

# National Mental Health Benchmarking Project

An Australian Government funded initiative



## COMPARATIVE INDICATORS

**3-year time series 2004-05 to 2006-07**

**Forensic Mental Health Services Forum**

Version 1.0 Summary for Public Release

Australian Mental Health Outcomes and Classification Network  
November 2008

This document was prepared from a more detailed version developed for restricted use by organisations participating in the National Mental Health Benchmarking Project. By agreement of all organisations, this version of the indicators has been prepared for wider use and unrestricted distribution. All identifying details and source data tables have been removed from this version.



**AMHCN**

"Sharing Information to  
Improve Outcomes"

## What this package contains

This document is organised into three parts.

### **PART A - Summary table and charts of the 13 national KPIs** (Pages 4 - 8)

This part presents the national KPIs for each of the organisations in tabular and graphical format.

All KPIs are derived from the data submitted by each organisation for each of the years 2004-05, 2005-06 and 2006-07, and constructed according to the specifications and definitions described in National Mental Health Benchmarking Project Manual.

### **PART B - Selected indicators grouped by themes** (Pages 11 - 32)

This part groups the national KPIs, plus a number of supplementary indicators, into nine themes.

1. Comparative resources available to the organisation
2. Efficiency in use of resources
3. Productivity and activity of ambulatory services
4. Continuity of care
5. Access to ambulatory care
6. Access to acute inpatient care
7. Safety (ACHS Indicators)
8. Capability
9. Acute Inpatient casemix - (a) Diagnosis and (b) HoNOS at admission

The themes were selected only on the basis of what is feasible from the available data. They were not intended to restrict participating organisations to the eight categories, nor pre-empt where organisations focused their benchmarking effort.

All supplementary indicators are derived from source data submitted by organisations in their KPI workbooks. These details are not included in this public release version of the document. Details on how the supplementary indicators are constructed are however provided at the end of this Part of the document (pages 26-32).

### **PART C - Source data tables**

Omitted from this public release version.

## Version History

### Version history

Version	Preparation date	Details
1.0	20-Nov-08	First public release version, using final validated data as signed off by participating organisations.

# PART A

## Summary table and charts of the 13 national KPIs

# KPI Summary Table

**NOTE: The indicators shown below are based on the calculation approach described in the Technical Specifications document and do not show any of the alternative approaches developed for several of the indicators.**

		FORENSIC SERVICES - 3 year trends				
		Org-D	Org-C	Org-B	Org-A	GROUP AVG.
<b>KPI #1 28-day readmissions</b>	2004-05	3.7%	0.0%	n.a	2.4%	2.0%
	2005-06	2.2%	5.0%	0.0%	3.5%	2.7%
	2006-07	2.0%	1.8%	0.0%	4.1%	2.0%
<b>KPI #2 National Standards compliance (Level 1)</b>	2004-05	100%	0%	100%	100%	75%
	2005-06	100%	100%	100%	100%	100%
	2006-07	100%	100%	100%	100%	100%
<b>KPI #3 Average acute LOS</b>	2004-05	50.3	93.4	106.2	22.1	68.0
	2005-06	53.5	83.7	222.7	19.5	94.9
	2006-07	70.9	72.8	134.7	18.1	74.1
<b>KPI #4 Average acute episode cost</b>	2004-05	\$47,883	\$69,693	\$75,847	\$25,081	\$54,626
	2005-06	\$49,224	\$28,288	\$170,972	\$23,634	\$68,029
	2006-07	\$67,445	\$25,257	\$107,856	\$22,134	\$55,673
<b>KPI #5 Treatment days per 3-month community care period</b>	2004-05	6.4	3.5	3.7	10.4	6.0
	2005-06	6.8	4.5	3.2	7.2	5.4
	2006-07	6.4	4.1	2.9	10.0	5.9
<b>KPI #6 Cost per 3-month community care period</b>	2004-05	\$2,358	\$2,877	\$968	\$4,614	\$2,704
	2005-06	\$3,504	\$1,477	\$917	\$4,970	\$2,717
	2006-07	\$4,693	\$1,349	\$1,238	\$5,095	\$3,094

# KPI Summary Table

**NOTE: The indicators shown below are based on the calculation approach described in the Technical Specifications document and do not show any of the alternative approaches developed for several of the indicators.**

			FORENSIC SERVICES - 3 year trends				
			Org-D	Org-C	Org-B	Org-A	GROUP AVG.
<b>KPI #7</b>	<b>% target population receiving ambulatory services</b>	2004-05	0.025%	0.028%	0.086%	0.017%	0.039%
		2005-06	0.023%	0.080%	0.090%	0.031%	0.056%
		2006-07	0.020%	0.125%	0.136%	0.030%	0.078%
	<b>% target population receiving inpatient services</b>	2004-05	0.004%	0.003%	0.003%	0.017%	0.007%
		2005-06	0.003%	0.003%	0.003%	0.020%	0.007%
		2006-07	0.003%	0.003%	0.003%	0.018%	0.007%
	<b>% target population receiving residential services</b>	2004-05					0.000%
		2005-06					0.000%
		2006-07					0.000%
<b>KPI #8</b>	<b>Local access to inpatient care</b>	2004-05	n.a	n.a	100%	100%	100%
		2005-06	100%	n.a	100%	100%	100%
		2006-07	n.a	n.a	100%	100%	100%
<b>KPI #9</b>	<b>New client index</b>	2004-05	46%	73%	35%	66%	55%
		2005-06	45%	79%	57%	79%	65%
		2006-07	47%	69%	66%	79%	65%
<b>KPI #10</b>	<b>Area per capita resources - Ambulatory services</b>	2004-05	\$0.56	\$2.29	\$0.89	\$1.02	\$1.19
		2005-06	\$0.68	\$1.70	\$1.03	\$1.03	\$1.11
		2006-07	\$0.80	\$1.96	\$1.99	\$1.11	\$1.46

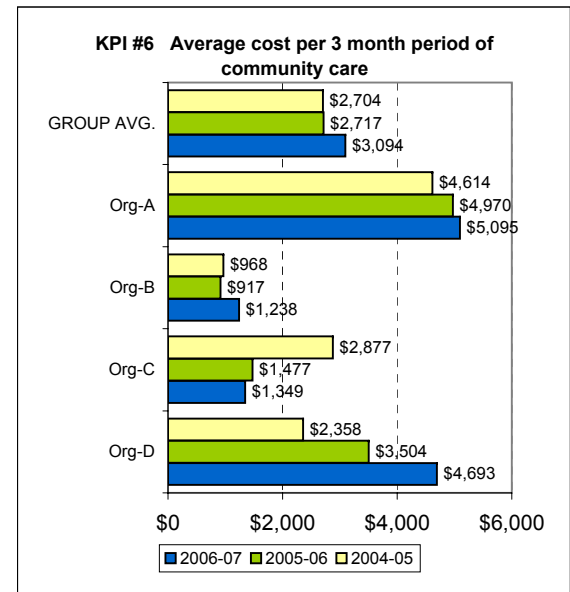
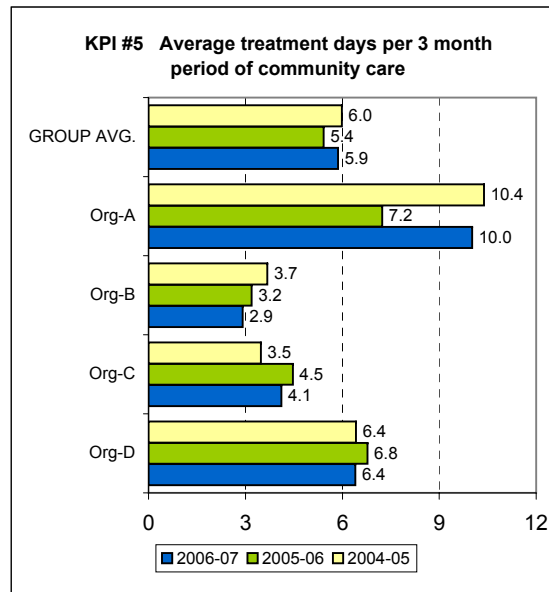
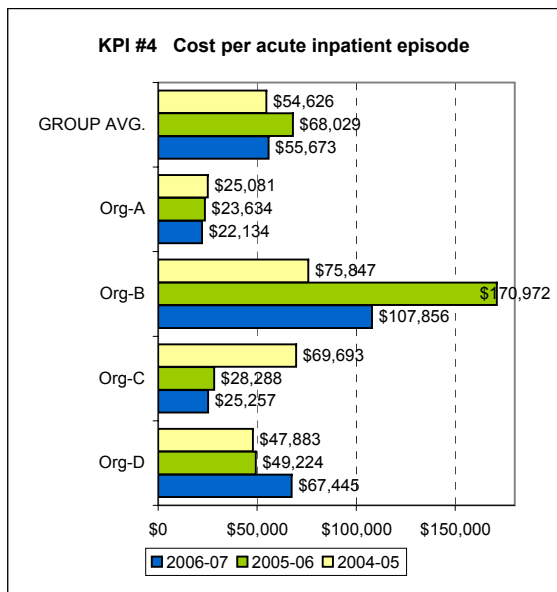
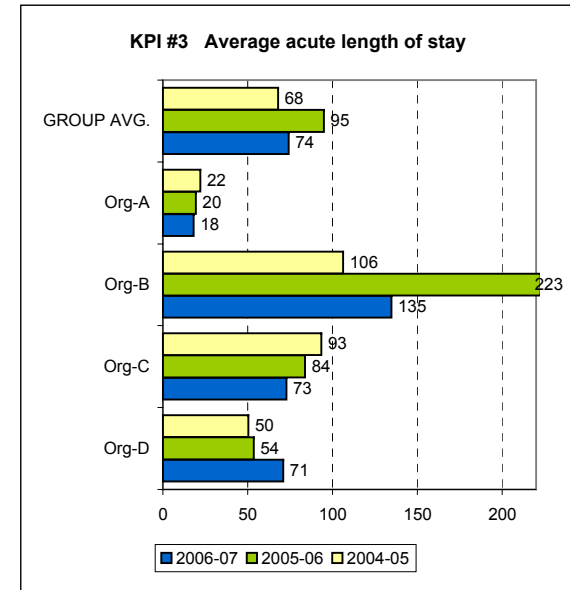
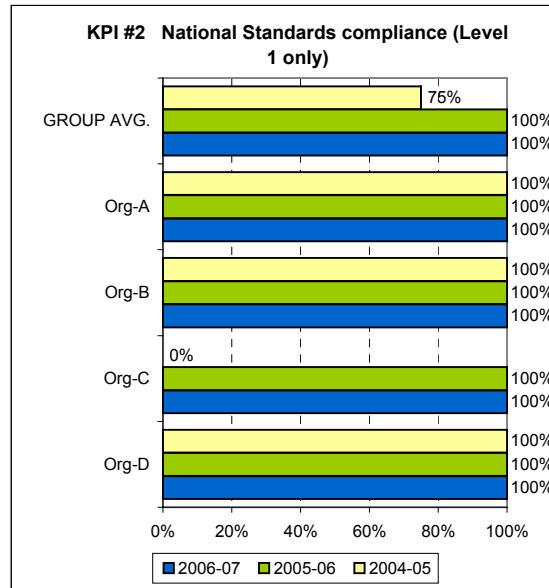
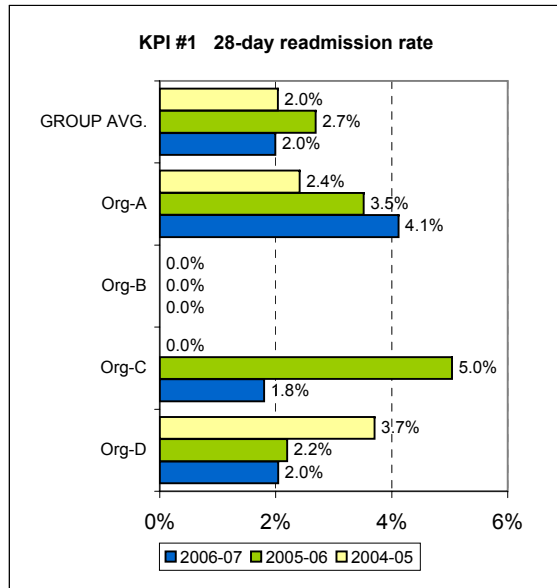
# KPI Summary Table

**NOTE: The indicators shown below are based on the calculation approach described in the Technical Specifications document and do not show any of the alternative approaches developed for several of the indicators.**

		FORENSIC SERVICES - 3 year trends				
		Org-D	Org-C	Org-B	Org-A	GROUP AVG.
<b>Area per capita resources - Inpatient services</b>	2004-05	\$7.63	\$3.64	\$5.29	\$7.29	\$5.96
	2005-06	\$7.21	\$1.91	\$5.86	\$7.36	\$5.58
	2006-07	\$6.82	\$1.94	\$5.11	\$7.93	\$5.45
<b>Area per capita resources - Residential services</b>	2004-05					\$0.00
	2005-06					\$0.00
	2006-07					\$0.00
<b>KPI #11 Pre admission community care</b>	2004-05	100%	38%	44%	27%	52%
	2005-06	100%	75%	100%	28%	76%
	2006-07	100%	86%	100%	35%	80%
<b>KPI #12 Post discharge community care</b>	2004-05	49%	27%	64%	44%	46%
	2005-06	73%	47%	45%	51%	54%
	2006-07	69%	51%	38%	37%	49%
<b>KPI #13 Outcomes readiness - inpatient services</b>	2004-05	100%	103%	111%	108%	105%
	2005-06	100%	116%	101%	91%	102%
	2006-07	71%	100%	68%	52%	73%
<b>Outcomes readiness - ambulatory services</b>	2004-05	3%	54%	0%	58%	29%
	2005-06	5%	55%	0%	39%	25%
	2006-07	17%	53%	0%	45%	29%

