

PMHA
CDMS

NATIONAL MODEL FOR THE COLLECTION AND ANALYSIS
OF A MINIMUM DATA SET WITH OUTCOME MEASURES BY
PRIVATE HOSPITAL-BASED PSYCHIATRIC SERVICES

The routine collection of data on health outcomes by private hospitals with psychiatric beds

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The Private Mental Health Alliance

- National Network of Private Sector Consumers and Carers
- Royal Australian and New Zealand College of Psychiatrists
- Australian Medical Association
- Australian Private Hospitals Association
- Australian Health Insurance Association
- Australian Government Department of Health and Ageing



The need for the routine collection of information on health outcomes was well understood by all stakeholders

- Wide variations can be found in the kinds of services and interventions provided, so we need good information about:
 - How well those different kinds of services or interventions work
 - What differences exist in the outcomes of those services or interventions in terms of quality of life and interference with life and activities.
- Three important questions
 - What is the likely efficacy of this intervention ?
 - What has been the actual effect of the intervention when implemented in this context ?
 - Why has this particular outcome been observed in this context ?
- National Standards for Mental Health Services
 - 9.22 the service collects and aggregates data which promote effective care for consumers and their family/carer ...
 - 9.24 data collected are analysed and used to promote continuous quality improvement within the service.

Why did Hospitals agree to a *National Model* ?

- It has two critical attributes:
 - A common language for describing who receives what services from whom, at what cost, and with what effect.
 - An agreed set of protocols for collecting, analysing and sharing that information.
- And it is owned by all stakeholders:
 - Consumers and carers
 - Clinicians
 - Private hospitals
 - Health insurers and other payers
 - Australian Government
 - their requirements and concerns were taken into account in its development
 - they now share responsibility for the oversight of the CDMS and the ongoing development of the National Model

What data has to be collected by Hospitals?

- Standardised measures of patients' clinical status are collected at:
 - **Admission**
 - **Discharge**
 - **Review**, every 3 months in extended episodes of care
- Two measures are required:
 - **HoNOS or HoNOS 65+ (the clinician's assessment)**
 - **MHQ-14 (the patient's self-assessment)**
- Some other data items are also required:
 - Patient demographics (Year of birth, Sex)
 - Diagnoses (principal and additional)
 - Procedures
 - Collection details (Setting, Occasion, Date)
 - Collection status of the HoNOS and MHQ-14

What is done with the data collected?

- Outcome Measures data (OMP) is entered into the Hospital's Standardised Measures database (HSMdb)
- Service Utilisation data (Hospitals Casemix Protocol, HCP) data is linked with the OMP data in HSMdb to give the full picture
 - Hospital uses the data for monitoring, evaluation and improvement of its' programs
- Every three months, the data regarding all Patients seen in the preceding quarter is submitted, in a de-identified format, to the PMHA's Centralised Data Management Service (CDMS)
 - The CDMS provides **Hospitals** with Standard Quarterly Reports, enabling the Hospital to compare itself with its peers.
 - The CDMS provides **Health Insurers** with Standard Quarterly Reports, enabling the Insurer to compare outcomes for its members at each Hospital.

Clinicians' ratings: the HoNOS and HoNOS 65+

- **Health of the Nation Outcome Scales**
- Purpose built by the UK College of Psychiatrists for use in specialist mental health services
- Comprehensive yet brief
 - 12 items, designed to measure:
 - physical,
 - personal, and
 - social problems
- The validity of the measure stands or falls on the validity and completeness of the clinician's assessment – it makes their judgements overt.
- Collected by the majority of private hospitals with psychiatric beds in Australia **since January 2002.**

HoNOS and HoNOS 65+ items

1. Overactive, aggressive, disruptive or agitated behaviour
2. Non-accidental self-injury (and suicidal ideation)
3. Problem drinking or drug-taking
4. Cognitive problems
5. Physical illness or disability problems
6. Problems associated with hallucinations and delusions
7. Problems with depressed mood
8. Other mental and behavioural problems (anxiety, sleep, eating, etc)
9. Problems with relationships
10. Problems with activities of daily living (both basic and complex skills)
11. Problems with living conditions
12. Problems with occupation and activities

HoNOS — each item has a five point rating scale and an associated glossary

Each item is rated on a continuous scale of 0 to 4

0 = no problem

1 = minor problem requiring no action

2 = mild problem but definitely present

3 = moderately severe problem

4 = severe to very severe problem

- The glossary associated with each item provides an explanation in terms of behavioural anchors for each point on the scale.

An example of the HoNOS glossary

HoNOS item 2: Non-accidental self-injury (and suicidal ideation)

Do not include accidental self-injury (due e.g. to dementia or severe learning disability); the cognitive problem is rated at Item 4 and the injury at Item 5

Do not include illness or injury as a direct consequence of drug/alcohol use rated at Item 3 (e.g. cirrhosis of the liver or injury resulting from drunk driving are rated at Item 5).

