HoNOS (Health of the Nation Outcome Scales): Training and Application in Clinical Practice

Mick James

National HoNOS Advisor and MHCT Project Manager

Royal College of Psychiatrists

Overview

- Background to the development of the HoNOS
- Development of the use of the scales
- Training
- Use in routine clinical practice
- RCPsych review of HoNOS

Background to the development of HoNOS

Background to the development of HoNOS

- In 1992, the RCPsych was commissioned to develop a tool to measure progress against a government strategic target of ‘improving the health and social functioning of mentally ill people’.
- HoNOS was first published in 1996.
- Are short, simple, acceptable and useful to mental health professionals.
- Provide an overview of clinical and social problems.
- Have a variety of uses for mental health professionals, administrators and researchers.
- Are sensitive to improvement, deterioration or lack of change.
- HoNOS has a known relationship to more established scales such as BPRS, role functioning scales.

Development of the use of the scales

HoNOS - development of use in the NHS in England

- Uptake of the use of HoNOS was initially patchy across England – often implemented in a small number of services within a Trust led by enthusiastic clinicians although some Trusts took a whole system approach
- Poor development of IT in mental health services was often a key limiting factor in more widespread uptake and use in measuring outcomes
- Despite HoNOS being mandated as the key outcome indicator by the Department of Health [2005], growth in use was still patchy

HoNOS - development of use in the NHS in England

- The development of a national payment system that includes HoNOS as part of a wider measure (Mental Health Clustering Tool) has however led to widespread use of the HoNOS across England supported by appropriate IT systems
- Mental Health services in England have now been mandated to work towards the Mental Health payment system since April 2011
- The system has the advantage that it retains intact HoNOS as an internationally recognised outcome measure, avoiding the need for two separate data collections.

HoNOS - international

- It is acknowledged internationally as a high quality, standardised, clinician rated outcome measure for use in mental health services
- Its use is mandated across mental health services in England, Australia and New Zealand as a routine outcome measure. Switzerland too?
- It has been translated into many languages including Croatian, Danish, Dutch, Finnish, French, German, Italian, Korean, Norwegian, Spanish and Thai.
- It is also used routinely in some Canadian province and within some services in Denmark, Holland, Germany, Italy, Norway and Spain.

The HoNOS

Section title and item name	Range of item scores on severity scale	Range of scores for section
A Behavioural problems		**(0-12)**
1 Overactive, aggressive, disruptive or agitated behaviour	**0-4**	
2 Non-accidental self injury	**0-4**	
3 Problem drinking or drug taking	**0-4**	
B Impairment		**(0-8)**
4 Cognitive problems	**0-4**	
5 Physical illness or disability problems	**0-4**	
C Symptomatic problems		**(0-12)**
6 Problems with hallucinations and delusions	**0-4**	
7 Problems with depressed mood	**0-4**	
8 Other mental and behavioural problems -	**0-4**	
specify A,B,C,D,E,F,G,H,I, or J		
D Social Problems		**(0-16)**
9 Problems with relationships	**0-4**	
10 Problems with activities of daily living	**0-4**	
11 Problems with living conditions	**0-4**	
12 Problems with occupation and activities	**0-4**	
Total score (0-48)		

HoNOS – other versions

- HoNOS was designed for use in general adult mental health services.

- There are separate HoNOS versions for mental health specialities:
  - old age (HoNOS65+),
  - child and adolescent (HoNOSCA)

- There are also versions for
  - forensic services (HoNOS-Secure),
  - learning disability services (HoNOS LD) and
  - acquired brain injury (HoNOS-ABI)

Training

HoNOS Training

- Royal College of Psychiatrists has continued to develop training since the tool was published in 1996.
- Originally 1-day training by members of original project team (centrally run).
- Started to provide 1-day training ‘on-site’ to individual organisations
- Later introduced 2-day ‘Training for Trainers’ – more opportunity for supervised use of scales and help with local Training and Implementation strategies
- E Learning package developed separately from the RCPsych – but not recommended for initial training.

Key messages in training

- Describe the background to the development of HoNOS – why was it developed and what was it developed to do?
- Explore it's place in current services – why are we required to use it and what benefits are there associated with routine clinical use
- Explain the rules and principles of rating the HoNOS
- Gain practical experience of using the HoNOS using clinical vignettes in group exercises
- Identify how HoNOS can benefit clinical practice
- Expected points of assessment and review and when to measure outcome
- Importance of on-going training and supervision
- Importance of the role of information management and feedback of outcomes to staff

Key messages in training - The rules for using HoNOS

- HoNOS is not a clinical assessment but a clinical assessment is a pre-requisite for rating HoNOS.

- A rating of HoNOS is a rating of the patient's current problems in terms of impact on the patient of the problem

- Not included in making a rating is:
  - The diagnosis
  - The cause of the problem
  - The intervention
  - The risk to others or the effect on others of the problem

Key messages in training – HoNOS Structure

12 ITEMS, each with 5-point severity scales (0-4)

0 - no problem
1 = minor problem requiring no action
2 = mild problems but definitely present
3 = problem of moderate severity
4 = severe to very severe problem

- The glossary provides further information on each **ITEM** and examples of each point in the **SEVERITY SCALE**

- When no information is available to score an **ITEM,** the figure '9' is used to indicate 'not known'. The '9' is not added to the 0-4 scores. Further information should be collected again and a 0-4 score given

Key messages in training – HoNOS General Guidelines

- There is no absolute ‘correct’ rating
- Rating is the clinical judgement of the rater
- Serial ratings should be made by the same rater wherever possible
- Each of the **ITEMS** must be rated only once in order from 1 to 12
- Each mental health/social problem is rated only once
- Problems occurring over the past two weeks are included
- Rate the most severe problem that occurred during the period

Training – Advice on planning a course

- A brief one-off training course is not sufficient to guarantee comparability between individual raters or between groups of raters. Practice is required to maintain reliability and efficiency
- If possible train by clinical area as part of a roll-out programme and ensure that participants start to use HoNOS as soon as possible after completing the training.
- Ideally multidisciplinary training by a multidisciplinary team with clinical credibility across all areas to be trained.
- Identify a supervisor for trainees to seek further clarification from once they have completed training and started to use HoNOS and be clear about how supervision will be provided

Use in routine clinical practice

Using aggregated HoNOS data

- If we are to use HoNOS data to benchmark and evaluate services to drive service improvement, we need some assurance about the data quality.
- Need to ensure that mental health professionals are clear about what they can and cannot use the HoNOS for.

For similar groups of clients within similar services

- Measuring trends over time
- Evaluating service redesign/new interventions and ways of working
- Benchmarking using casemix/severity score profiles for services
- Benchmarking the outcomes of services

BUT still no easy source of benchmarking for English data

As a result some services use similar datasets from Australia.