National KPI Charts

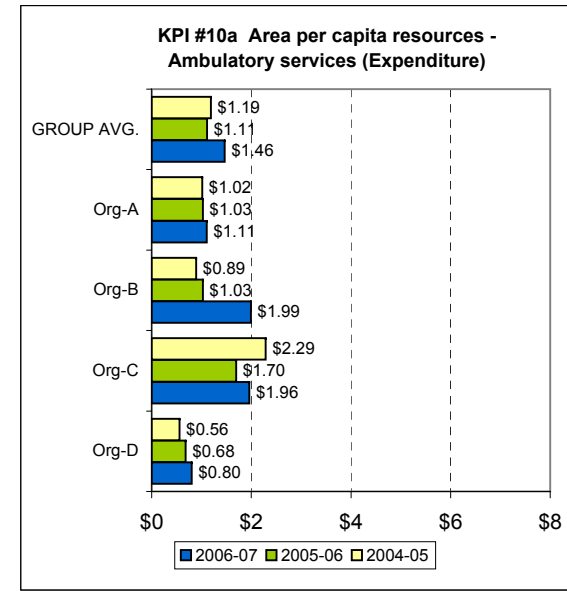
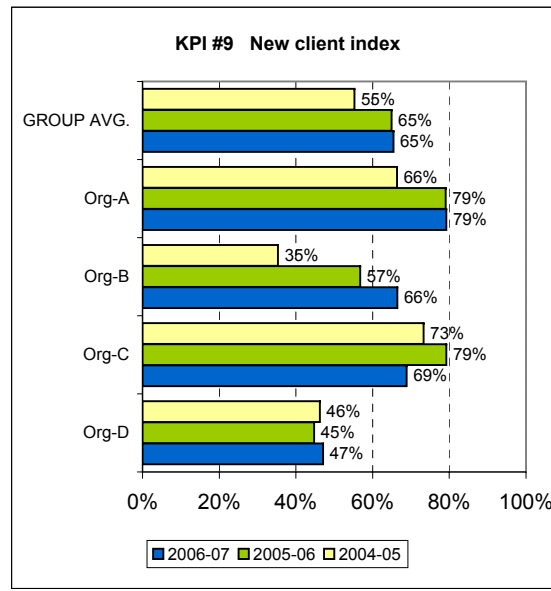
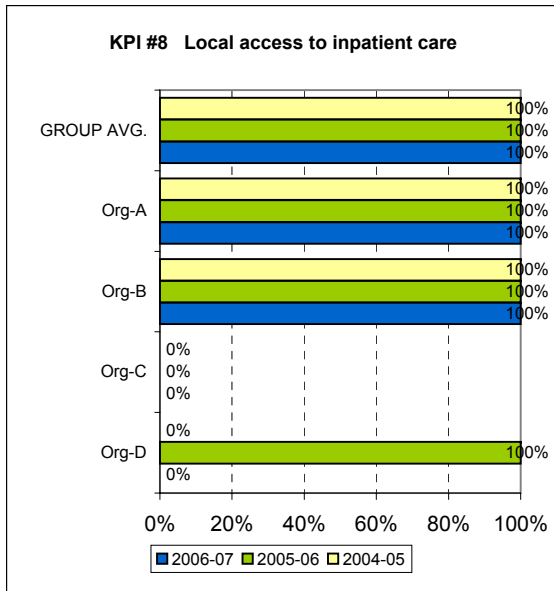
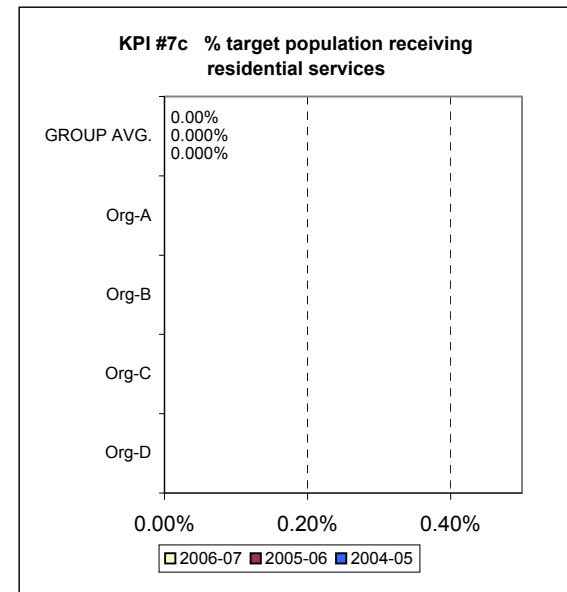
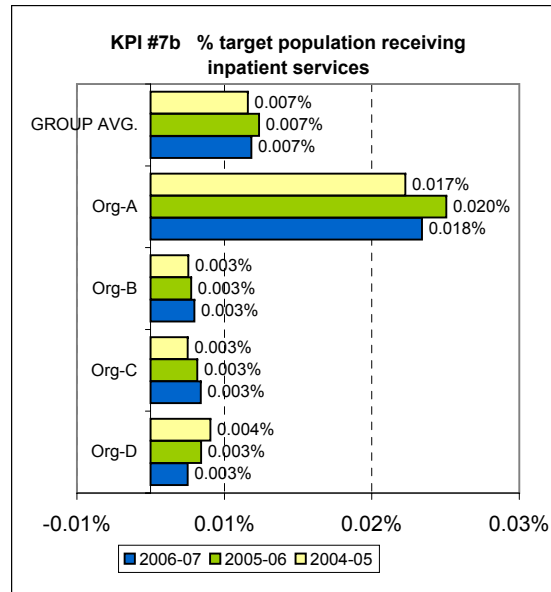
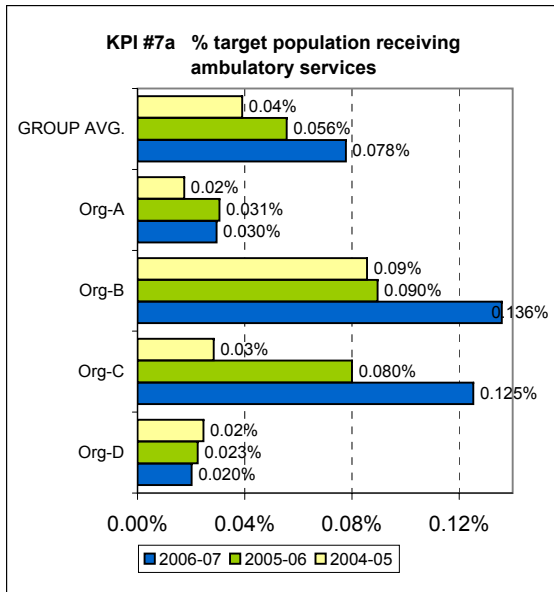
The 13 NATIONAL KPIs IN NUMERICAL ORDER





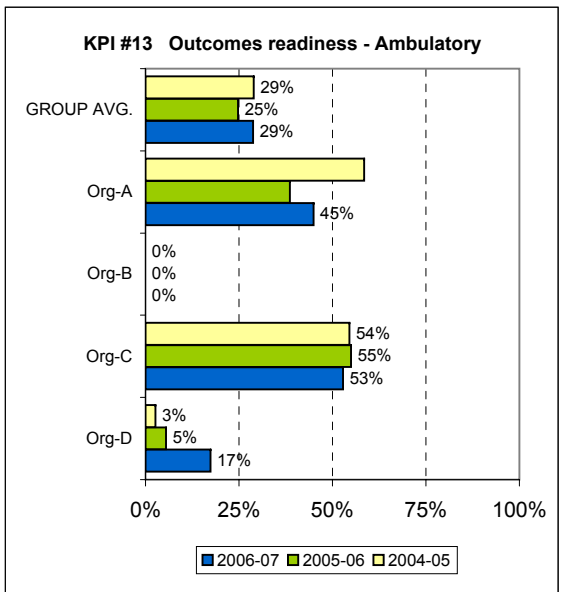
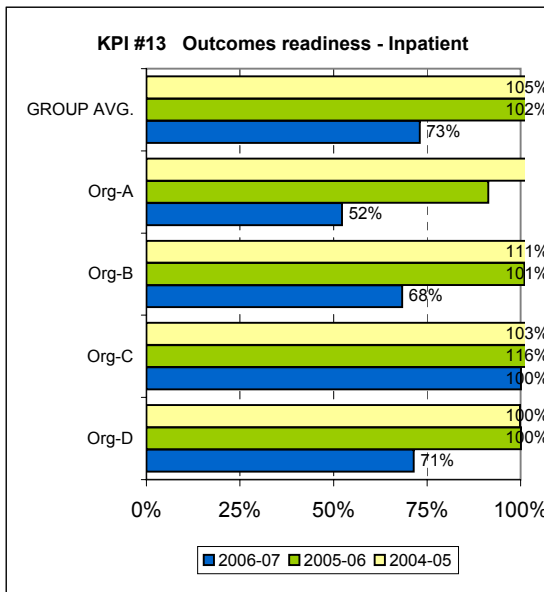
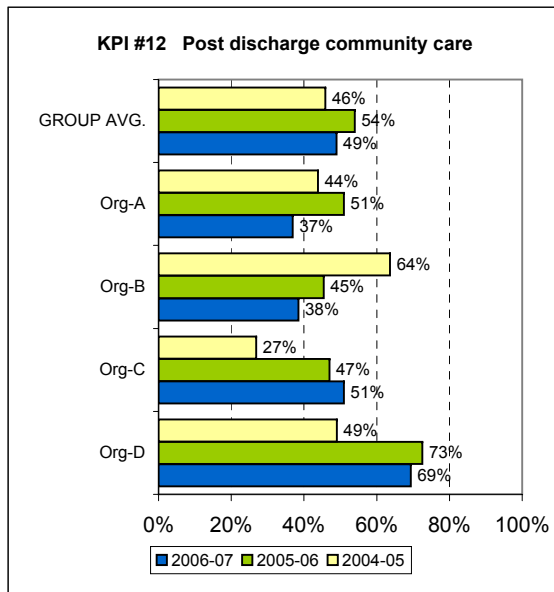
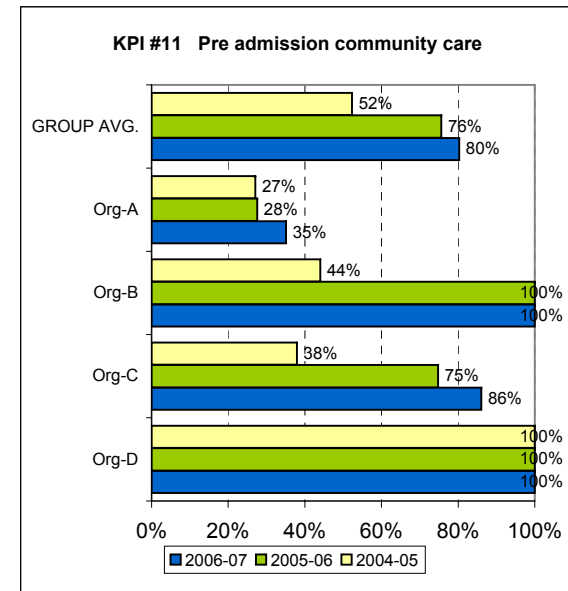
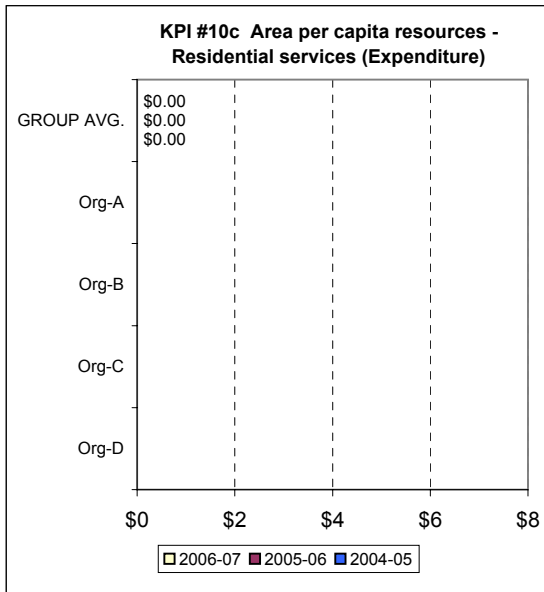
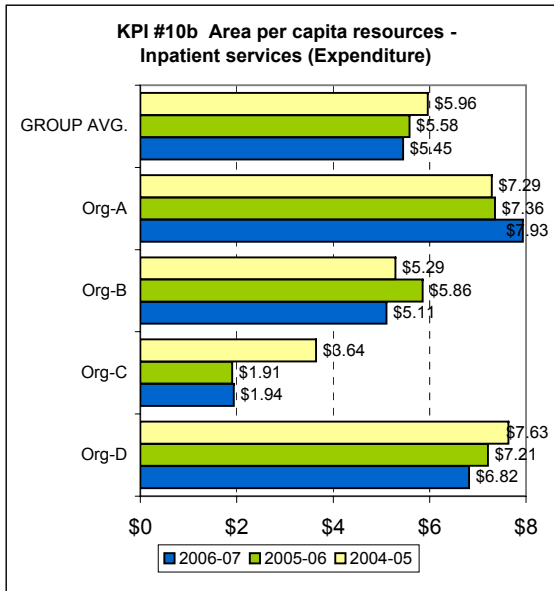
National KPI Charts

