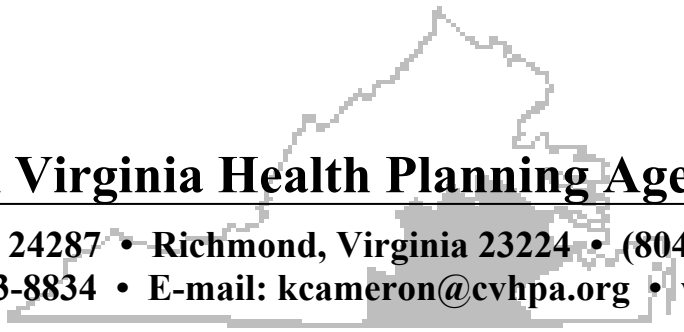
Planning District 19 Mental Health Task Force

Summary of Findings and Recommendations

February 2003

Sponsored by:
John Randolph Foundation

Prepared by:



Central Virginia Health Planning Agency, Inc.

P.O. Box 24287 • Richmond, Virginia 23224 • (804) 233-6206
Fax: (804) 233-8834 • E-mail: kcameron@cvhpa.org • www.cvhpa.org

PLANNING DISTRICT 19 MENTAL HEALTH TASK FORCE SUMMARY OF FINDINGS AND RECOMMENDATIONS

During its review of the Virginia Health Information's database for 2000, the Central Virginia Health Planning Agency (CVHPA) noted that the psychoses diagnoses, which include a range of mental health disorders, constituted the top DRG (diagnostic related group) among both Planning District (PD) 19's hospital facilities and residents. PD 19 includes the Cities of Colonial Heights, Emporia, Hopewell, and Petersburg and the Counties of Dinwiddie, Greensville, Prince George, Surry, and Sussex (Attachment 1). **Based on the CVHPA's analysis of this database, it was found that in Planning District 19, 12.9% of the planning district's *facilities*' discharges were for mental illness diagnoses. However, only 8.8% of its planning district's *population's* discharges were for mental illness diagnoses.** The difference between 12.9% and 8.8% reveals that the facilities in Planning District 19 admit more people who reside outside of the planning district than the number of PD 19 residents who are admitted at facilities outside of the planning district for mental health care. **As a point of comparison, only 4.9% of the State's total discharges were for mental illness diagnoses.**

As a point of clarification, the PD 19 Mental Health Task Force focused its initial efforts on psychiatric discharges, fully recognizing that most psychiatric illnesses include a substance abuse component as well. The psychiatric data utilized in this review probably include some substance abuse data. It is recognized by the task force that since reimbursement for substance abuse is limited, it is frequently not reported or coded.

This psychiatric utilization pattern for PD 19 has not changed significantly from prior years. With this knowledge and its understanding of the impact of mental illness on the area, the CVHPA believed that this issue needed to be assessed further and an informed approach to a comprehensive mental health plan for PD 19's communities needed to be developed. Therefore, the CVHPA submitted and received a grant from the John Randolph Foundation in July 2002 to facilitate a multidisciplinary group and develop an approach to a comprehensive mental health plan for PD 19. The task force's purpose is to address the relatively high levels of inpatient mental health admissions by PD 19 residents', by identifying factors likely causing these high levels and, if appropriate, proposing initiatives that offer promise to decrease these levels while improving the quality of patients' lives.

Concurrent to the CVHPA's grant request, Southside Outpatient Behavioral Health Services (SOBHS) submitted a grant request for a medication access program. SOBHS had noticed readmissions were increasing and they hypothesized that one reason may be that some patients do not have access to medications. As a result of their concept paper, SOBHS was asked to participate on the PD 19 Mental Health Task Force since they had identified a particular contributing cause of inpatient utilization to be addressed by the task force. In addition, the participation on the task force might help refine this proposal based on the task force's discussion.

