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**Care for Veterans with
Psychosis in the VHA, FY02
4th Annual National Psychosis Registry Report**

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Executive Summary

The Veterans Health Administration (VHA) and the Committee on Care of Veterans with Serious Mental Illness, continue to monitor and evaluate the capacity of VHA to treat its patients with psychosis. In 1999, the Serious Mental Illness Treatment Research and Evaluation Center (SMITREC) developed the National Psychosis Registry to assist in this endeavor. It includes comprehensive information on all veterans with psychosis who have received care in the VHA since Fiscal Year 1988.

This annual report, "Care for Veterans with Psychosis in the VHA" presents information on the state of care for patients with psychosis for the FY02 and demonstrates changes over time, allowing for early detection of trends and proactive decision making.

The report has five chapters, each focusing on a specific domain of interest to the VHA, including demographics, patient characteristics, health services utilization, use of antipsychotic medications, and costs. Each chapter includes background and discussion of the domain, key findings, a guide to the tables, and the actual national and VISN level tables. The entire report, along with station level tables for each VISN will be available on our web site: (<http://www.va.gov/annarbor-hsr/SMITREC.htm>)

Key Findings

- Total SMI population rose again, up 4.5% from FY01 and 7.3%% from FY99.
- SCH continued its downward trend, falling 2.9% last year and 8.3% since FY99.
- BP rose again, up 7.3% in the past year, 17.4% over last 4 years.
- Other Psychoses population has risen 46% since FY99
- In FY02, over 60% of inpatient GAF scores were missing.
- Since 1999, missing GAF scores have increased in IP care and decreased in OP care.
- Missing GAF scores, stable overall from previous years, continue to vary across VISNs: Inpatient from 38.9% to 80.2%, and outpatient from 4.0% to 33.0%.
- Total IP days dropped significantly again, down 11.2% to a mean of 23.71; this is a 32.3% decrease over 4 years.
- The decline over time of total stops slowed last year (39.09 average), although this variable has still dropped 29.6% since FY99.
- Over 75% of the patients received at least one primary care visit, indicating physical health care is being addressed in a large proportion of the population.
- Use of atypicals continues to rise steadily, up to 84.9% of all patients in FY02, from 61.7% in FY99; SCH even sharper increase the past couple years, from 58.7% in FY99, 77.4% last year, then up to 82.0% in FY02.
- Clozapine: no change overall (1.9%), and SCH continues extremely slow increase, with only 3.0% using in FY02.
- Total costs for population down 4.2% to \$2.95 billion since last year with most of decrease coming from inpatient treatment, which declined sharply for third year.
- Per patient costs also dropped rather sharply to \$14,370 in FY02 (down 8.3%).
- Despite rapid gains the past few year, pharmacy cost increase slowed to only 3.2% (mean = \$1,695).

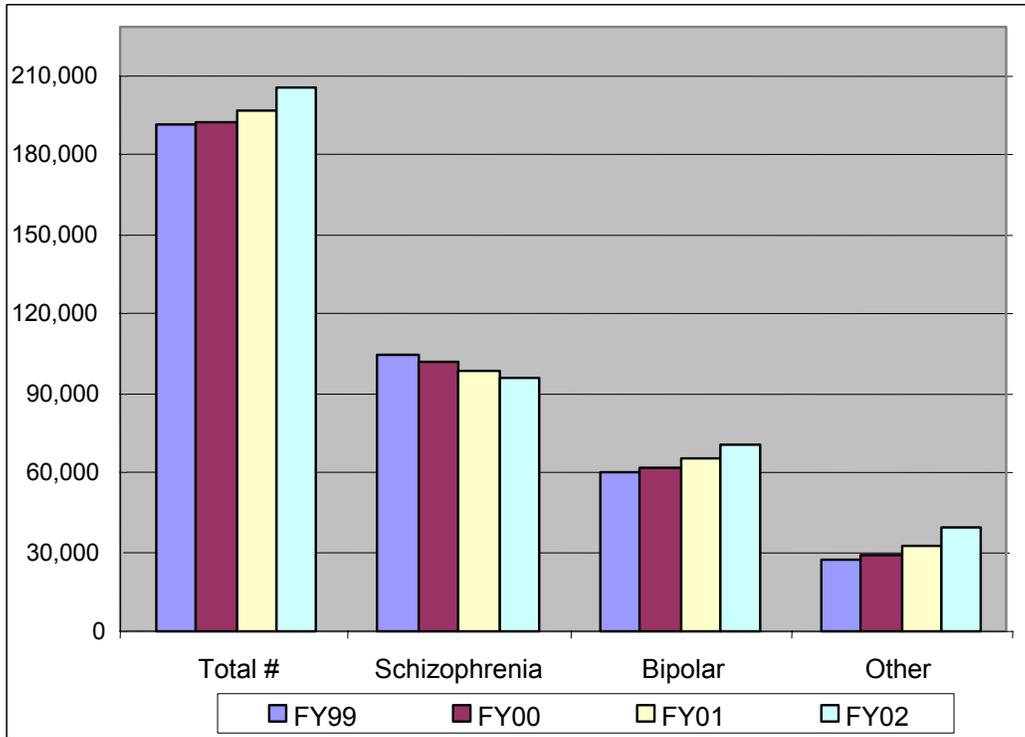
Demographics

Key findings:

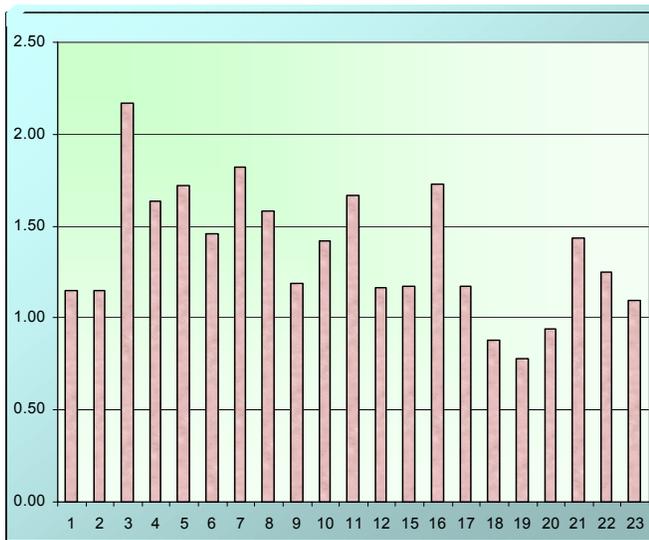
- Total population of veterans treated for psychosis during FY02 was 205,620, including 95,875 with schizophrenia, 70,345 with bipolar disorder and 39,400 with other psychotic disorders.
- Total SMI population rose again, up 4.5% from FY01 and 7.3% from FY99.
- SCH continued its downward trend, falling 2.9% last year and 8.3% since FY99.
- BP rose again, up 7.3% in the past year, 17.4% over last 4 years.
- Other Psychoses population has risen 46% since FY99
- Sixty percent of the population was white, with 40% other racial/ethnic backgrounds.
- Entire population is aging steadily, with the mean age rising nearly 2 years in FY02 and 3 years since FY99.
- Age \geq 80 group rose 4.9% last year.
- Across VISNs:
 - Diagnostic patterns showed considerable variation, with the ratio of SCH to BP ratio ranging from 0.88 to 2.17.
 - The percentage of patients receiving a schizophrenia diagnosis varied between 35.1% and 58.9% and for bipolar disorder the range was between 27.1% and 46.2%.