The 13 NATIONAL KPIS IN NUMERICAL ORDER



National KPI Charts

The 13 NATIONAL KPIs IN NUMERICAL ORDER



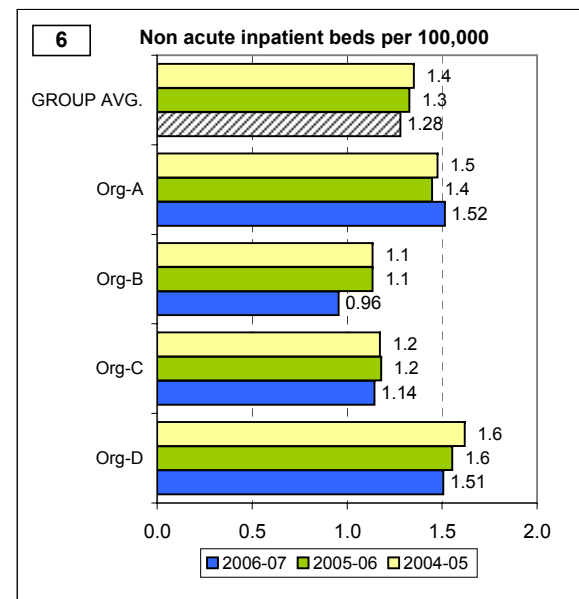
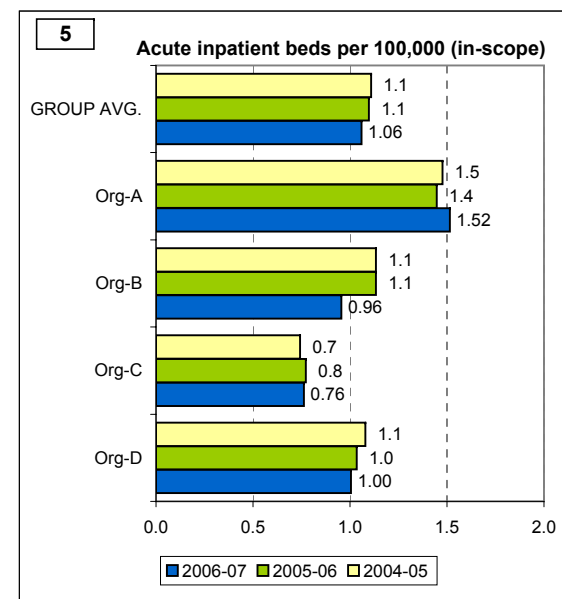
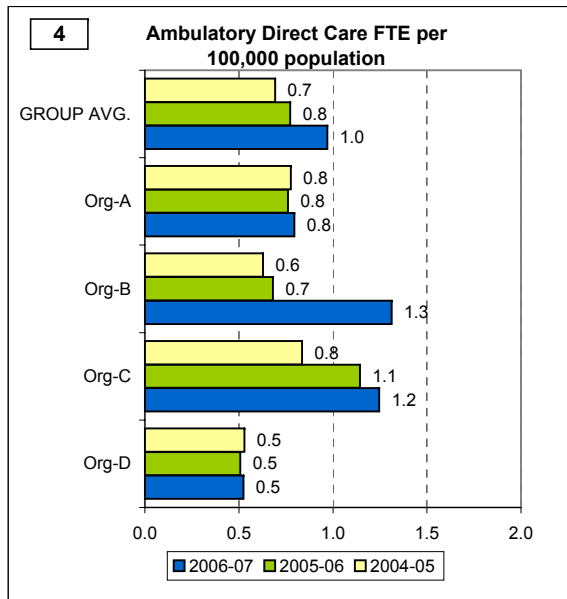
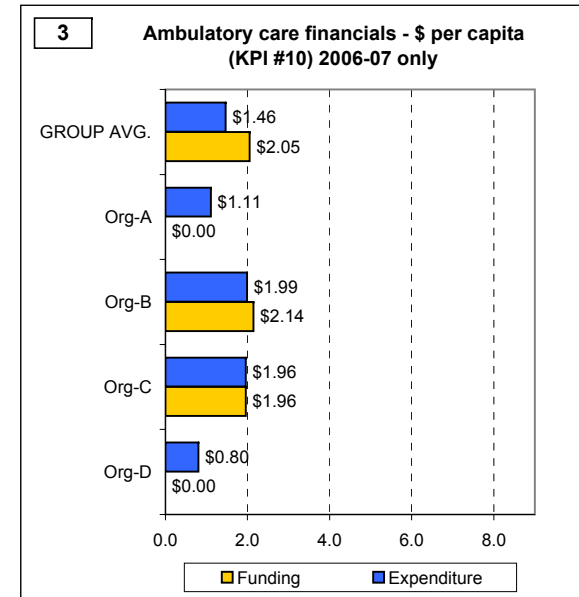
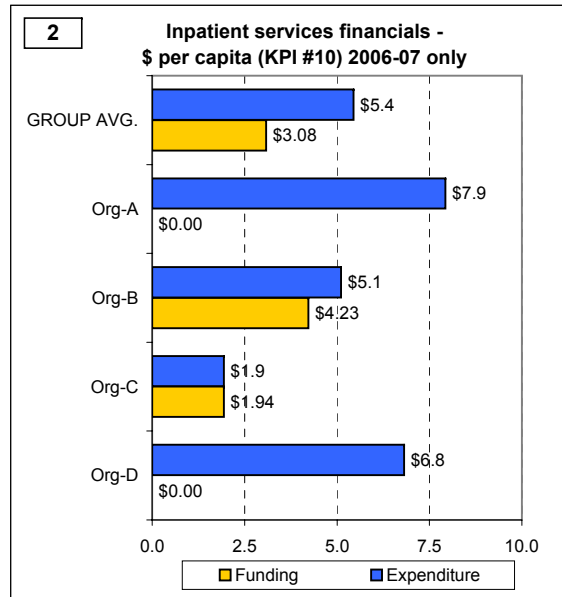
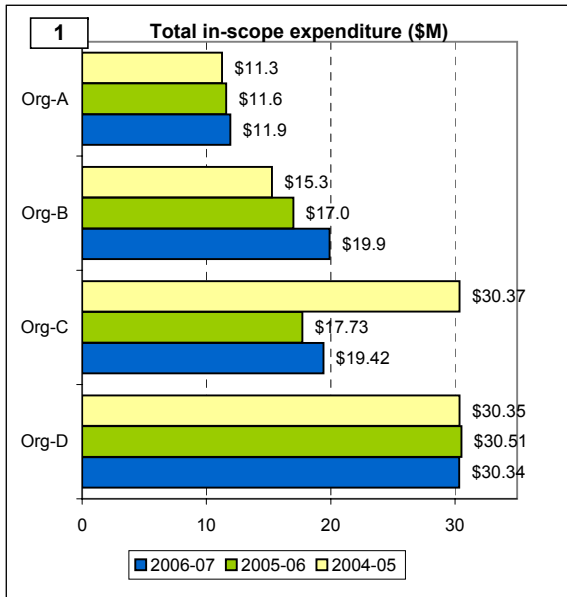
# PART B

## Selected indicators grouped by themes

1. Comparative resources available to the organisation
2. Efficiency in use of resources
3. Productivity and activity of ambulatory services
4. Continuity of care
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6. Access to acute inpatient care
7. Safety (ACHS indicators)
8. Capability
9. Acute Inpatient casemix - (a) Diagnosis (b) HoNOS at admission

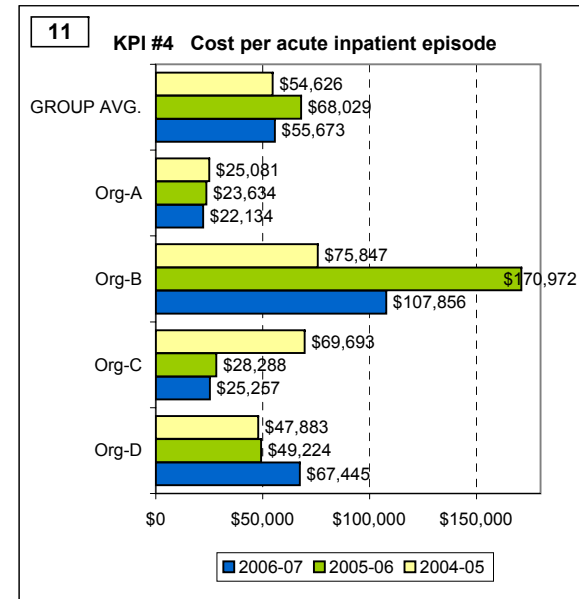
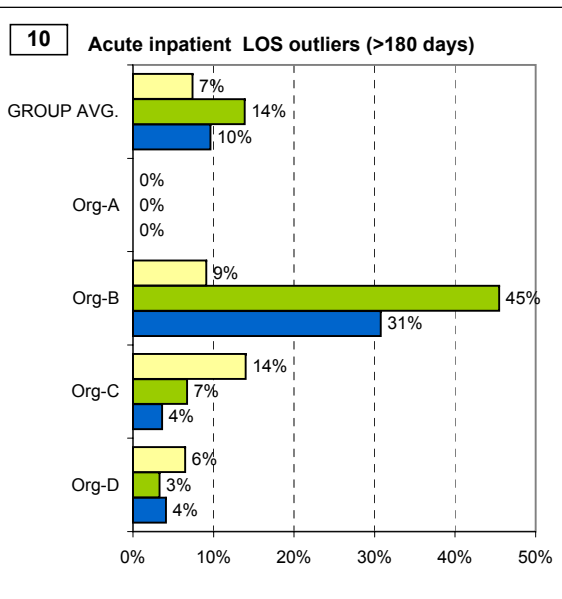
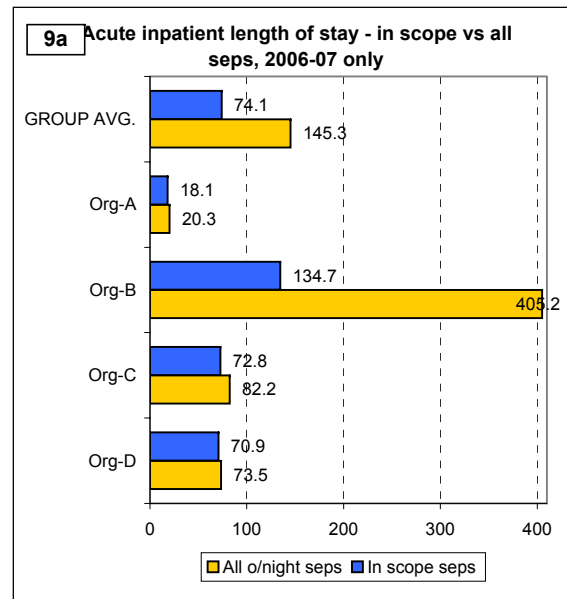
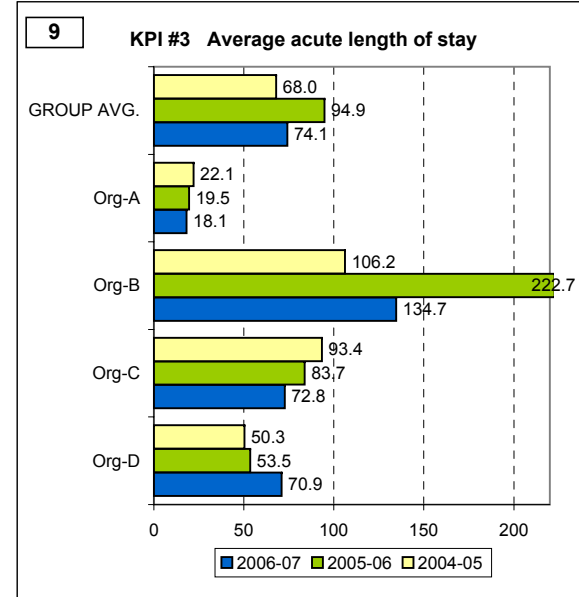
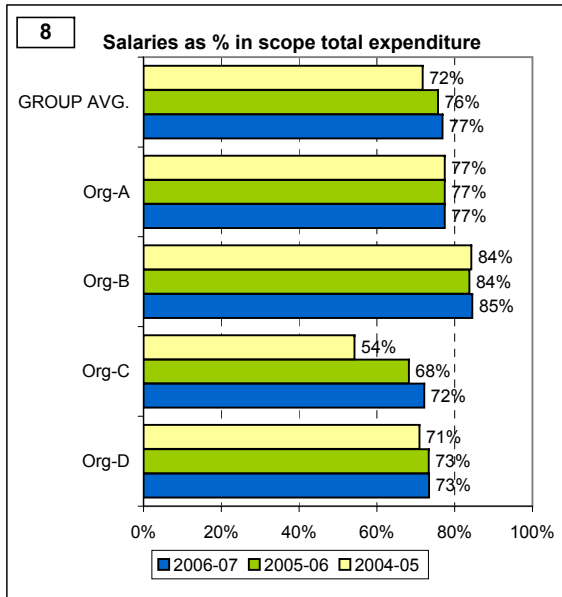
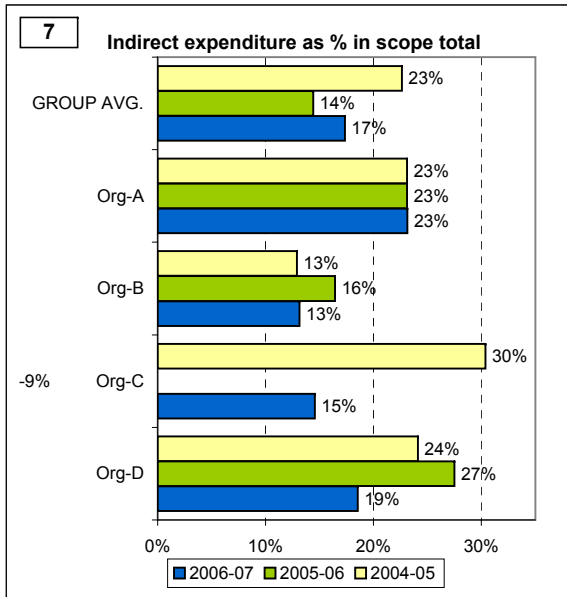
Theme Charts