- 0** No problem of this kind during the period rated.
- 1** Fleeting thoughts about ending it all but little risk during the period rated; no self-harm.
- 2** Mild risk during period; includes non-hazardous self-harm, e.g. wrist-scratching.
- 3** Moderate to serious risk of deliberate self-harm during the period rated; includes preparatory acts, e.g. collecting tablets.
- 4** Serious suicidal attempt and/or serious deliberate self-injury during period.

Patients' self-assessments: the MHQ-14

- **Mental Health Questionnaire – 14** item version
- Derived from and directly comparable with the most widely used outcome measure, the Medical Outcomes Study Short Form questionnaire, commonly known as the SF–36.
- Measures both the **disability** and **distress** associated with mental and behavioural problems
- Brief and easy to administer
- Translations available in major community languages
- Comparative data from the general population and the private psychiatric sector is available
 - From the ABS's 1995 National Health Survey for the general population
 - Collected in the majority of private hospitals with psychiatric beds In Australia **since January 2002.**

MHQ-14 items for the Mental health and Vitality domains.

- **Mental health**

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

- Have you been a very nervous person
- Have you felt so down in the dumps that nothing could cheer you up
- Have you felt calm and peaceful
- Have you felt down
- Have you been a happy person

- **Vitality**

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

- Did you feel full of life
- Did you have a lot of energy
- Did you feel worn out
- Did you feel tired

MHQ-14 items for the Social functioning and Role functioning domains.

- **Role functioning**

During the past 2 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious) ...

- Cut down the amount of time you spent on work or other activities
- Accomplished less than you would like
- Didn't do work or other activities as carefully as usual

- **Social functioning**

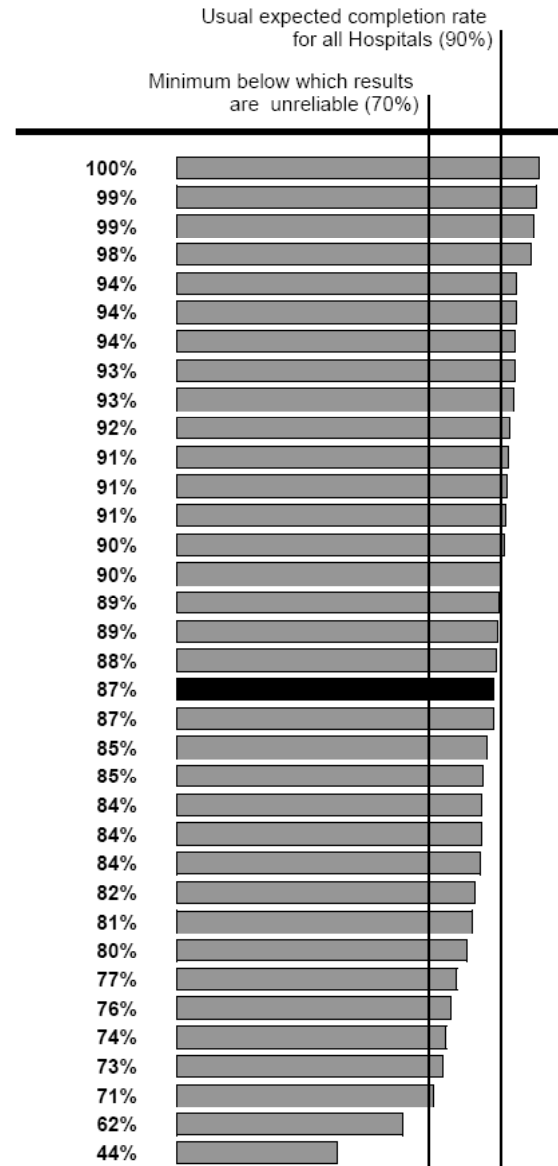
- To what **extent** have your emotional problems interfered with your normal social activities with family, friends, neighbours, or groups
- How much of the **time** have your emotional problems interfered with your social activities (like visiting with friends, relatives etc.)

