Belgian Minimum Geriatric Screening Tools for Comprehensive Geriatric Assessment Part III 2005

Thierry Pepersack, on behalf of the College for Geriatrics:

Baeyens JP, Daniels H, Lambert M, Pepersack T, Pepinster A, Pétermans J, Swine C, van den Noortgate N.

BELGISCHE VERENIGING VOOR GERONTOLOGIE EN GERIATRIE

SOCIETE BELGE DE GERONTOLOGIE ET DE GERIATRIE

Introduction

Let's remember…

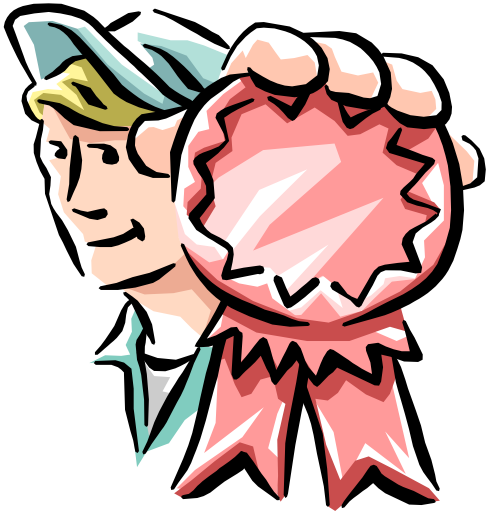
BMGST: *3 parts program*

1. 2003 questionnaire
2. 2004 consensus
3. 2005 registration feasibility

BMGST: *3 parts program*

1. **2003 questionnaire**
2. 2004 consensus
3. 2005 registration feasibility

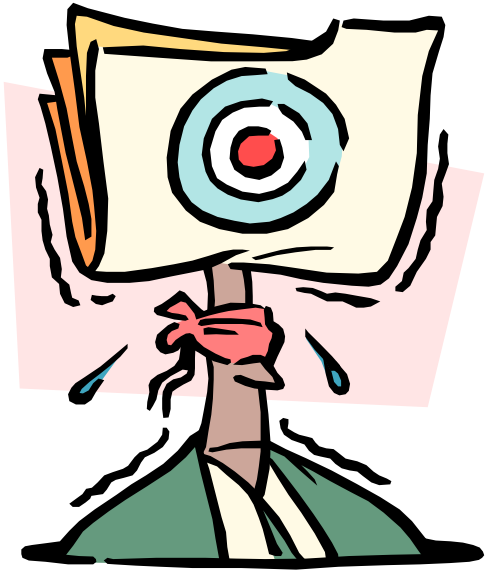
Part I: 2003 questionnaire



response rate

geriatricians : interested in CGA

transparency of geriatric units



quality of questionnaire

not enough CGA

lack of uniformity CGA

~ no consensus

BMGST: *3 parts program*

1. 2003 questionnaire
2. **2004 consensus**
3. 2005 registration feasibility

Part II: 2004 Consensus/ BGMST

Domains	Scales	Alerts/Procedures
ADL I-ADL	• Katz, Lawton	➢ Function (continence)
Mobility	• Stratify	➢ Falls
Cognition	• Clock DT	➢ Dementia, delirium
Depression	• GDS, Cornell	➢ Depression
Social	• SOCIOS	➢ Complexity
Nutrition	• MUST	➢ Malnutrition
Pain	• VAS, Checklist	➢ Pain
Fragilité	• ISAR	➢ Length of stay

BMGST: *3 parts program*

1. 2003 questionnaire
2. 2004 consensus
3. **2005 registration feasibility**

Part III: 2005 BGMST feasibility, efficacy, quality assurance

1. to assess the **feasibility of a BMGST** within the teams of Belgian geriatric units;
2. to assess the **efficacy of a BMGST** on the detection rate of the geriatric problems of the admitted subjects;
3. to analysis **quality variables** within the data collected.

BGMST 2005: *methodology*

- Study design: prospective observational survey followed by bench marking (feed back).
- Each Belgian geriatric unit will be asked to use the BMGST for 10 consecutive admissions between March and May 2005.

BGMST 2005: *methodology*

- In a first time; within the 48h after admission and without any BMGST procedure, the teams should encode:
  - *admission's cause*
  - and the *active geriatric problems* suspected for which a geriatric intervention is programmed.
- Then, in a second time and within the week, a complete BMGST will be performed.

Results

participation

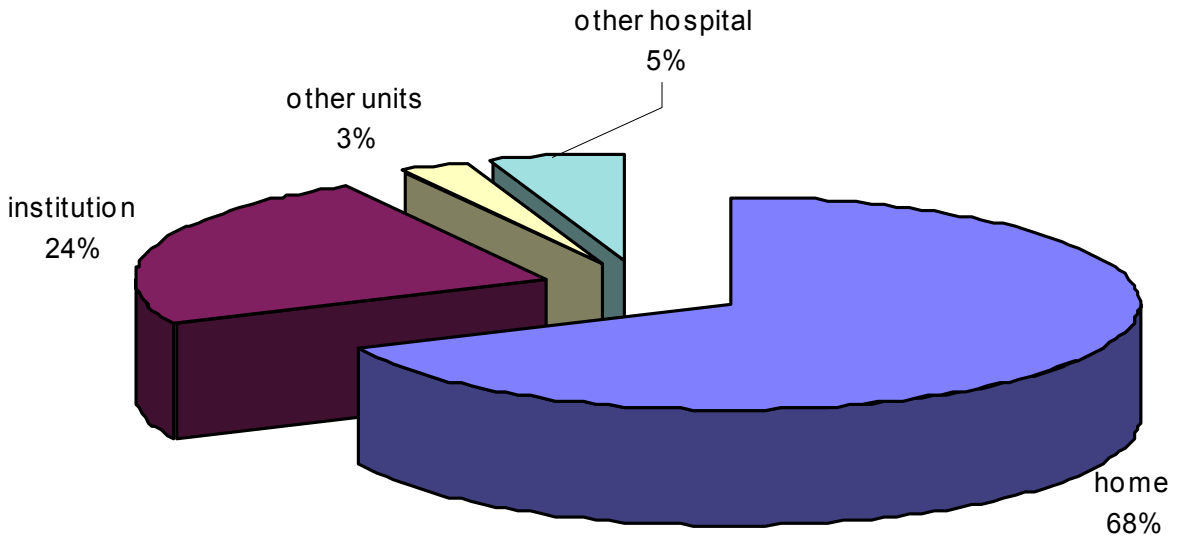
College:, : Baeyens JP, Daniels H, Lambert M, Pepersack T, Pepinster A, Pétermans J, Dr Swine Ch, van den Noortgate N.
Participants: Baeyens H, Baeyens JP; Banka M, Benoît F, Berg N, Beyer I, Claeys C, Coenen A, Decorte L, Dejaeger E, Dewinter P, Di Panfilo, D'Souza R, Fournier A, Janssens W, Kennes B, Lemper JC, Lambert M, Lampaert J, Laporta T, Maton JP, Mulkens K, Pepersack T, Pepinster A, Pétermans, J, Petrovic M, Pieters R, Praet JP, Sépulchre D, Simonetti C, Stercken G, Swine C, Van Camp F, Vandenbon C, Vandenbroeck K, Van Parys C, Vanslembrouck I, Verbeke G Verbiest R, Verhaeverbeek I.
Experts of the consensus conference: Baeyens JP, Daniels H, Dargent G, De Vriendt P, Gazzotti G, E Gorus, Lambert M, Pepersack T, Pepinster A, Pétermans J, Sachem C, Swine C,Vandekerkhof H, van den Noortgate N, Velghe A
Acknowledgments: We are indebted to A Perissino, M Haelterman, P Hellinckx and P Meeus (Health Care Quality Management Policy Unit, Ministry of Social Affairs,Public Health and the Environment) for their help during this project management. *Grant:* The management of the project was supported by the Belgian Ministry of Social Affairs,Public Health and the Environment.

participation

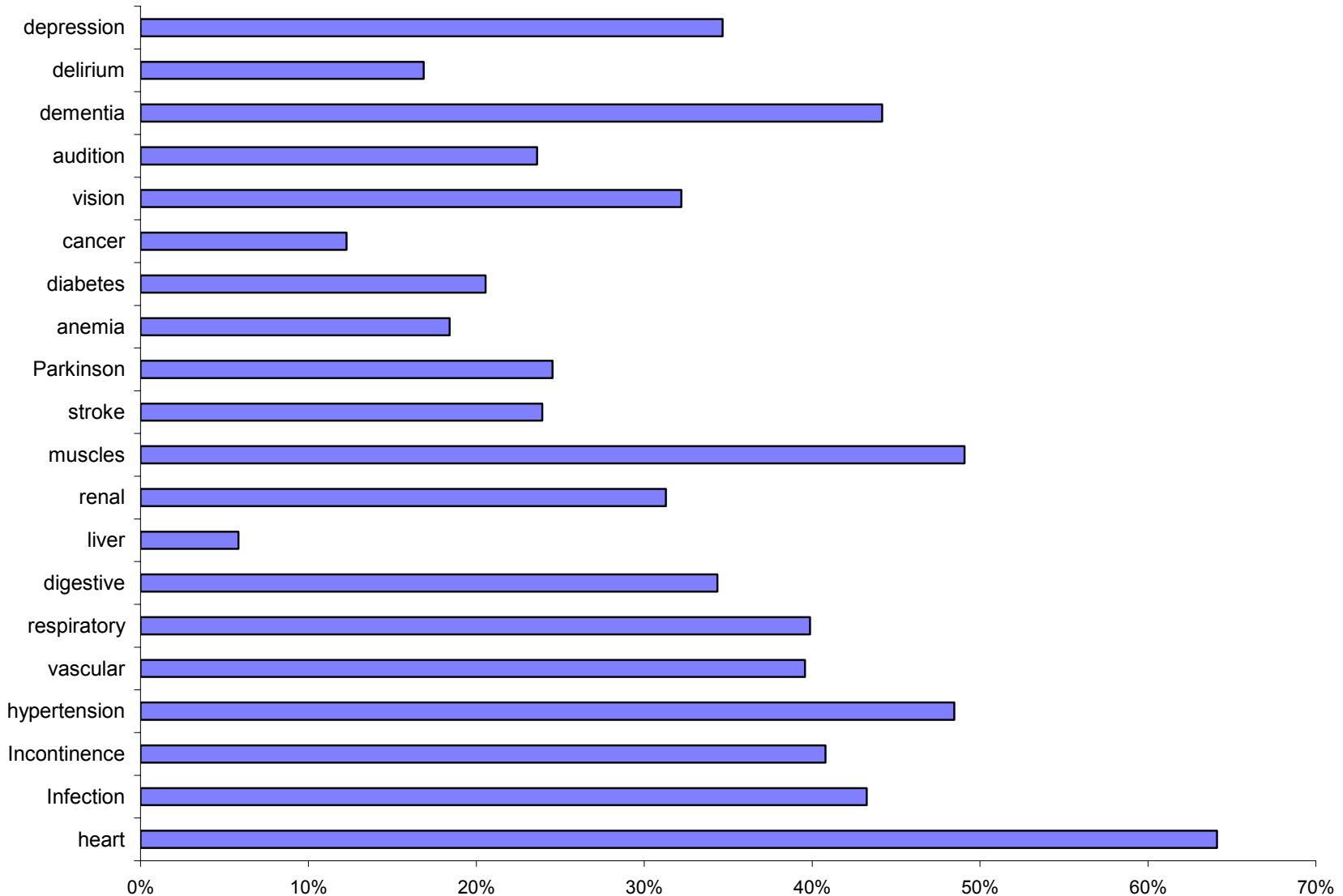
- 33 centers/ 104… (32%)
- 326 registrations
- Mean age 83,3 (6,8), median: 83,3; range 64-102


No of obs
0
12
24
36
48
60
72
84
55
60
65
70
75
80
85
90
95
100
105
110
Age (Yrs)

