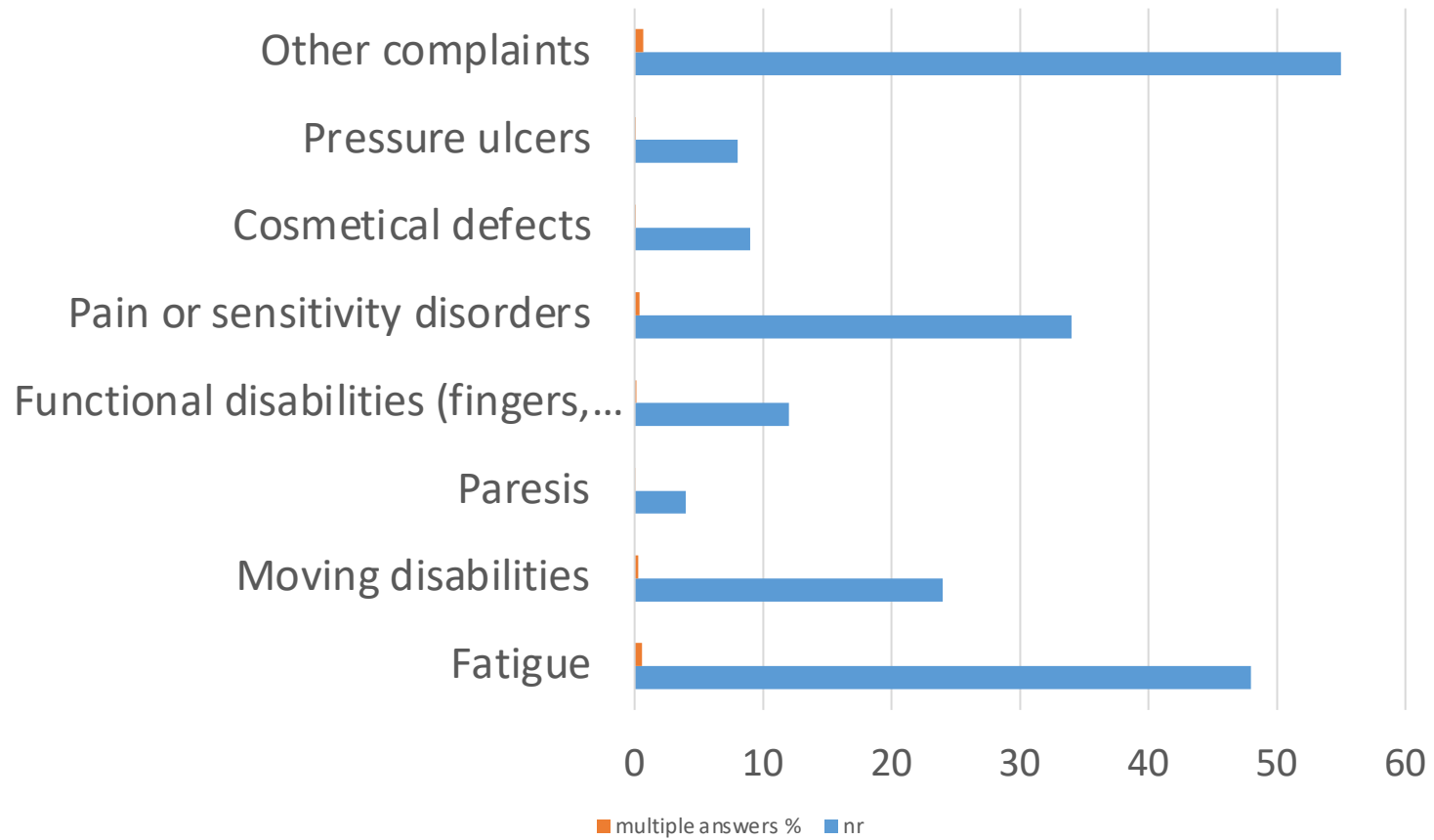


# 6 min walking test – age group normatives





## Active complaints



# Conclusion

- ICU survivorship is complicated with physical, cognitive, and psychological impairments as well as substantial morbidity
- Survival  $\neq$  recovery
- Survival  $\neq$  quality of life
  
- Post-ICU patients need follow-up and rehabilitation pathways

# Big thanks to

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