Adherence to the data collection protocols

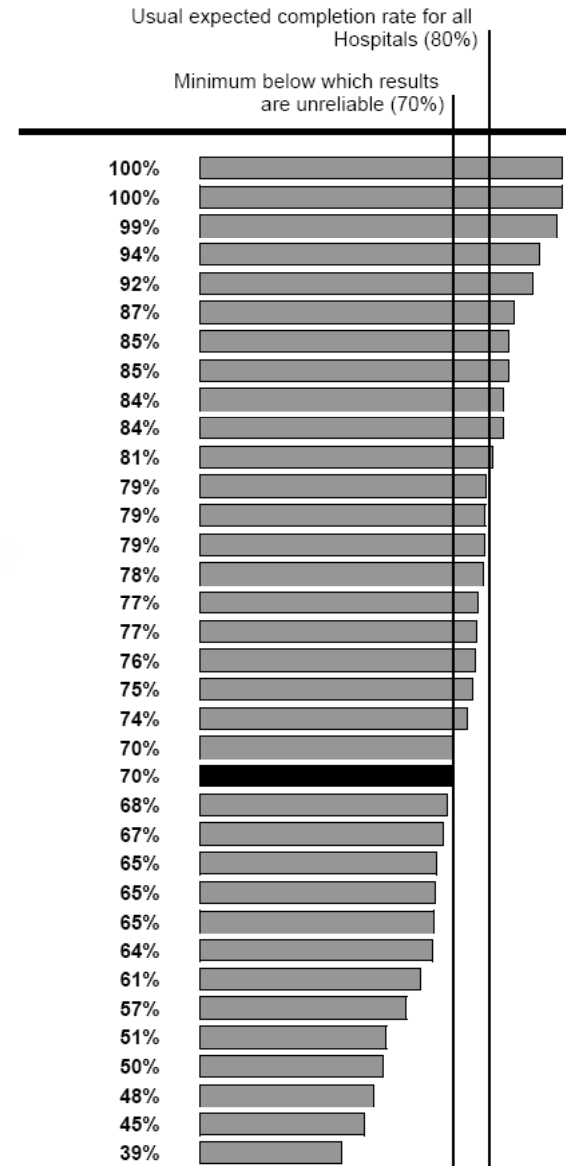
This figure shows completion rates in the 4th quarter of 2006-07 (here a measure is counted as “complete” if it was validly completed at both Admission and Discharge).

The figure is also an example of the kind of data presented to Hospitals in their Standard Quarterly Reports -- the hospital in question is indicated by the black bars.

Clinician ratings (HoNOS)



Patient self-reports (MHQ-14)

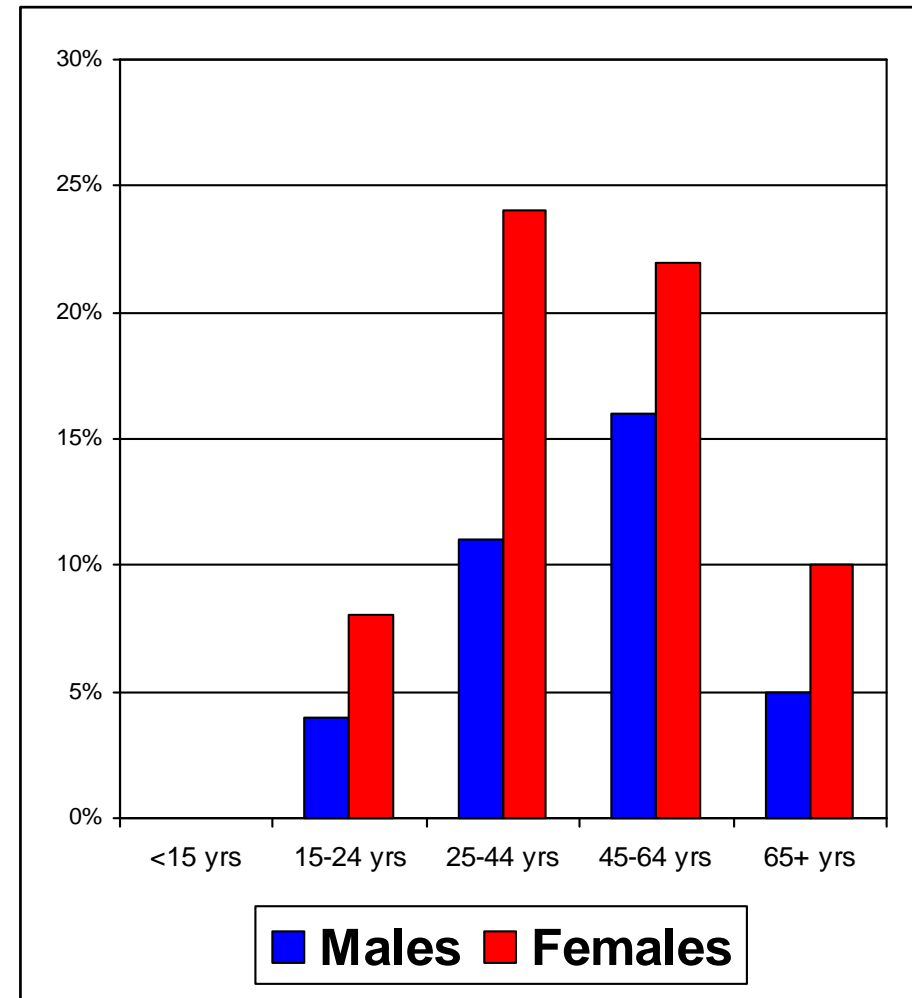


What does the data collected tell us about the patients seen by private hospitals with psychiatric beds