**THEME 1: Comparative resources available to the organisation**



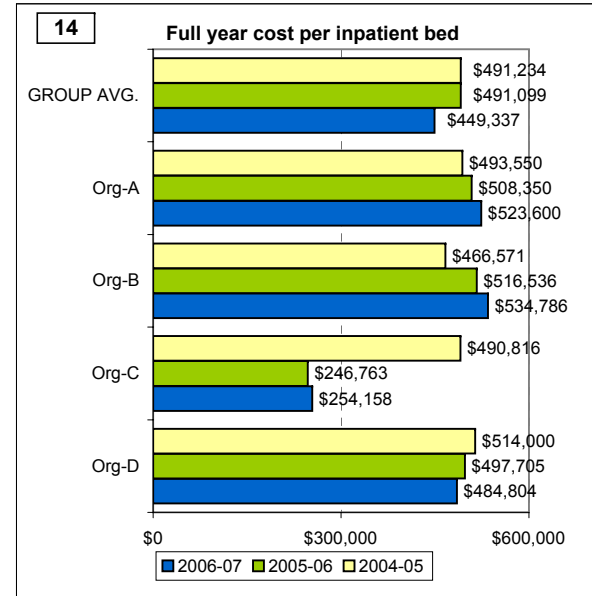
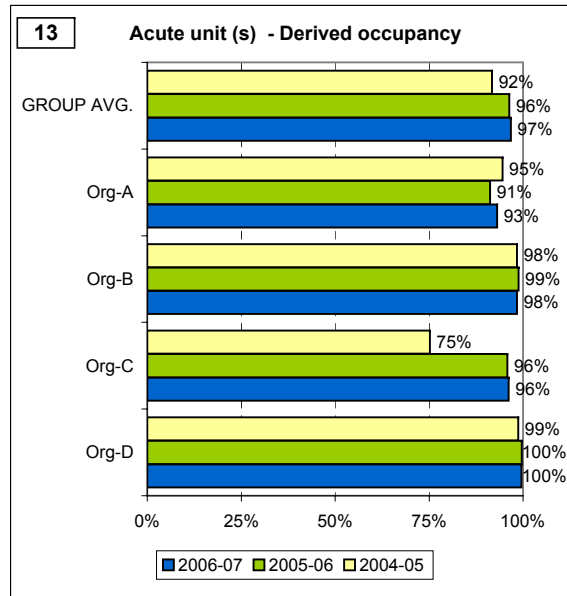
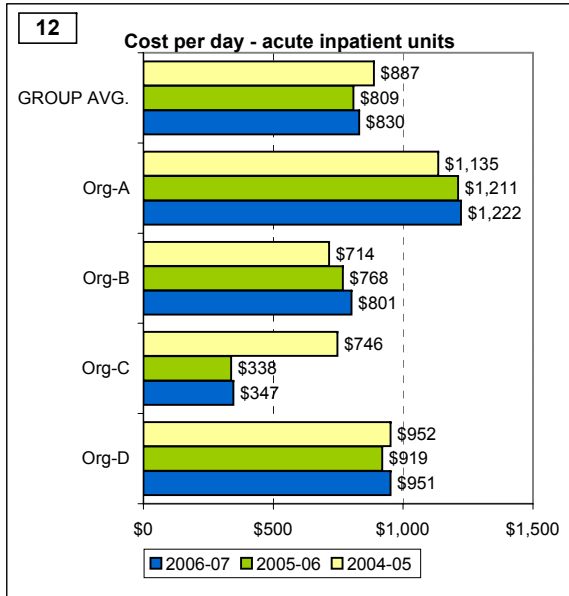
Theme Charts

THEME 2: Efficiency in use of resources



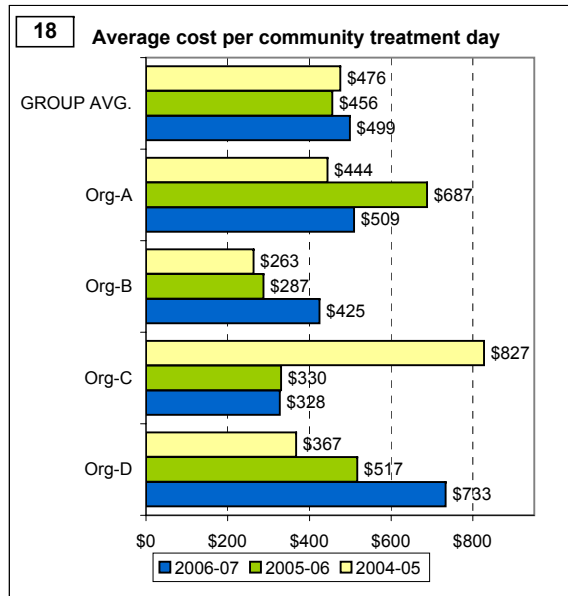
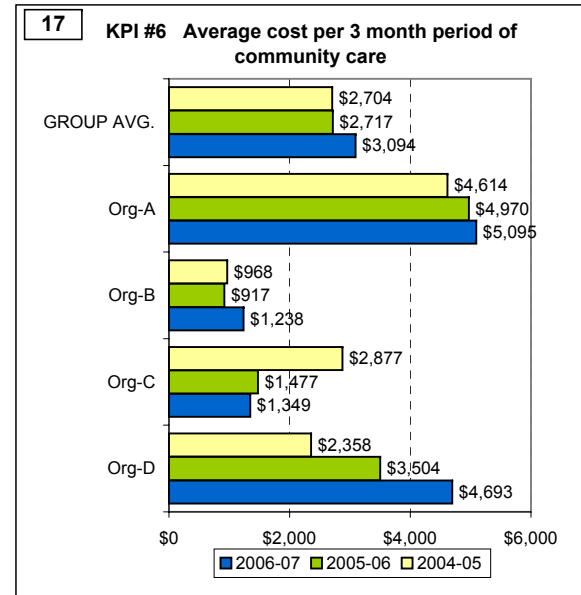
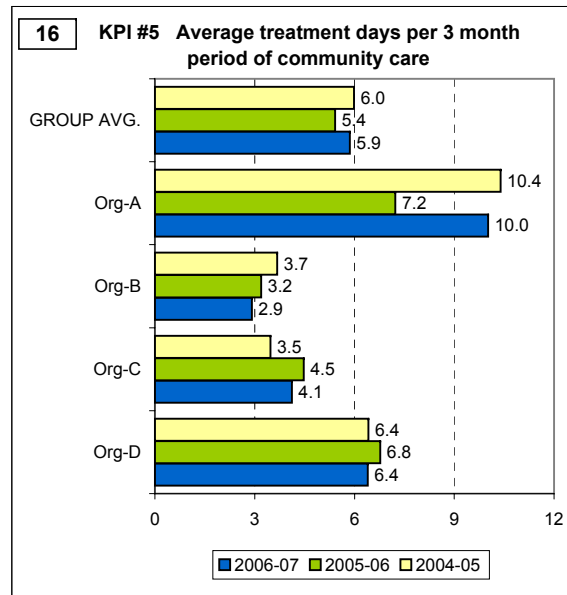
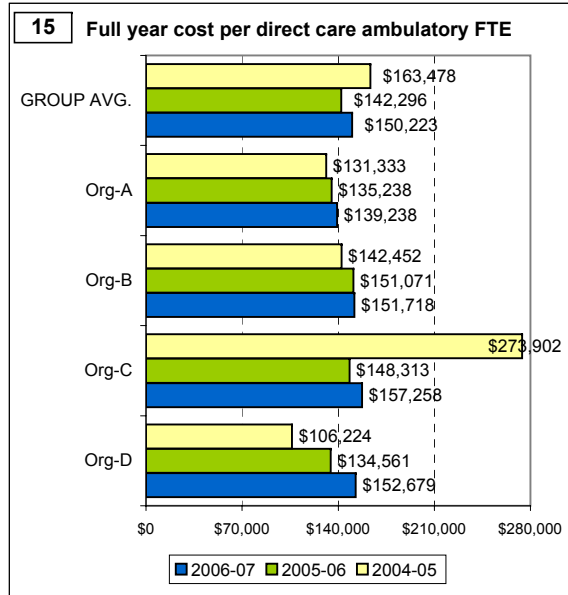
Theme Charts

THEME 2: Efficiency in use of resources (cont'd)



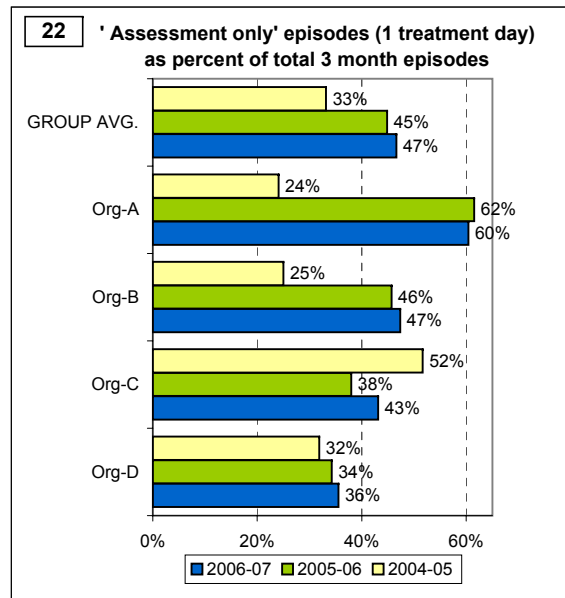
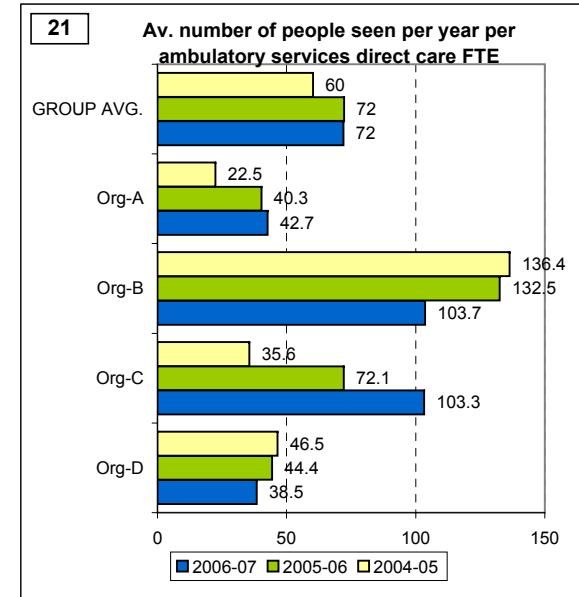
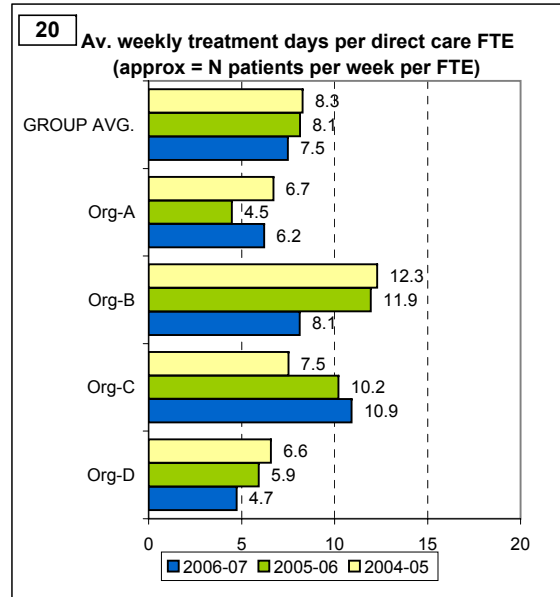
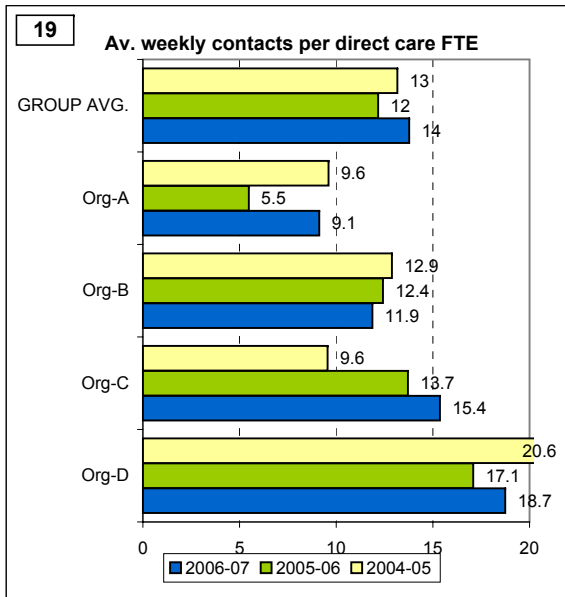
Theme Charts

THEME 2: Efficiency in use of resources (cont'd)