The CVHPA convened a task force of the representatives from the mental health and primary care professions, the John Randolph Foundation, and the CVHPA. The task force met on May 13, July 15, September 23, November 21, 2002, and January 23, 2003. The following is a list of the task force's membership:

Central Virginia Health Services	*Rod Manifold*
District 19 Community Services Board	*Kelly Furgurson*
Hopewell Health Department	*Carol Hundley*
Hospitals	
Central State	*Ron Forbes, M.D.*
CJW Medical Center -Tucker	*Trula Minton*
John Randolph Medical Center	*Kamala Agarwal, M.D., Kathy Butler, Allison Korbin, Jean Poindexter*
Poplar Springs	*Tony Vadella*
Southside Regional Medical Center	*Ginny Crozier, Vicki Durnford*
John Randolph Foundation	*Bob Marcello*
Virginia Department of Mental Health	*John Dool*
Central Virginia Health Planning Agency	*Karen Cameron, Elizabeth Farrell*

This report provides a summary of the data and information collected, analyzed, and reviewed by the PD 19 Mental Health Task Force. The CVHPA would like to thank Anson Williams with Virginia Health Information (VHI) and John Dool with the Department of Mental Health, Mental Retardation, and Substance Abuse Services (DMHMRSAS) for their assistance in collecting the data for the task force to review. We also greatly appreciate the John Randolph Foundation for assisting with the financial support for the project as well as hosting these meetings.

SUMMARY OF FINDINGS

The following is a list of the key findings from the data reviewed by the task force. Two points of clarification should be noted: 1) unless otherwise noted, the time frame is calendar year 2000; and 2) the "principal diagnosis" refers to the main clinical reason for a patient's hospital admission.

1. PD 19's inpatient psychiatric utilization and readmission rates are the highest of any planning district in Virginia.
2. In response to managed care, the psychiatric use rate has declined from its peak in 1994, but PD 19's facilities' decline in utilization has been less than half of neighboring PD 15's decrease.
3. The top three psychiatric APRDRGs (all payer refined diagnosis related groups) for PD 19 are: 1) psychoses; 2) schizophrenia; and 3) bipolar disorders.
4. During the time period from 1995-2001, 4.3% of all emergency department visits to PD 19's facilities were for behavioral health problems.

5. The presence of a state psychiatric facility and/or military base, which could potentially have an impact, does not account for PD 19's overall high utilization or readmission rates.
6. In all age groups, the PD 19 readmission rates at both the 30 and the 90-day time periods are higher than the State's, especially for the 19 to 39 age group and the 40 to 64 age group.
7. Seven principal diagnoses account for approximately 62% of the total number of readmissions within 90 days in PD 19.
8. Nine physicians account for approximately 80% of the readmissions in PD 19.
9. Approximately 30% of District 19 Community Service Board's (CSB) emergency services clients come from outside District 19's catchment area.
10. District 19 CSB has limited and decreasing outpatient resources to meet the needs of its clients.

The report is divided into the following sections:

- Overview of mental illness
- Suicide data
- Mental health utilization (non-state facilities)
- State facility utilization
- Fort Lee utilization
- Assisted living facilities utilization
- Inpatient psychiatric readmission percentages
- Characteristics of PD 19 readmissions
- Involuntary hospitalizations/Community Service Boards (CSBs)
- Financial issues
- Alternatives to inpatient treatment
- Recommendations

OVERVIEW OF MENTAL ILLNESS

Mental health illness is inclusive of many diseases of behavioral health and substance abuse/dependence classification. Much research has been conducted in the last decade related to neuropsychiatry and the physiological changes to the neurological system, which gives a biological base to many diseases, including depression, bipolar disorder, schizophrenia, alcohol abuse/dependence, and drug addiction.

This report focuses on mental illnesses as substance abuse frequently is under reported. This task force recognizes the significant impact of substance abuse on the community as it relates to emergency department visits, patients' failure to take medications, and increased health care utilization. However, because substance abuse is under reported, it does not significantly appear in most data reporting systems and, therefore, it is difficult to obtain accurate and adequate substance abuse data for analysis.