Adult Inpatients

Change in Total HoNOS score

Aggregated data

All diagnoses

File Edit Email Community Services Safety Window Keyword Sign Off Help
Read 33 Write IM People Safety Settings Music Money
beads pottery beads2 Beads pottery3 pottery2
Quick Start http://wdst.mhnocc.org/ Go Search Favourites Print

AMHOCN
Web Decision Support Tool

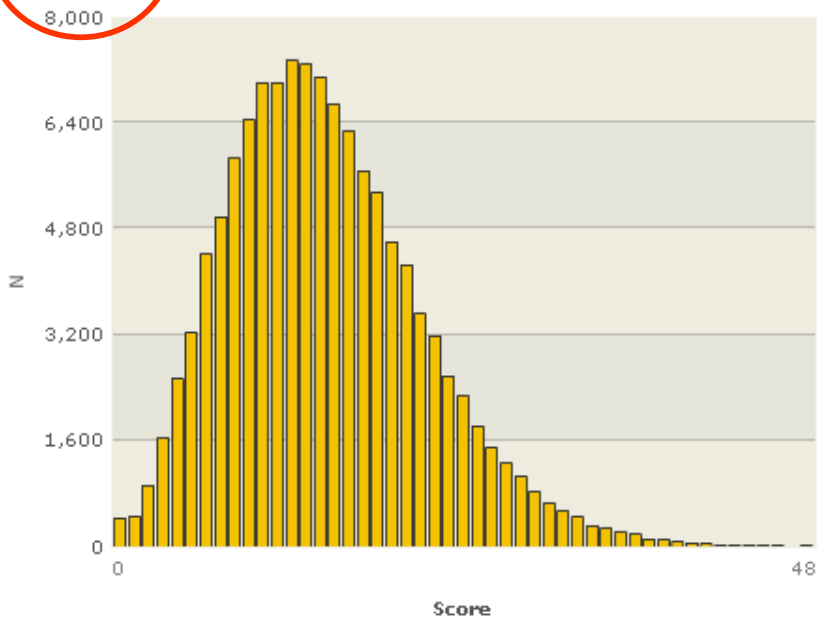
Bookmarkable link (Download CSV)

Return to Query

Statistics

N	Percentiles					Mean	Std Dev
	10	25	50	75	90		
120,633	6.0	9.0	14.0	18.0	23.0	14.3	6.8

Chart



Jurisdiction: National

Age Group: Adult

Measure: HoNOS

View: Total Score

Level of Analysis: Collection Occasion

Occasion: Admission

Service Setting: Inpatient

Financial Year: 2004-2005, 2005-2006, 2006-2007

All data reported from 1st of July, 2004 to 30th of June, 2007

Return to Query

AOL TopSpeed™ Done Window (1) Blocking Pop-Ups (0) Omala...'s Vault

AOL 9.0 - [Web Decision Support Tool]
File Edit Email Community Services Safety Window Keyword Sign Off Help
Read 33 Write IM People Safety Settings Music Money
beads pottery beads2 Beads pottery3 pottery2
Quick Start http://wdst.mhnocc.org/ Go Search Favourites Print

AMHOCN
Web Decision Support Tool

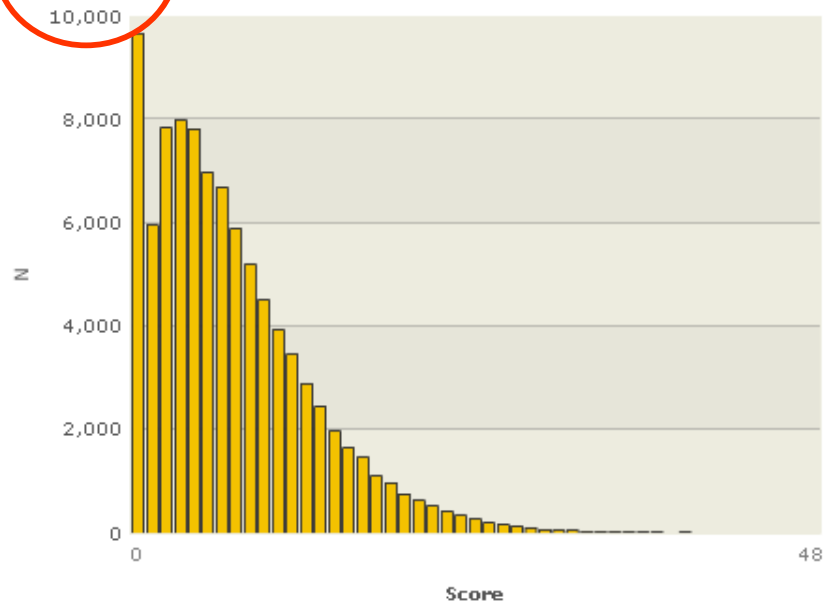
Bookmarkable link (Download CSV)

Return to Query

Statistics

N	Percentiles					Mean	Std Dev
	10	25	50	75	90		
92,324	0.0	2.0	5.0	10.0	14.0	6.7	5.7

Chart



Jurisdiction: National

Age Group: Adult

Measure: HoNOS

View: Total Score

Level of Analysis: Collection Occasion

Occasion: Discharge

Service Setting: Inpatient

Financial Year: 2004-2005, 2005-2006, 2006-2007

All data reported from 1st of July, 2004 to 30th of June, 2007

Return to Query

AOL TopSpeed™ Done Window (1) Blocking Pop-Ups (0) Omala...'s Vault

File Edit Email Community Services Safety Window Keyword Sign Off Help
Read 34 Write IM People Safety Settings Music Money
beads pottery beads2 Beads pottery3 pottery2
Quick Start
http://wdst.mhnocc.org/
Go Search Favourites Print

AMHOCN
Web Decision Support Tool

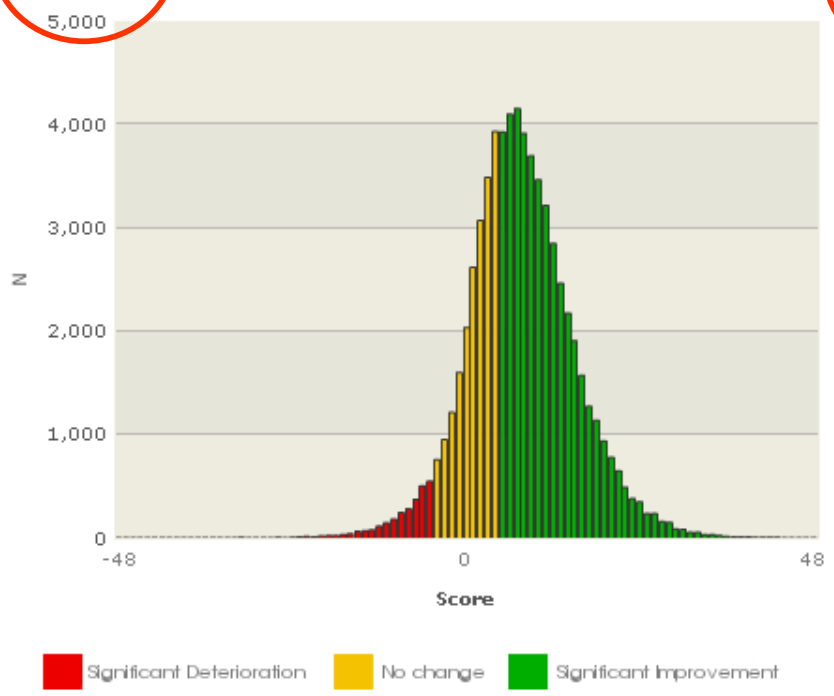
Bookmarkable link (Download CSV)