Variable	FY99	FY00	FY01	FY02
Total population	191,606	192,982	196,675	205,620
Schizophrenia	104,593	102,295	98,739	95,875
Bipolar disorder	59,938	61,992	65,556	70,345
Other Psychoses	27,075	28,695	32,380	39,400
Mean age	53.80	54.31	53.97	55.87
American Indian	0.3%	0.3%	0.3%	0.4%
Asian	0.6%	0.6%	0.6%	0.6%
African American	20.7%	20.6%	20.3%	20.1%
White	61.0%	61.3%	60.7%	60.0%
Hispanic	6.0%	6.1%	5.8%	5.7%
Unknown	11.4%	11.2%	12.2%	13.3%
Never married	33.1%	31.9%	30.9%	29.8%
Female, %	6.7%	6.8%	7.1%	7.1%
SCH / BP ratio for African-American veterans	2.38	2.45	2.45	2.44
SCH / BP ratio for white veterans	0.78	0.77	0.78	0.79

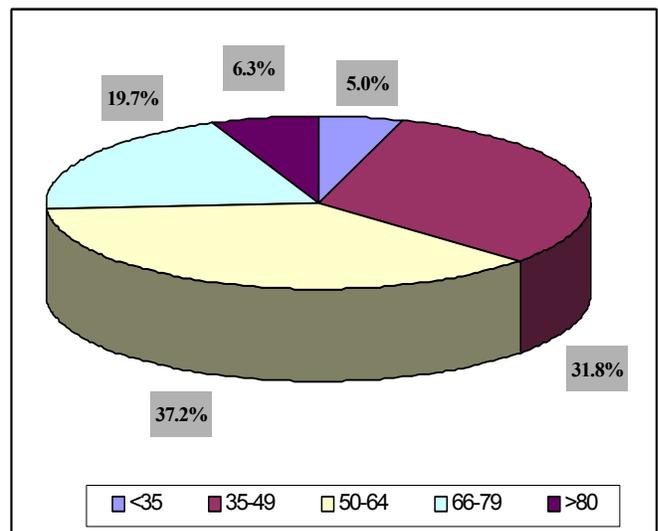
Population Diagnosis, by Psychosis Category: FY99-FY02



Diagnostic Ratio: Schizophrenia To Bipolar, by VISN: FY02



Age Distribution of Psychosis Patients, by diagnosis: FY02



Patient Characteristics

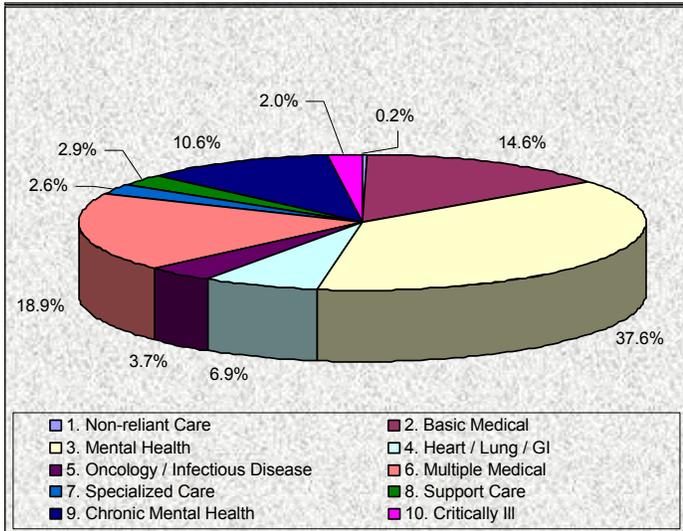
This domain gives a more detailed picture of veterans with psychosis who received care in the VHA, including the patients' history of VA utilization (years since first use and years with inpatient and outpatient use), average inpatient and outpatient GAF scores, as well as the percentage of appropriate patients for whom GAFs were reported, mortality rates (crude and age-and-gender-adjusted), level of service connection, VERA patient class and eligibility category, extent of substance abuse comorbidity, homelessness and distances to medical centers and service sites.

Key findings:

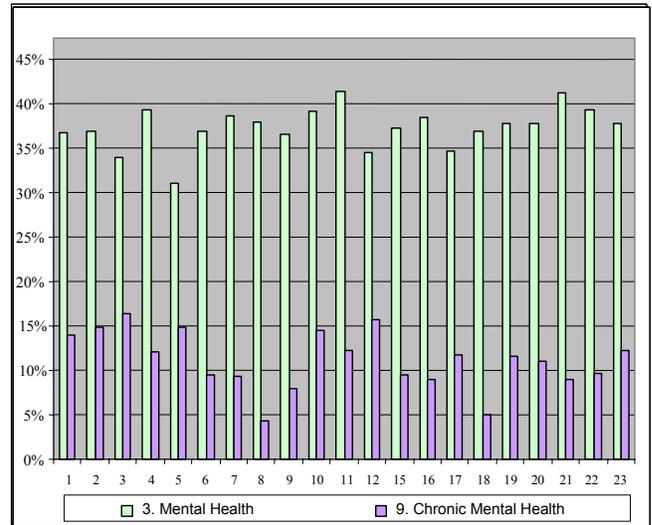
- Patients with schizophrenia were more likely than other diagnostic groups to have received a psychosis diagnosis from VA providers in FY01 (81.4%) and therefore to have been included in the FY01 NPR cohort. The same was true for 63.2% of patients with Bipolar Disorder and only 33.4% of patients with Other Psychoses.
- As a further indication of diagnosis stability, for patients with psychoses in both FY01 and FY02, 94.5% of SCH had the same dx in both years, 93.7% had a BP diagnosis in both years and only 81.6% of Other Psychoses had a stable diagnosis in both years.
- In FY02, over 60% of inpatient GAF scores were missing.
- Since 1999, missing GAF scores have increased in IP care and decreased in OP care.
- Missing GAF scores, stable overall from previous years, continue to vary across VISNs: Inpatient from 38.9% to 80.2%, and outpatient from 4.0% to 33.0%.
- 2.9% of patients died in FY02.
- The standardized mortality ratio was 1.61 for SCH and 1.08 for BP.
- 18.2% of patients were in the VERA complex category.
- VERA category “Chronic MH” higher for SCH than BP (16.2% vs. 7.5%).
- VERA “complex” patients varied from 11.6% to 25.8% across VISNs with the complex category of “chronic mental” varying from 5.0% to 16.4%.
- 29.8% of veterans were service connected at over 70%, with 22.9% having a 100% service connection.
- BP had higher rates of concurrent substance abuse diagnoses (31.6% vs. 23.7%).

Variable	FY99	FY00	FY01	FY02
Mean outpatient GAF score	50.92	50.33	50.56	50.30
Missing Inpatient GAF	28.3%	59.5%	59.3%	60.6%
Missing Outpatient GAF	29.8%	18.6%	14.3%	16.2%
Died during year, %	2.8%	2.9%	2.8%	2.9%
Standardized mortality ratio (all)	1.38	1.31	1.42	1.37
SMR (SCH)	1.37	1.29	1.58	1.61
MSA resident	79.0%	78.1%	77.9%	79.7%
Homelessness, %	--	--	12.8%	12.4%
VERA complex, %	17.0%	16.6%	19.3%	18.2%
Eligibility: category A, %	97.8%	97.0%	96.3%	95.3%
Eligibility: non-veteran, %	0.8%	0.7%	0.7%	0.6%