Of these diseases, some are chronic in nature, requiring treatment and support for persons throughout their lives. These chronic illnesses require medication and therapies as well as

hospitalizations (thought disorders such as schizophrenia and other types of psychosis). Other illnesses may be episodic in nature, such as depression, triggered by such events as grief, loss, or physical illness. An additional example includes trauma caused by sexual or physical abuse of children or adolescents, which precipitates failures in school, depression, suicide, or violent behaviors.

The prevalence of mental health illness is significant. According to the January 2001 report by The National Institute of Mental Health, *The Numbers Count: Mental Disorders in America*, an estimated 22.1% of Americans 18 and older (about one in five adults) suffer from a diagnosable mental disorder in a given year. This estimate translates into approximately 28,000 people (18 years and older) in PD 19 who would be expected to suffer from a diagnosable mental disorder in any given year, based on national prevalence of selected mental health disorders (Table 1).

Additional information about mental illness was obtained from a presentation by Dr. Anita Everett at a 2002 summit on Integrating Behavioral Health Care in the Primary Care Settings:

1) Many people with diagnosable mental illness are likely to seek help from a primary care physician.
2) In national studies, the most common reasons given by people for not seeking treatment are the belief that the problem would go away or that they could handle the problem on their own.
3) Among the top ten conditions leading to disability worldwide are: depression; bipolar disorder; schizophrenia, and obsessive compulsive disorder.

SUICIDE DATA

Data from the *2000 Virginia Health Statistics Annual Report* published by the Virginia Department of Health's Center for Health Statistics revealed that in 2000, there were 770 suicides in Virginia. Eighteen suicides occurred in PD 19, which represents 2.3% of the State's total. **In 2000, the age adjusted death rate per 100,000 population due to suicide was 10.8 for Virginia and 10.6 for PD 19.** Within PD 19, the age adjusted death rate due to suicide was between 9.1 (Petersburg) and 17.8 (Greensville) in 2000. **Note that the relatively small number of deaths in any one locality can result in wide fluctuations in rates**; however, in general, from 1998 to 2000, the age adjusted rate for suicide was higher in PD 19's counties than in its cities. Potential reasons for this could be the isolation that can occur in rural counties as well as the limited access to or availability of mental health services.

Age Adjusted Rates per 100,000 Population for Suicide

Location	1998		1999		2000	
	Number	Rate	Number	Rate	Number	Rate
Virginia	827	11.1	813	11.9	770	10.8
Planning District 19	**26**	**14.5**	**28**	**17.4**	**18**	**10.6**
Colonial Heights City	6	19.0	2	9.0	2	13.2
Dinwiddie County	7	34.3	7	30.8	4	14.8
Emporia City	0	0	1	25.5	0	0
Greensville County	1	10.2	2	20.1	2	17.8
Hopewell City	3	9.8	5	22.0	2	10.1
Petersburg City	3	8.8	5	14.0	3	9.1
Prince George County	4	12.4	3	10.9	4	14.3
Surry County	0	0	0	0	1	12.5
Sussex County	2	16.5	3	32.6	0	0

Sources: Virginia Health Statistics Annual Reports 1998, 1999, and 2000 (VA Department of Health, Center for Health Statistics)

MENTAL HEALTH UTILIZATION (NON-STATE FACILITIES)

Table 2 provides the following data for PD 19's three facilities with psychiatric beds (John Randolph Medical Center, Poplar Springs Hospital, and Southside Regional Medical Center) for 1999 to 2001: licensed and staffed beds, occupancy rates, discharges, inpatient and discharge days, and average length of stay. From the table, several items are noted:

1) the occupancy rate, whether based on licensed or staffed beds, has increased approximately 20% over the three year period, with John Randolph Medical Center showing the largest change in occupancy rate (primarily due to closure of beds)
2) the average occupancy rate for staffed beds in 2001 for PD 19 was 86.3%, which indicates limited excess capacity
3) the number of discharges from PD 19's psych beds has increased by 15.7% during the three year period, with Poplar Springs showing the biggest increase (27.0%)
4) inpatient days and discharges days have increased by 23.6% and 24.8%, respectively, with Southside Regional Medical Center experiencing the largest increase (32.0% for inpatient days and 30.7% for discharges days)
5) the average length of stay has increased by 8.4% during the three year period, with Southside Regional Medical Center having the largest increase (21.2%).