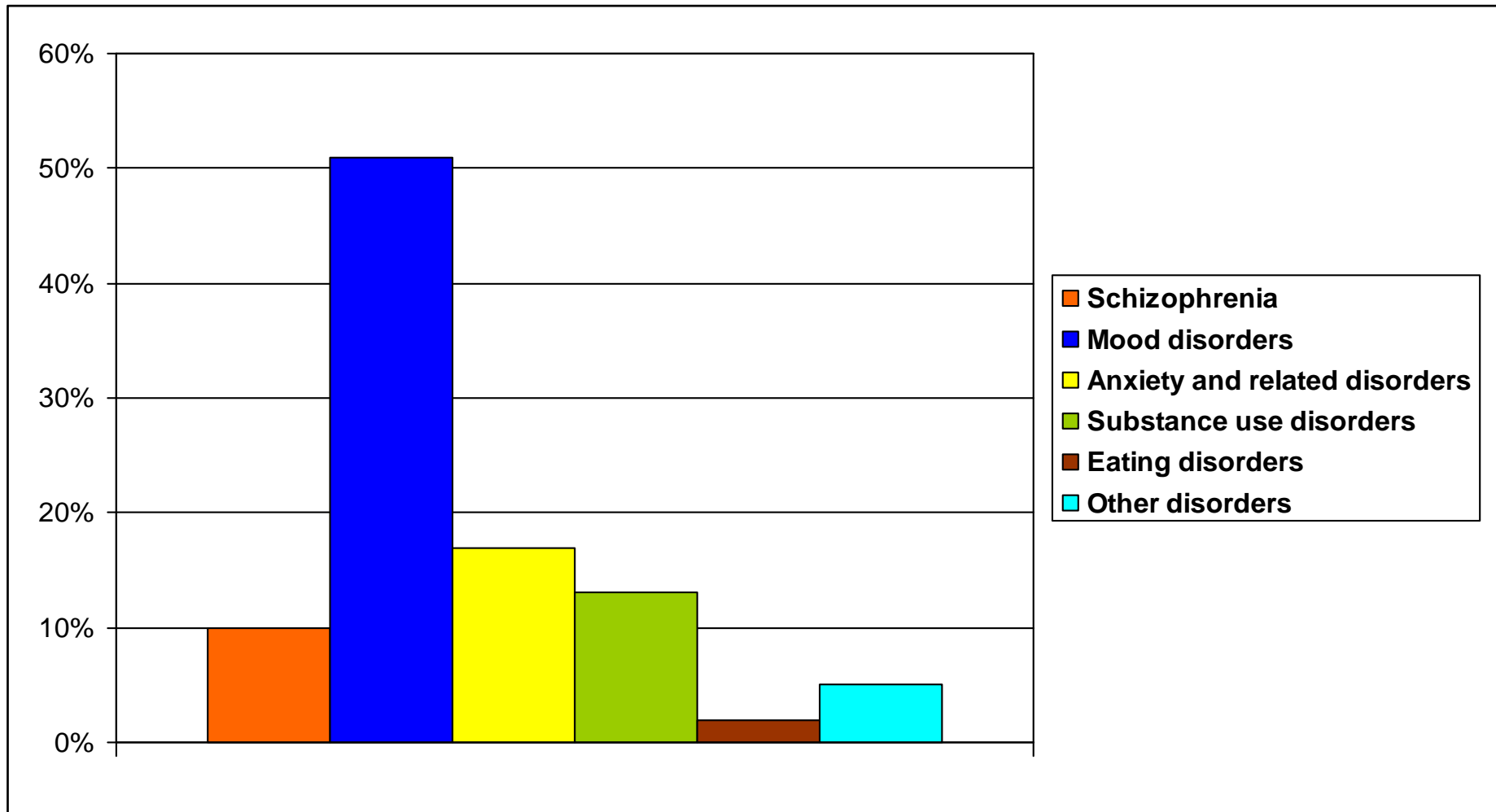
- Service utilisation
- Demographic profile
- Principal diagnoses.
- Clinical status at admission (HoNOS item profiles)
- Self-assessed mental health at admission and discharge, compared with the general population.
- Effect size of change from admission to discharge – both self assessed and clinician rated
- General observations

Service utilisation and Demographic profile

- 25,000 separations from Overnight inpatient care in 2006-07
- Average Length of Stay is 18 days
- Significantly more females than males are seen in private hospitals with psychiatric beds
- Children and adolescents aged less than 15 years are rarely admitted