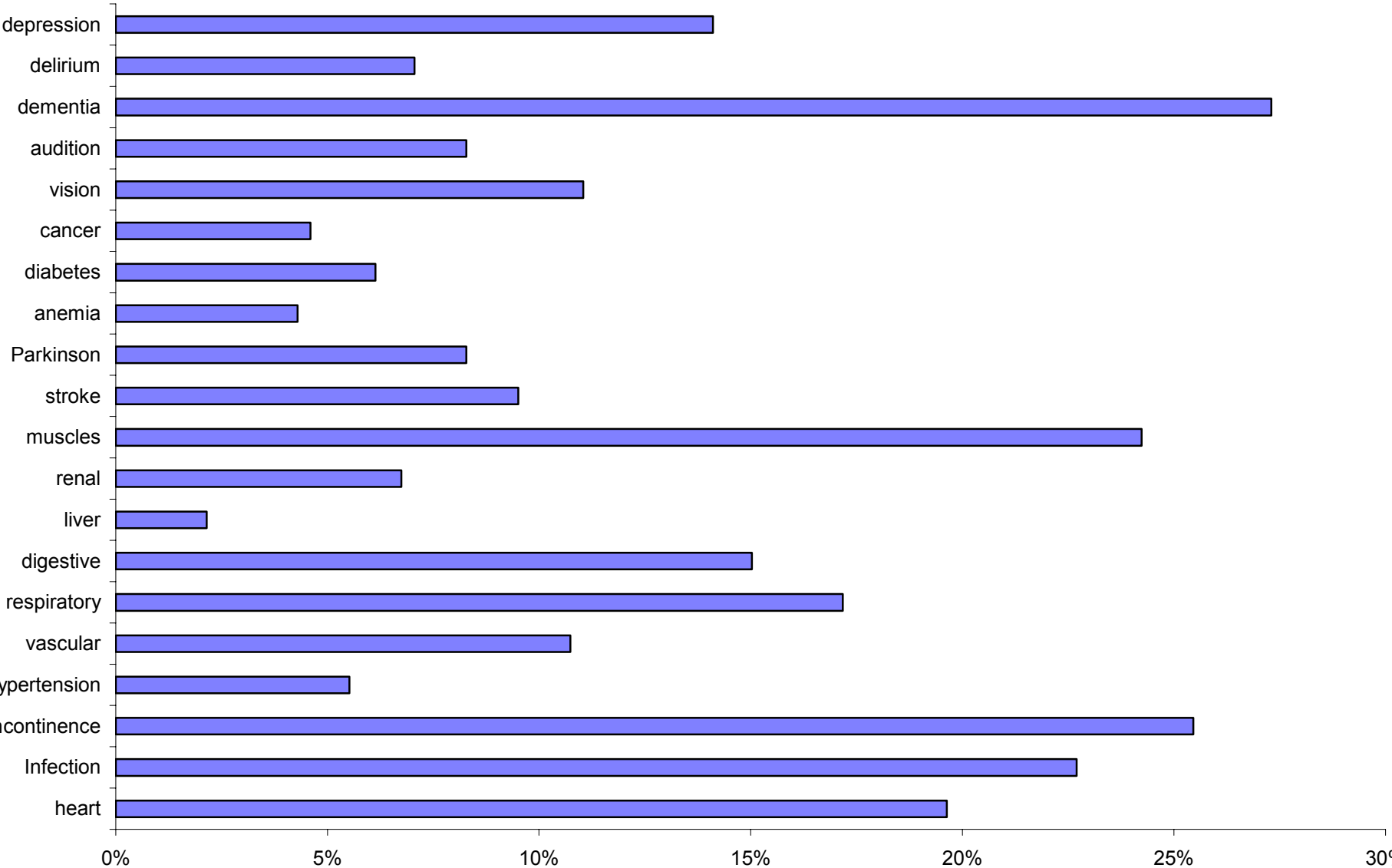
Residences of the patients



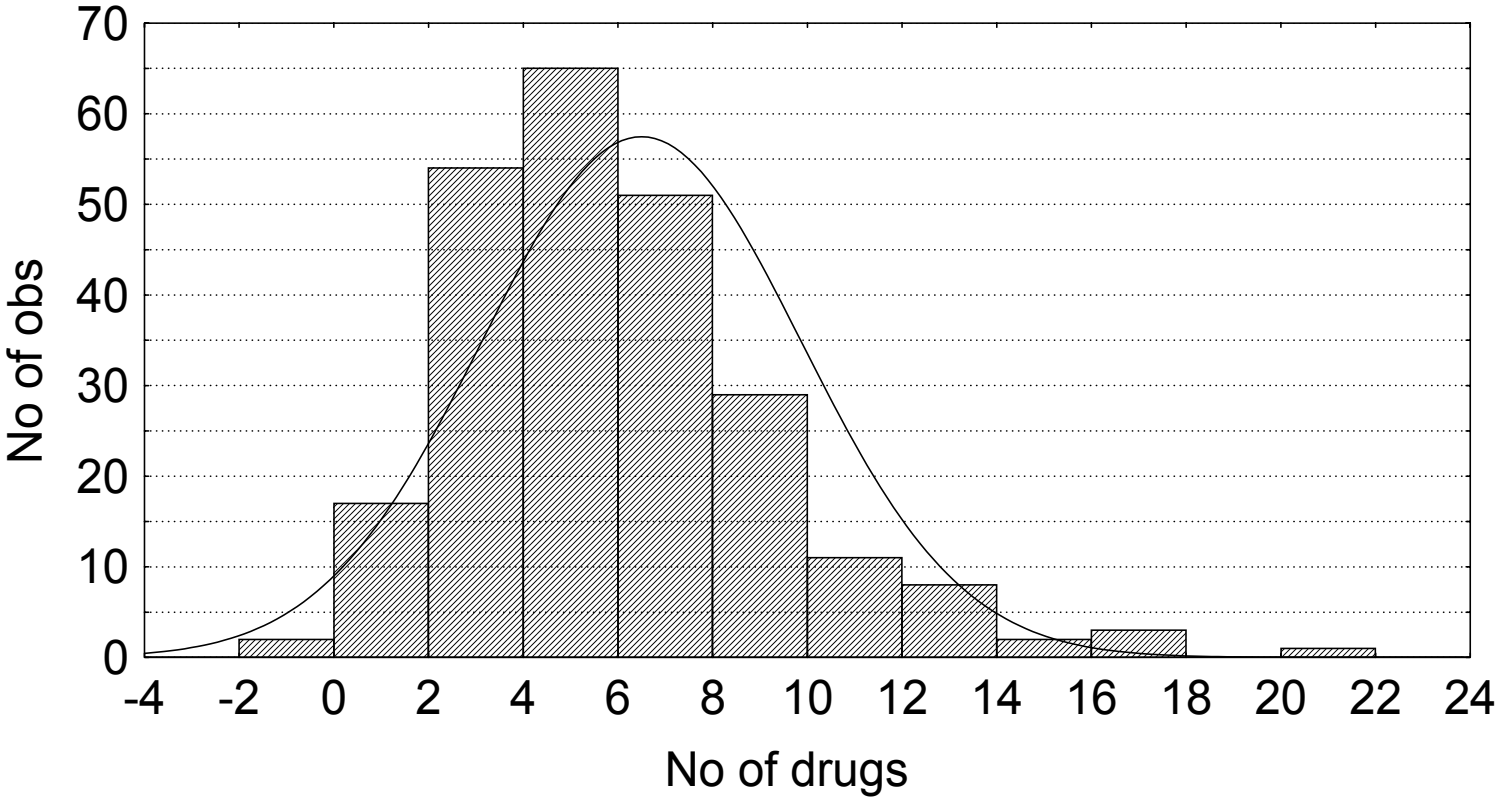
Total comorbidity



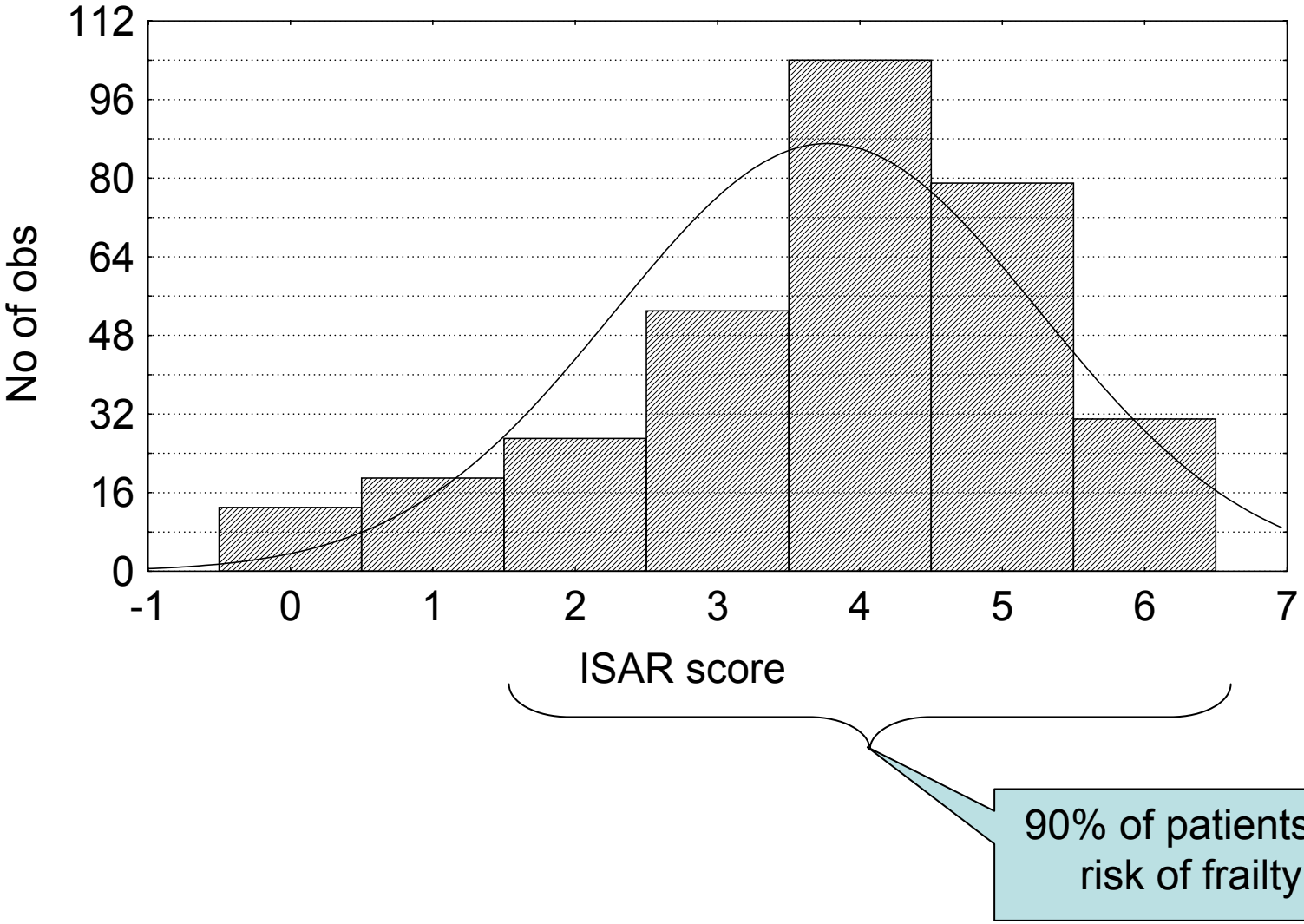
Non controlled morbidity



Polypharmacy



Frailty

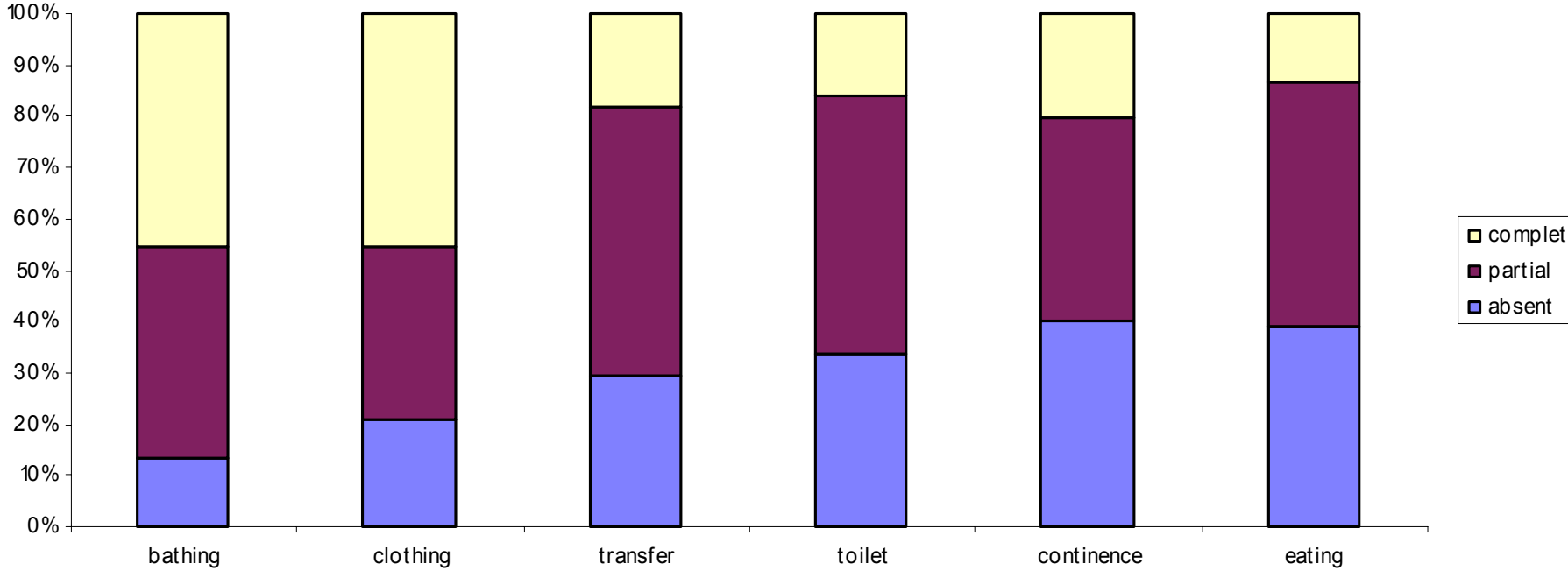

112
96
80
64
48
32
16
0
No of obs
-1
0
1
2
3
4
5
6
7
ISAR score
90% of patients at risk of frailty