Return to Query

Statistics

N	Percentiles					Mean	Std Dev
	10	25	50	75	90		
67,114	-1.0	3.0	7.0	12.0	17.0	7.6	7.4

Chart



Jurisdiction: National

Age Group: Adult

Measure: HoNOS

View: Total Score

Level of Analysis: Episode Transition

Transition: Admission/Discharge

Service Setting: Inpatient

Financial Year: 2004-2005, 2005-2006, 2006-2007

All data reported from 1st of July, 2004 to 30th of June, 2007

Return to Query

AOL TopSpeed™ Done
Window (2) Blocking Pop-Ups (0) Omala...'s Vault

Comparing Australian Adult Inpatient data with a NHS Trust Adult Acute Inpatient dataset

The data shown here only include ratings completed within the 7 days following date of acute admission and within 7 days of the episode completion date

Adult inpatient admission and discharge/end of episode data – all diagnoses

SLaM DATA (7 DAY RATING)	N	MEAN	SD	PERCENTILES				
ALL DIAGNOSES AMH				10	25	50	75	90
ADMISSION	817	15.0	5.9	8	11	14.7	19	23
DISCHARGE	817	7.4	5.1	2	4	6	10	14
PROBLEM REDUCTION	817	7.6	6.2	0	4	7	11	16

AUSTRALIAN DATA	N	MEAN	SD	PERCENTILES				
ALL DIAGNOSES AMH				10	25	50	75	90
ADMISSION	120,633	14.3	6.8	6	9	14	18	23
DISCHARGE	92,324	6.7	5.7	0	2	5	10	14
PROBLEM REDUCTION	67,114	7.6	7.4	-1	3	7	12	17

Distribution and central tendency of data are very similar in both datasets

Adult Inpatients with psychotic illness

AOL 9.0 - [Web Decision Support Tool]
File Edit Email Community Services Safety Window Keyword Sign Off Help
Read 34 Write IM People Safety Settings Music Money
beads pottery beads2 Beads pottery3 pottery2
Quick Start http://wdst.mhnocc.org/ Go Search Favourites Print

AMHOCN Web Decision Support Tool

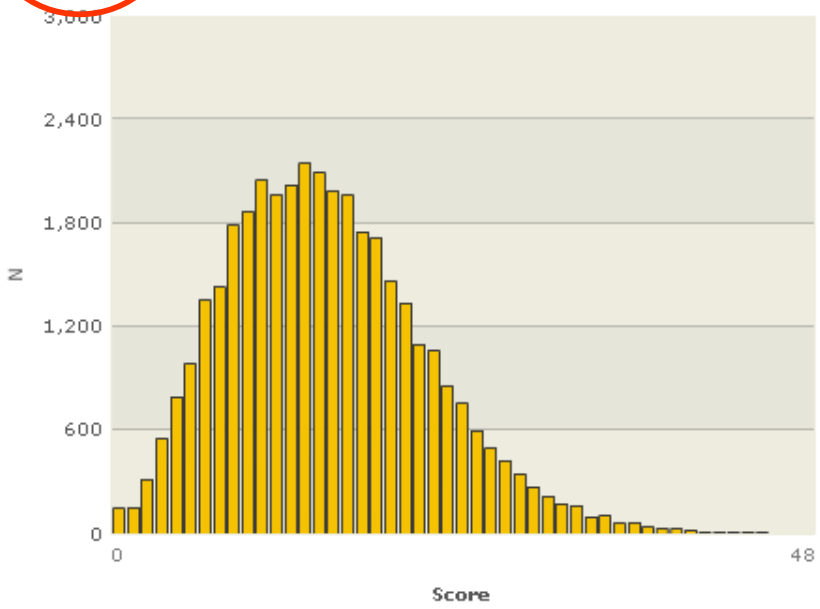
Bookmarkable link (Download CSV)

Return to Query

Statistics

N	Percentiles					Mean	Std Dev
	10	25	50	75	90		
36,785	6.0	9.0	14.0	19.0	24.0	14.5	7.0

Chart



Jurisdiction: National

Age Group: Adult

Measure: HoNOS

View: Total Score

Level of Analysis: Collection Occasion

Occasion: Admission

Service Setting: Inpatient

Diagnosis: Schizophrenia, Paranoia and Acute Psychotic Disorders

Financial Year: 2004-2005, 2005-2006, 2006-2007

© Royal College of Psychiatrists, 2013

AOL TopSpeed™ Window (2) Blocking Pop-Ups (0) Omala...'s Vault

AOL 9.0 - [Web Decision Support Tool]
File Edit Email Community Services Safety Window Keyword Sign Off Help
Read 34 Write IM People Safety Settings Music Money
beads pottery beads2 Beads pottery3 pottery2
Quick Start http://wdst.mhnocc.org/ Go Search Favourites Print

Web Decision Support Tool

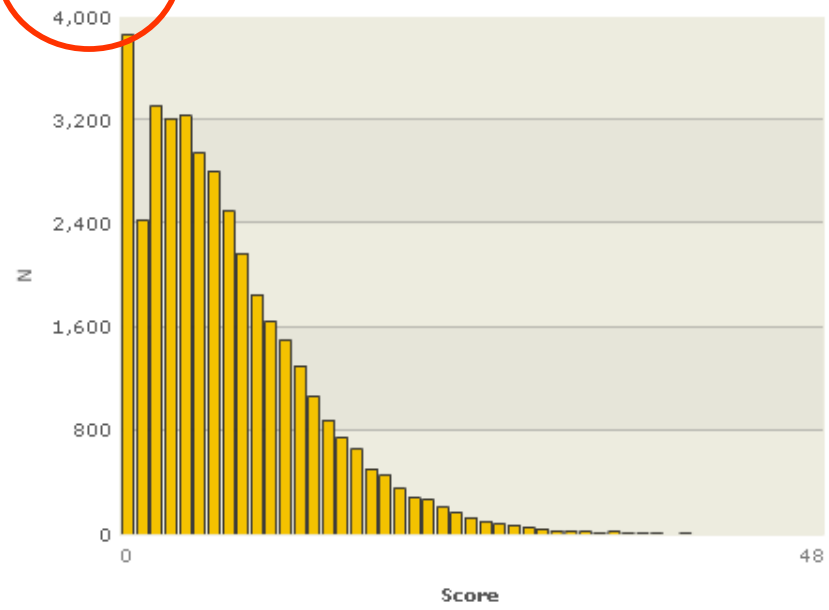
Bookmarkable link (Download CSV)