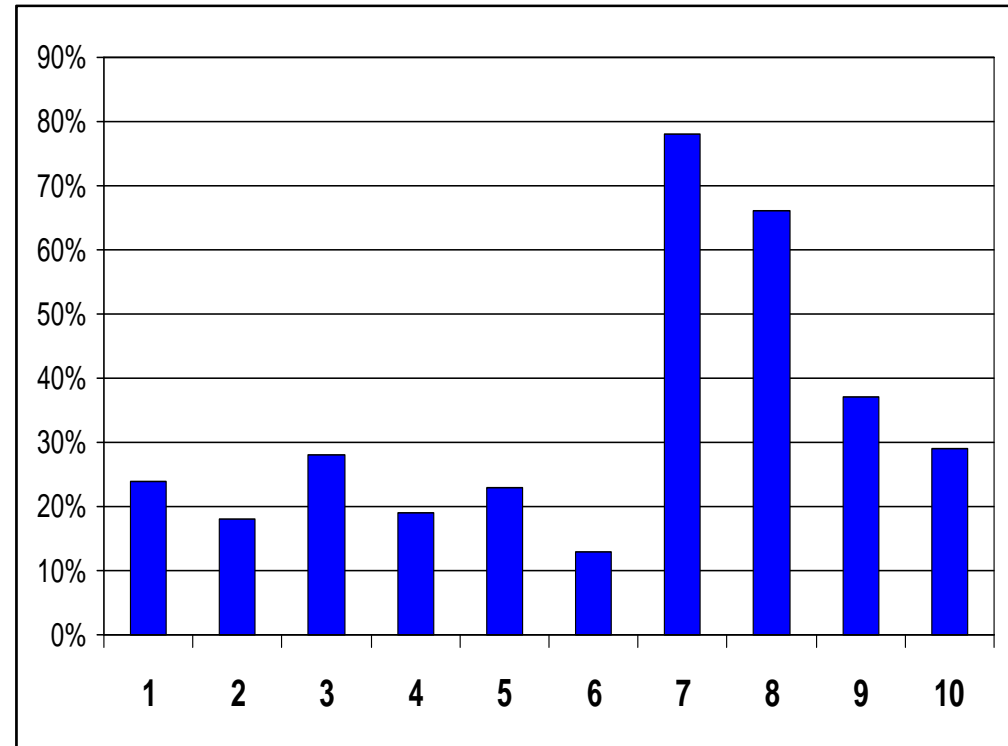


Principal diagnoses

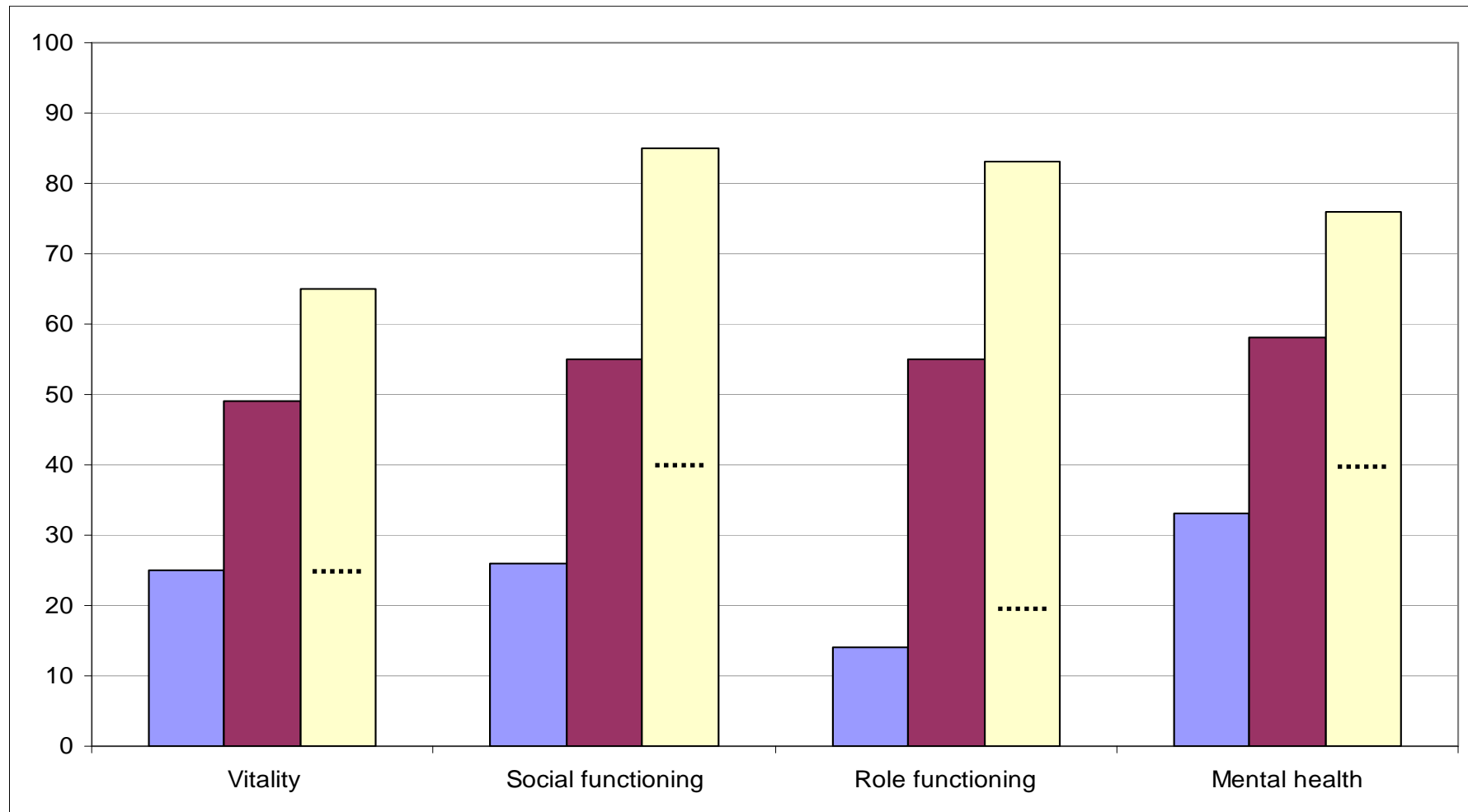


Ratings of clinical status at Admission

1. Overactive, agitated, disruptive or aggressive behaviour
2. Non-accidental self injury
3. Problem drinking or drug taking
4. Cognitive problems
5. Physical illness or disability problems
6. Hallucinations and delusions
7. Depressed mood