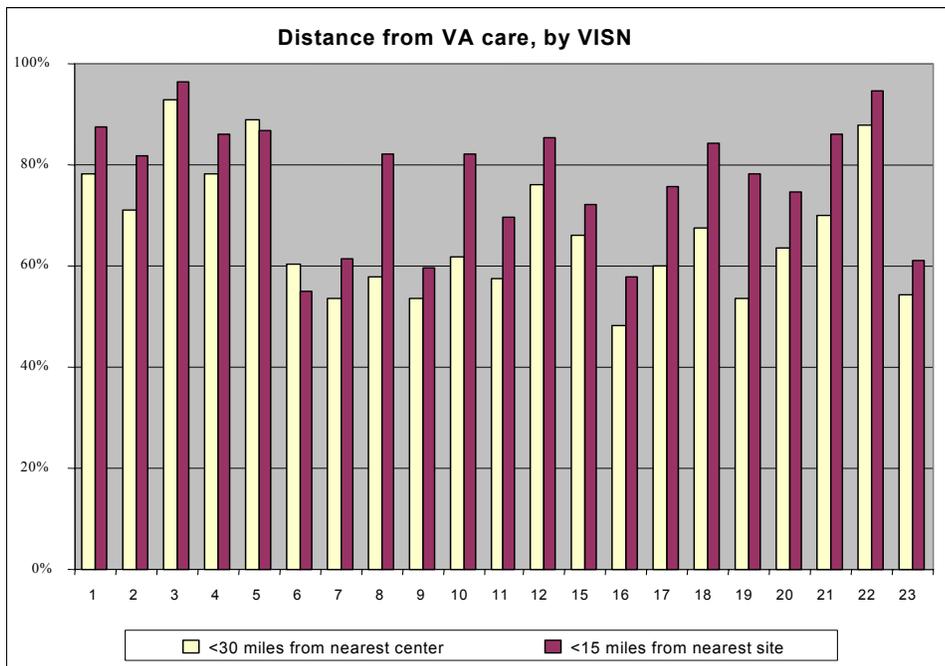
VERA10 Eligibility, by category: FY02



VERA10 Eligibility, by VISN: FY02



Distance from VA care, by VISN: FY02



Utilization

It is imperative that the VA track the use of services by patients with psychotic disorders. We attempt to fulfill this need by reporting extensively on both 24-hour institutional care (hospital, nursing home, domiciliary, and residential rehabilitation) and outpatient care.

Inpatient

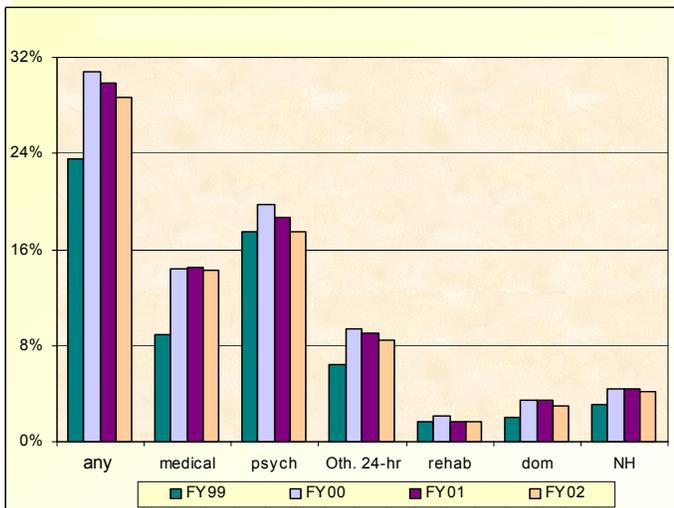
Key findings:

- Overall hospital use:
 - Total IP days dropped significantly again, down 11.2% to a mean of 23.71; this is a 32.3% decrease over 4 years.
 - Long admissions of 100+ days continued to drop rather sharply, with only 2.6% of patients requiring such extended hospital visits last year (down from 4.8% in FY99)
- Medical:
 - Percent of patients admitted continues to rise, up to 14.3% from 8.9% in FY99.
- Psychiatric:
 - Total IP days decreased another 13.3% last year to 16.43, a total substantial drop of 38.6% since FY99.
 - 17.5% of NPR patients had some inpatient psychiatric care, and for those with an inpatient stay, there were an average of 1.04 admissions and an average stay of 16.43 days.
 - Percentage of SCH with stays of 100+ and 150+ days was almost four times higher than that for BP.
- Other institutional:
 - Despite a small decrease last year in percentage of NPR patients with this type of care (8.4%), this number is still well above FY99 total of 6.4%.
- Residential rehabilitation:
 - 1.7% of NPR patients had some residential rehabilitation
 - SCH spent more time in residential rehabilitation (46.2 vs. 36.7 days) and 100+ day stays were two times higher.
 - 100+ days were up again to 6.2%, a large increase from 2.7% in FY99.
- Domiciliary:
 - 3% of NPR patients had some domiciliary care
 - SCH had more total days in domiciliaries (105.6 vs. 84.2 days).
 - Total days were down approximately 10% since FY99.
- Nursing home:
 - 4.2% of NPR patients had some nursing home care
 - Veterans with Other Psychoses had much higher use because of the higher age in this group
 - SCH had twice as much use as BP.
 - Despite less use, SCH total days were much higher than Other Psychoses (153.6 vs. 66.1), and than BP (103.1).
 - Nearly half (48%) of SCH have stays of 100+ days.

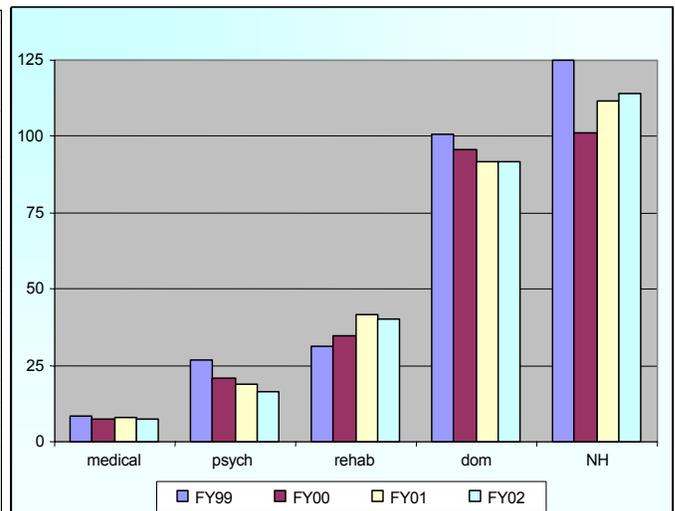
Variable	FY99	FY00	FY01	FY02
Hospital: total				
% with some	23.5%	30.9%	29.9%	28.7%
admits	2.00	1.89	1.88	1.85
days	35.03	28.34	26.71	23.71
100+ days, %	4.8%	3.6%	3.4%	2.6%
Hospital: medical				
% with some	8.9%	14.4%	14.5%	14.3%
admits	0.65	0.78	0.80	0.82
days	8.28	7.68	7.76	7.29

Variable	FY99	FY00	FY01	FY02
100+ days, %	1.0%	0.7%	0.8%	0.7%
Hospital: psychiatric				
% with some	17.5%	19.7%	18.7%	17.5%
admits	1.35	1.11	1.08	1.04
days	26.75	20.66	18.95	16.43
100+ days, %	3.9%	3.0%	2.6%	2.0%
% with other institutional care				
Residential rehabilitation:				
% with some	1.7%	2.2%	1.7%	1.7%
admits	1.13	1.12	1.11	1.11
days	31.20	34.64	41.45	40.01
100+ days, %	2.7%	4.0%	6.0%	6.2%
Domiciliary:				
% with some	2.0%	3.4%	3.4%	3.0%
admits	1.17	1.19	1.18	1.13
days	100.63	95.69	91.62	91.89
100+ days, %	31.9%	30.8%	29.4%	30.6%
Nursing Home:				
% with some	3.1%	4.4%	4.4%	4.2%
admits	1.20	1.26	1.24	1.24
days	125.19	101.40	111.73	113.85
100+ days, %	31.9%	33.9%	33.5%	34.6%