Return to Query

Statistics

N	Percentiles					Mean	Std Dev
	10	25	50	75	90		
39,025	1.0	3.0	6.0	10.0	15.0	7.0	5.9

Chart



Jurisdiction: National

Age Group: Adult

Measure: HoNOS

View: Total Score

Level of Analysis: Collection Occasion

Occasion: Discharge

Service Setting: Inpatient

Diagnosis: Schizophrenia, Paranoia and Acute Psychotic Disorders

Financial Year: 2004-2005, 2005-2006, 2006-2007

All data reported from 1st of July, 2004 to 30th of June, 2007

Return to Query

© Royal College of Psychiatrists, 2013

AOL TopSpeed™ Done Window (2) Blocking Pop-Ups (0) Omala...'s Vault

AOL 9.0 - [Web Decision Support Tool]
File Edit Email Community Services Safety Window Keyword Sign Off Help
Read Write IM People Safety Settings Music Money
beads pottery beads2 Beads pottery3 pottery2
Quick Start http://wdst.mhnocc.org/ Go Search Favourites Print

AMHOCN
Web Decision Support Tool

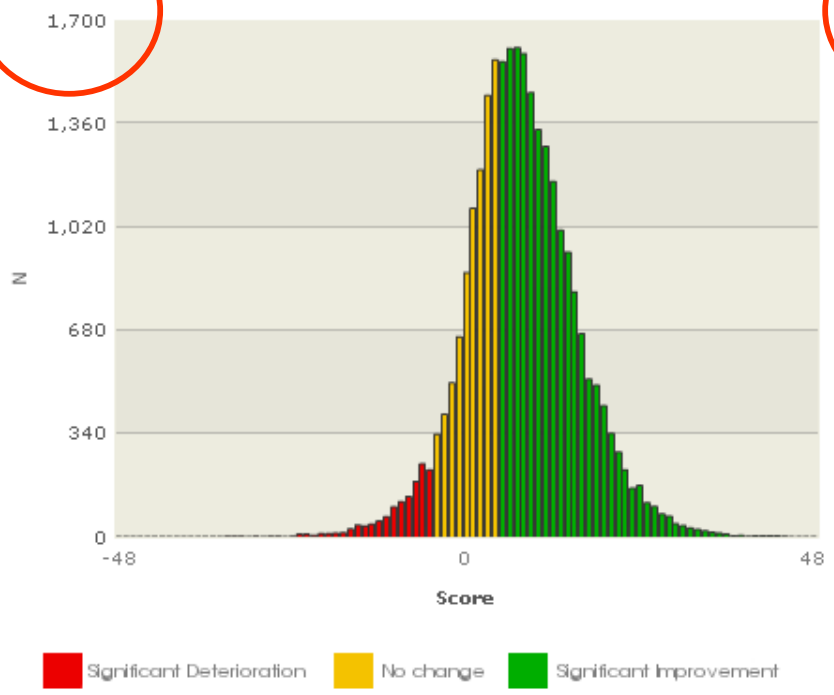
Bookmarkable link

Return to Query

Statistics

N	Percentiles					Mean	Std Dev
	10	25	50	75	90		
27,649	-1.0	3.0	7.0	12.0	17.0	7.6	7.7

Chart



Jurisdiction: National

Age Group: Adult

Measure: HoNOS

View: Total Score

Level of Analysis: Episode Transition

Transition: Admission/Discharge

Service Setting: Inpatient

Diagnosis: Schizophrenia, Paranoia and Acute Psychotic Disorders

Financial Year: 2004-2005, 2005-2006, 2006-2007

© Royal College of Psychiatrists, 2013

AOL TopSpeed™ Window (2) Blocking Pop-Ups (0) Omala...'s Vault

Data comparison
‘Non affective psychosis’

SLaM DATA	N	MEAN	SD	PERCENTILES				
ICD10 F20-29	279			10	25	50	75	90
ADMISSION	279	14.3	6.1	6.9	10.0	14.0	18.0	22.0
DISCHARGE	279	7.0	4.6	2.0	4.0	6.0	9.0	13.0
TOTAL SCORE REDUCTION	279	7.4	6.5	0.0	3.0	7.0	11.0	16.0

AUSTRALIAN DATA	N	MEAN	SD	PERCENTILES				
Schizophrenia, Paranoia and Acute Psychotic disorders				10	25	50	75	90
ADMISSION	36,785	14.5	7.0	6.0	9.0	14.0	19.0	24.0
DISCHARGE	39,025	7.0	5.9	1.0	3.0	6.0	10.0	15.0
TOTAL SCORE REDUCTION	27,649	7.6	7.7	-1.0	3.0	7.0	12.0	17.0

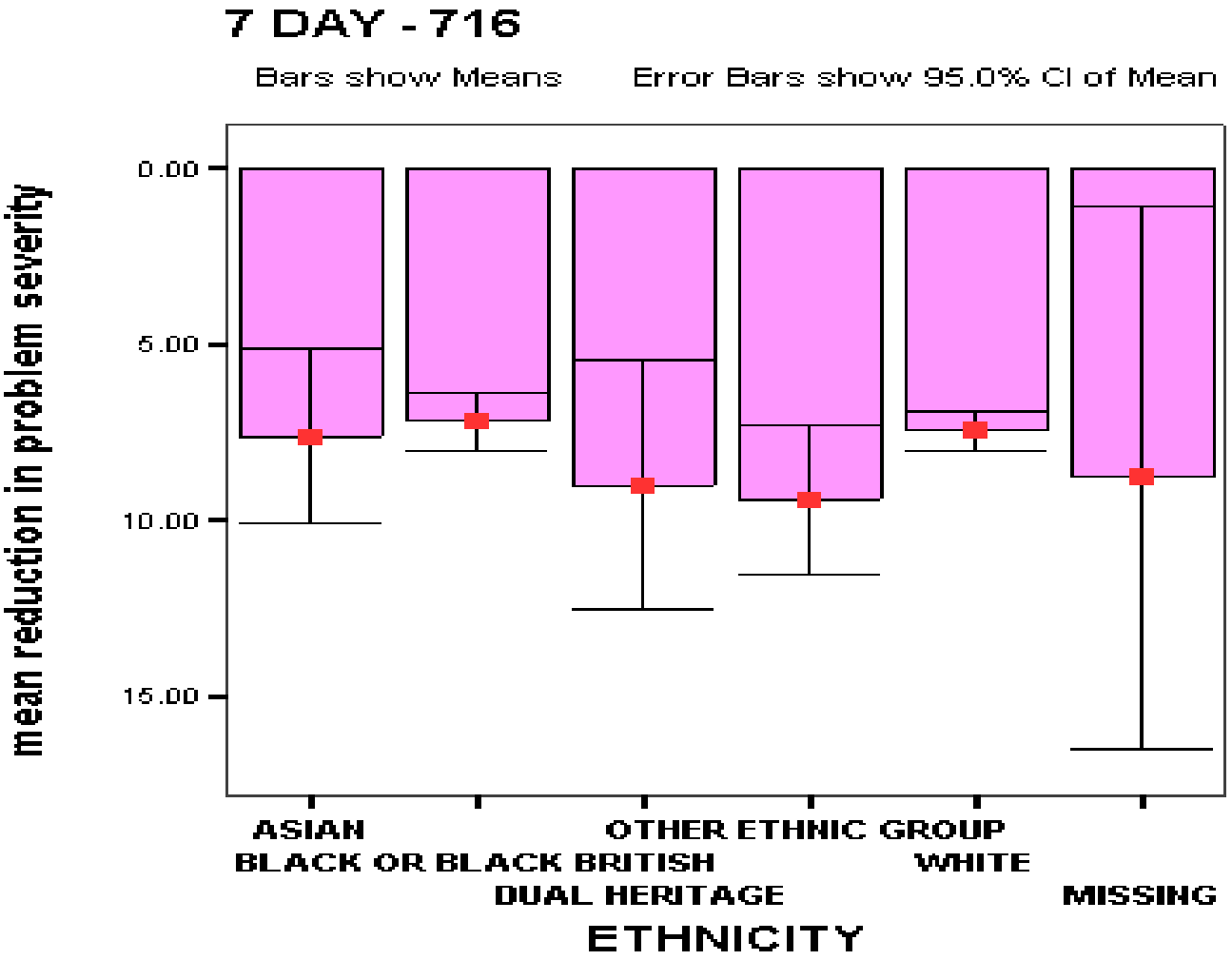
Distribution and central tendency of data are very similar in both datasets