8. Other mental and behavioural problems
9. Problems with relationships
10. Problems with activities of daily living



This graph shows the percentage of patients with clinically significant ratings on each problem domain



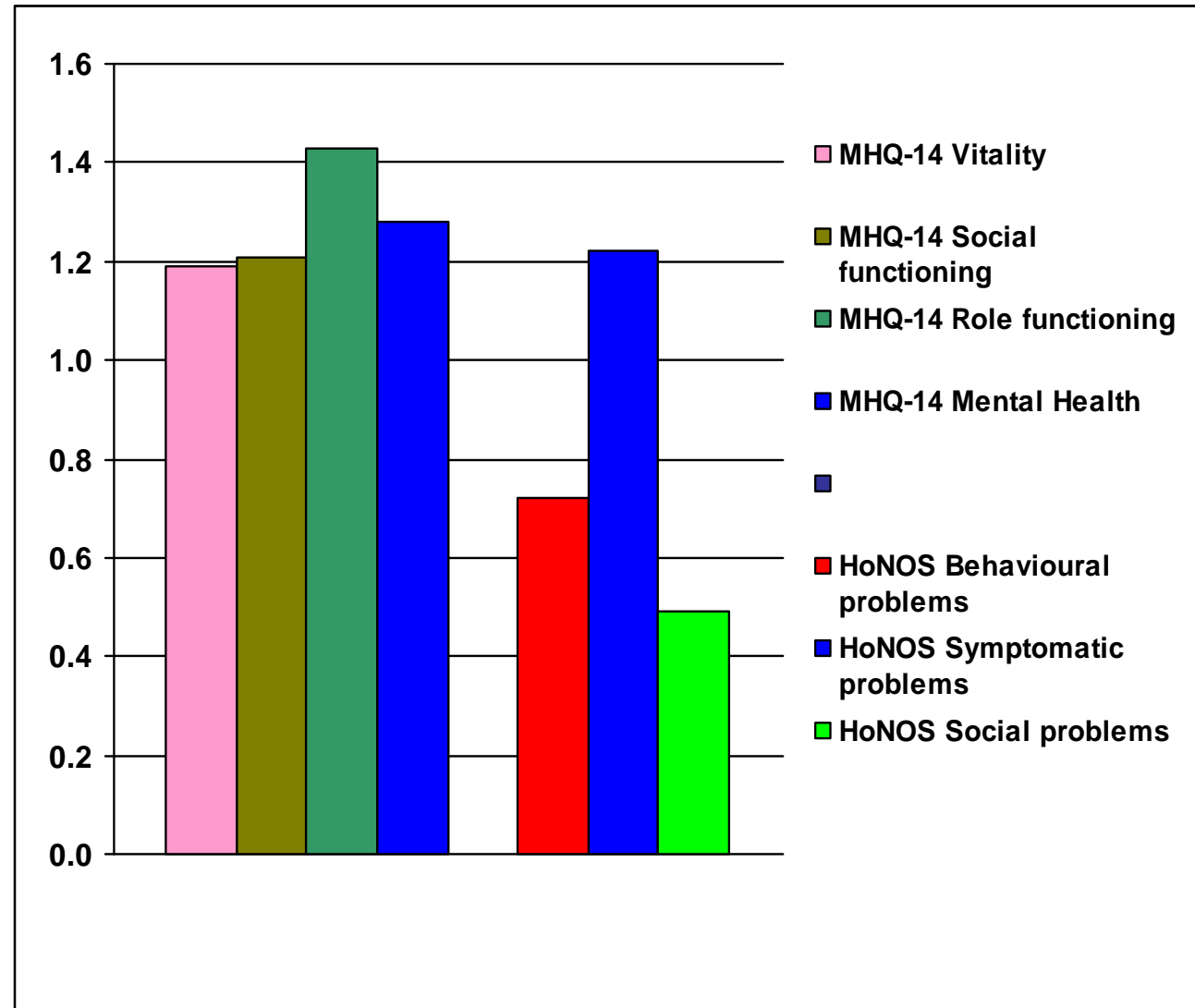
MHQ-14 summary scores for Patients at Admission (blue) and Discharge (red), compared with the General Population (yellow).