« Added-value » of the BGMST

% of screened geriatric problems

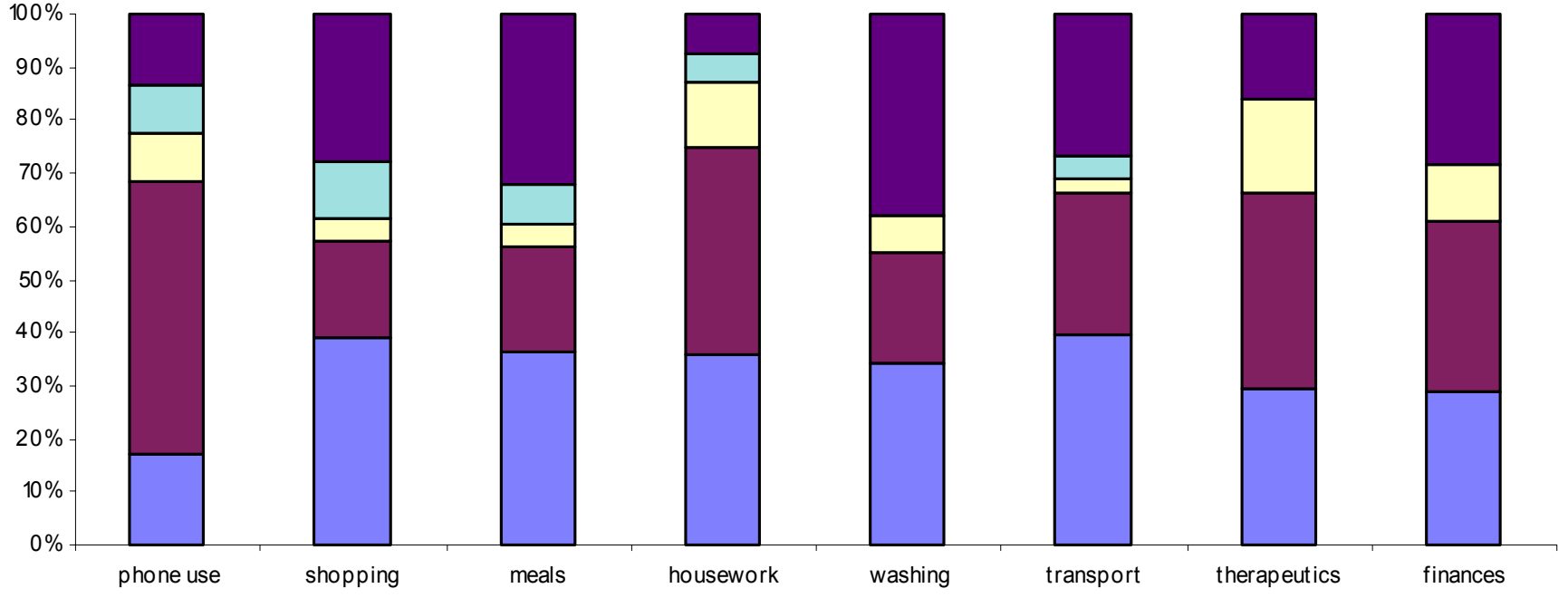
Domains	***before:***	***after BGMST*:**
ADL I-ADL	• 26%	➢ 89%
Incontinence		
Falls		
Cognition		
Depression		
Social		
Nutrition		
Pain		

Dependence for ADL (Katz)



IADL (Lawton)

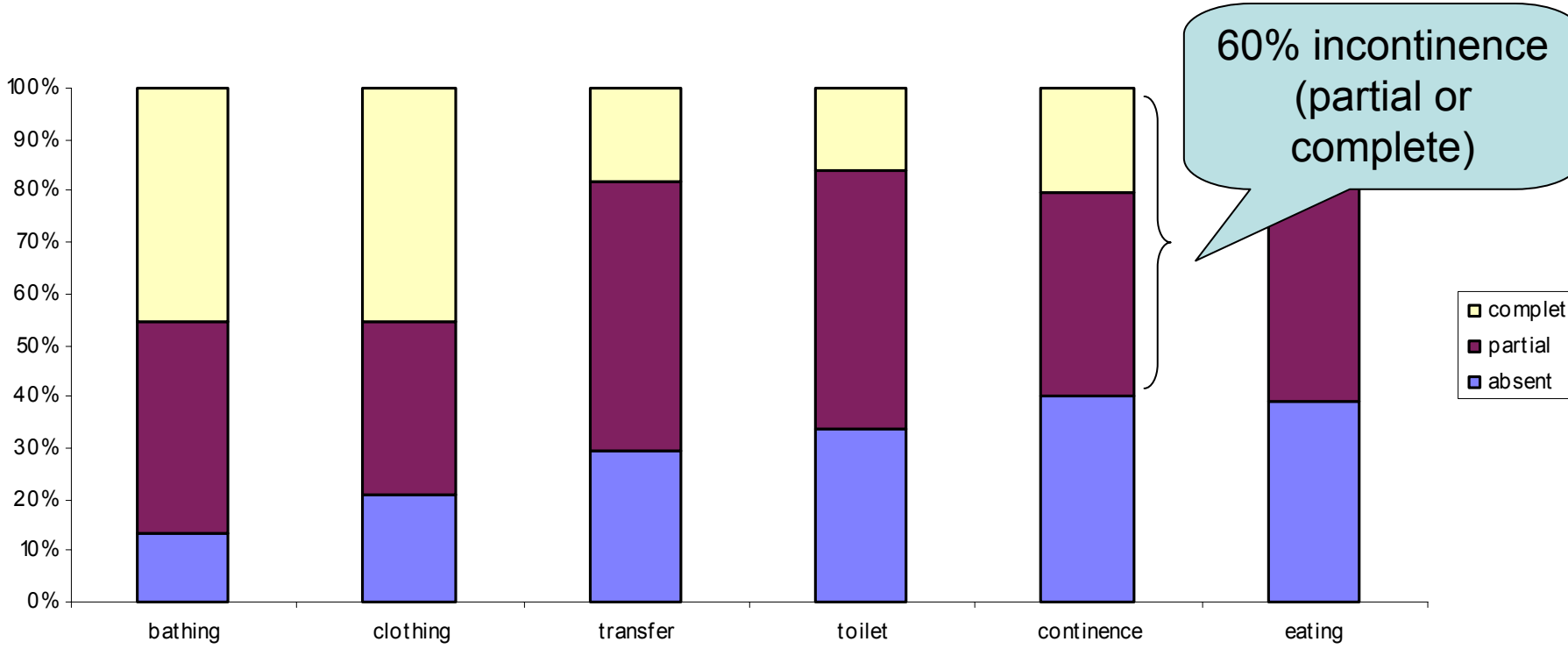
from lowest (0) to highest dependence (4)



% of screened geriatric problems

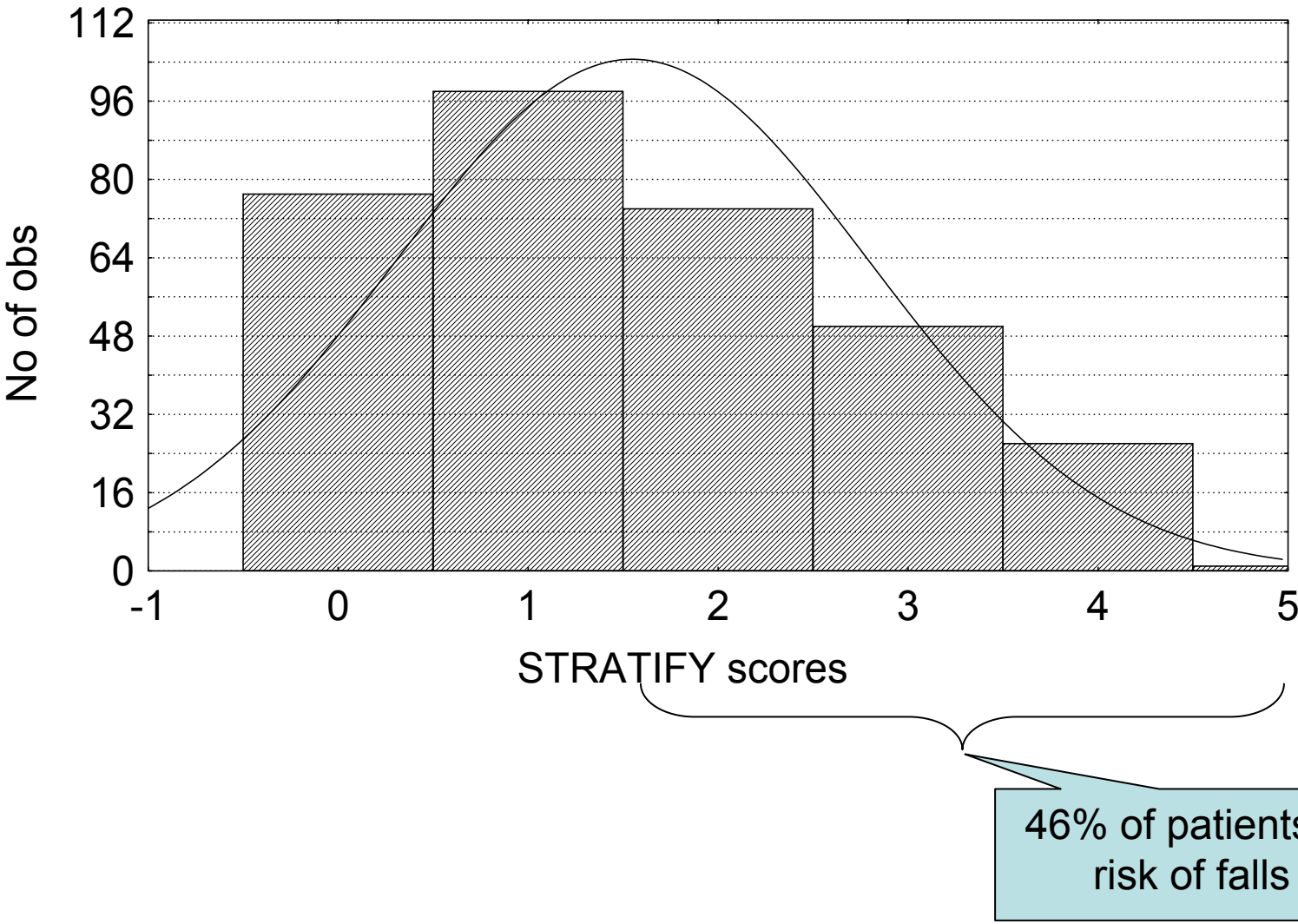
Domains	***before:***	***after BGMST*:**
ADL I-ADL	• 26%	➢ 89%
Incontinence	• 4%	➢ 60%
Falls		
Cognition		
Depression		
Social		
Nutrition		
Pain		

Dependence for ADL (Katz)



% of screened geriatric problems

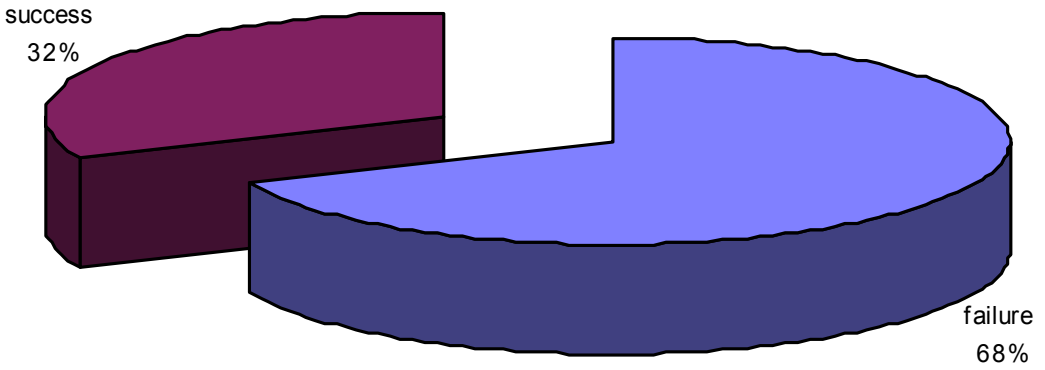
Domains	***before:***	***after BGMST*:**
ADL I-ADL	• 26%	➢ 89%
Incontinence	• 4%	➢ 60%
Falls	• 35%	➢ 46%
Cognition		
Depression		
Social		
Nutrition		
Pain		


112
96
80
64
48
32
16
0
No of obs
-1
0
1
2
3
4
5
STRATIFY scores
46% of patients at risk of falls

% of screened geriatric problems

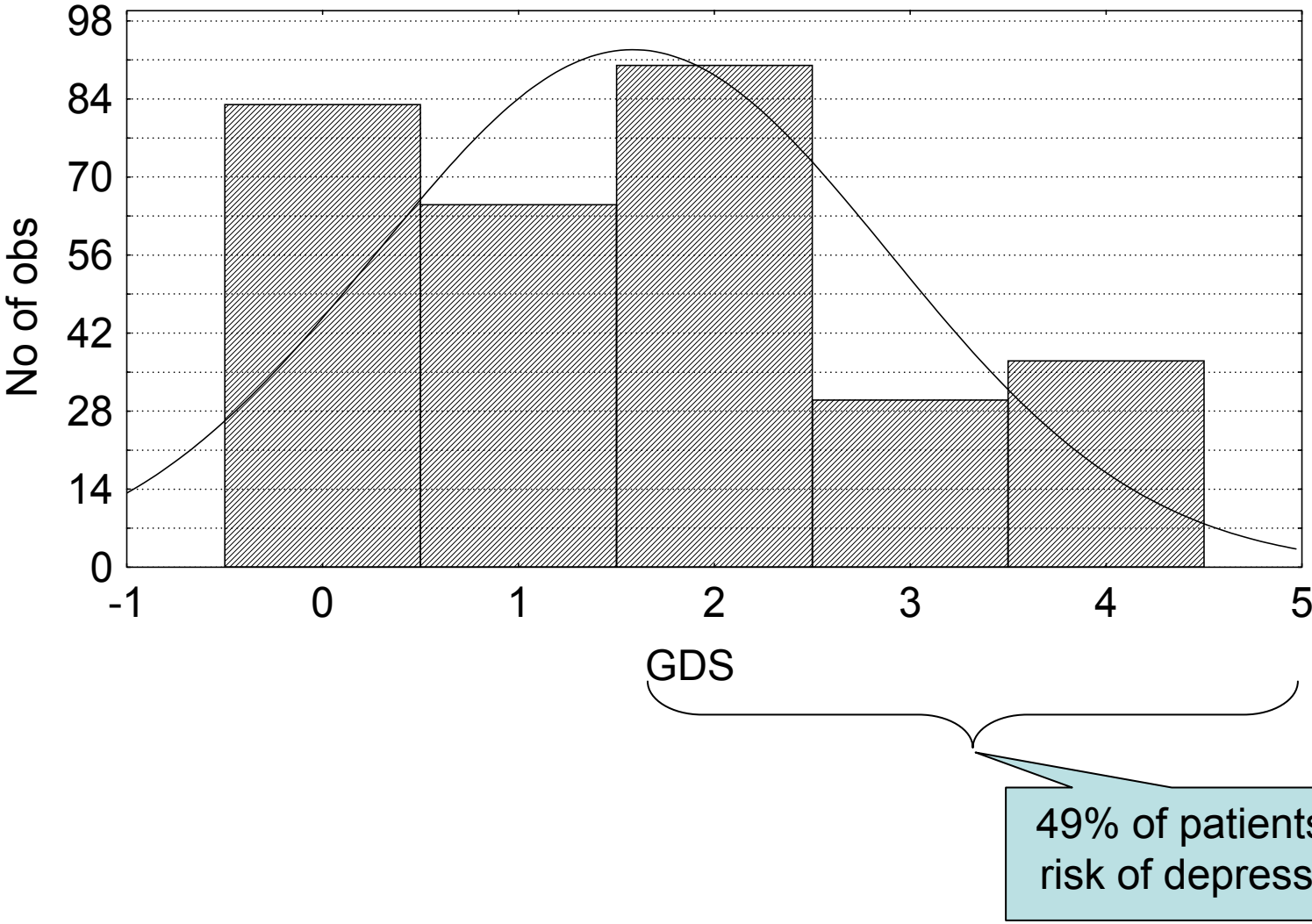
Domains	***before:***	***after BGMST*:**
ADL I-ADL	• 26%	➢ 89%
Incontinence	• 4%	➢ 60%
Falls	• 35%	➢ 46%
Cognition	• 34%	➢ 68%
Depression		
Social		
Nutrition		
Pain		