Theme Charts

**THEME 3: Productivity and activity of ambulatory services**



**Supplementary information reported for KPI #5:**

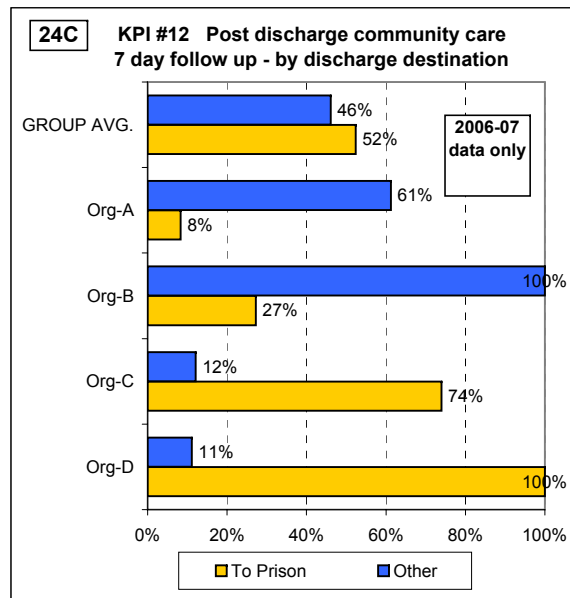
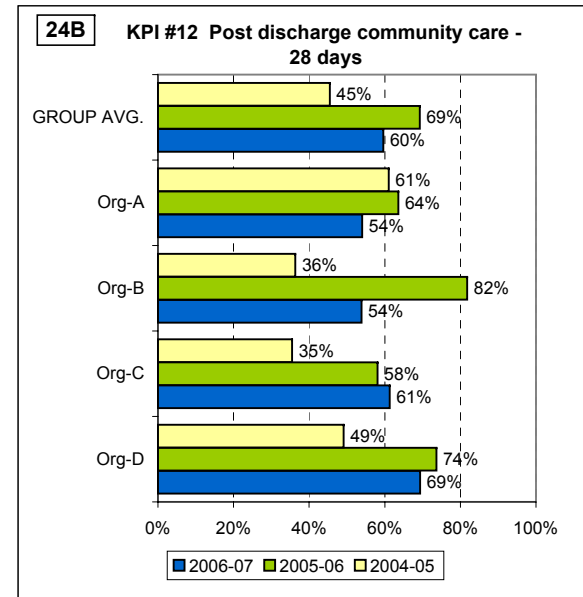
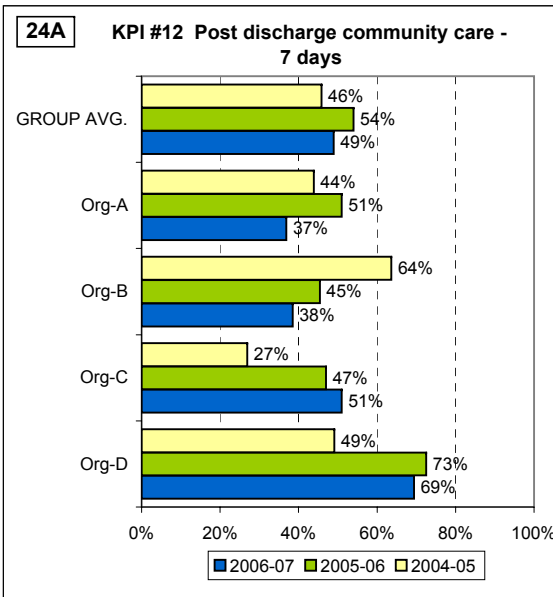
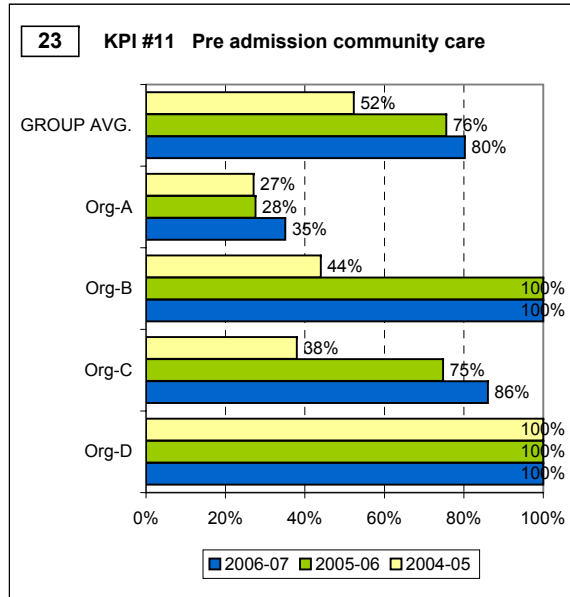
% 'assessment only' episodes by ambulatory service type 2006-07 only

	Org-D	Org-C	Org-B	Org-A
Prison	n.a	0%	76%	n.a
Community	26%	30%	n.a	49%
Court Liaison	57%	56%	40%	80%
Consultation-Liaison	44%	n.a	48%	n.a



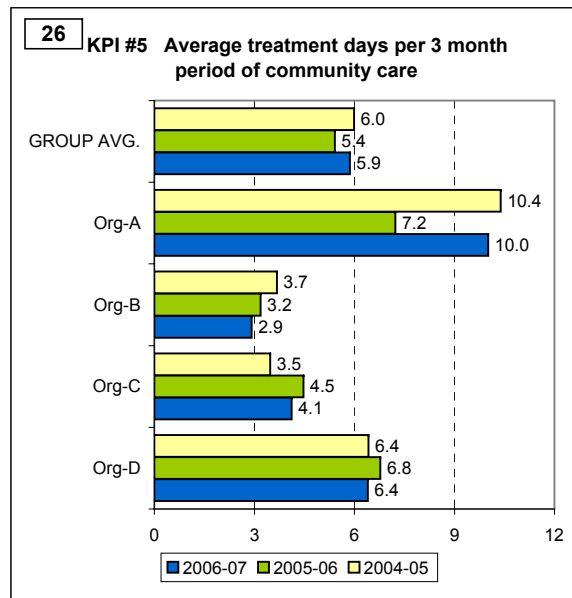
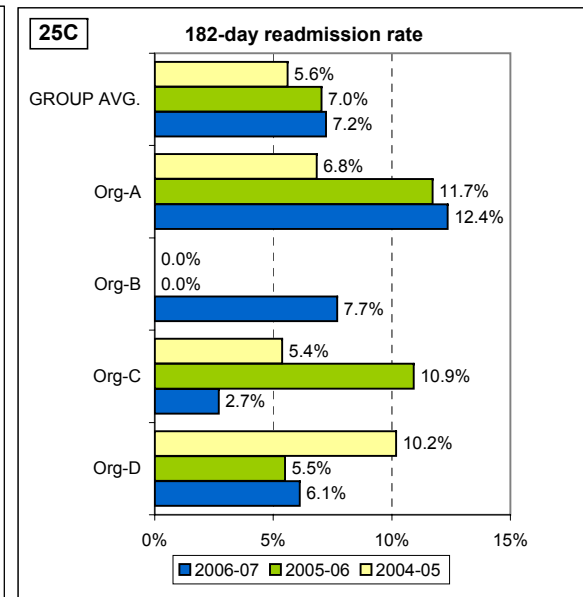
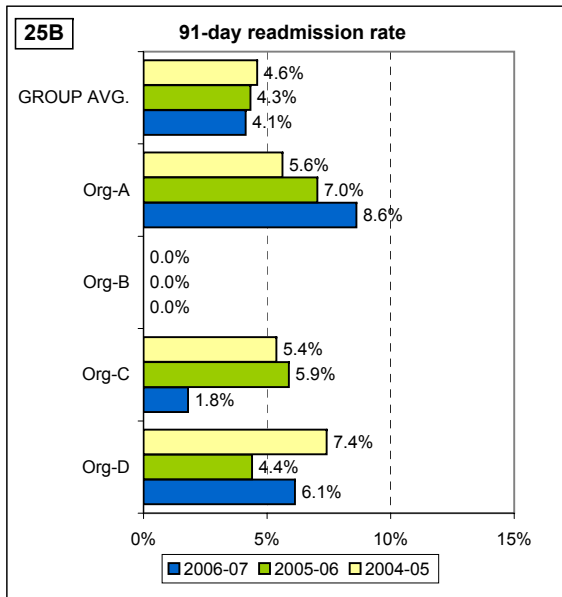
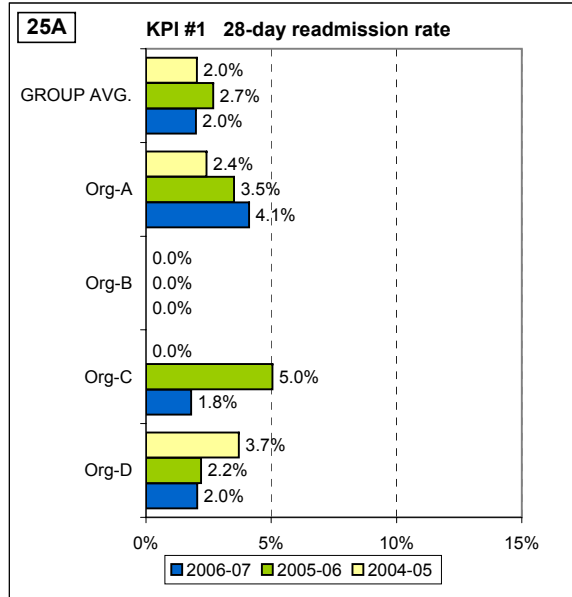
Theme Charts

**THEME 4: Continuity of care**



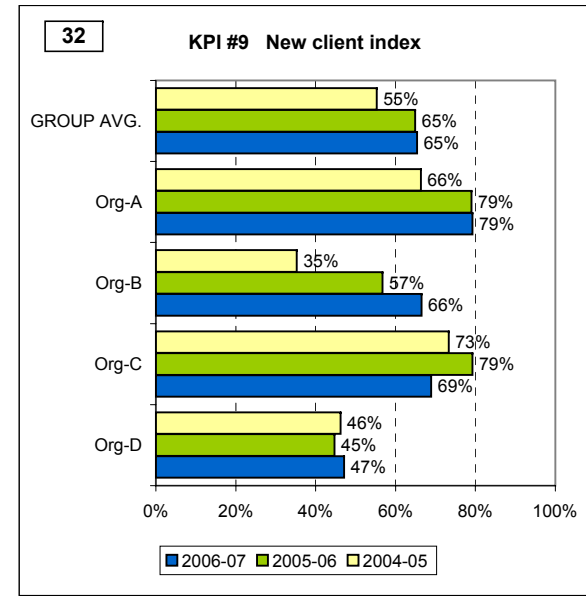
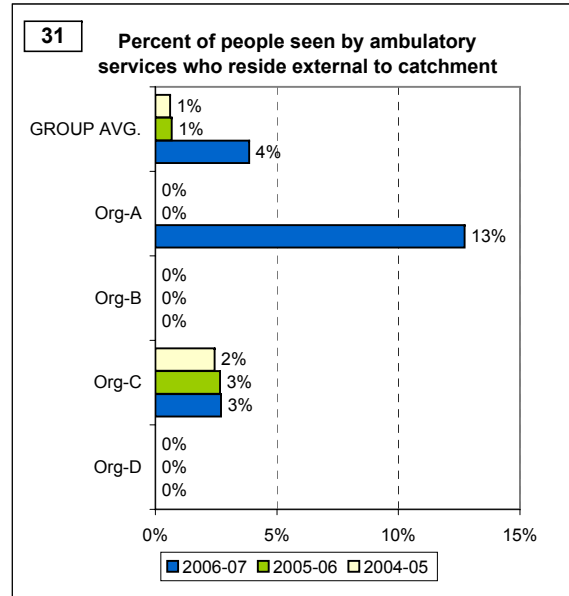
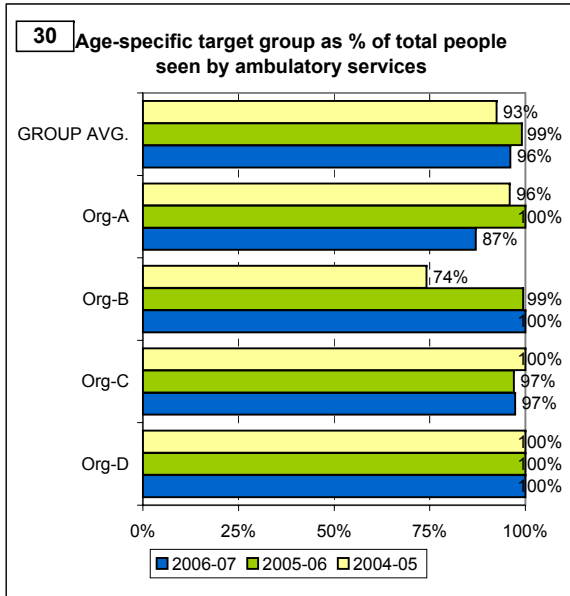
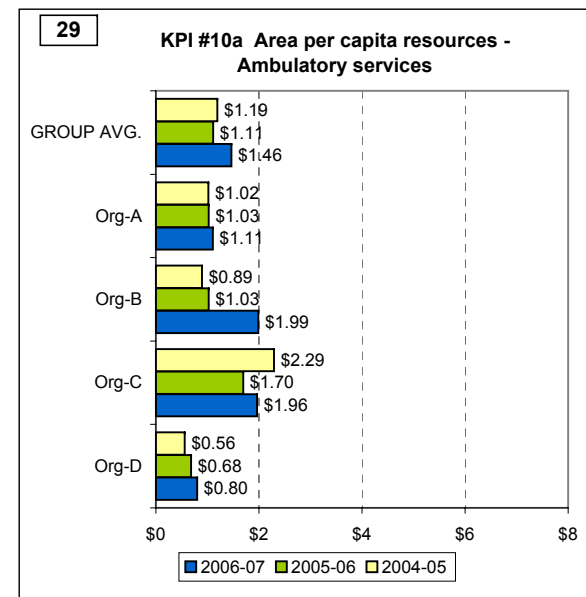
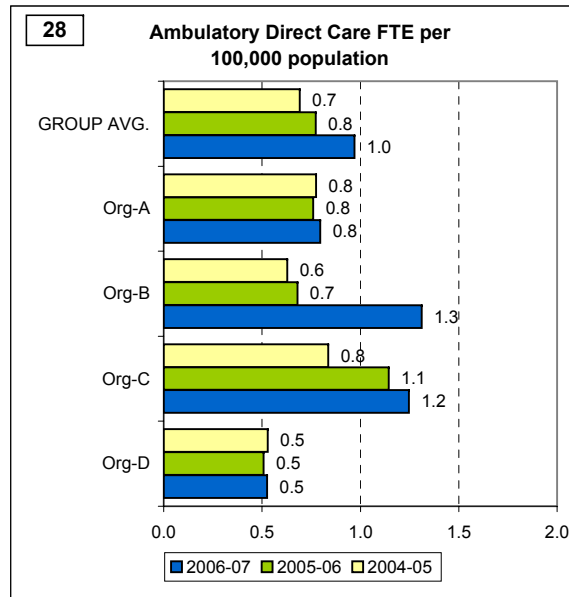
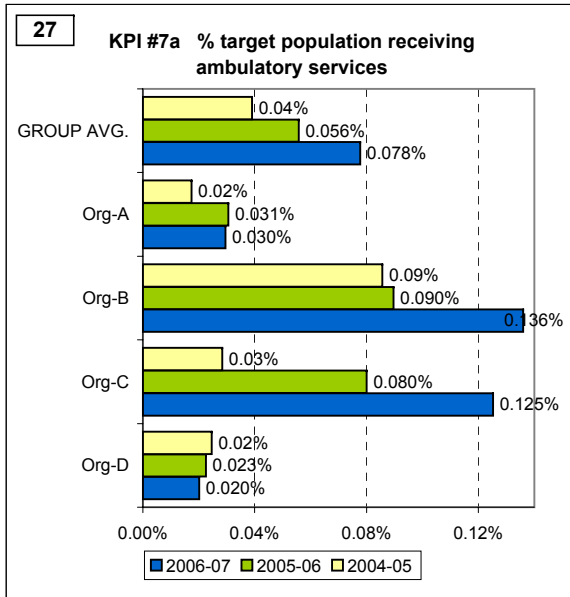
Theme Charts