Comments about Patients' self-assessments

- The questionnaire is offered to patients at Admission and Discharge. Average completion rates across all participating Hospitals are now just over 70% at Admission and Discharge.
- At admission, the measure is offered after acceptance into care – there is no reason for patients to rate themselves as feeling worse than they actually do.
- Patients who are very distressed are not offered the questionnaire, so the actual average at admission would be even lower.
- Results are shown for the Vitality, Social functioning, Role functioning and Mental Health sub-scales of the MHQ-14 – low scores indicate poor mental health
- Patients at Admission and Discharge are compared with the General Population (ABS Survey of 1995)
- Patients reported sense of their vitality, social functioning, role functioning and mental health at Admission is worse than 95% of the general population
- Actual responses to the individual items of the questionnaire indicate that the majority of patients are very unwell on admission.
- Patients' mental health has improved greatly by Discharge, but they still report that they do not feel as well on average as the general population

Effect size of changes from Admission to Discharge

- Effect size:
 - 0.2 = small
 - 0.5 = medium
 - 0.7 = large
- Patients' self assessments are generally consistent with clinicians' ratings
- But there are some intriguing differences.



What clinical factors predict Hospitals' average LoS

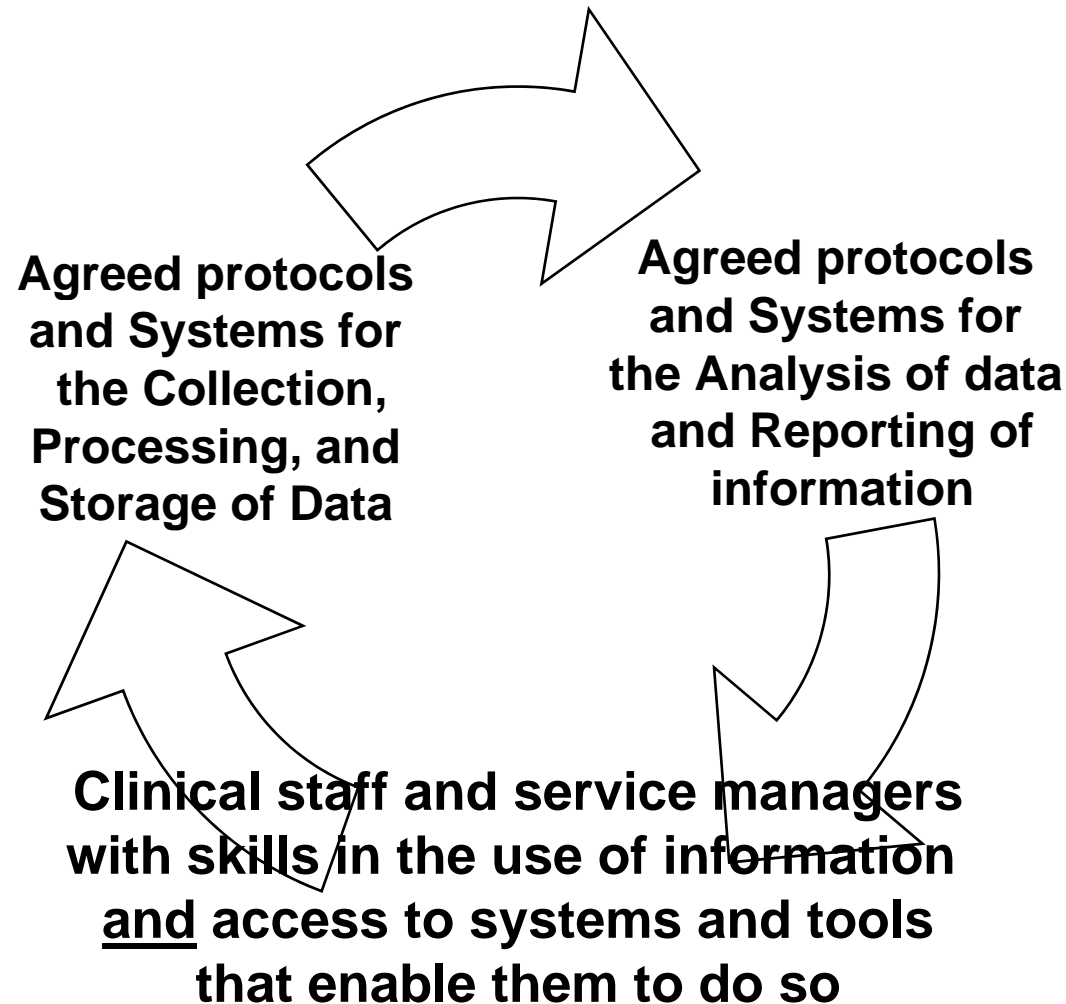
Correlations between Clinical measures and Length of Stay