When reviewing statistics from facilities, two things need to be kept in mind. Average occupancy rates can be misleading. That is, just because a facility has an average 75% occupancy rate of licensed beds, it may not be capable of admitting additional patients when the need arises. When psychiatric patients are admitted, the patient's gender, acuity, and diagnosis must be considered in making a bed assignment. Moreover, trained

staff must be available to care for patients in order for a licensed bed to be available. *Thus, licensed bed capacity does not necessarily mean that an available or an appropriate bed exists.*

Comparison of use rates provides one method of analyzing differences between population groups. **As shown in Table 3, PD 19's residents had the highest number of discharges per 1,000 population of any planning district in the State. In fact, at 18.07 discharges per 1,000 population, PD 19's use rate is two and a half times greater than the State's overall rate and 50% greater than the next highest district, PD 15 (greater Richmond area).**

PD 19's acute care inpatient psychiatric use rate per 1,000 population, based on facility utilization (not specific to PD 19 residents), was 12.65 in 2000 (representing 2,115 discharges), almost 30% higher than PD 15's (greater Richmond area) psychiatric use rate per 1,000 population of 9.77. As shown in Table 4, inpatient psychiatric use rates for both planning districts peaked in 1994. In response to the growth of managed care, PD 15's use rate dropped 16.7% while PD 19's decreased only 7.7% from 1994 to 2000, even though it was considerably larger to begin with. This may reflect fewer patients with managed care and/or private insurance coverage, relatively fewer available outpatient services and more inpatient bed availability (compared to other geographical areas), greater acuity levels of mental illness, or a number of other factors. **Thus, PD 19's facilities' use rate is 29.5% higher than PD 15's and 61.8% higher than the State's rate.**

Characteristics of PD 19 Psychiatric Inpatients

In 2000, the top three APRDRGs for PD 19 residents with a psychiatric admission, with the percentage of patients in parentheses, are: 1) psychoses (40.9%); 2) schizophrenia (26.2%); and 3) bipolar disorders (13.1%). The top discharge placements in 2000 for PD 19 are: 1) home/self care (83.7%); 2) transfer to other inpatient or outpatient (6.3%); and 3) against medical advice (AMA) (4.8%). For these top three APRDRGs, schizophrenia follows the same discharge placement order as the PD; however, for psychoses and bipolar disorders, the top discharge placement is home/self care and the next is AMA, followed closely by transfer to other inpatient or outpatient. Of the 146 patients who left AMA, patients with psychoses represented 45.2% of the total.

Emergency Department Behavioral Visits

In addition to reviewing use rates, the percentage of emergency department behavioral visits was reviewed. The emergency department can serve as a point of entry for psychiatric care for those without any health insurance or without a physician or community based point of care. The average percentage of emergency department behavioral visits to the total number of emergency department visits in PD 19 from 1995 to 2001 was 4.3% compared to 3.4% for Health Planning Region (HPR) IV for the same time period. **When each year is reviewed individually, PD 19's percentage of behavioral emergency department visits compared to HPR IV's percentage of**

behavioral emergency department visits is higher for all years but 2001. Thus, it appears that the hospital emergency departments in PD 19 generally are used more for mental health than those in other Planning Districts within HPR IV (Table 5). The 2001 change appears to reflect a large increase in behavioral health visits in PD 15, possibly due to the closure of Capitol Medical Center's psychiatric beds, and a large decrease in behavioral health visits at Southside Regional Medical Center, perhaps reflecting a data reporting change.