Data also suggest…

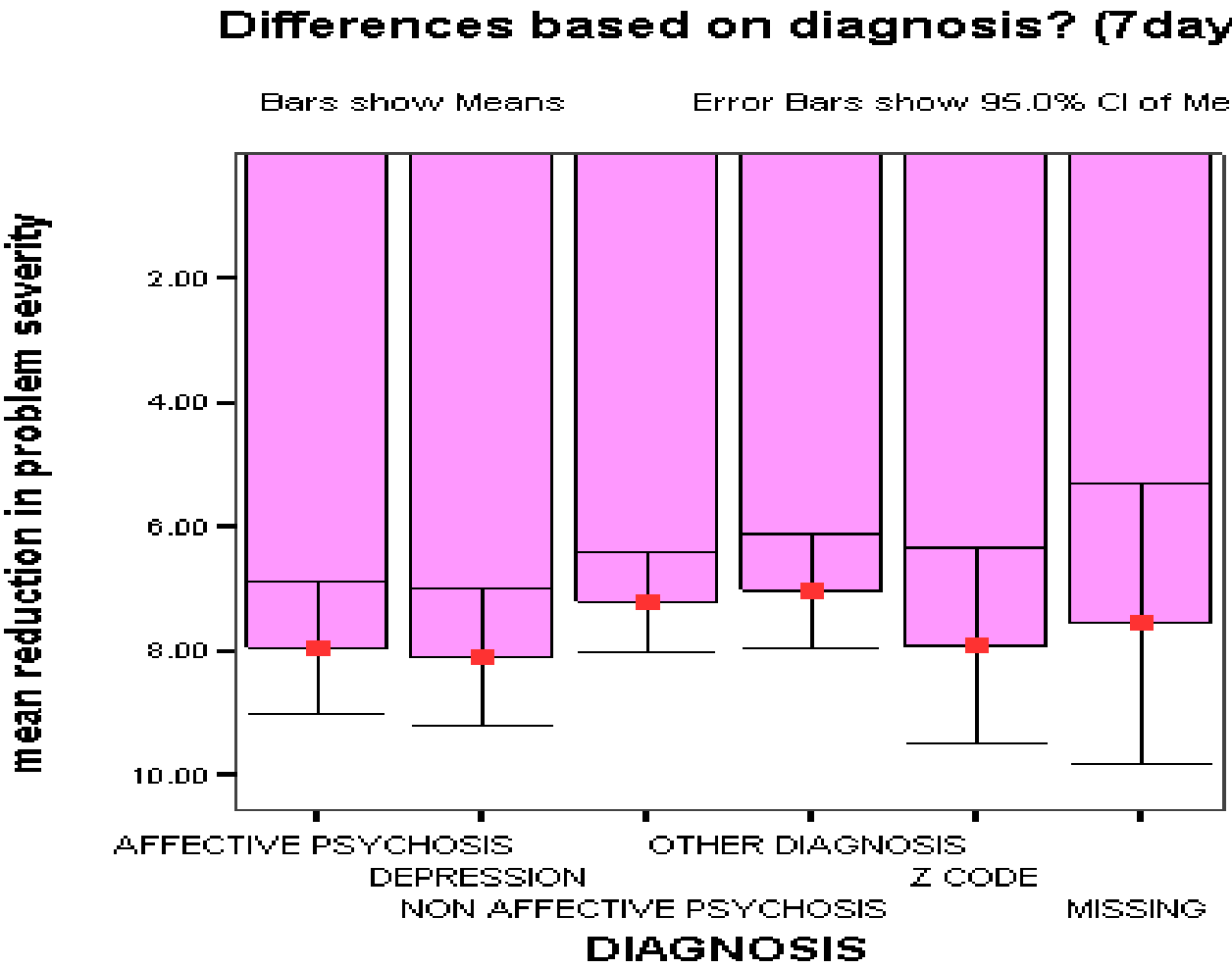
A small NHS sample suggests that diagnosis, ethnicity and gender have no significant relationship with reduction in problem severity during adult acute inpatient episodes.

716 episodes with ethnicity and diagnosis recorded and rated within 7 days post admission and within 7 days of episode completion are examined.