	<i>Admission</i>	<i>Change</i>
HoNOS Behavioural Problems	0.13	0.08
HoNOS Symptomatic Problems	0.44	0.33
HoNOS Social Problems	0.23	0.21
HoNOS Total Score	0.49	0.28
MHQ-14 Social Functioning	-0.20	0.47
MHQ-14 Role Functioning	-0.03	0.45
MHQ-14 Mental Health (Symptoms)	-0.08	0.31

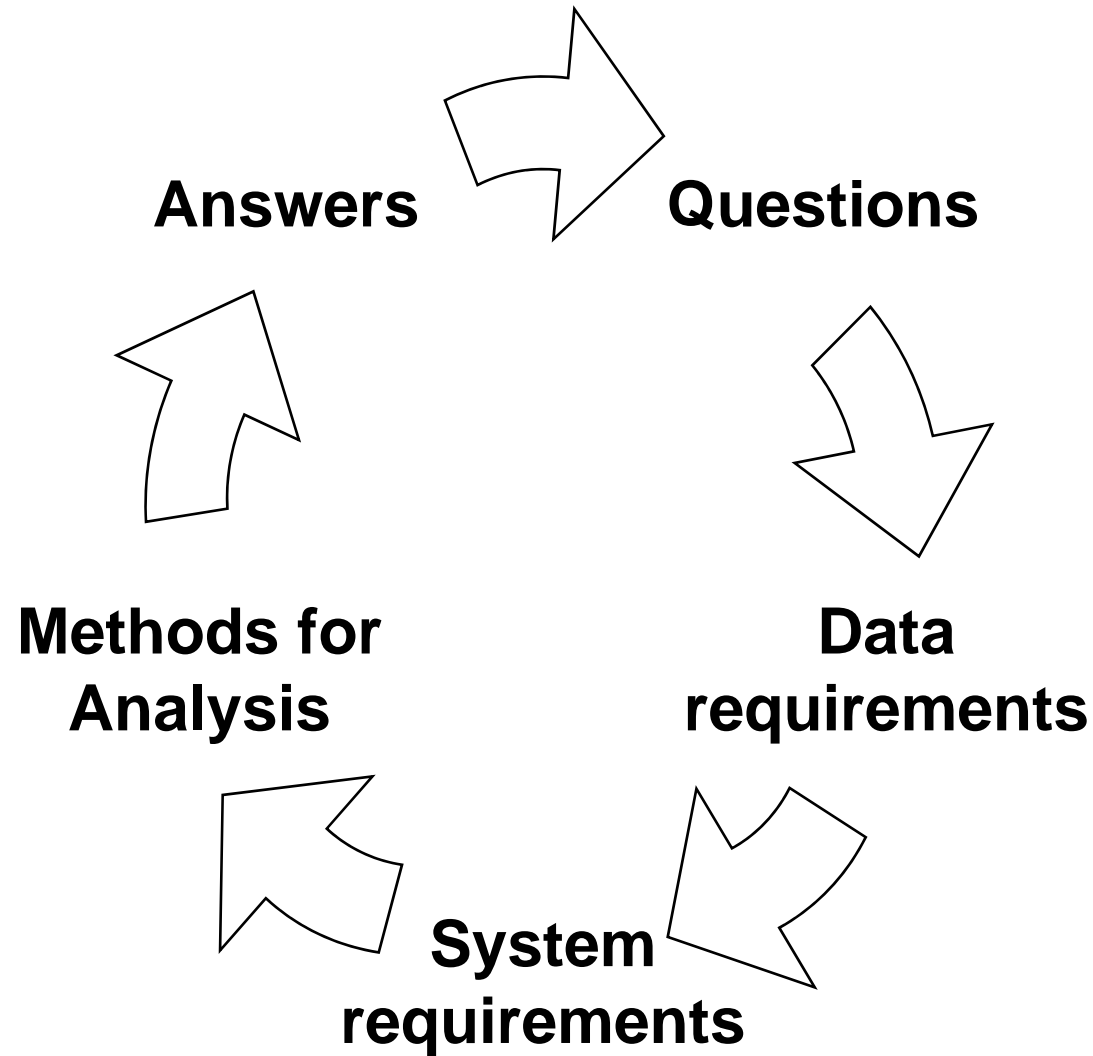
General observations based on the data collected over the past five years

- A comparison of the demographic and diagnostic profiles of patients admitted to private hospital-based psychiatric services to those of patients admitted public general hospital psychiatric units clearly indicates that a generally different group of people are receiving care in each sector.
- Both patients' self assessments and clinicians' ratings clearly indicate that the patients admitted to private hospitals are not the “worried well”.
- Unlike some other areas in health care, private psychiatric hospitals do not provide a parallel service to the public sector. Rather, the private psychiatric hospital sector provides effective care to a significant group of patients who are not able to be cared for in public psychiatric units.
- Private hospitals with psychiatric beds play an essential role in the overall provision of mental health services in Australia.

We are developing an “information infrastructure”



Development of the information infrastructure is evolutionary



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