STATE FACILITY UTILIZATION

To assess the impact that the state hospital may have in PD 19, data were obtained from Central State Hospital and Southern Virginia Mental Health Institute, the primary state hospitals that serve PD 19. Data were reviewed by discharge placement as well as by ICD-9 codes. The top three discharge dispositions from 1998 to 2001 have been: 1) court (37.8%); 2) family (20.1%) and 3) own home (18.4%). The trend has remained consistent for several years. The top three ICD-9 codes (diagnostic codes that are aggregated into diagnostic groups, i.e. DRGs), are schizophrenia type; major depressive disorder (MDD) and bipolar; and alcohol and substance abuse disorders. This pattern has been the same for the past several years, as shown in the following table:

State Facility Discharges from Planning District 19 by Top ICD-9 Codes

Time Period	Total Discharges	Schizophrenia type	MDD and bipolar	Alcohol/substance abuse disorders
1998	1,957	31.3%	19.5%	16.5%
1999	1,476	36.4%	22.8%	12.0%
2000	1,012	42.7%	18.6%	13.4%
2001	769	41.9%	20.2%	11.2%

Source: Department of Mental Health, Mental Retardation, and Substance Abuse Services (DMHMRSAS)

Note that State facility discharges in 2000 were equal to approximately a fourth of all psychiatric discharges from PD 19 facilities (3,913 discharges) and that between 1998 and 2000, PD 19 state facilities had 945 fewer discharges. During the same time period, private facilities experienced an increase of 242 discharges or 6% of 2000's total discharges.

It should be noted that state facilities are primarily dealing with the rehabilitative component of psychiatric treatment while the private facilities are primarily dealing with crisis stabilization. This dissimilarity in services may be partially evidenced by the difference between the 945 fewer discharges from the state facilities and the 242 increase in the discharges from the private facilities. However, it is difficult to conclude any relationships between these changes. Therefore, additional study would be necessary to fully understand the impact of a reduction in state hospital discharges on private sector impatient care. However, state hospital discharges likely place pressure on the community's resources, such as social services and housing.

FORT LEE UTILIZATION

To assess the impact the active duty military population may have on Planning District 19, the total number of inpatient psychiatric discharges in 2000 for the Fort Lee zip code was obtained. These discharges represent approximately 3.2% of the total discharges for hospitals in PD 19 in 2000. **Thus, the impact does not appear to be significant, and a conversation with a representative from Fort Lee revealed that the psychiatric admission rate (whether calculated on number or percent) for PD 19 is slightly lower than the Tidewater area.** However, we are aware that not all military personnel reside within this specific zip code.

Data provided by the Kenner Army Health Clinic reveals an increase of 267% in acute duty psychiatric admissions from FY 1999 (72 admissions) to FY 2002 (192 admissions annualized). It was noted that the number of recruits increased significantly after September 11, 2001, potentially reducing the level of prescreening for recruits that may have adjustment issues to military life or pre-existing serious psychiatric problems.

ASSISTED LIVING FACILITIES UTILIZATION

Statistics from assisted living facilities in HPR IV were reviewed. Assisted living facilities can provide an alternative option for some psychiatric patients. As of 2001, twenty-five licensed assisted living facilities, with a total of 889 beds, are located in PD 19. The assisted living beds per adult population ratios were calculated for both PD 19 and HPR IV. This ratio for PD 19 is 7.00 and for HPR IV, it is 8.26. **Therefore, it appears that there is not an unusually large capacity of assisted living beds in PD 19.**

INPATIENT PSYCHIATRIC READMISSION PERCENTAGES

In order to identify the characteristics of patients admitted, the task force began to focus on the inpatient psychiatric readmission rate for PD 19's population in private inpatient facilities, comparing it to Virginia's private facilities' readmission rate as a whole. This readmission rate can help assess potential problem areas such as limited community resources to manage discharged patients and/or poor access to or compliance with prescribed medications. Virginia's inpatient psychiatric readmission rate was compared with PD 19. Two time frames were selected to calculate the readmission rate: within 30 days of discharge and within 90 days of discharge.