Ethnicity may not be a significant variable for reduction in total HoNOS score during inpatient treatment



Diagnosis may not be a significant variable for reduction in total HoNOS score during inpatient treatment

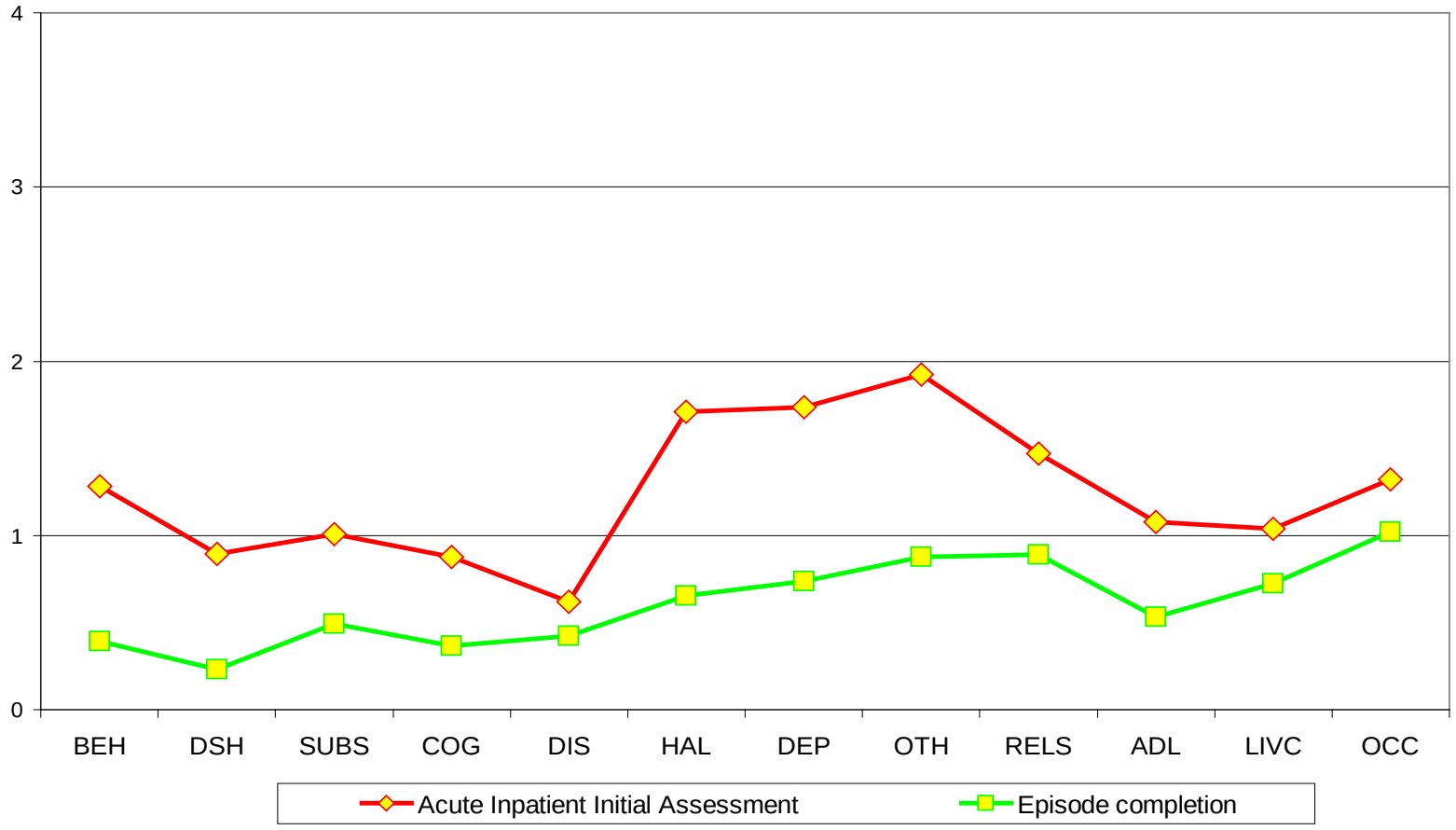


Assessment and Change Profiles

Acute Inpatient change profile

All diagnoses - mean reduction = 7.6 points (n=817)

Mean change in problem severity between acute admission and end of acute inpatient episode
(n= 817) (mean scores 15 and 7.4) (Trustwide Acute data)

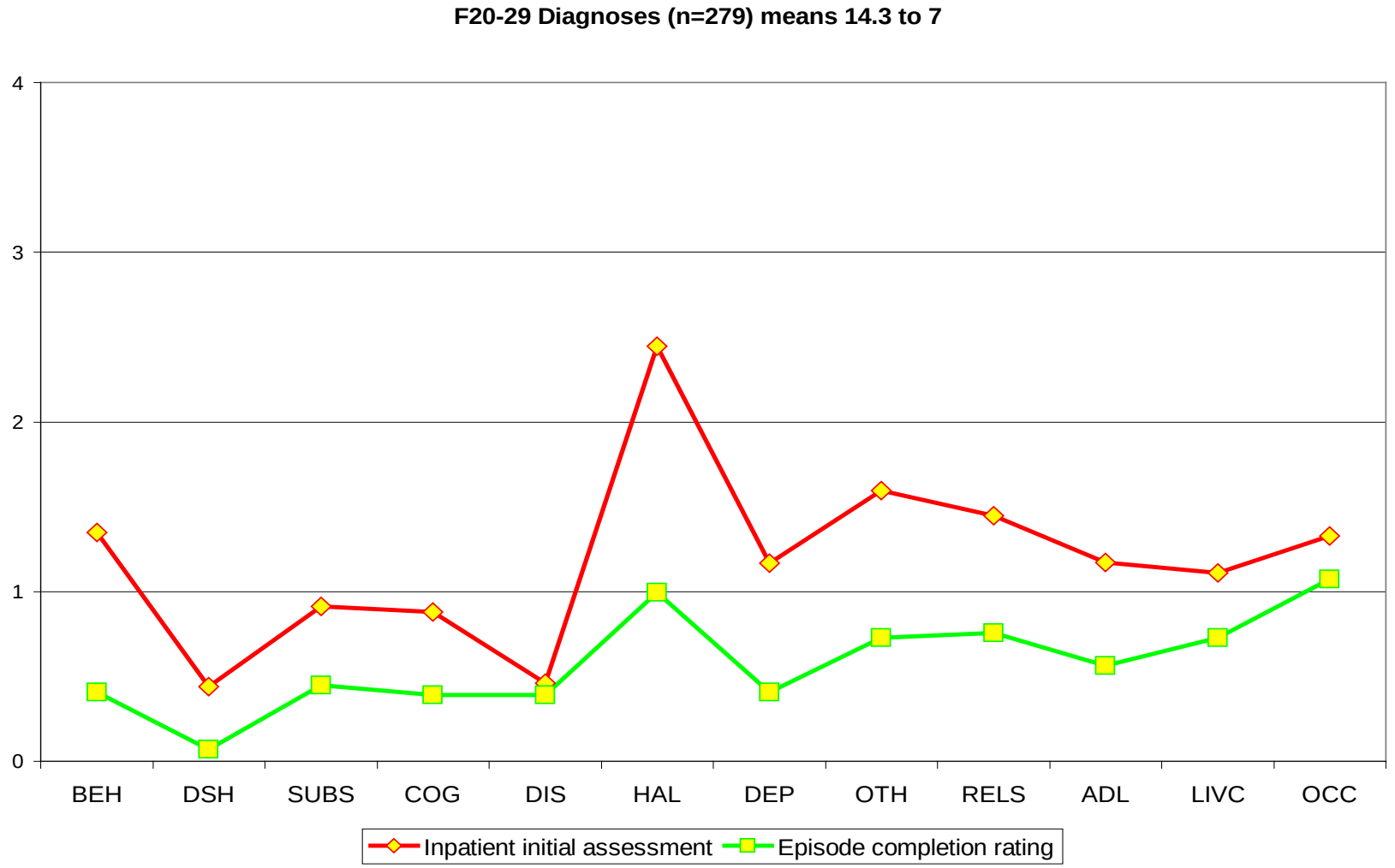


Acute Inpatient change profile
mean reduction = 7.6 points (n=817)