Clock Drawing Test



% of screened geriatric problems

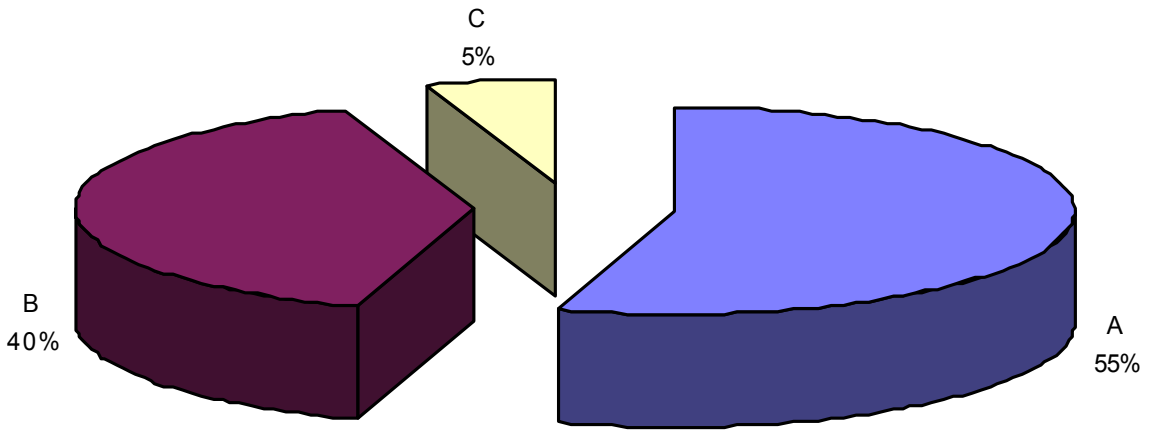
Domains	***before:***	***after BGMST*:**
ADL I-ADL	• 26%	➢ 89%
Incontinence	• 4%	➢ 60%
Falls	• 35%	➢ 46%
Cognition	• 34%	➢ 68%
Depression	• 3%	➢ 49%
Social		
Nutrition		
Pain		


98
84
70
56
42
28
14
0
No of obs
-1
0
1
2
3
4
5
GDS
49% of patients at risk of depression

% of screened geriatric problems

Domains	***before:***	***after BGMST*:**
ADL I-ADL	• 26%	➢ 89%
Incontinence	• 4%	➢ 60%
Falls	• 35%	➢ 46%
Cognition	• 34%	➢ 68%
Depression	• 3%	➢ 49%
Social	• 7%	➢ 50%
Nutrition		
Pain		

Social complexity (SOCIOS)

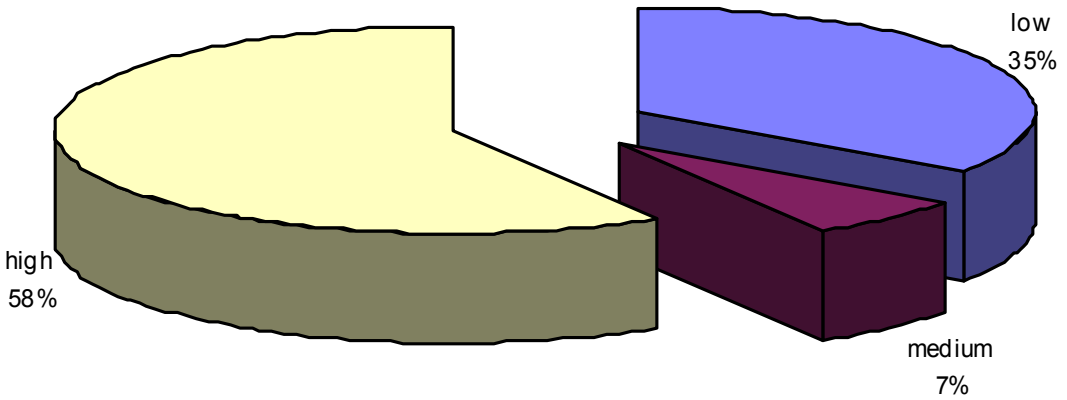


45% of patients at risk of social complexity

% of screened geriatric problems

Domains	***before:***	***after BGMST*:**
ADL I-ADL	• 26%	➢ 89%
Incontinence	• 4%	➢ 60%
Falls	• 35%	➢ 46%
Cognition	• 34%	➢ 68%
Depression	• 3%	➢ 49%
Social	• 7%	➢ 50%
Nutrition	• 17%	➢ 65%
Pain		

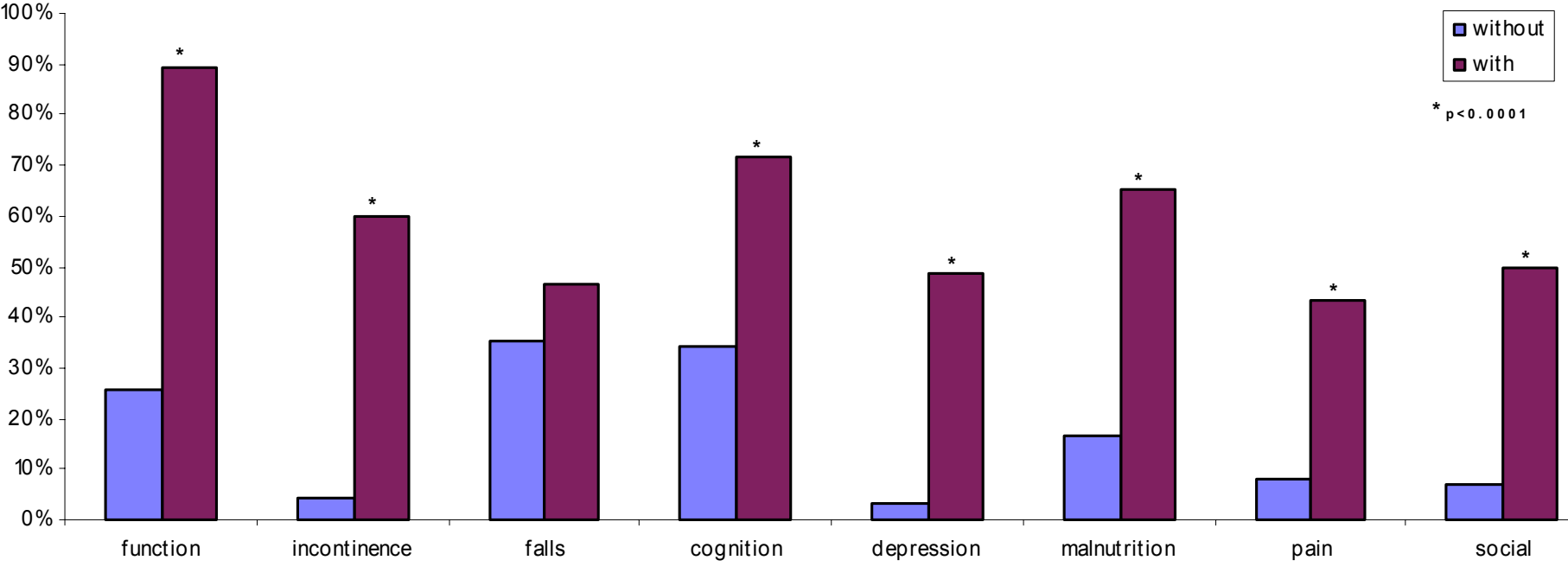
Risk of malnutrition



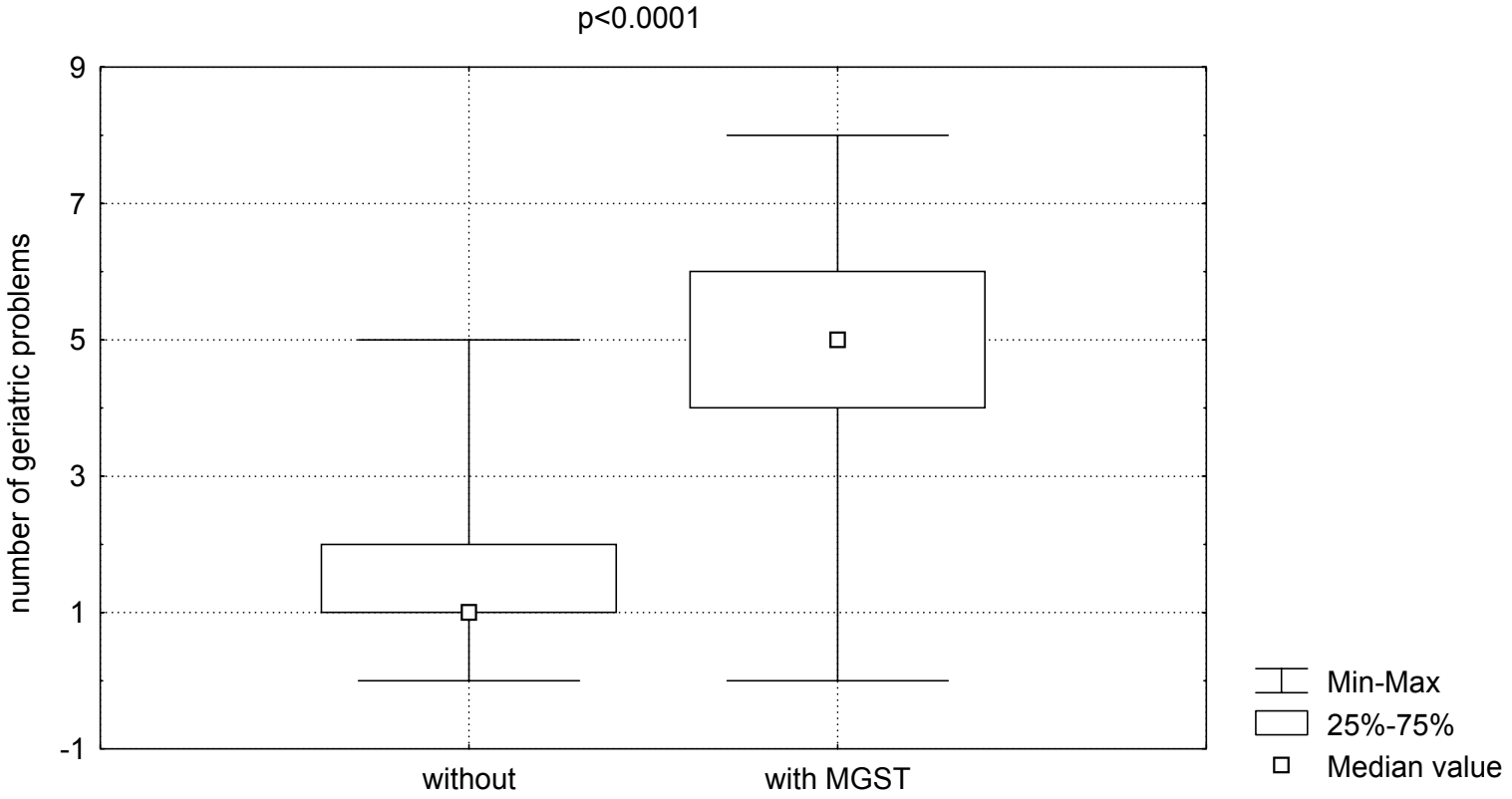
% of screened geriatric problems

Domains	***before:***	***after BGMST*:**
ADL I-ADL	• 26%	➢ 89%
Incontinence	• 4%	➢ 60%
Falls	• 35%	➢ 46%
Cognition	• 34%	➢ 68%
Depression	• 3%	➢ 49%
Social	• 7%	➢ 50%
Nutrition	• 17%	➢ 65%
Pain	• 8%	➢ 43%