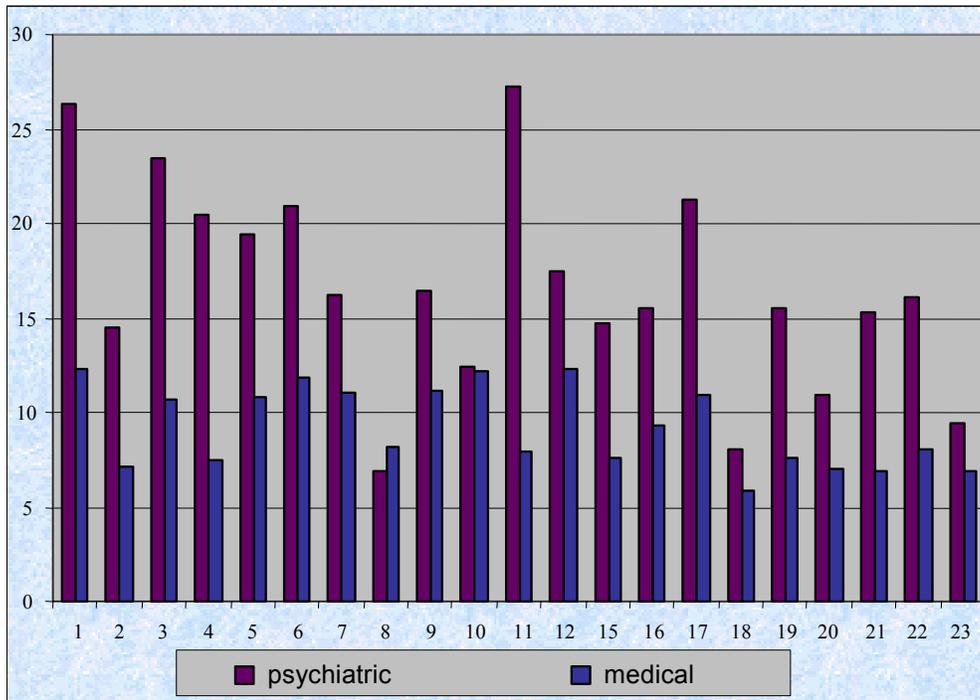
% with Inpatient Utilization, by domain: FY99-FY02



Mean Institutional Days, by domain: FY99-FY02



Mean Inpatient Days, among Patients Hospitalized in FY02, by VISN



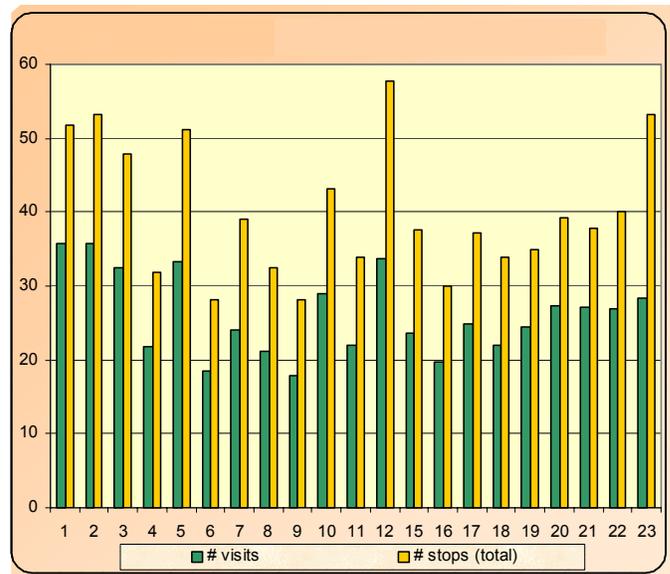
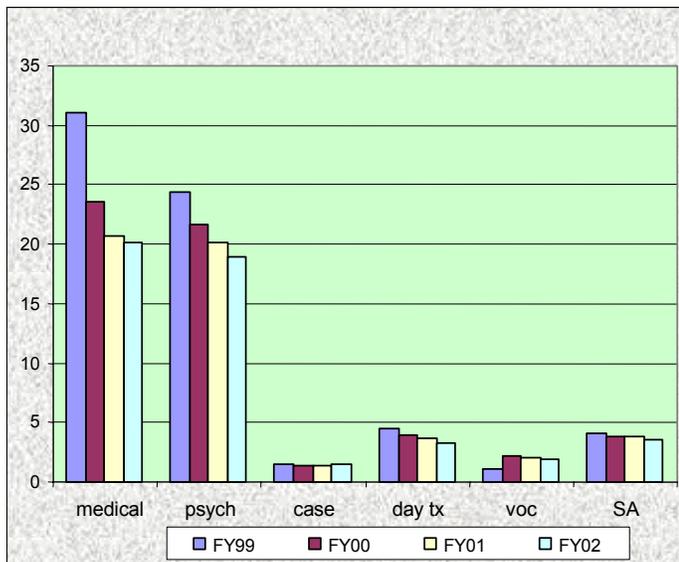
Outpatient

- Overall stops:
 - Almost all patients had at least one OP stop (99.1%).
 - The decline over time of total stops slowed last year (39.09 average), although this variable has still dropped 29.6% since FY99.
 - SCH had more overall stops (42.6) than BP (38.3) or Other Psychoses (32.0)
 - Average total *stops* demonstrated high variability across VISNs: from 28.10 to 57.76 with notable ranges observed for *psychiatric* (8.89-33.30), *case management* (0.21-4.16), *day treatment* (0.28-8.86), and *vocational training* (0.22-4.74).
- Psychiatric stops:
 - Patients had an average of 18.93 psychiatric stops.
 - Steady decline in psychiatric stop continues with 22.4% drop since FY99.
 - SCH had more psychiatric stops than BP (19.3).
- Primary care:
 - Over 75% of the patients received at least one primary care visit, indicating physical health care is being addressed in a large proportion of the population.
 - Other Psychoses had the most overall use of primary care (82.3%), then BP (77%) and SCH the lowest (71%)
 - Patients having at least one *primary care* visit during FY02 ranged across VISNs from 67.3% to 82.8%
- Other care:
 - Consistent with Dual Dx rates, BP had more Sub Abuse stops than SCH (4.6 vs. 3.0).
 - There was very little case management, an average of only 1.44, although for those who received some, the average number of visits was higher for SCH than for BP (2.6 vs 0.6).
 - Decrease in day treatment, substance abuse and vocational stops continues.

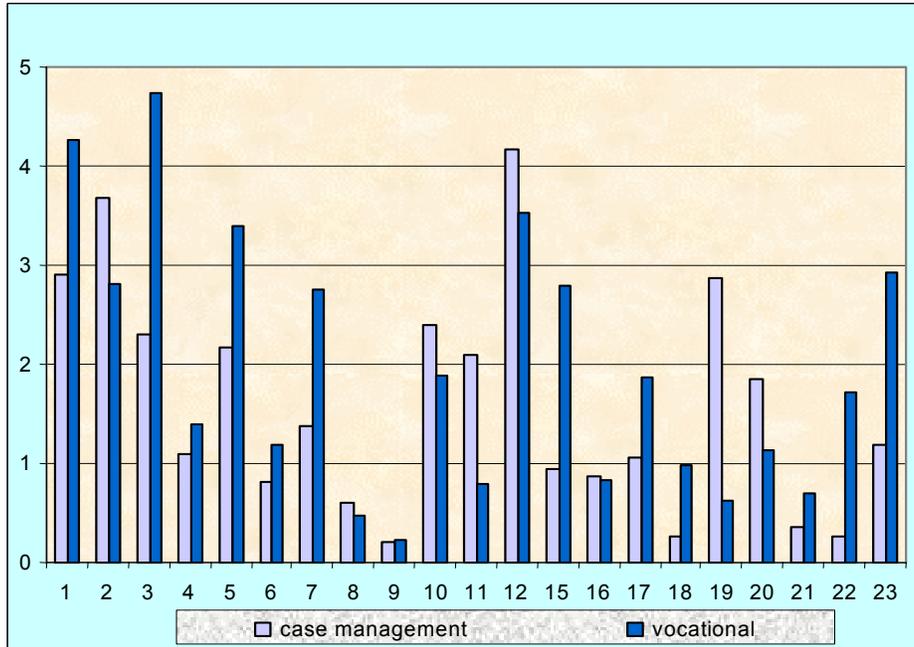
Variable	FY99	FY00	FY01	FY02
Some OP care, %	98.8%	98.9%	98.9%	99.1%
Primary care visit, %	--	--	73.1%	75.2%
PC visits (mean)	--	--	2.70	3.53
# total visits	27.48	27.33	26.25	25.52
# stops (total)	55.52	45.23	40.78	39.09
# stops (medical)	31.11	23.55	20.65	20.15
# stops (psychiatric)	24.41	21.68	20.13	18.93
# stops (case management)	1.43	1.38	1.37	1.44
# stops (day treatment)	4.48	3.96	3.64	3.33
# stops (substance abuse)	4.14	3.84	3.77	3.52
# stops (vocational)	1.08	2.23	2.03	1.86