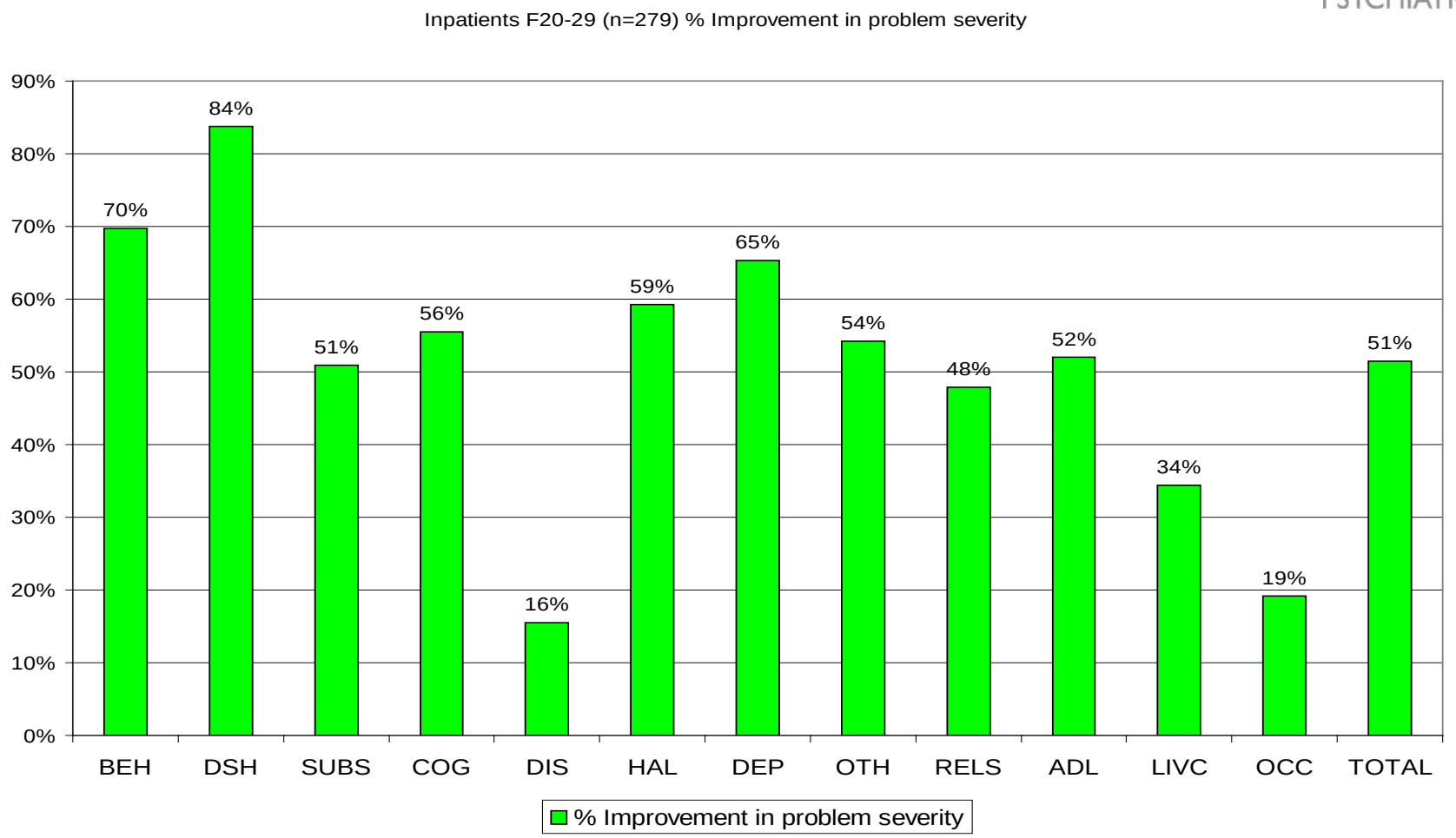
- Reduction in average (mean) scores is shown on all scale items during acute inpatient treatment for this sample of acute inpatients (Trust-wide data).
- Greatest average improvement is shown on behavioural scales and symptom scales.
- Precisely what is desired from an acute admission.
- Enabling community teams to focus on management of social functioning following stabilisation of problem symptoms and behaviour.

Acute Inpatient change profile psychotic diagnoses

mean reduction = 7.3 points (n=279)