**THEME 4: Continuity of care**



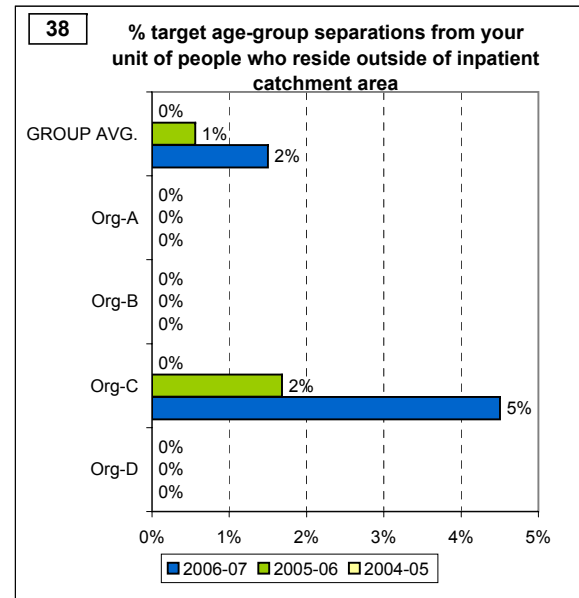
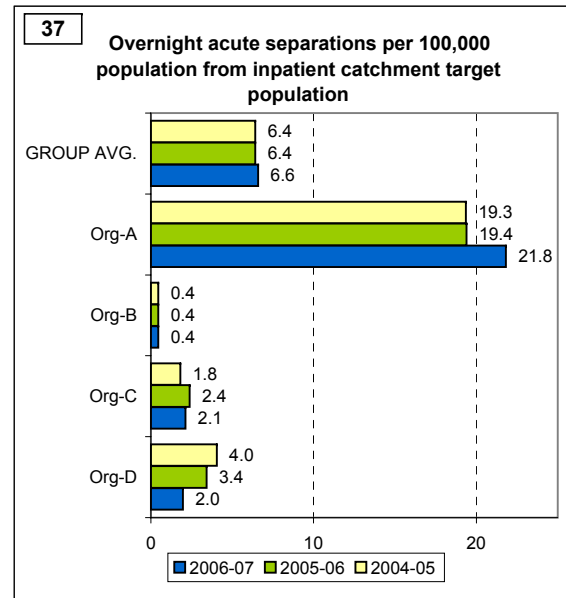
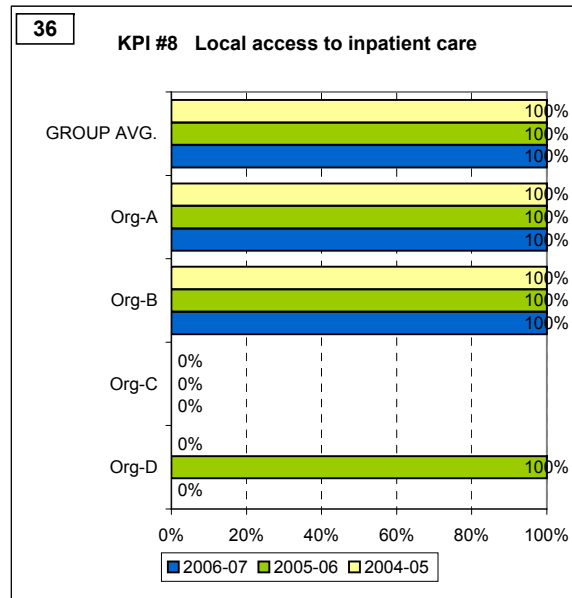
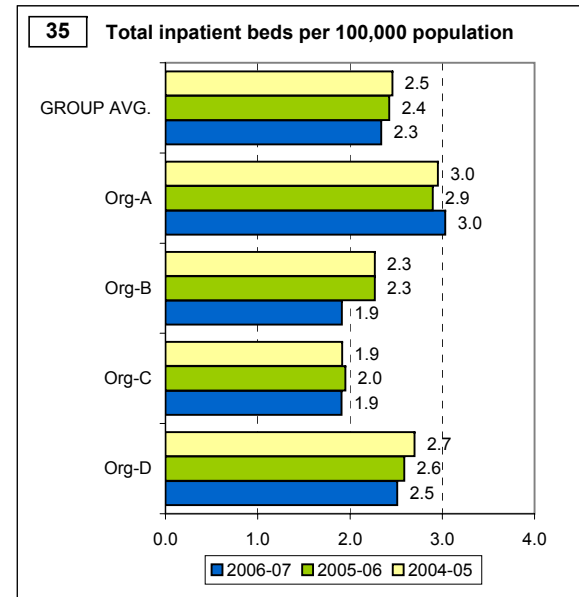
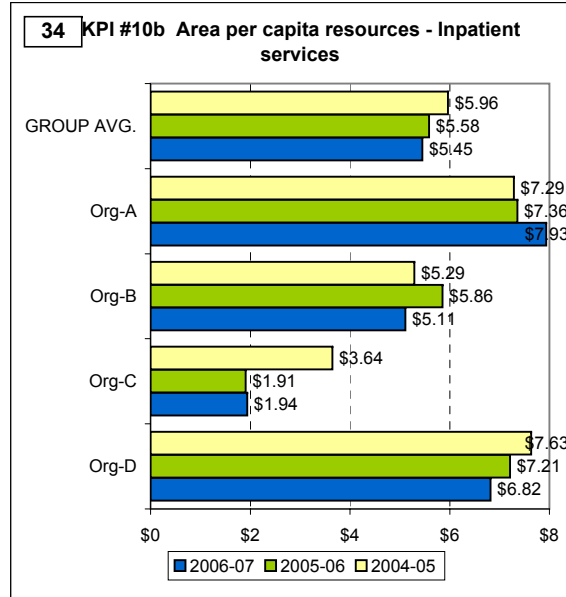
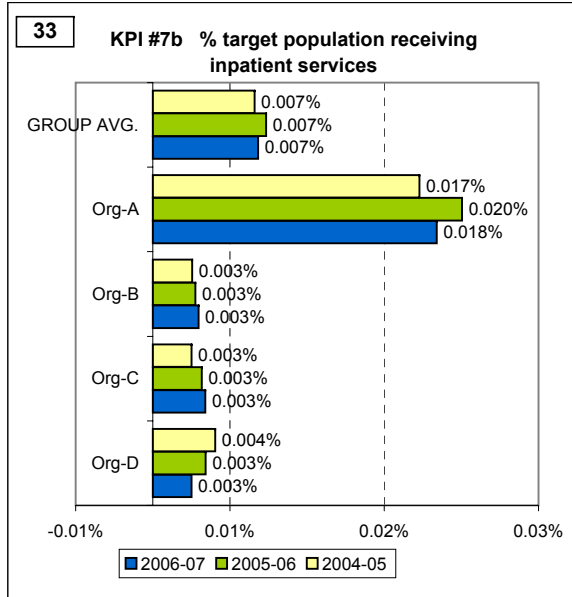
Theme Charts

THEME 5: Access to ambulatory care



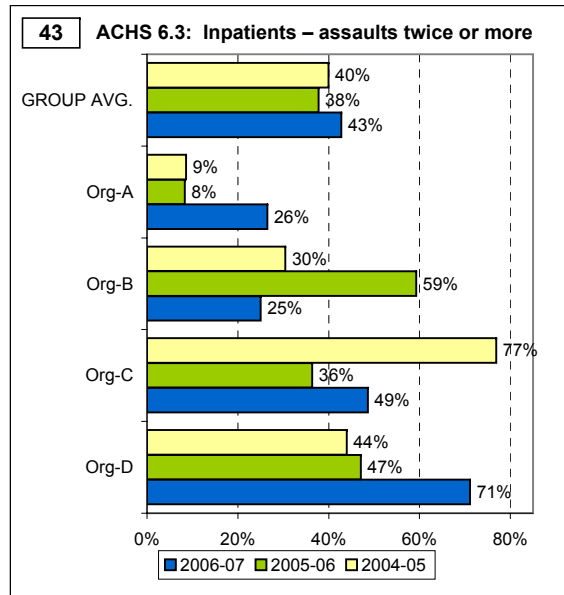
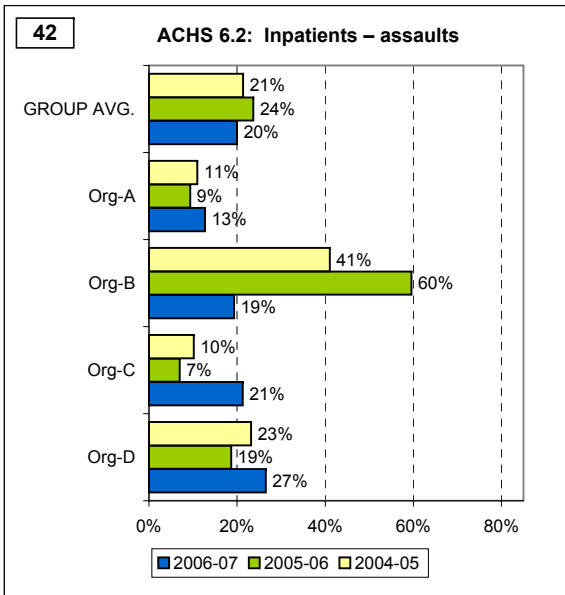
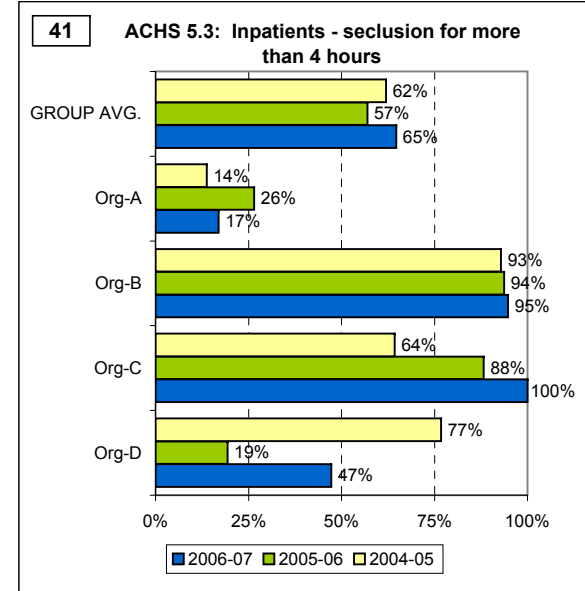
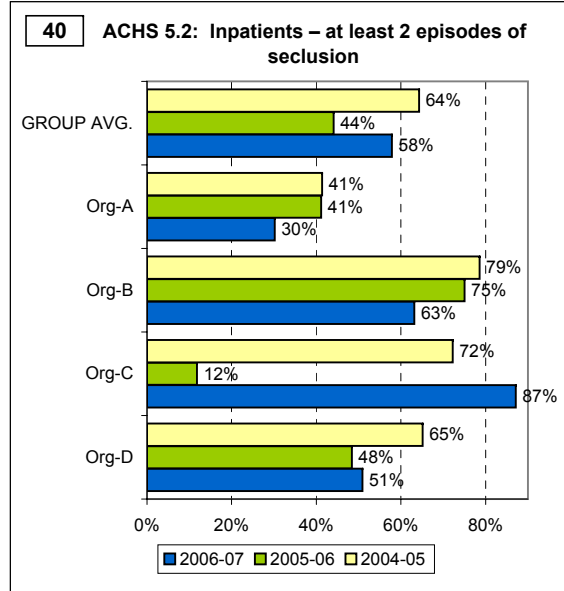
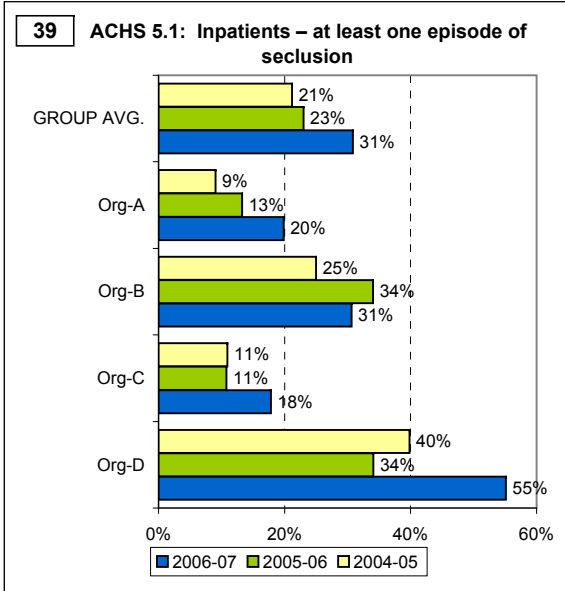
Theme Charts