Mean Outpatient Stops, among Patients with some OP utilization, by domain: FY02

Mean Outpatient Visit Days and Stops, among Patients with some OP utilization, by VISN: FY02



Mean Psychiatric Case Management Stops, among Patients with some OP utilization, by VISN: FY02



Medication

Antipsychotic medications are an essential component of the treatment of patients with schizophrenia. We assessed the use of antipsychotic medication among patients with schizophrenia, using a variety of measures, including: the percentage of patients receiving any oral antipsychotic medication, the percent receiving atypical antipsychotic agents, receiving clozapine, and receiving combination antipsychotic treatment (two or more antipsychotics concurrently).

In addition, we calculated a measure of the continuity of antipsychotic treatment, the Medication Possession Ratio (MPR). The MPR is the ratio of the number of days supply of medication that a patient *has received* divided by the number of days supply that they *should have received* had they been taking medication as prescribed. (An MPR of 1 or 100% indicates that the patient has received all the medication needed to take their antipsychotic medication as prescribed. An MPR of 0.5 or 50% indicates that the patient has received medication sufficient to take only half of the prescribed dose.)

- SCH had much higher use of antipsychotic than did BP (77.9% vs. 42.9%), although the overall use of atypicals was higher in BP (89.8% vs. 82.0%)
- There was almost no Clozapine use in BP (0.2%), but Olanzapine (44.7% vs. 38.4%) and Quetiapine (26.0% vs. 17.9%) higher in BP. Only Risperidone higher in SCH (36.6% vs. 32.4%).
- Concurrent use of 2+ antipsychotic three times higher in SCH (15.0% vs 5.0%) than BP.
- Mean antipsychotic fills were as follows: SCH=8.7, BP=6.3, Other Psychoses=5.5.
- overall use / # fills: no change in % receiving any drug fills, almost everyone; same with antipsychotics. The average # of fills continues with the slight downward trend to 7.60 in FY02.
- Use of atypicals continues to rise steadily, up to 84.9% of all patients in FY02, from 61.7% in FY99; SCH even sharper increase the past couple years, from 58.7% in FY99, 77.4% last year, then up to 82.0% in FY02.
- Clozapine: no change overall (1.9%), and SCH continues extremely slow increase, with only 3.0% using in FY02.
- Other atypicals:
 - Quetiapine: accelerating use continues, with notable increase again in FY02 to 20.6%.

- Olanzapine: after large increase and practically peaking in FY00, this is the only atypical to decrease last year (38.9%). Possible reasons include increased concerns over weight gain.
- Risperidone: appears to pick up the slack from Olanzapine, this drug is up to 37.1% after stalling in FY01.
- Ziprasidone: 3.5% overall use in first year on VA formulary, with SCH=4.0% vs. BP=2.9%.
- Concurrent use: this continues to slowly increase every year, for both entire population (11.1%) and SCH alone (15.0%).
- Medication Possession Ratio (MPR)
 - Still only calculated for SCH, compliance rates appear to be continually increasing since FY00, both in average MPR and % below certain cutoff points. The mean MPR is slightly up again to 0.82 (from 0.81 in FY01), with those below 80% (“poor”) and 50% (“very poor”) compliance down to 37.9% and 18.5%, respectively. See text in Chapter for description about slight change to MPR calculation in FY02.
 - The percent of patients receiving at least one antipsychotic fill in FY02 ranged between 48.5% and 65.3%
 - Specific atypical use also varied considerably for all 5 drugs measured: Olanzapine, for example, ranged from 29.0% to 51.1%, while among patients with schizophrenia Clozapine and Ziprasidone ranged from 1.2%-6.5% and 1.1%-6.3% (approximately 5-6x differences).
 - Concurrent use of 2+ medications for patients with schizophrenia varied from as low as 9.5% to over ¼ of all these patients (26.3%).
 - Overall medication compliance, as measured by the mean MPR, varied between 0.81 and 0.96. The proportion of patients with MPR<0.80 also varied across VISNs, from 24.1% to 43.2%.

Variable	FY99	FY00	FY01	FY02
% receiving any OP fill	--	--	95.3%	95.3%
% some antipsychotic fills	56.4%	57.0%	59.6%	59.7%
# antipsychotic fills, mean	8.40	7.51	7.30	7.20
% some atypical use	61.7%	77.7%	80.1%	84.9%
% on Clozapine	1.8%	1.9%	1.9%	1.9%
% on Clozapine (SCH only)	2.5%	2.7%	2.9%	3.0%
% on Olanzapine	32.6%	39.3%	40.0%	38.9%
% on Quetiapine	3.2%	7.7%	12.9%	20.6%
% on Risperidone	32.1%	36.0%	35.8%	37.1%
% on Ziprasidone	--	--	--	3.5%
MPR, mean (SCH only)	81.4%	77.4%	81.2%	82.0%
MPR <= 0.80, % (SCH only)	43.5%	44.3%	39.4%	37.9%
MPR <= 0.50, % (SCH only)	24.5%	23.7%	19.3%	18.5%
concurrent 2+ meds	8.7%	9.6%	10.5%	11.1%
concurrent 2+ meds (SCH only)	10.6%	12.1%	13.7%	15.0%

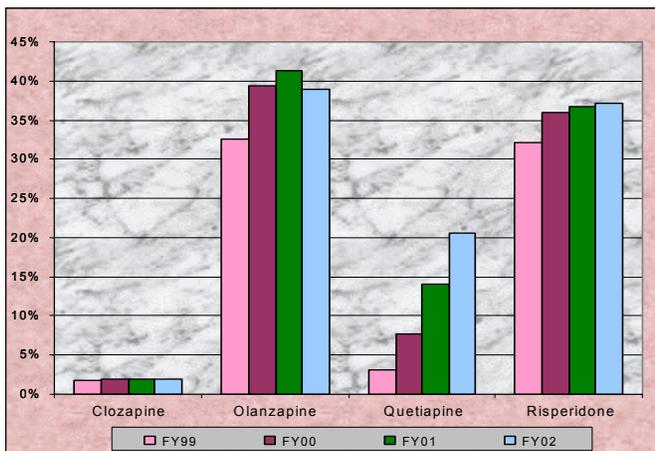
Patients with Schizophrenia:

Variable	FY99	FY00	FY01	FY02
% some antipsychotic fills	73.5%	73.3%	76.1%	77.9%
Fills, #	9.3	8.3	8.3	8.3
% some atypical use	58.7%	70.3%	77.4%	82.0%
% on Clozapine	2.5%	2.7%	2.9%	3.0%
% on Olanzapine	31.8%	38.0%	40.0%	38.4%
% on Risperidone	29.5%	33.7%	35.8%	36.6%
% on Quetiapine	2.9%	7.1%	12.9%	17.9%
% on Ziprasidone	--	--	--	4.0%
Concurrent, %	10.6%	12.1%	13.7%	15.0%
MPR, mean	81.4%	77.4%	81.2%	82.0%
MPR <= 0.80, %	43.5%	44.3%	39.4%	37.9%
MPR <= 0.50, %	24.5%	23.7%	19.3%	18.5%
concurrent 2+ meds	10.6%	12.1%	13.7%	15.0%