The 30 day and 90 day readmission rate percentages for PD 19 residents are significantly higher than the State's rate for 2000. The following chart compares the readmission rate within 30 days and within 90 days for the State and for PD 19 for 2000:

Readmission Percentage by State and Planning District 19

Time Period	State	PD 19
Readmission within 30 days	15.3%	20.9%
Readmission within 31 to 90 days	25.8%	35.2%

Source: Virginia Health Information (VHI)

In all age groups, the PD 19 readmission rate at both the 30 and the 90-day time periods is higher than the State's. The difference between the State and PD 19 is noteworthy in the 19 to 39 age group and the 40 to 64 age group (Table 6). Moreover, the average length of stay did not seem to be a cause for the differences in readmission between PD 19 and the State.

This analysis was expanded to review the readmission rate for all of Virginia's 21 planning districts for 2000 (Table 3). The five planning districts with the highest readmission percentages within 90 days (based on their residents' inpatient utilization) are shown in the chart below. Of these five planning districts, only PD 19 has a state hospital located within the PD. The presence of a state facility in a planning district and its relative contribution to the planning district's readmission rate has not been determined and requires further study.

Psychiatric Readmissions by Planning District

Planning District	Area	Readmission Percent	Discharges per 1,000
Planning District 19	Tri-Cities	35.8%	18.1
Planning District 15	Richmond	34.4%	12.3
Planning District 10	Charlottesville	28.0%	8.4
Planning District 16	Fredericksburg	27.8%	6.9
Planning District 01	Norton	27.7%	4.8

Source: DMHMRSAS, VHI, US Census 2000

In reviewing the psychiatric readmissions for CY 2000 by facility within the PD, the five planning districts with the highest 90-day readmission percentage are listed below. If these percentages are compared with the percentages in the first chart, different percentages for the same planning district will be noted. These differences occurred because the chart's data, which broke out the facilities within the planning district, are based on the facility where the readmission occurred (Table 7).

Psychiatric Readmissions by Facility within Planning District

Planning District	Area	Readmissions within 90 days (%)
Planning District 15	Richmond	33.7%
Planning District 19	Tri-Cities	31.4%
Planning District 22	Eastern Shore	29.9%
Planning District 02	Tazewell	28.6%
Planning District 06	Staunton/Harrisonburg	27.8%

Sources: DMHMRSAS, VHI

Of note, the 90-day readmission percentage in 2000 was 31.1% for John Randolph Medical Center, 41.4% for Southside Regional Medical Center, and 25.2% for Poplar Springs.

CHARACTERISTICS OF PD 19 READMISSIONS

The rate of readmissions calculates the number of times during a specified time period that a patient returns for treatment of the same diagnosis. It should be noted that a certain level of readmissions are expected due to the chronic and debilitating nature of mental health illnesses. The readmission rates do reveal which groups of patients, based on their diagnoses and/or other characteristics, are repeatedly using inpatient services. These diagnoses and/or other characteristics should be reviewed to determine if alternative services could better meet these patients' treatment needs.

Specific readmissions data were reviewed in more detail for PD 19. The following sections are contained in this review: the all payer refined diagnosis related groups (APRDRGs), the principal diagnoses, payer, and physicians.

APRDRG

The APRDRG categorizes related diagnoses for all payers into various groups. In reviewing the readmission rates for PD 19 and Virginia by the APRDRG, the following chart shows the ranking, based on percentages, of the top three APRDRGs. These three APRDRGs account for approximately 88% of the readmissions within both 30 days and 90 days for PD 19 (Table 8).