Inpatients with a psychotic diagnosis % improvement in problem severity

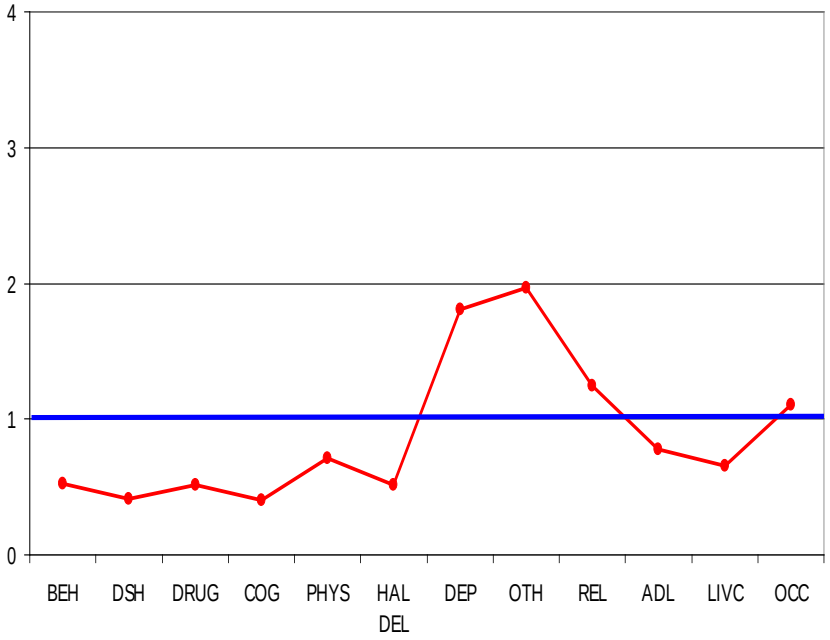


Greatest % improvement in behavioural then symptom scales

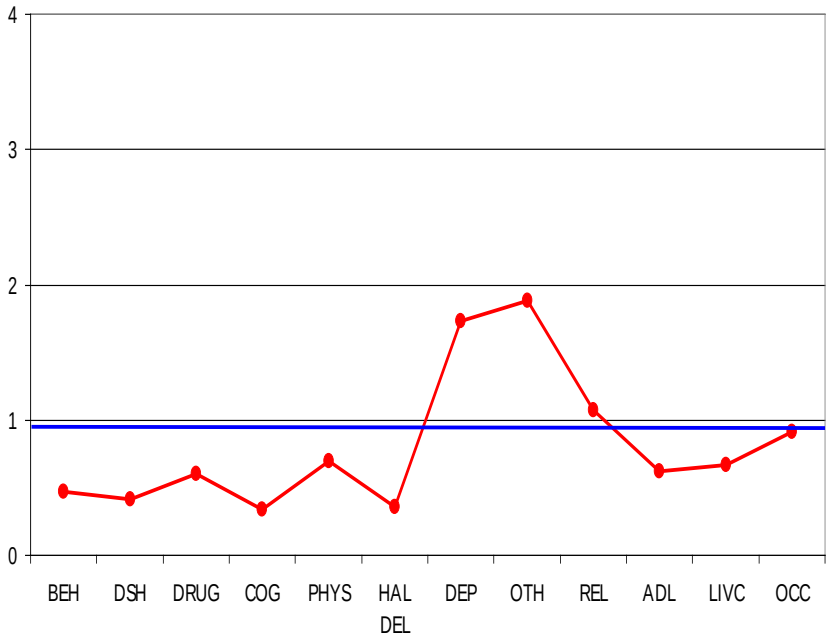
Problem profiles at initial assessment for patients presenting to similar community services but in different parts of a Trust area

Assessment and Brief Treatment teams. The care package for most patients in these samples might include CBT and/or SSRI

Directorate E
Assessment and Brief Treatment (ABT)
Patients at Initial Assessment
Mean 10.6 (n =409)



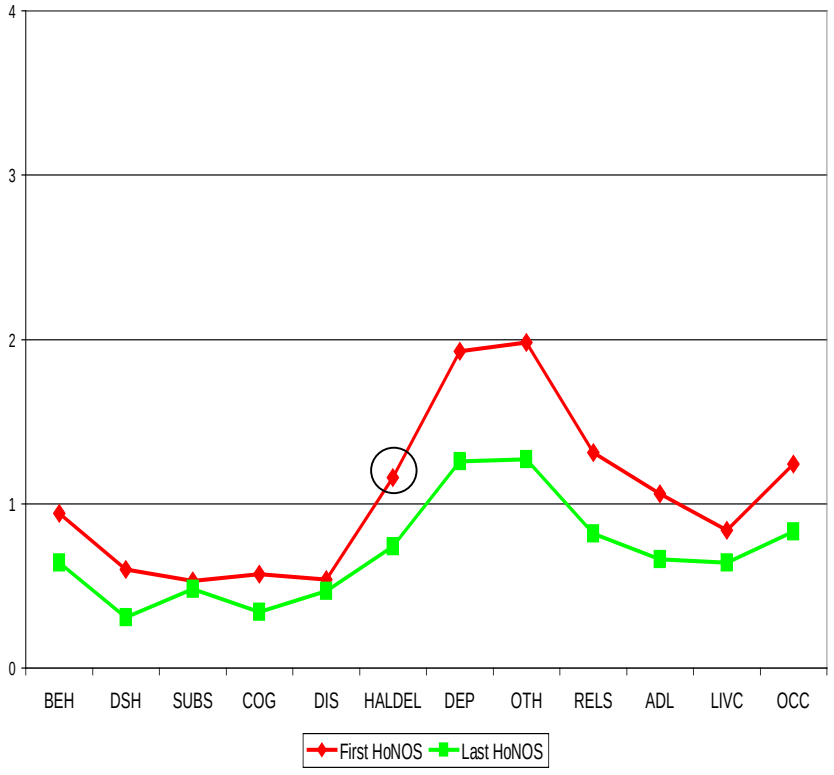
Directorate C
ABT / Duty Patients at Initial Assessment
Mean 9.8 (n= 1210)



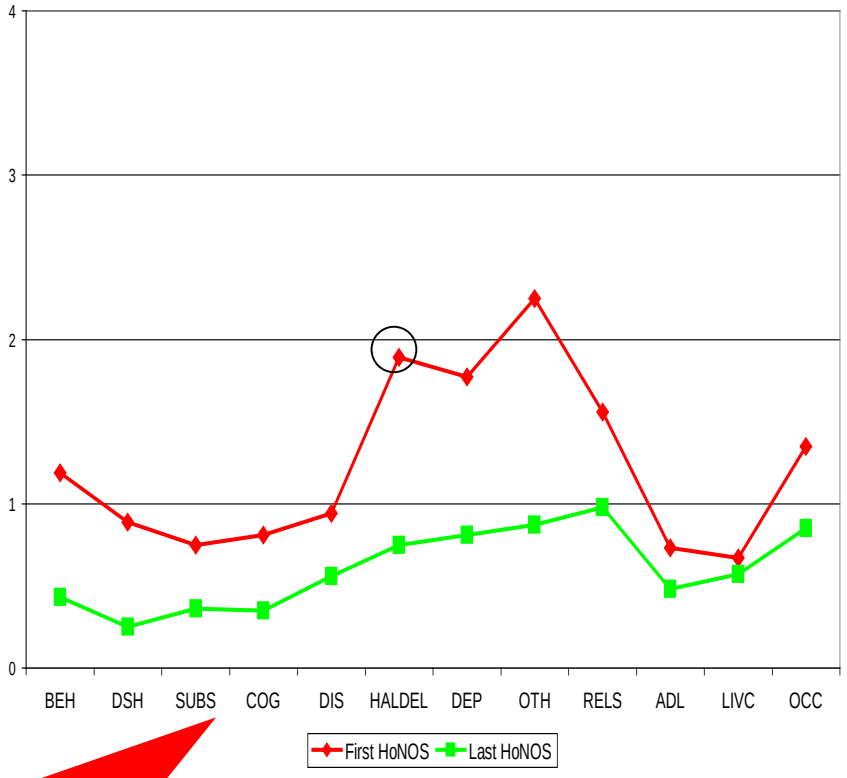
Almost identical problem profiles at initial community assessment

The outcome of home treatment in 2 sectorised CR/HT teams located only 3 miles apart but with different population demographics

HTT N Means 12.7 to 8.5 (n=137) 60% female



HTT S Means 14.8 to 7.2 (n=84) 57% female



Different demography ,casemix and greater problem severity

RCPsych review of HoNOS

Review terms of reference

- Increasing use has maintained interest in HoNOS and whilst recognising the basic soundness of the instrument heightened calls for improvement
- Review aimed at using the experience of routine use to develop a set of recommendations for improvement
- Focus on revisions to existing glossary, addressing known issues that have arisen in the use of the scales
- Respect that the HoNOS fundamental rules are to be maintained and are not in scope for revision as to do so would entail the development of a ‘new’ instrument,
- Be open to identifying areas that require further research and development with a view to identifying priorities should resources become available.
- Due to finalise early in 2016.

Questions?