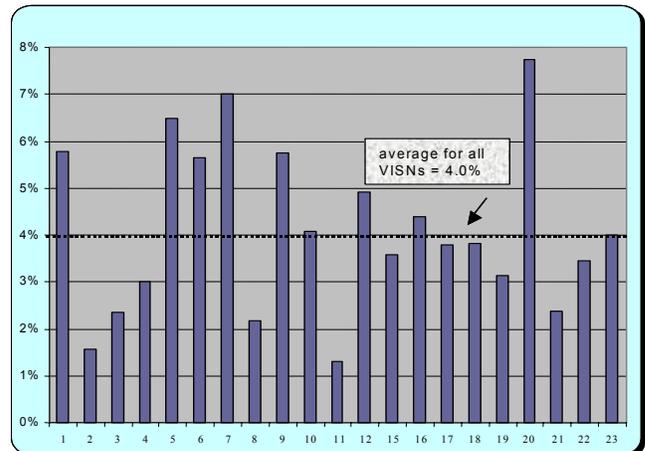
Patients with Bipolar Disorder:

Variable	FY99	FY00	FY01	FY02
% some antipsychotic fills	32.1%	35.2%	40.8%	42.9%
Fills, #	6.5	6.2	6.0	6.1
% some atypical use	69.2%	82.0%	85.5%	89.8%
% on Clozapine	0.2%	0.2%	0.1%	0.2%
% on Olanzapine	36.6%	46.1%	48.6%	44.7%
% on Risperidone	36.5%	37.2%	33.6%	32.4%
% on Quetiapine	4.0%	9.6%	17.3%	26.0%
% on Ziprasidone	--	--	--	2.9%
Concurrent, %	3.9%	4.1%	4.8%	5.0%

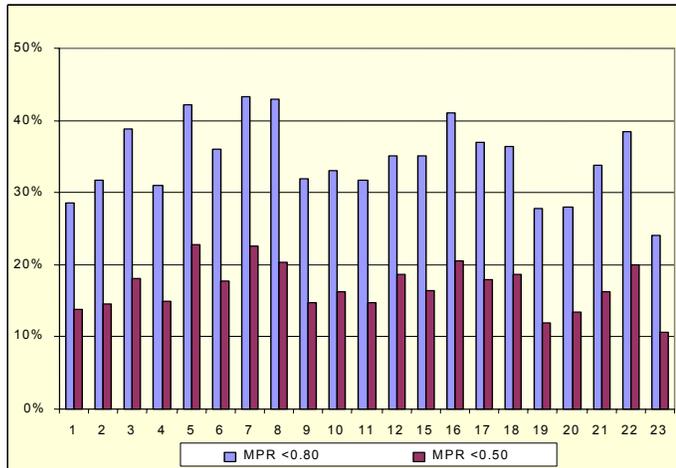
Receipt of Atypical Antipsychotics, among Patients Receiving Some Antipsychotic Medication, %: FY99-FY02



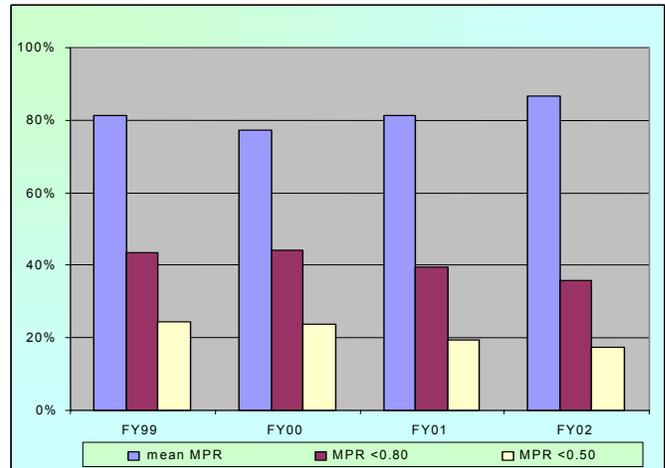
Ziprasidone Use among Patients with Schizophrenia Receiving Some Medication, %: FY02



Antipsychotic Medication Adherence (via MPR) among Patients with Schizophrenia receiving some Antipsychotic Medication, by VISN: FY02



Medication Adherence (via MPR): FY99-FY02



Costs

To provide the broadest range of information, we report on total costs obtained from ARC for NPR patients, as well as the relative costs of psychiatric and medical care and of inpatient and outpatient care. We also report on 15 specific cost centers.

- Total costs:
 - Total cost for patients with psychosis was close to \$3B.
 - Total costs for population down 4.2% to \$2.95 billion since last year with most of decrease coming from inpatient treatment, which declined sharply for third year.
 - SCH represented 47% of NPR patients and 52.4% of total costs
- Per patient costs:
 - Average spent per patient was \$14,370 with \$6,515 for OP care, \$4,849 for IP care, \$1,695 in pharmacy costs.
 - Per patient costs also dropped rather sharply to \$14,370 in FY02 (down 8.3%).
 - Total cost per patient varied greatly between VISNs, from \$9,986 to \$21,462 with costs for outpatient, inpatient and pharmacy also showing similar ranges.
 - Overall spending per patient was \$16,139 for SCH, \$12,050 for BP, and \$14,207 for Other Psychoses.
- Service location costs:
 - 32.3% of total costs were for psychiatric care.
 - After rising substantially in FY01, average outpatient costs also decreased 6.1% last year to \$6,515.
 - Despite rapid gains the past few year, pharmacy increase slowed to only 3.2% (mean = \$1,695).
 - Decline in the fraction of cost for psychiatric care continues, down to 32.3% in FY02 as compared to 41.0% in FY99.
 - Across VISNs the percentage of total costs attributed to psychiatry ranged from 23.1% to 39.6% and the portion due to pharmacy varied between 7.3% to 17.2%
 - SCH had higher IP costs than BP (\$5,536 vs. \$3,751)
 - SCH had approximately 20% higher pharmacy costs than BP.

Variable	FY99	FY00	FY01	FY02
Total Cost	\$2.9B	\$2.8B	\$3.1B	\$2.9B
\$ per patient	\$15,593	\$14,518	\$15,673	\$14,370
Outpatient \$ per patient	\$5,893	\$5,553	\$6,939	\$6,515
Hospital \$ per patient	\$6,908	\$6,471	\$5,597	\$4,849

Variable	FY99	FY00	FY01	FY02
Other \$ per patient	\$2,792	\$2,494	\$3,137	\$3,193
Pharmacy \$ per patient	\$1,356	\$1,374	\$1,642	\$1,695
Psych costs %	41.0%	40.3%	34.6%	32.3%
Costs other station, %	5.1%	4.5%	4.2%	4.1%
Costs other VISN, %	1.8%	1.7%	1.6%	1.6%

* Cost data source is the Allocation Resource Center (ARC). Cost data in FY99 and FY01 were derived from Cost Distribution Report data (CDR). FY01 was a transitional year in which cost data were calculated from the CDR and also from Decision Support System (DSS) data. This report presents DSS costs data.

** Analysis of ARC's CDR and DSS-generated FY01 costs indicate that DSS cost estimates were 7.84% greater than ARC's CDR-based estimates. For these comparisons, where actual CDR measures were not available, FY01 DSS costs were adjusted.