% of screened geriatric problems



Mean of screened geriatric problems *before or after BGMST*

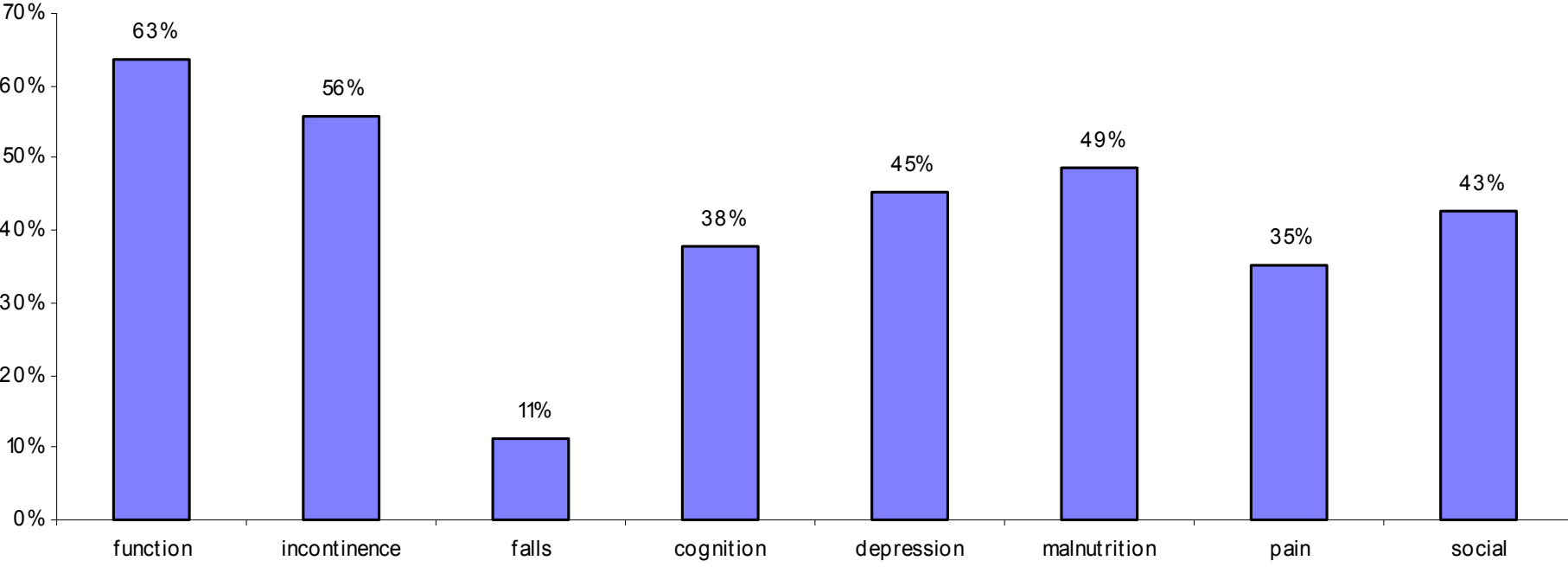


% of screened geriatric problems

Domains	***before:***	***after:***	***gain*:**
ADL I-ADL	• 26%	➢ 89%	👍 63%*
Incontinence	• 4%	➢ 60%	👍 56%*
Falls	• 35%	➢ 46%	👍 11%
Cognition	• 34%	➢ 68%	👍 34%*
Depression	• 3%	➢ 49%	👍 46%*
Social	• 7%	➢ 50%	👍 43%*
Nutrition	• 17%	➢ 65%	👍 48%*
Pain	• 8%	➢ 43%	👍 35%*

***p<0.0001**

BGMST gain (plus-value)

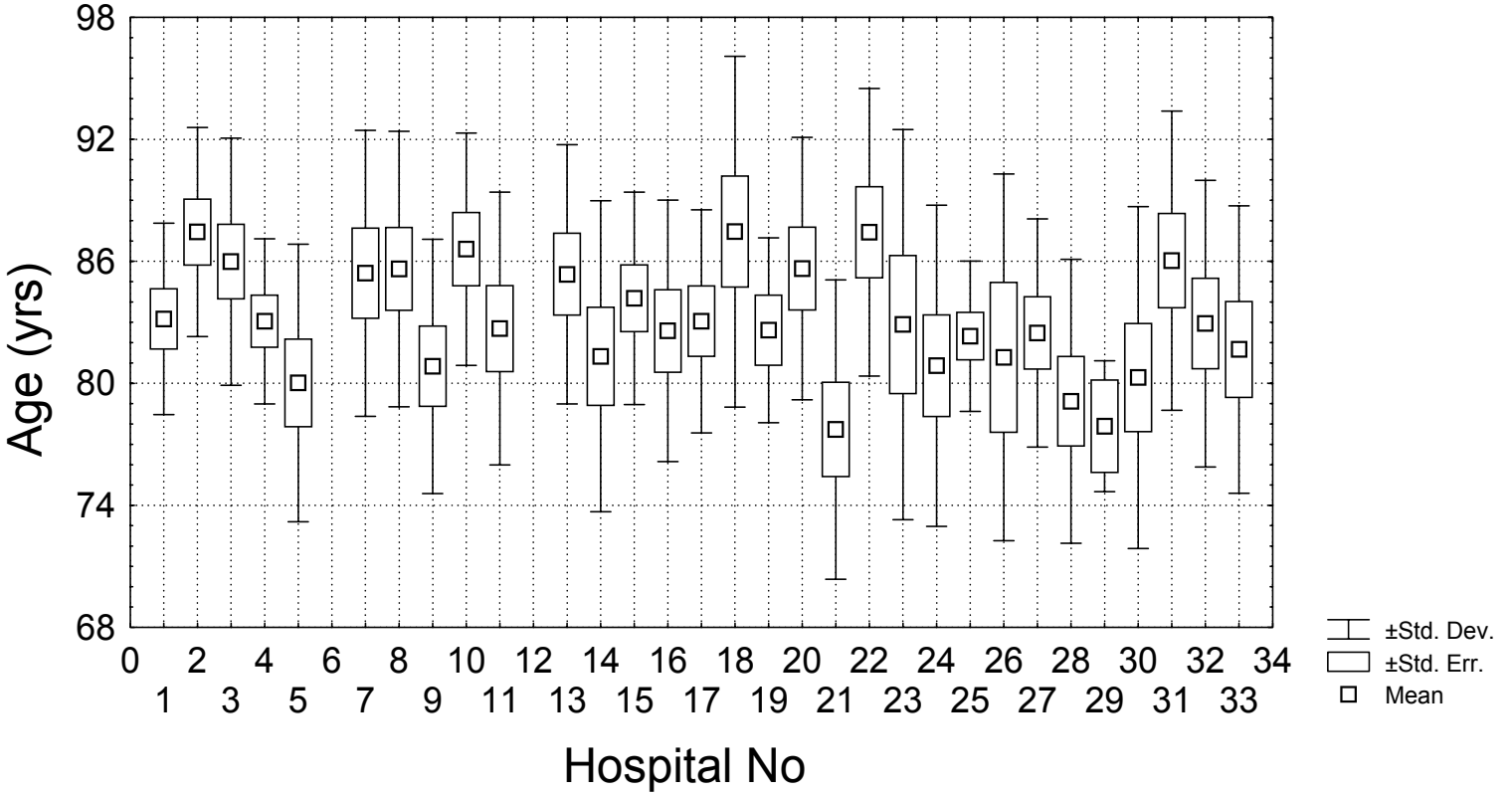


« BGMST»
a new score for frailty ?

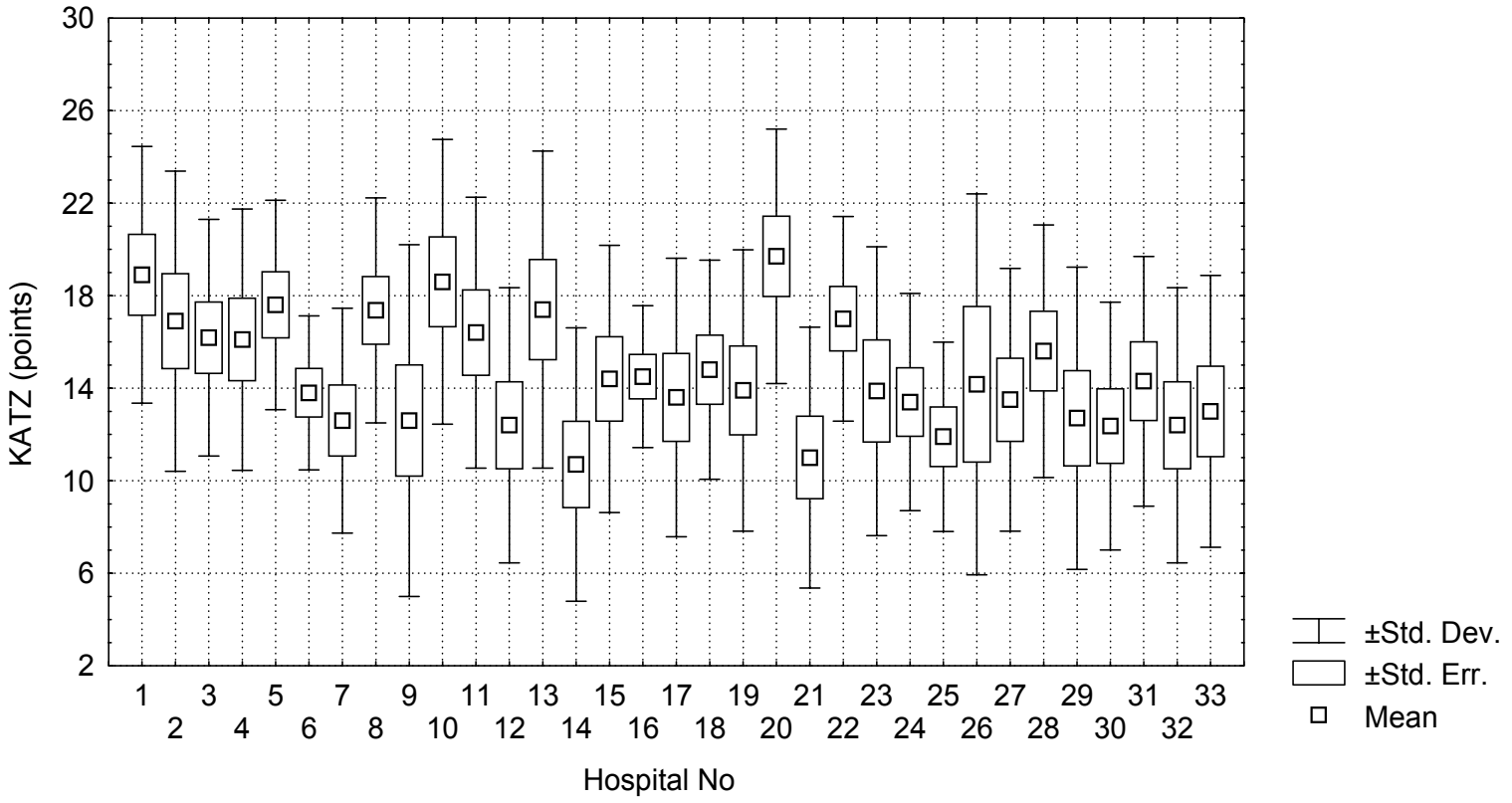
	N	R	t(N-2)	p-level
AGE (yrs)	294	,098744	1,695625	,091023
LOS (days)	208	,215315	3,164574	,001788
ISAR (points)	326	,349357	6,711317	,000000

Units comparisons

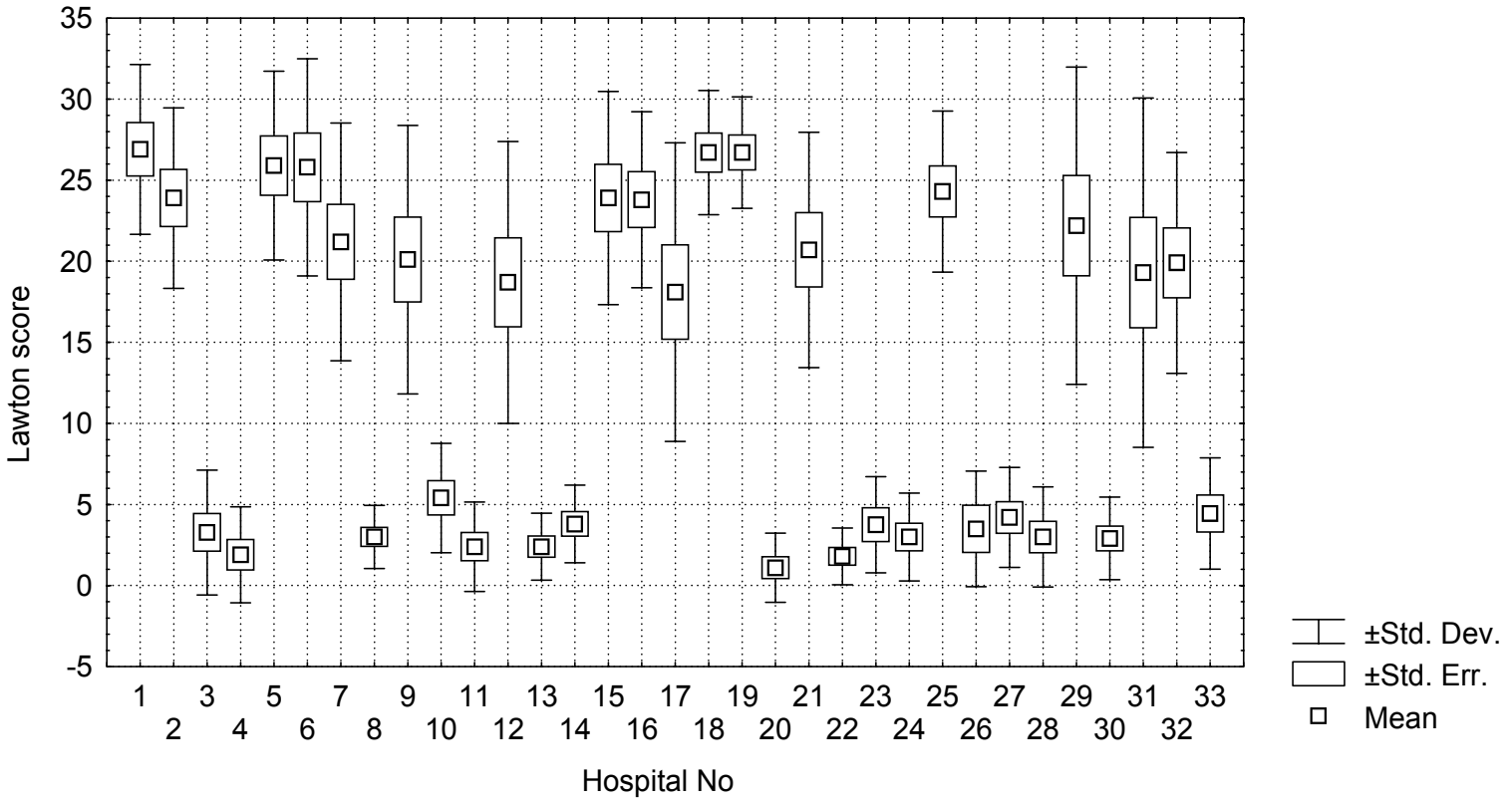
Age


98
92
86
80
74
68
Age (yrs)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34
Hospital No
±Std. Dev.
±Std. Err.
Mean