THEME 6: Access to acute inpatient care

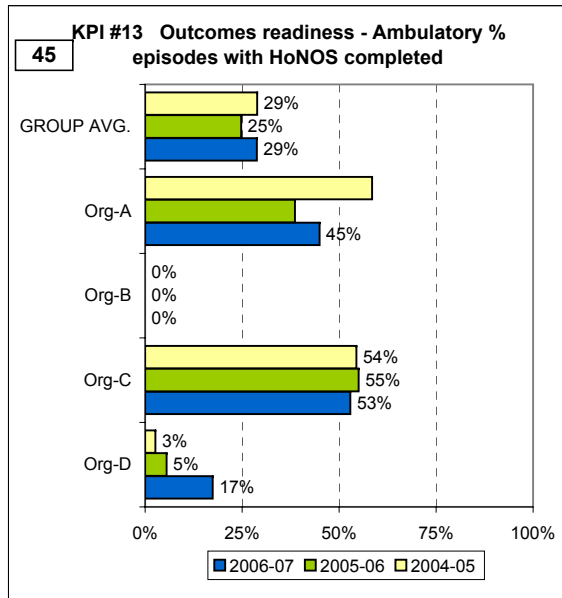
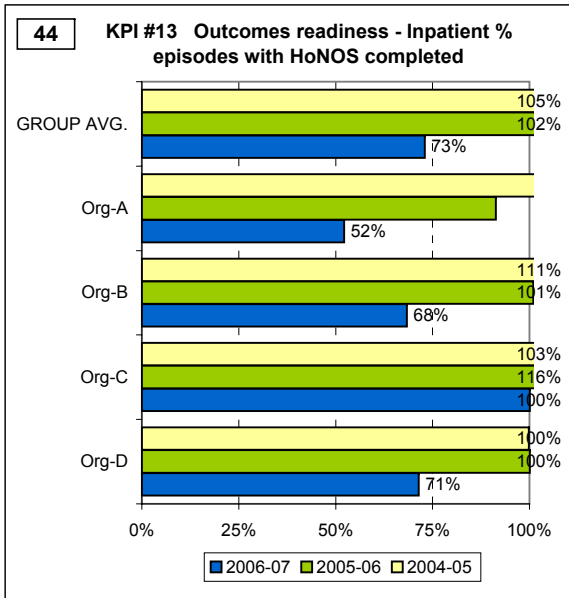


Theme Charts

THEME 7: Safety (ACHS Indicators)

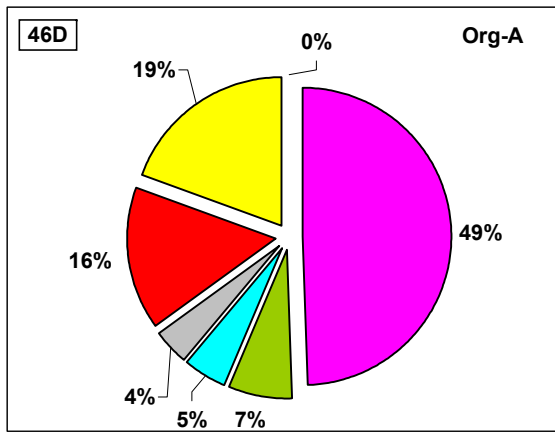
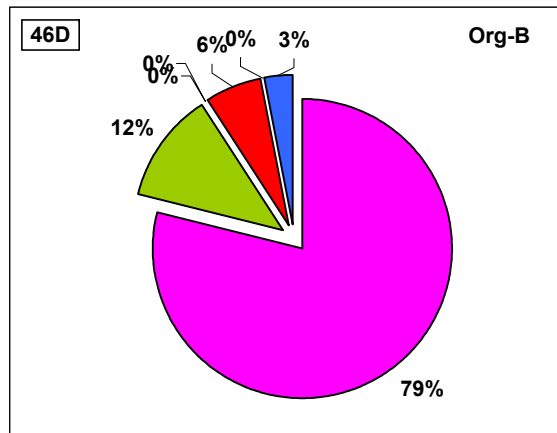
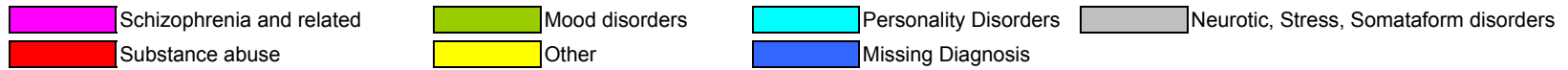
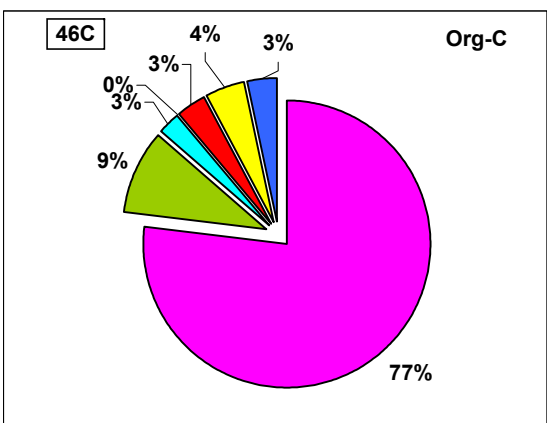
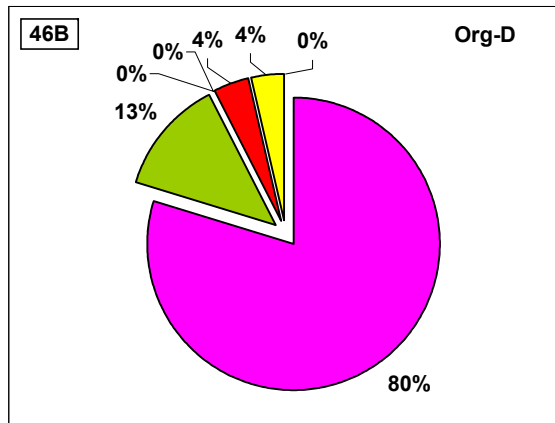
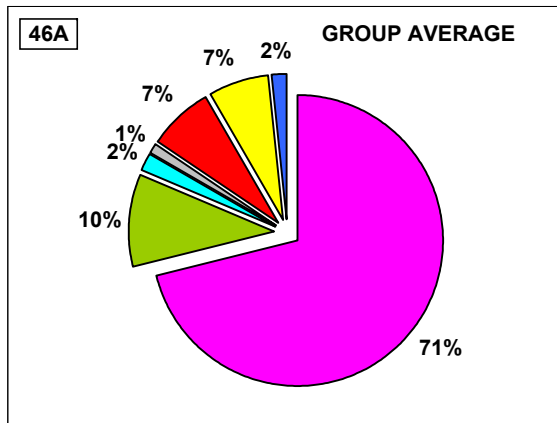


Theme Charts  
**THEME 8: Capability**



Theme Charts

**THEME 9: Acute Inpatient casemix- (a) Diagnosis profile 2006-07**

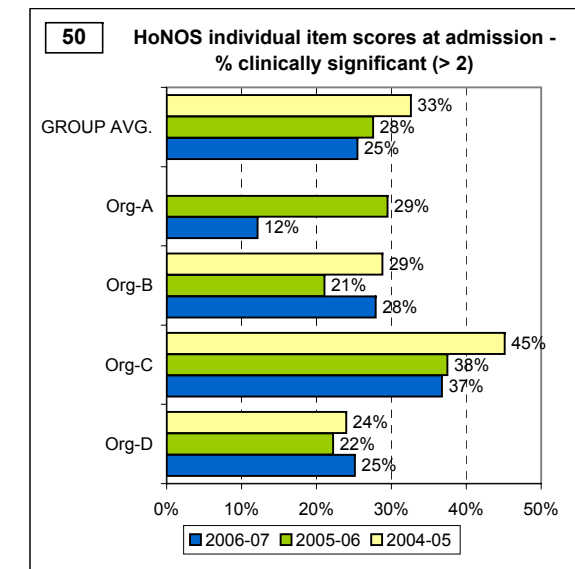
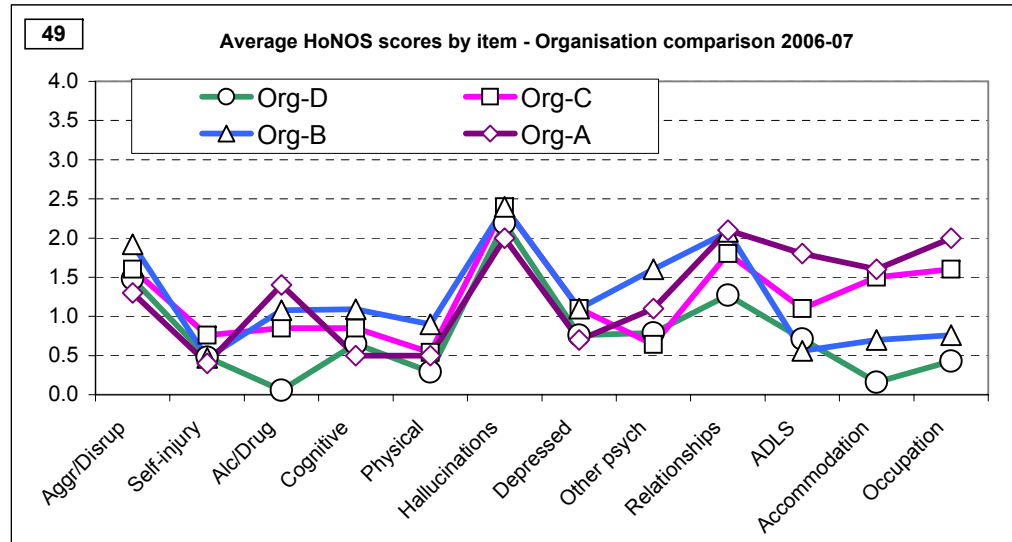
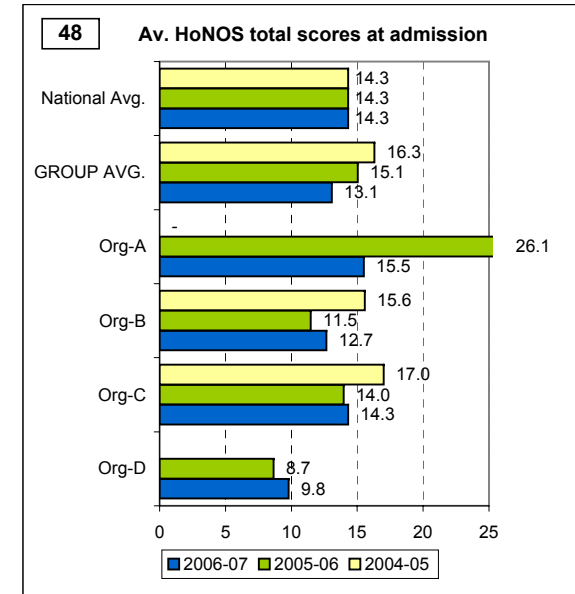
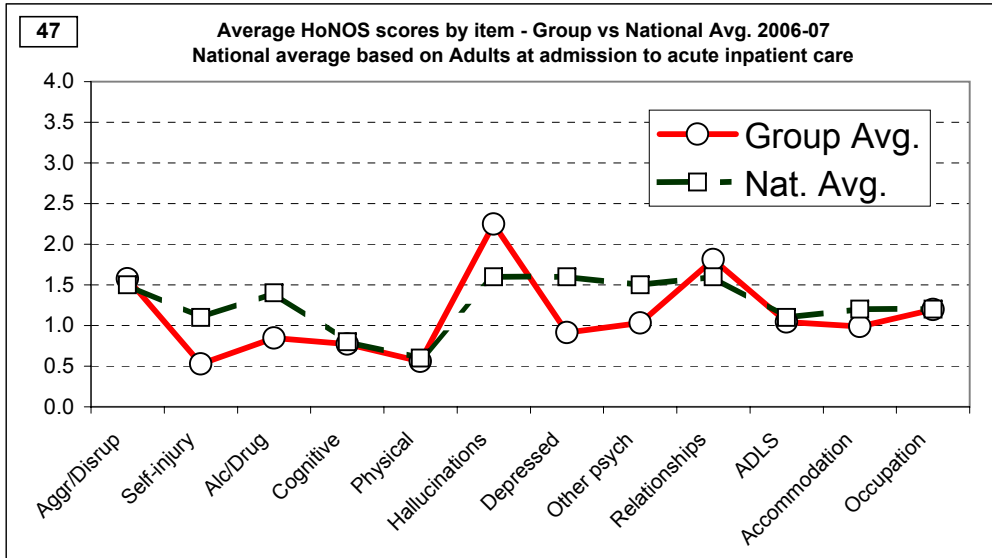


46E Percentage overnight separations included in the 2006-07 data:

Group average	100%	Org-D	100%	Org-B	100%
		Org-C	100%	Org-A	100%

Theme Charts

**THEME 9: Acute Inpatient casemix- (b) HoNOS at admission**



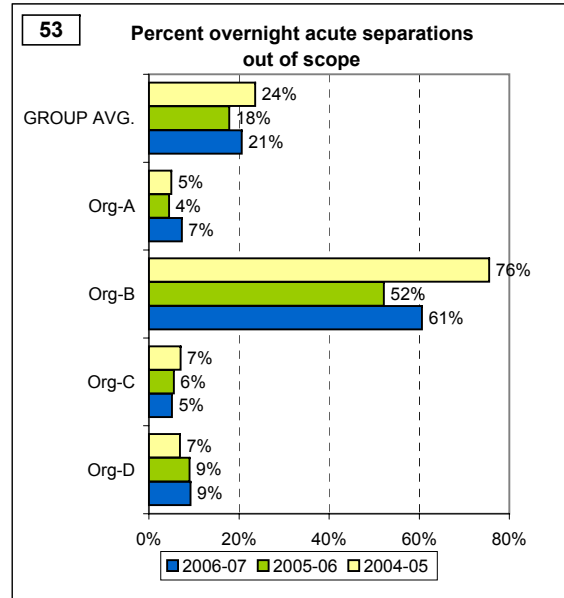
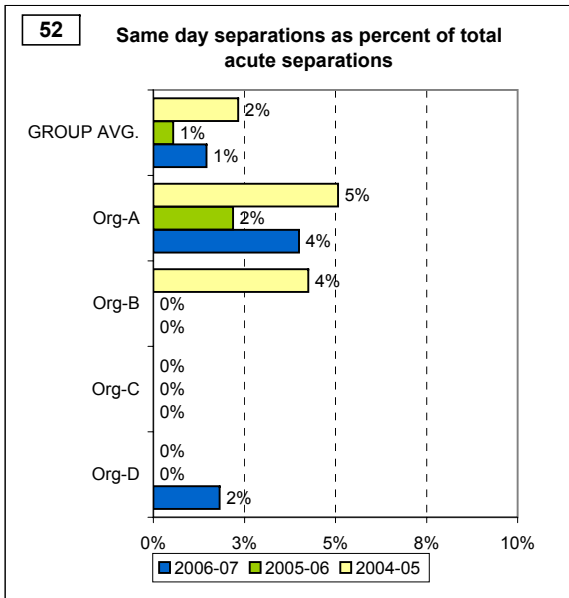
**51** Percentage overnight separations with 2006-07 HoNOS Admission data:

Group average	80%	Org-D	117%	Org-B	79%
		Org-C	67%	Org-A	59%



Theme Charts

Ungrouped supplementary indicators



## Supplementary Indicator Specs

<b>Details on how the supplementary indicators were constructed</b>				
All reference numbers link to the numbers in boxes within the indicator charts				
Ref		Numerator	Denominator	Notes
<b>THEME 1: Comparative resources available to the organisation</b>				
1	Total in-scope expenditure (\$M)			Simply adds all in scope expenditure reported and converts to millions
2	Inpatient services financials - \$ per capita	Total expenditure/funding reported for in scope inpatient services (acute and non acute)	Total catchment population for in scope acute inpatient services	Indicator shows differential between funding and expenditure
3	Ambulatory services financials - \$ per capita	Total expenditure/funding reported for in scope ambulatory services	Total catchment population for in scope ambulatory services	Indicator shows the difference between funding and expenditure
<b>SI</b>	Ambulatory services Direct Care FTE per 100,000 population	Number of ambulatory services direct care FTE	Total catchment population for in scope ambulatory services	
5	Acute beds per 100,000 population	Number of in scope acute inpatient beds	Total catchment population for in scope acute inpatient services	
6	Acute beds per 100,000 population	Number of in scope non acute inpatient beds	Total catchment population for in scope non acute inpatient services	
<b>THEME 2: Efficiency in use of resources</b>				
7	Indirect expenditure as % in scope total	Total indirect expenditure reported for all in scope services	Total expenditure reported for all in scope services	Indicator is intended to assess the extent to which organisations are comparable in what is included in the overall reported expenditure
8	Salaries as % in scope total expenditure	Total salaries and wages expenditure reported for all in scope services	Total expenditure reported for all in scope services	Indicator is intended to assess the extent to which organisations are comparable in what is included in the overall reported expenditure
9	Acute inpatient length of stay (KPI #3 )			Constructed as per KPI #3 - see Technical Specifications

**Supplementary Indicator Specs**

<b>Details on how the supplementary indicators were constructed</b>				
All reference numbers link to the numbers in boxes within the indicator charts				
<b>Ref</b>		<b>Numerator</b>	<b>Denominator</b>	<b>Notes</b>
9a	Acute inpatient length of stay - in scope vs all seps, 2006-07 only			For in scope separations: Constructed as per KPI #3 - see Technical Specifications; For all separations: Same approach except all separations included in numerator and denominator.
10	Acute inpatient LOS outliers (>180 days)	Number of in scope overnight separations with length of stay >180 days, reported at KPI #3	Number of in scope overnight separations, reported at KPI #1	
11	Cost per acute inpatient episode (KPI #4)			Constructed as per KPI #4 - see Technical Specifications
12	Cost per day - acute inpatient units	Total expenditure reported for in scope acute units	Total accrued mental health care days reported for in scope acute units, reported at KPI #4	
13	Acute unit(s) - Derived occupancy	Total accrued mental health care days reported for in scope acute units, reported at KPI #4	Number of beds reported for in scope acute inpatient units x 365	
14	Full year cost per inpatient bed	Total expenditure reported for in scope acute and non acute units	Number of in scope acute and non acute inpatient beds	
15	Full year cost per direct care ambulatory FTE	Total expenditure reported for in scope ambulatory services	Number of ambulatory services direct care FTE	Not equivalent to average salaries - because costs are total and include non salary and indirect
16	KPI #5 Average treatment days per 3 month period of community care			Constructed as per KPI #5 - see Technical Specifications
17	KPI #6 Average cost per 3 month period of community care			Constructed as per KPI #6 - see Technical Specifications
18	Average cost per community treatment day	Total expenditure/funding reported for in scope ambulatory services	Total number of treatment days, reported at KPI #5	
<b>THEME 3: Productivity and activity of ambulatory services</b>				
		<b>Numerator</b>	<b>Denominator</b>	<b>Notes</b>
19	Av. weekly contacts per direct care FTE	Total service contacts, reported at KPI #5	Total direct care ambulatory FTE x 44	Assumes 44 working weeks per direct care FTE

### Supplementary Indicator Specs

<b>Details on how the supplementary indicators were constructed</b>				
All reference numbers link to the numbers in boxes within the indicator charts				
<b>Ref</b>		<b>Numerator</b>	<b>Denominator</b>	<b>Notes</b>
20	Av. weekly treatment days per direct care FTE (approx = N patients per week per FTE)	Total treatment days, reported at KPI #5	Total direct care ambulatory FTE x 44	Assumes 44 working weeks per direct care FTE. NOTE: This indicator approximates av. number of consumers seen per week per direct care FTE
21	Av. number of seen people per years per ambulatory services direct care FTE	Number of people receiving one or more contacts from in scope ambulatory service teams, reported at KPI #7	Total direct care ambulatory FTE	
22	' Assessment only' episodes (1 treatment day) as percent of total 3 month episodes	Number of consumers receiving one treatment day only, reported at KPI #5	Total 3-month periods of care, reported at KPI #5	
<b>THEME 4: Continuity of care</b>				
23	KPI #11 Pre admission community care			Constructed as per KPI #11 - see Technical Specifications
24A	KPI #12 Post discharge community care - 7 days			Constructed as per KPI #12 - see Technical Specifications
24B	KPI #12 Post discharge community care			Constructed as per KPI #12 - see Technical Specifications, except follow up period extended to 28 days post discharge
24C	KPI #12 Post discharge community care 7 day follow up - by discharge destination (2006-07 data only)			Constructed as per KPI #11 - see Technical Specifications. Separate counts shown for discharges back to prison and other destinations
25A	KPI #1 28-day readmission rate			Constructed as per KPI #1 - see Technical Specifications
25B	91-day readmission rate			Constructed as per KPI #1 - see Technical Specifications except readmission period extended to 91 days post discharge.
25C	182-day readmission rate			Constructed as per KPI #1 - see Technical Specifications except readmission period extended to 182 days post discharge.
26	KPI #5 Average treatment days per 3 month period of community care			Constructed as per KPI #5 - see Technical Specifications

### Supplementary Indicator Specs

<b>Details on how the supplementary indicators were constructed</b>				
All reference numbers link to the numbers in boxes within the indicator charts				
Ref		Numerator	Denominator	Notes
<b>THEME 5: Access to ambulatory care</b>				
27	KPI #7a % target population receiving ambulatory services			Constructed as per KPI #7 - see Technical Specifications
28	Ambulatory services Direct Care FTE per 100,000 population	Number of ambulatory services direct care FTE	Total catchment population for in scope ambulatory services	Same as reference 4 above
29	KPI #10a Area per capita resources - Ambulatory services			Constructed as per KPI #10 - see Technical Specifications
30	Age-specific target group as % of total people seen by ambulatory services	Number of people receiving one or more contacts from in-scope ambulatory services who reside in catchment area and are within age target group, reported at KPI #7	Total number of people receiving one or more contacts from in scope ambulatory service teams, reported at KPI #7	
31	Percent of people seen by ambulatory services who reside external to catchment	Number of people receiving one or more contacts from in-scope ambulatory services who reside external to catchment area, reported at KPI #7	Total number of people receiving one or more contacts from in scope ambulatory service teams, reported at KPI #7	
32	KPI #9 New client index			Constructed as per KPI #9 - see Technical Specifications
<b>THEME 6: Access to acute inpatient care</b>				
33	KPI #7b % target population receiving inpatient services			Constructed as per KPI #7 - see Technical Specifications
34	KPI #10b Area per capita resources - Inpatient services			Constructed as per KPI #10 - see Technical Specifications
35	Acute beds per 100,000 population	Number of in scope acute inpatient beds	Total catchment population for in scope acute inpatient services	Same as reference 5 above
36	KPI #8 Local access to inpatient care (% total area overnight separations managed by your organisation)			Constructed as per KPI #8 - see Technical Specifications

### Supplementary Indicator Specs

<b>Details on how the supplementary indicators were constructed</b>				
All reference numbers link to the numbers in boxes within the indicator charts				
<b>Ref</b>		<b>Numerator</b>	<b>Denominator</b>	<b>Notes</b>
37	Overnight acute separations per 100,000 population from inpatient catchment target population	Total overnight separations by persons in age-specific target population from the organisation catchment, reported at KPI #8	Acute inpatient services age-specific Area catchment population at December 2004, reported at KPI #7	Numerator includes separations from all inpatient services including those not managed by the organisation
38	% target age-group separations from your unit of people who reside outside of inpatient catchment area	Number of target age-group separations from your unit of people who reside outside of inpatient catchment area, reported at KPI #8	Number of separations by target age-group from your unit, reported at KPI #8	
<b>THEME 7: Safety (ACHS indicators)</b>				
39	ACHS 5.1 Inpatients – at least one episode of seclusion	Numerator: Number of inpatients having at least one episode of seclusion, in an admission	Denominator: Total number of inpatients.	As defined by ACHS, Mental health inpatient indicators, version 5
40	ACHS 5.2 Inpatients - at least 2 episodes of seclusion	Numerator: Number of inpatients having at least two episodes of seclusion, in an admission or in a one month period of an extended admission	Denominator: Total number of inpatients having seclusion.	As defined by ACHS, Mental health inpatient indicators, version 5
41	ACHS 5.3 Inpatients - seclusion for more than 4 hours	Numerator: Number of inpatients having seclusion for more than four hours in one episode, in an admission	Denominator: Total number of inpatients having seclusion.	As defined by ACHS, Mental health inpatient indicators, version 5
42	ACHS 6.2 Inpatients - assault	Numerator: Number of inpatients who assault in an admission.	Denominator: Total number of inpatients.	As defined by ACHS, Mental health inpatient indicators, version 5
43	ACHS 6.3 Inpatients - assault twice or more	Numerator: Number of inpatients who assault twice or more in an admission	Denominator: Total number of inpatients who have assaulted.	As defined by ACHS, Mental health inpatient indicators, version 5
<b>THEME 8: Capability</b>				
44	KPI #13 Outcomes readiness - % Inpatient episodes with HoNOS completed			Constructed as per KPI #13 - see Technical Specifications

## Supplementary Indicator Specs

<b>Details on how the supplementary indicators were constructed</b>				
All reference numbers link to the numbers in boxes within the indicator charts				
<b>Ref</b>		<b>Numerator</b>	<b>Denominator</b>	<b>Notes</b>
45	KPI #13 Outcomes readiness - % Inpatient episodes with HoNOS completed			Constructed as per KPI #13 - see Technical Specifications
<b>THEME 9: Acute Inpatient casemix - (a) Diagnosis</b>				
46A to 46D		Based on diagnostic data submitted by organisations covering separations from in-scope acute inpatient units. For each of the main diagnostic groups, number of separations is expressed as a percentage of total separations.		New data submitted to allow comparison of acute inpatient profiles
46E	Percentage overnight separations included in the data	Total separations reported with a diagnosis	Total overnight separations from in scope acute units as reported at KPI #1	This indicator shows the coverage of diagnostic data submitted by each organisation and provides information about the extent to which the diagnostic profile is representative of total acute inpatient separations for the organisation
<b>THEME 9: Acute Inpatient casemix - (b) HoNOS at admission</b>				
47	Average HONOS scores by item - Group vs National Avg.	New data as submitted by organisations. Group average is average of benchmarking participants. National data taken from AMHOCN Decision Support Tool, and provides average HoNOS scores for adult admissions to inpatient care (n = 66,759 cases)		New data submitted to allow comparison of acute inpatient profiles
48	Av. HoNOS total scores at admission	New data as submitted by organisations. National data taken from AMHOCN Decision Support Tool, as described above)		New data submitted to allow comparison of acute inpatient profiles
49	Average HoNOS scores by item - Organisation comparison	New data as submitted by organisations.		
50	HoNOS scores at admission - % clinically significant	Number of HoNOS items with a score > 2, summed across all 12 scales for all admissions	(Total number of separations included in sample) x 12	New data submitted to allow comparison of acute inpatient profiles. This indicator provides an alternative to Total HoNOS score as an overall measure of casemix severity

### Supplementary Indicator Specs

<b>Details on how the supplementary indicators were constructed</b>				
All reference numbers link to the numbers in boxes within the indicator charts				
<b>Ref</b>		<b>Numerator</b>	<b>Denominator</b>	<b>Notes</b>
51	Percentage overnight separations with HoNOS Admission data	Total separations reported with HoNOS admission data	Total overnight separations from in scope acute units as reported at KPI #1	This indicator shows the coverage of HoNOS data submitted by each organisation and provides information about the extent to which the HoNOS profile is representative of total acute inpatient separations for the organisation
	<b>Ungrouped supplementary indicators</b>			
52	Same day separations as percent of total acute separations			
53	Percent overnight acute separations out of scope			