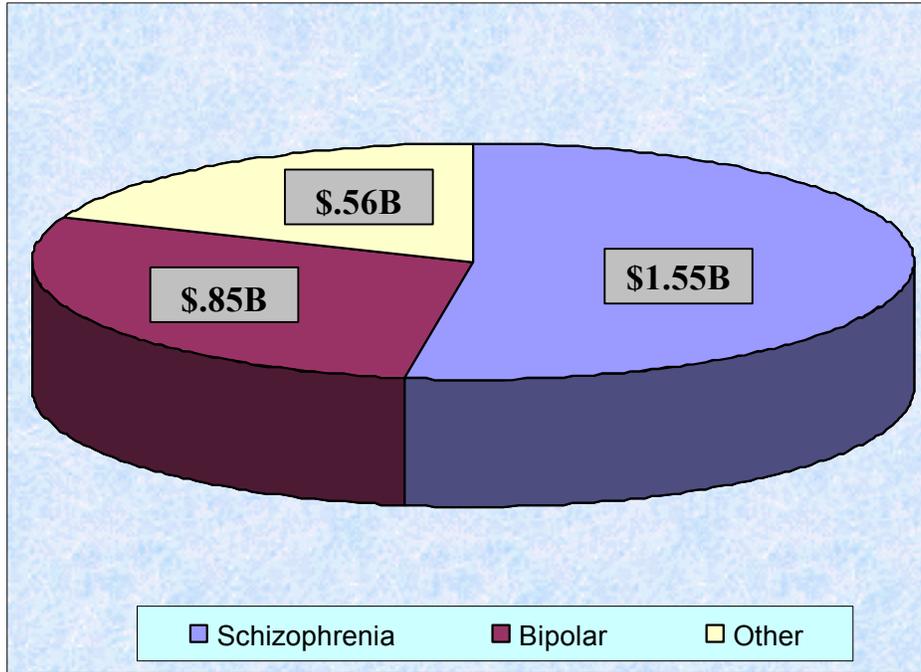
Patients with Schizophrenia:

Variable	FY99	FY00	FY01	FY02
Total SCH population	104,593	102,295	98,739	95,875
Total cost, all	\$1.8B	\$1.6B	\$1.7B	\$1.5B
Costs, per patient	\$16,926	\$15,810	\$17,182	\$16,139
Costs, OP	\$6,177	\$5,928	\$7,249	\$6,815
Costs, IP	\$7,614	\$7,180	\$6,304	\$5,536
Costs, other	\$2,981	\$2,802	\$3,629	\$3,789
Costs, pharmacy	\$1,475	\$1,520	\$1,807	\$1,904
Psych, %	44.9%	44.4%	38.5%	36.2%

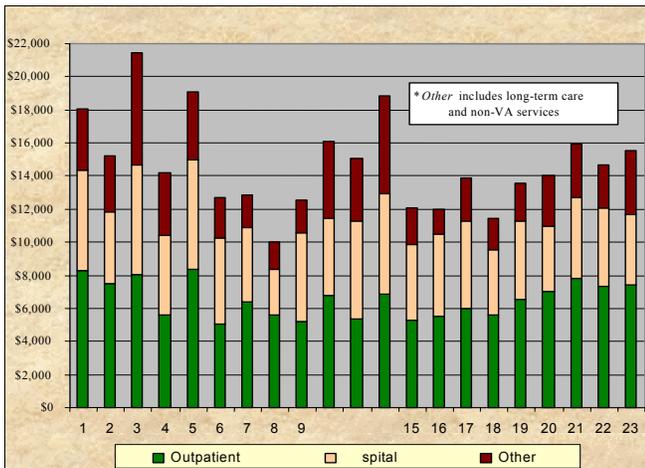
Patients with Bipolar Disorder:

Variable	FY99	FY00	FY01	FY02
Total BP population	59,938	61,992	65,556	70,345
Total cost, all	\$7.8M	\$7.5M	\$8.6M	\$8.5M
Costs, per patient	\$13,035	\$12,102	\$13,208	\$12,050
Costs, OP	\$5,677	\$5,323	\$6,767	\$6,233
Costs, IP	\$5,468	\$5,020	\$4,303	\$3,751
Costs, other	\$1,889	\$1,751	\$2,111	\$2,066
Costs, pharmacy	\$1,246	\$1,233	\$1,513	\$1,537
Psych, %	41.6%	40.9%	35.8%	34.5%

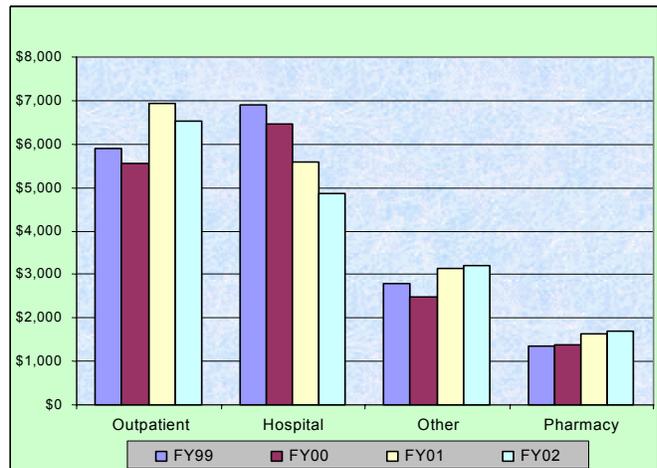
Total Costs, by diagnosis: FY02



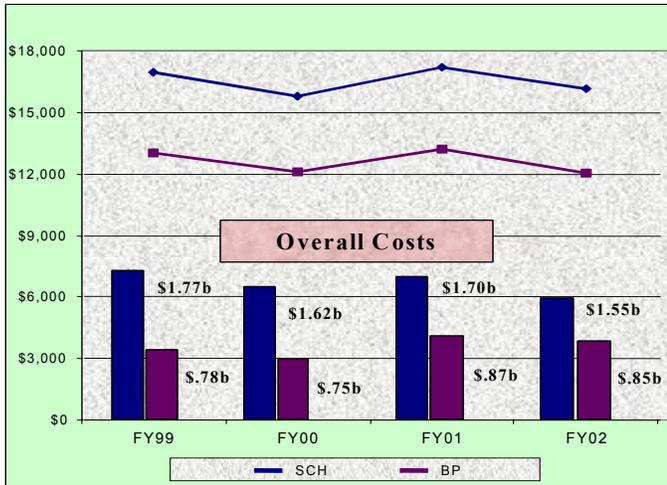
Average Cost per Patient, by VISN: FY02



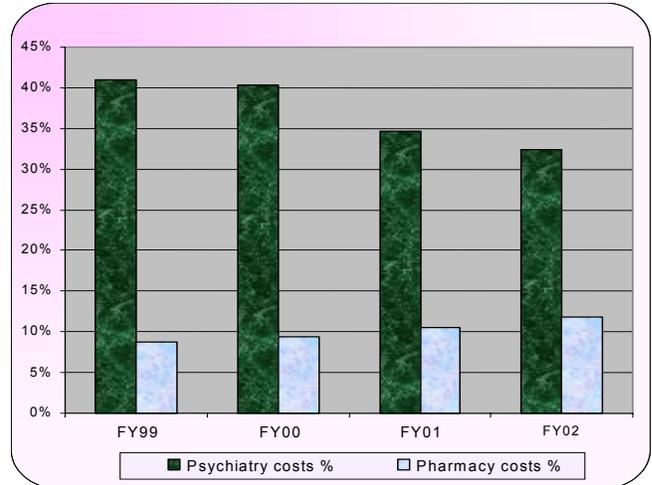
Average Cost per Patient, by sector: FY99-FY02



**Total Costs per Patient, by diagnosis:
FY99-FY02**



**Psychiatric and Pharmacy Costs, as % of
Total Costs: FY99-FY02**



Future Directions

The annual “Care in the VHA for Veterans with Psychosis” report was designed to present a comprehensive summary of all treatment provided to seriously mentally ill veterans. It provides information essential to inform decision makers in VHA as they continue to struggle to implement practice guidelines, assure compliance with existing mandates and to optimize the efficient delivery of high quality care.

This annual National Psychosis Registry Report is intended to evolve over time to encompass and respond to the needs of its readers. We hope to have a web based data warehouse for next year’s data to allow individual readers to access the information most helpful for them. We will also be providing longitudinal comparisons on the VISN level as well as the national level.