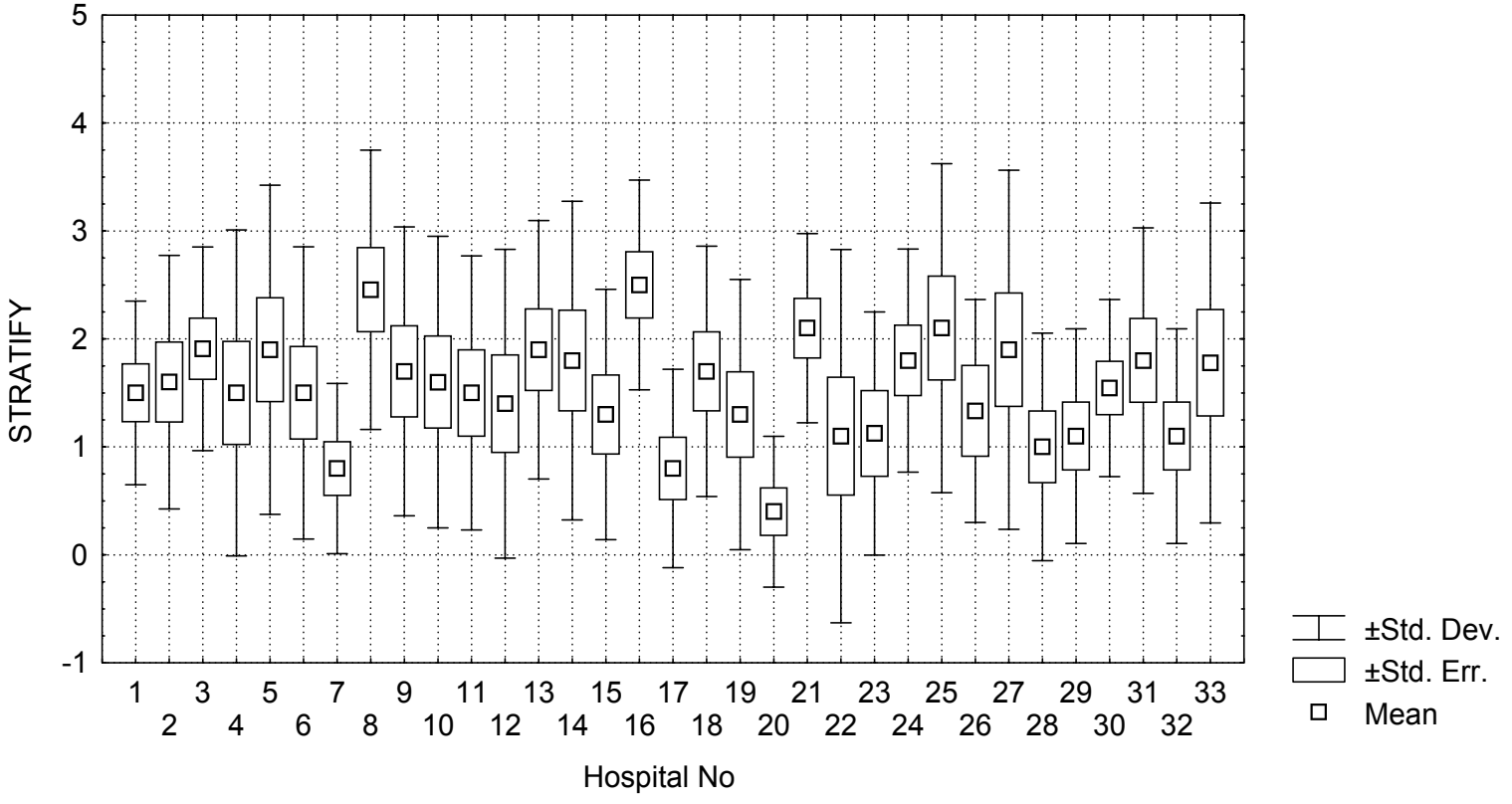
Dependence ADL (Katz)



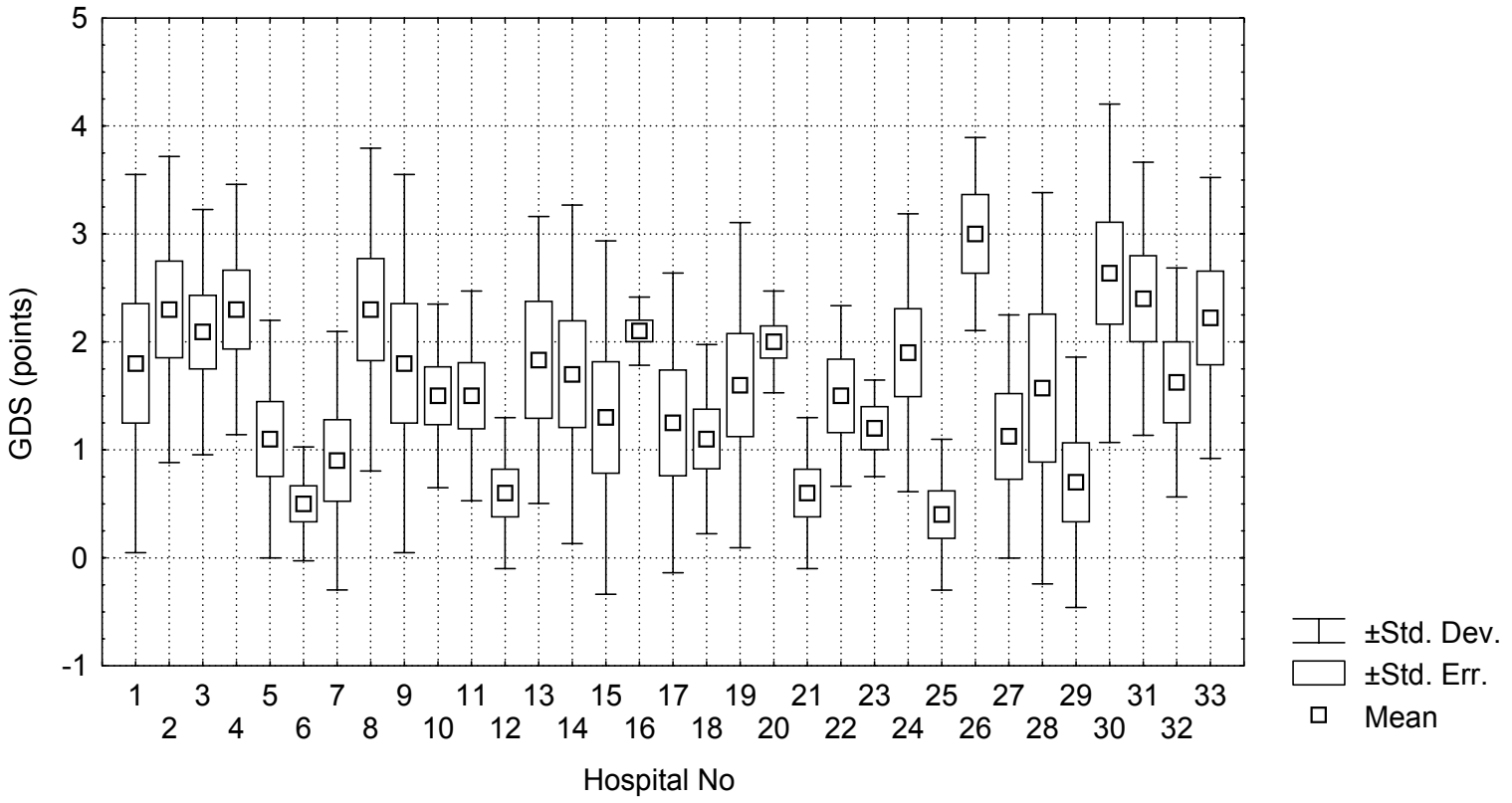
IADL (Lawton)


Lawton score
35
30
25
20
15
10
5
0
-5
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32
Hospital No
±Std. Dev.
±Std. Err.
Mean

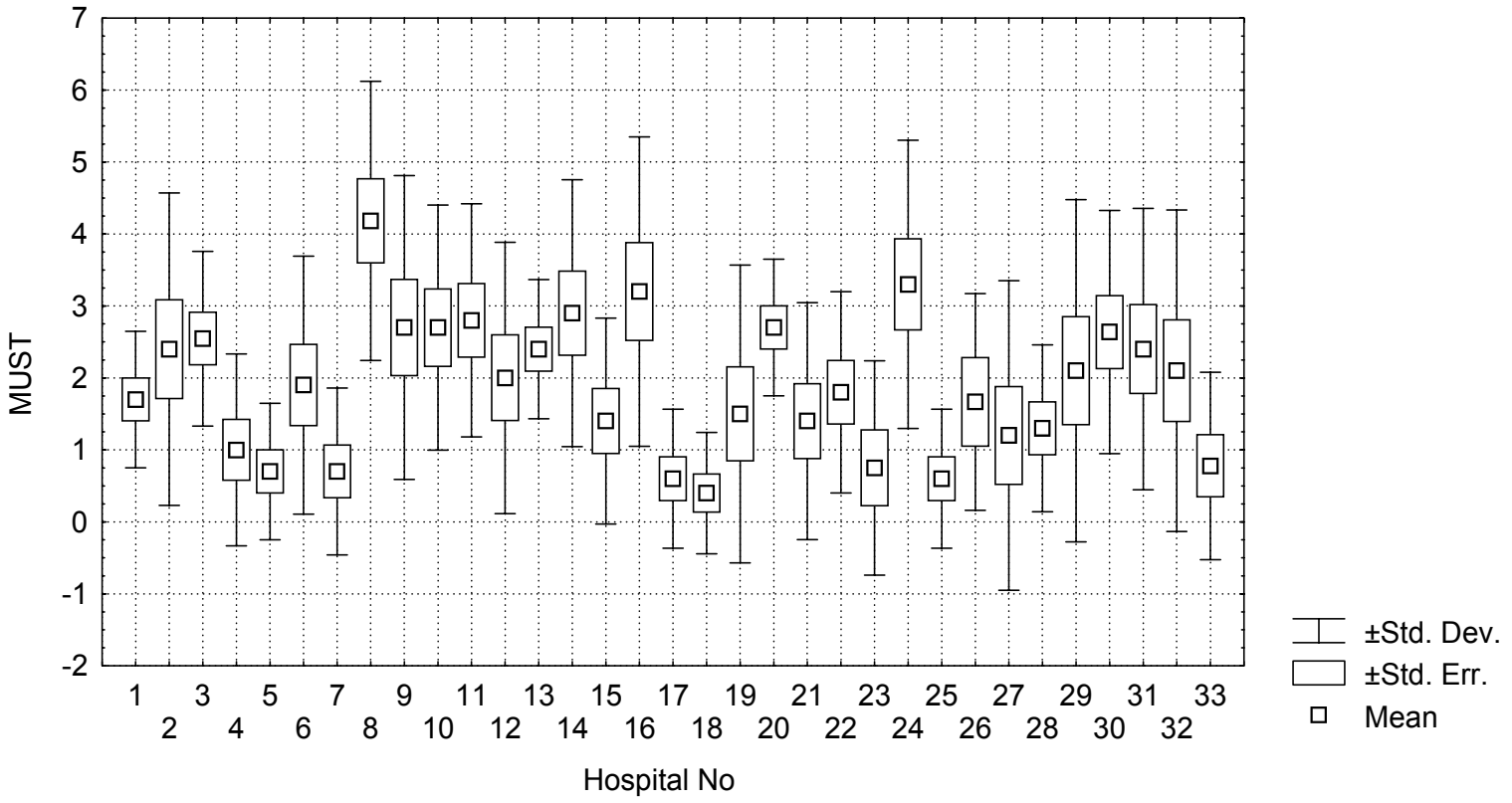
Risk of falls (Stratify)