As always, SMITREC welcomes feedback and suggestions regarding ways to improve the presentation of data, the interpretation of findings, or the incorporation of additional variables of interest.

Background

This report focuses on the most vulnerable of those patients with mental illness, those with psychosis. In addition to the chronicity, medication side effects and diminished function, numerous studies indicate that patients with mental illness, especially psychosis, have a greater risk of premature death than the general population (Dembling, Chen, & Vachon, 1999; Black, 1998). There is also evidence that patients with psychosis have higher rates of medical comorbidities (Dalmau, Bergman, & Brismar, 1997) and that there are large numbers who do not receive adequate medical care (Brugha, Wing, & Smith, 1989; Maricle, Hoffman, Bloom, Faulkner, & Keepers, 1987). Caring for this vulnerable population represents a major and costly responsibility for the VHA. In FY02, VHA provided medical and psychiatric care for 205,620 patients with psychosis, at a cost of \$2,954,765,790.

Many characteristics of the population of veterans with psychosis and of the services provided them by VHA are analyzed at the national level, by VISN and for each station. These include descriptive characteristics such as diagnosis, demographics, functional status, mortality rates, VERA patient class and distance from closest VA facility.

Along with health care systems nationwide, the VHA has been rapidly moving from an inpatient to an outpatient model for the provision of general and mental health services. This has led to a greater reliance on community-based programs, intensive case management and care management techniques (VHA, 1998). In order to ensure that these services would in fact provide adequate care for vulnerable patients, Congress passed Public Law 104-262, the Veterans Healthcare Eligibility Reform Act of 1996. It requires that VA "...maintain its capacity to provide for the specialized treatment and rehabilitation needs of disabled veterans... within distinct programs or facilities...that are dedicated to the specialized needs of those veterans in a manner that (A) affords those veterans reasonable access to care and services ...and (B) ensures that overall capacity...is not reduced below the capacity...nationwide...as of October, 1996."

This fourth annual "Care in the VHA for Veterans with Psychosis" report provides information to the VHA and its VISNs, to assist in monitoring the maintenance of the capacity to treat its SMI population. The VHA's patients with psychosis, the services provided them and the costs associated with these services are described nationally, by VISN and by station, allowing for assessment of similarities and differences, along with trends over time. Of special interest are the various ways in which networks organize their services and direct their resources.

The use of antipsychotic medications is described in a separate chapter. The reporting of pharmacy data provides VHA with information on the use of typical versus atypical antipsychotic medications, with special attention paid to Clozapine usage and to what percentage of patients with psychosis are receiving any appropriate medications in the amounts required to adequately treat their conditions.

"Care for Veterans with Psychosis in the VHA, FY02" paints a timely picture of the state of care for patients with psychosis within the VHA. As differences in treatment and spending priorities emerge, the possible impact of these differences on patient well-being will be explored, supporting efforts to provide the highest quality of treatment possible.

SMITREC

Public Law 101-507 provided additional financial resources to enhance the care of seriously mentally ill veterans who had been institutionalized in VA medical centers. In compliance with this legislation, the VHA developed the Long Term Mental Health Enhancement Program (now SMITREC) to: 1) support the discharge and maintenance in the community of veterans with serious mental illnesses and a history of institutional dependence; 2) decrease excess mortality; 3) improve recruitment, morale, and retention of clinical care providers for the seriously mentally ill, and 4) develop the capacity of clinicians and managers to identify, conceptualize, and prepare plans to improve and enhance the long-term care of veterans with serious mental illnesses.

Central program enhancement funds were apportioned by Congress to establish new specialized programs for veterans with serious and persistent mental illnesses to facilities traditionally most involved in the care of these patients. SMITREC was established as part of this funding mechanism to monitor and evaluate the transition of care for the seriously mentally ill and to provide policy makers and clinical administrators with data that would assist in the development of alternatives to long-term institutional care. With the reorganization of the VHA and a shift of emphasis from inpatient to outpatient care, SMITREC's evaluation and monitoring role currently includes the impact of deinstitutionalization on access to care, course of treatment, cost of care, medication prescription practices, and outcomes (e.g. quality of life, patient satisfaction, functioning, symptomatology, loss to VA care, homelessness).

The Psychosis Registry

Following the recommendation of the Committee on Care of Severely Chronically Mentally Ill Veterans, the Serious Mental Illness Treatment Research and Evaluation Center (SMITREC) developed the Psychosis Registry in 1998. The Psychosis Registry is an ongoing registry of all veterans diagnosed with psychosis (schizophrenia other than latent, schizoaffective disorder, bipolar disorders, and other non-organic psychoses) who have received VHA services from 1988 to the present. Thus, the registry consists of records for all patients who received a diagnosis of psychosis during inpatient stays for FY88-FY02 and during outpatient visits for FY97-00.

The Psychosis Registry has been and will be used for a number of different analyses. In late 1999, SMITREC presented a white paper to the VA titled "Veterans with Psychosis in the VHA FY89-FY98: Access to Care, Loss to Follow-up, and Mortality" which studied trends in health care utilization, deinstitutionalization, capacity, mortality, and other issues related to the care of the seriously mentally ill veterans in the VHA. Current and upcoming areas of work, and recent publications, include: "Gender differences in the diagnosis and treatment of serious mental illnesses in the VHA: Special issues for women veterans", "Health care utilization among patients with schizophrenia and diabetes", "Ethnicity and diagnostic patterns among SMI veterans", "Influence of aging and diagnosis upon utilization", "Accessibility Barriers to Care among Veterans with Psychoses", "Patient and Treatment Correlates of Psychiatric Disorders Among Individuals in VA Nursing Home and Community Residential Care", "Health Services Needs of Aging Veterans with Schizophrenia", "Major Psychotic Disorders as Predictors of Outcome in Surgical Patients", "Determinants of Treatment Retention for Veterans with Psychoses", "Atypical antipsychotic use across ethnic groups", "Excess Mortality Among Veterans with Serious Mental Illness", "Pharmacy data identifies poorly adherent patients at increased risk for admission", and "Poor Antipsychotic Adherence Among Patients with Schizophrenia: Medication and Patient Factors" (Valenstein et al., 2002; Valenstein et al., in press, *Schizophrenia Bulletin*). Based upon medication compliance findings in previous Reports, a multi-site grant has also been funded and is now underway to improve compliance among SMI veterans.

Report Overview and Structure

Registry patients were identified using data obtained from the VA Patient Treatment File (PTF), census data files, and Outpatient Care Files (OPC) located at the Austin Automation Center in Texas and were included provided they had at least one qualifying psychosis diagnosis in the FY02 inpatient or outpatient data. Qualifying diagnoses included schizophrenia disorders other than latent, schizoaffective disorder, bipolar disorders, and other non-organic psychoses. (See Appendix A for specific ICD-9 codes included.)

Because the treatment needs and disease course differ substantially among diagnoses, variables are reported for each group separately and collectively. Patients often receive more than one diagnosis over time or even during one episode of care. Patients were therefore “assigned” to the diagnosis which appeared in the greatest number of episodes of care during FY02. Ties were resolved using a rank ordering of 1) schizophrenia, 2) bipolar disorder and 3) other psychosis.

The VA Site Tracking (VAST) system was used to identify parent station groupings among VISNs and each patient was assigned to a station bases on where they had the most inpatient and outpatient utilization in FY02. This algorithm assessed one inpatient day of stay as equivalent to two outpatient visit days in order to account for the possibility of one inpatient stay unreasonably affecting the outcome.

The Report consists of five chapters, each focusing on a specific domain of interest to the VA. These domains include demographics, patient characteristics, utilization, use of anti-psychotic medication and cost. Each chapter includes discussion of the domain, global tables offering an overview of the entire VA and tables comparing the same variables across VISNs. Our web site (<http://www.va.gov/annarbor-hsrd/>) presents these variables for each station, organized by VISN.