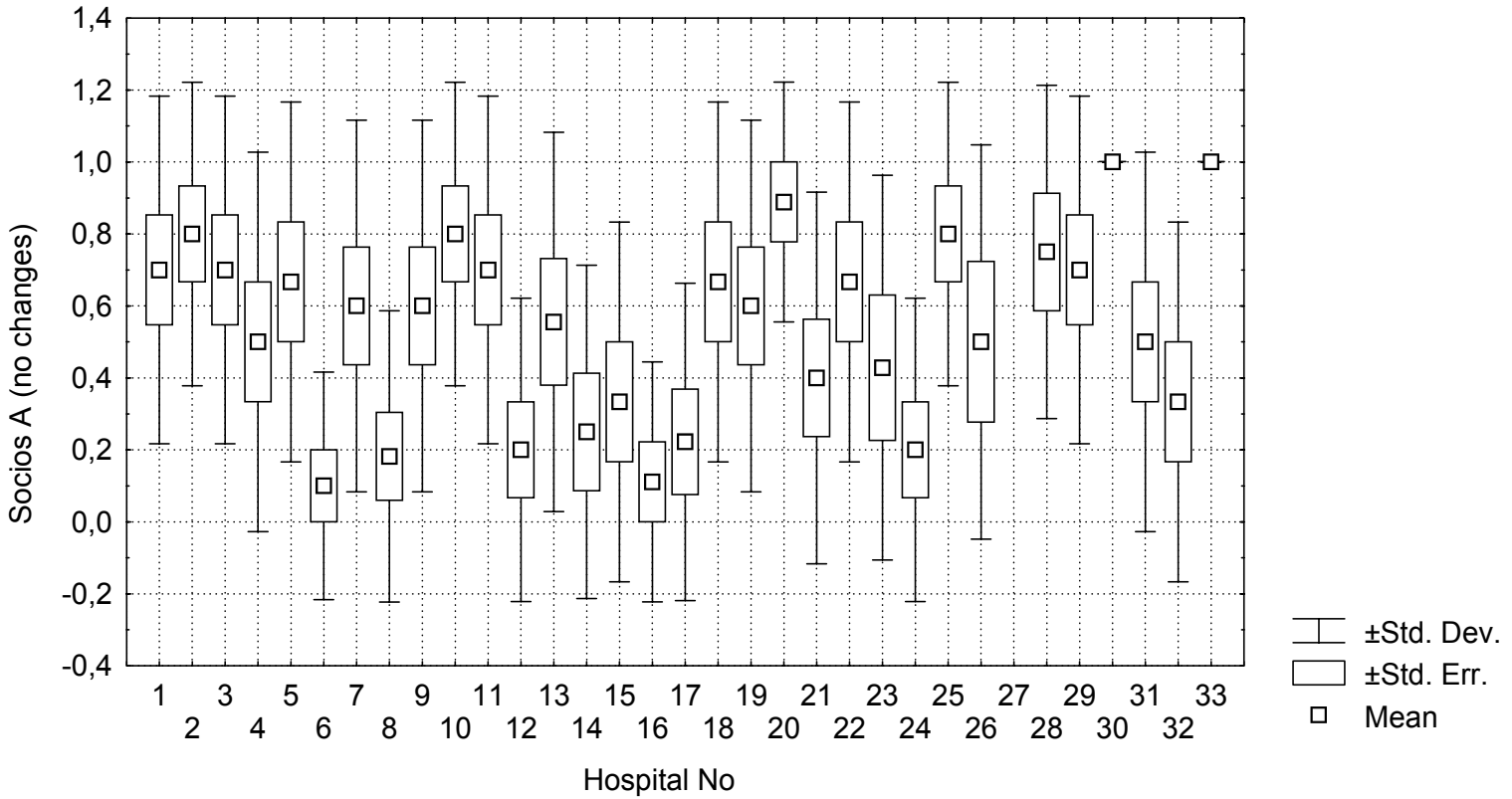
Risk of depression (GDS)



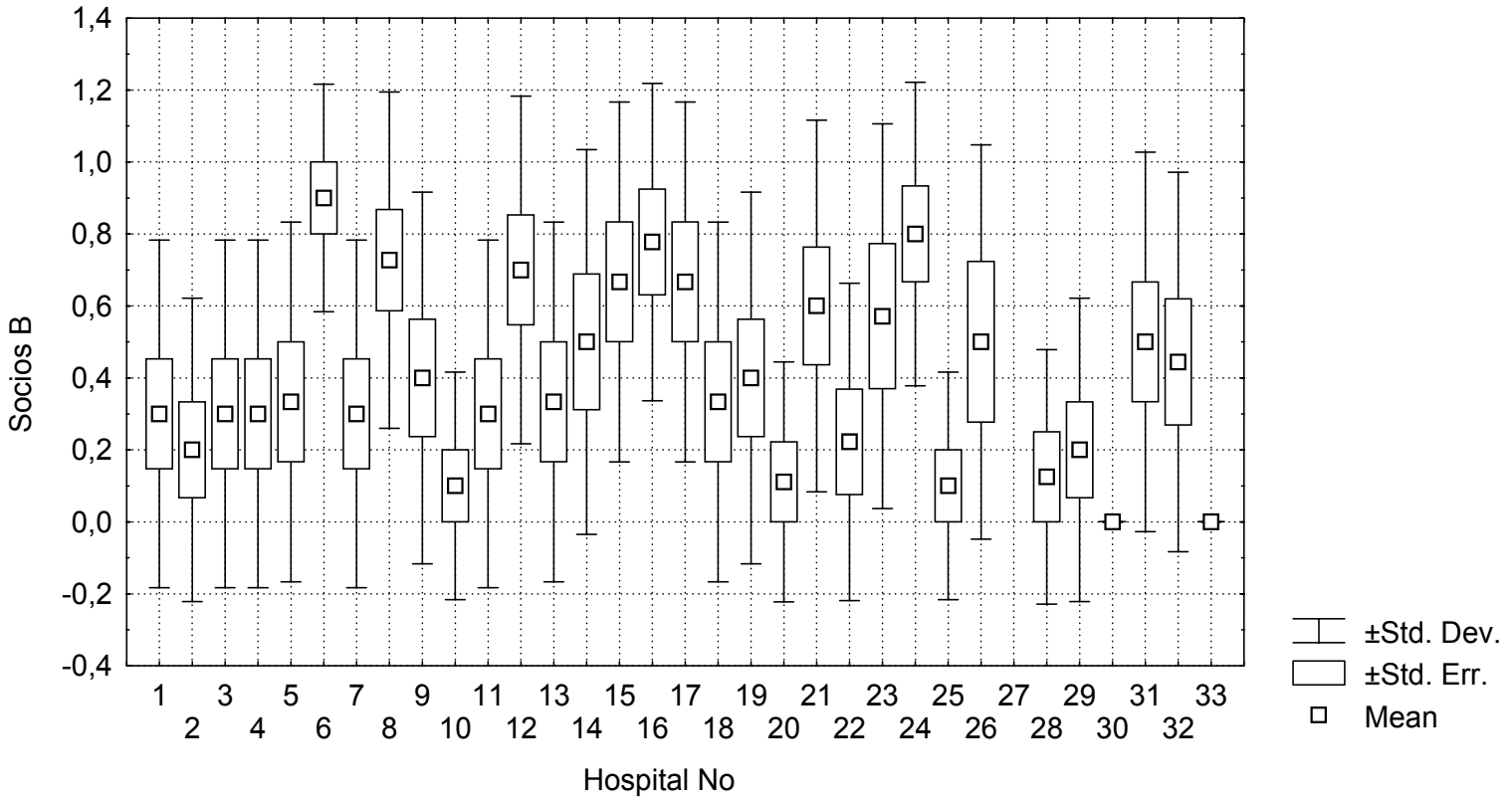
Risk of malnutrition (MUST)



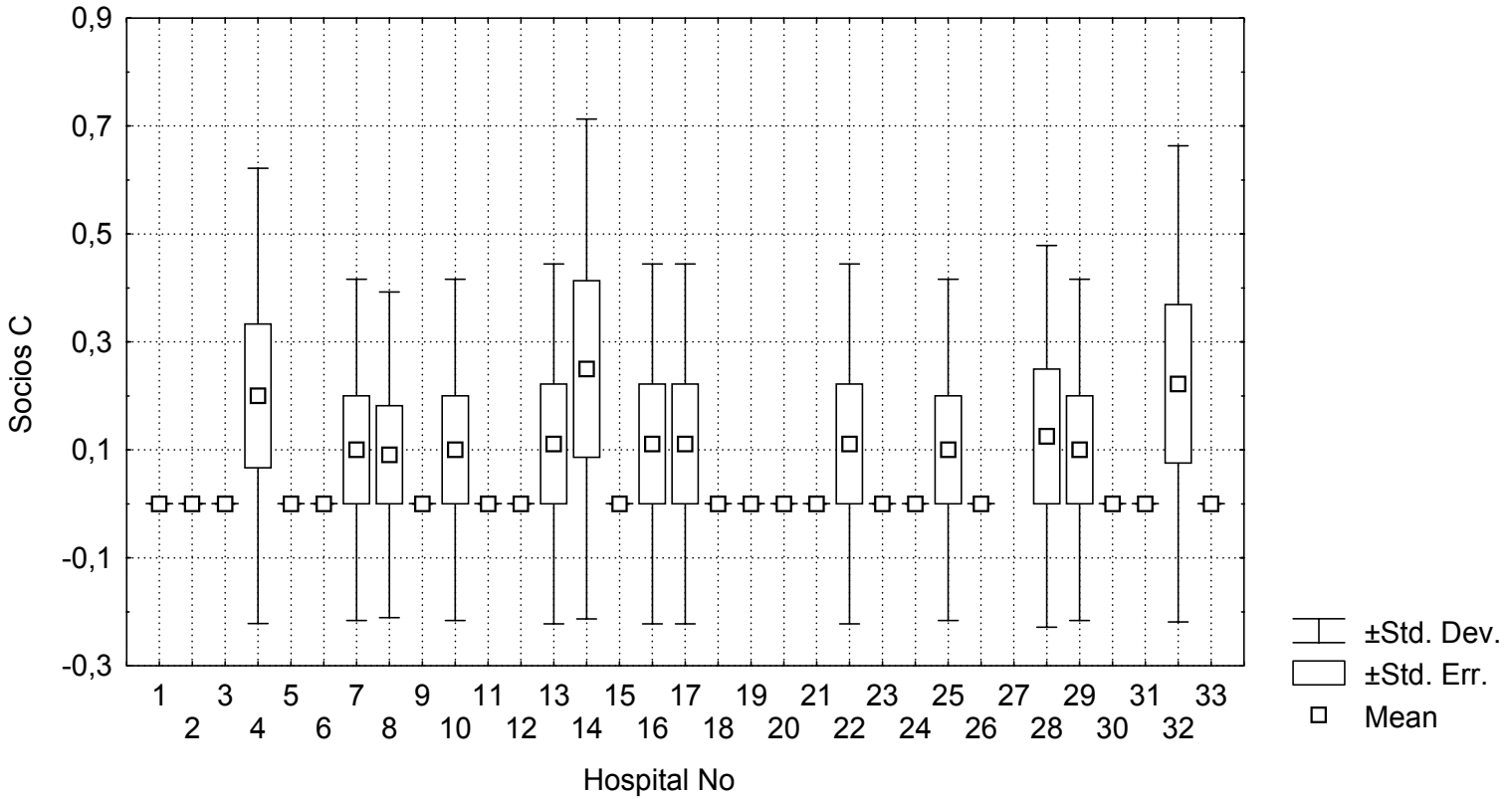
Social complexity A



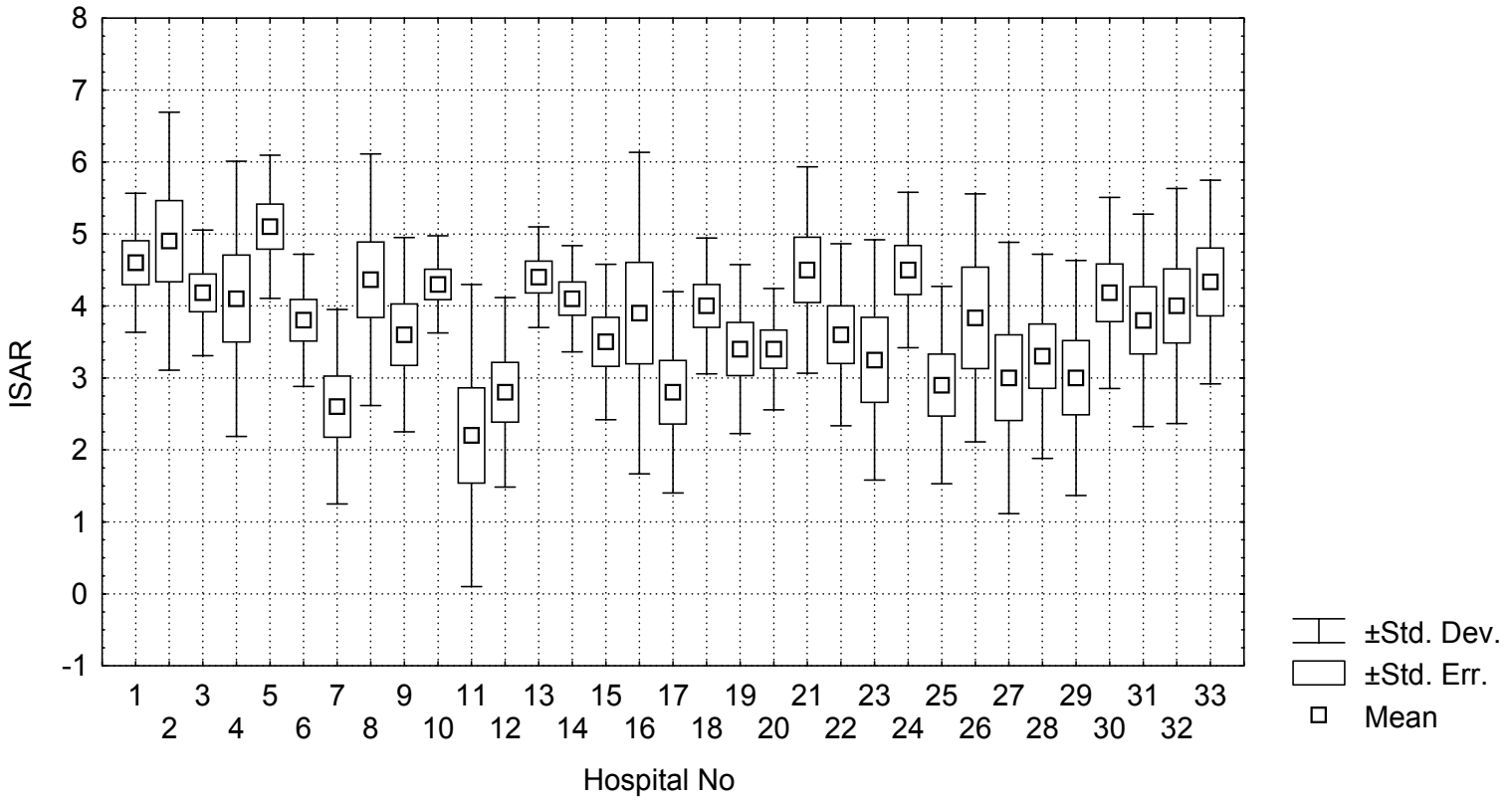
Social complexity B



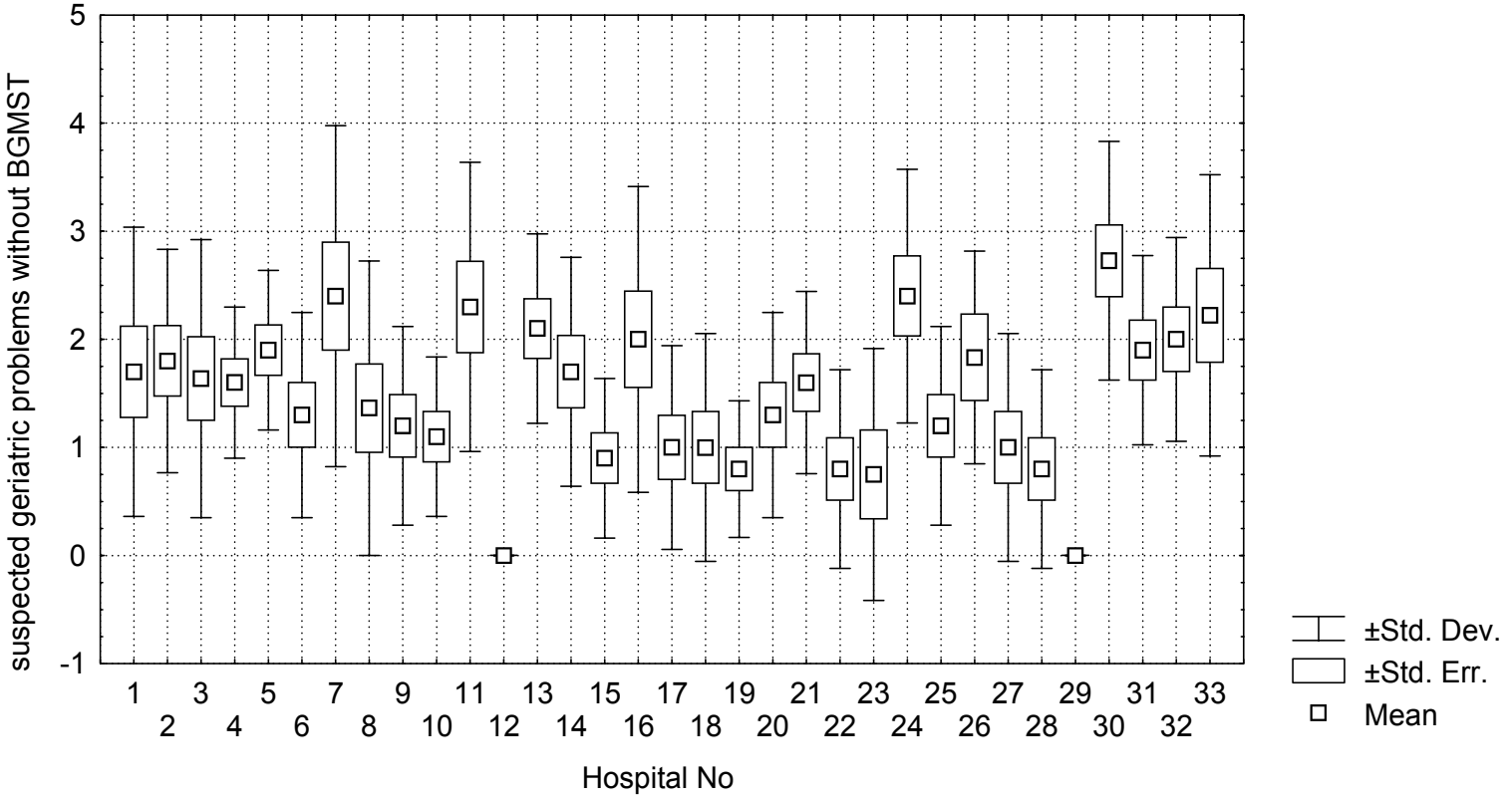
Social complexity C



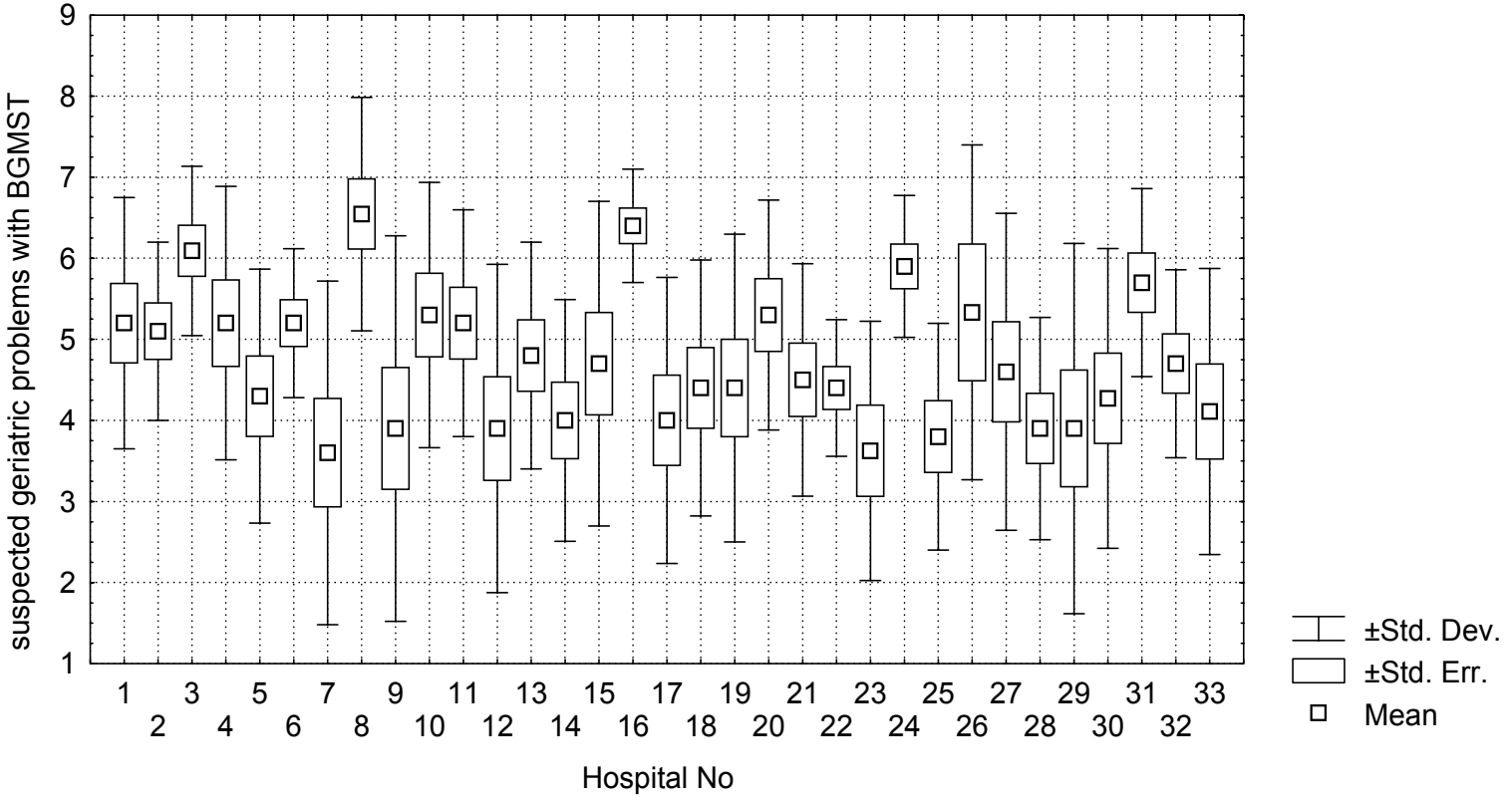
Frailty ISAR



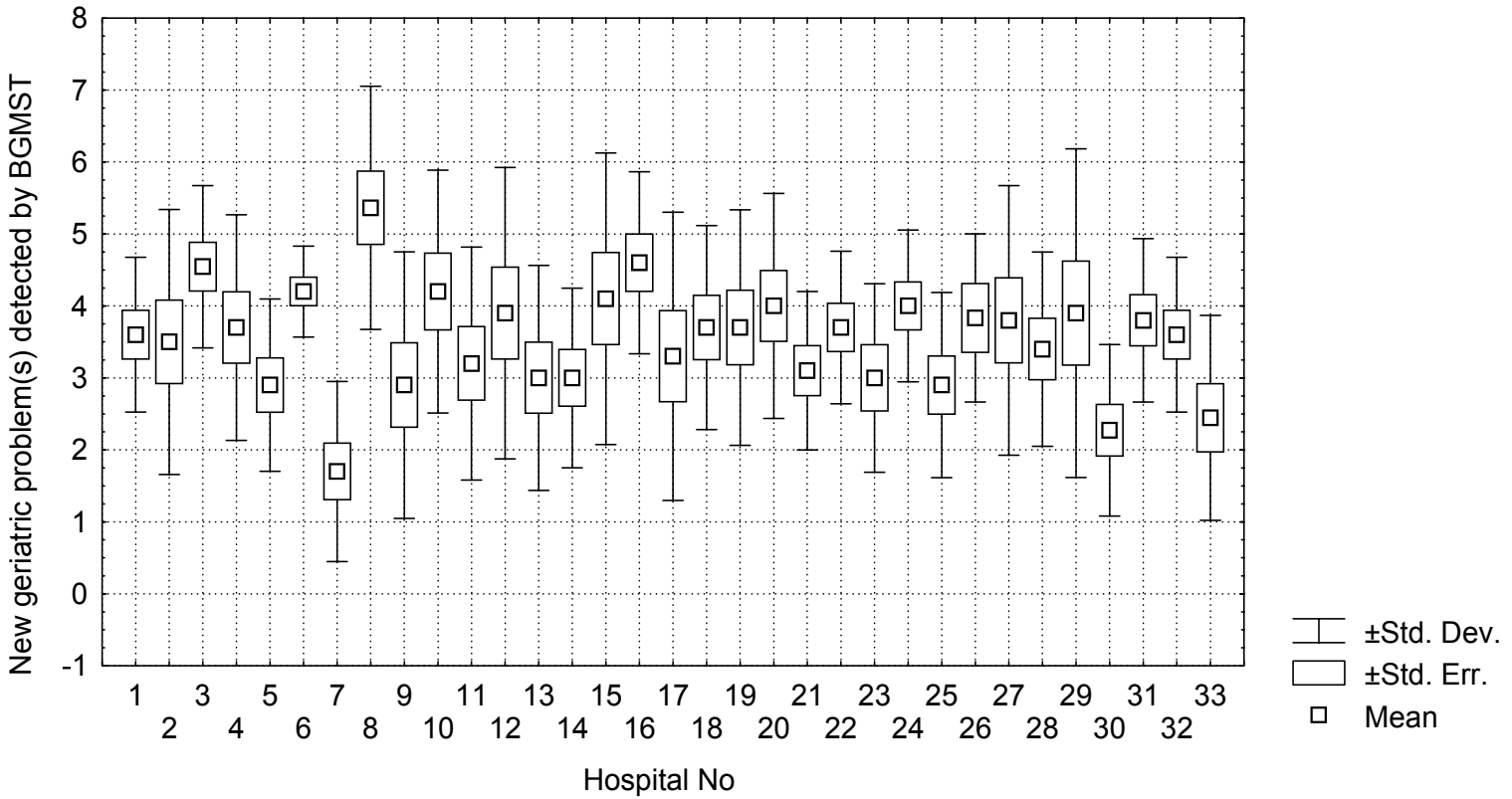
Suspected geriatric problems <u>before</u> BGMST



Suspected geriatric problems <u>after</u> BGMST



« added-value » (BGMST gain)



Feed back

- Results are sent to all participants and non-participants anonymously (except for their own data) in order to offer them the opportunity to compare their results.

Conclusions (i)

- Except for the assessment for the risk of falls, the MGST might be of value to identify other geriatric problems (functional, continence, cognition, depression, nutrition, pain, social).
- “Added-value” of MGST is variable according the centres

Conclusions (ii)

- After identifying deficiencies in quality of care provided to older persons, we planned this program in order to sensitize the geriatric teams to the comprehensive geriatric assessment.
- The gain associated with a simple minimal geriatric screen for common geriatric problems is impressive.
- This study concerns geriatric interventions that are safe, cheap, and sensible and that can help to identify vulnerable older patients.
- Moreover, this approach might have additional value for education and quality assurance.

acknowledgements

- *Participants*: Baeyens H, Baeyens JP; Banka M, Benoît F, Berg N, Beyer I, Claeys C, Coenen A, Decorte L, Dejaeger E, Dewinter P, Di Panfilo, D'Souza R, Fournier A, Janssens W, Kennes B, Lemper JC, Lambert M, Lampaert J, Laporta T, Maton JP, Mulkens K, Pepersack T, Pepinster A, Pétermans J, Petrovic M, Pieters R, Praet JP, Sépulchre D, Simonetti C, Stercken G, Swine C, Van Camp F, Vandenbon C, Vandenbroeck K, Van Parys C, Vanslembrouck I, Verbeke G Verbiest R, Verhaeverbeek I
- *Experts of the consensus conference*: Baeyens JP, Daniels H, Dargent G, De Vriendt P, Gazzotti G, E Gorus, Lambert M, Pepersack T, Pepinster A, Pétermans J, Sachem C, Swine C,Vandekerkhof H, van den Noortgate N, Velghe A
- We are indebted to A Perissino, M Haelterman, P Hellinckx and P Meeus (Health Care Quality Management Policy Unit, Ministry of Social Affairs,Public Health and the Environment) for their help during this project management.
- *Grant:* The management of the project was supported by the Belgian Ministry of Social Affairs,Public Health and the Environment.

.be HEALTH

BELGISCHE VERENIGING VOOR GERONTOLOGIE EN GERIATRIE

SOCIETE BELGE DE GERONTOLOGIE ET DE GERIATRIE