Psychiatric Readmissions by APRDRG

	READMISSIONS WITHIN 30 DAYS				**READMISSIONS WITHIN 90 DAYS**			
	Number		**Percent**		**Number**		**Percent**	
	PD 19	VA	**PD 19**	VA	**PD 19**	VA	**PD 19**	VA
APRDRG								
Schizophrenia	**246**	2274	**30.9%**	23.8%	**407**	3715	**51.1%**	38.9%
Bipolar disorder	**102**	1440	**24.6%**	16.7%	**170**	2411	**41.0%**	27.9%
Psychoses	**222**	2410	**18.9%**	14.0%	**387**	4047	**32.9%**	23.5%

Source: VHI

Principal Diagnosis

The principal diagnosis refers to the main clinical reason for a patient's hospital admission. Diagnoses are more detailed than the APRDRGs and are combined into one of 956 APRDRGs. In reviewing the readmissions by principal diagnosis for 2000, it was found that seven principal diagnoses had the highest number of readmissions within 30

and 90 days for PD 19. These seven principal diagnoses account for approximately 62.3% of the total number of readmissions within 90 days. For these principal diagnoses, PD 19's 30 and 90 readmission rate percentages are always higher than the State's (Table 9). The chart below shows the readmission rate percentages for these diagnoses:

Psychiatric Readmissions by Principal Diagnosis

	Readmissions within 30 days				Readmissions within 90 days			
	Number		Percent		Number		Percent	
	PD 19	VA	PD 19	VA	PD 19	VA	PD 19	VA
Principal Diagnosis								
Schizoaffective-unspecified	**126**	1,159	**32.8%**	27.7%	**216**	1,883	**56.3%**	44.3%
Recur depr psych-severe	**101**	646	**19.8%**	14.6%	**162**	1,107	**31.8%**	25.1%
Rec depr psych-psychotic	**43**	275	**21.7%**	16.4%	**83**	482	**41.9%**	28.8%
Bipolar affective nos	**41**	312	**29.5%**	19.6%	**70**	532	**50.4%**	33.5%
Schizoaffect-chr/exacer	**32**	173	**29.4%**	24.4%	**50**	297	**45.9%**	41.9%
Paran schizo-chr/exacerb	**30**	184	**26.3%**	17.9%	**54**	317	**47.4%**	30.8%
Psychosis nos					**42**	477	**36.8%**	24.3%

Source: VHI

In summary, it appears that the needs and treatment of patients with schizophrenia and psychoses should be further analyzed since these diagnoses are two of the primary ones for readmissions. Nevertheless, as has been noted, a certain level of readmissions is expected for these populations due to the chronic and debilitating nature of these illnesses.

Payer

Historically, VHI's patient level payer data, with the exception of Medicare, has not been reliable; thus, this caveat needs to be recognized when reviewing this section. The top five payer categories in 2000 ranked on volume for readmissions are shown in the table below. As is evidenced, when the percentage of readmission within 90 days for PD 19 is compared with the corresponding percentage of all psychiatric discharges for PD 19, all five payer categories are significantly higher, with HMO/PPO unspecified, self pay, and Medicaid showing the largest differences.

Psychiatric Discharges by Payer

	All Pysch Discharges		Readmissions within 30 days			Readmissions within 90 days		
	Percent		Number	Percent		Number	Percent	
	PD 19	VA	PD 19	PD 19	VA	PD 19	PD 19	VA
Payer								
Medicare	33.2%	25.9%	254	25.2%	20.7%	461	45.7%	35.5%

Medicaid	14.3%	14.1%	117	27.0%	20.2%	196	45.2%	33.6%
Self Pay	9.6%	6.8%	65	22.3%	14.7%	93	32.0%	23.8%
Trigon/BCBS	10.7%	10.5%	50	15.3%	12.5%	85	26.1%	21.3%
HMO/PPO-unspecified	7.8%	5.9%	42	17.6%	13.2%	64	26.9%	22.8%

Source: VHI

Of note, when the PD 19's 90 day readmission percentage is compared to the State's 90 day readmission percentage, Medicare, Medicaid, and self pay are about one third higher than the State's; Trigon and HMO/PPP unspecified are about one fifth higher than the State's; but Sentara and Qualchoice are about 2.5 times the State's percentage rate (Table 10). Differences by payment source may indicate problems with provider panel access or care management. *Please note that caution should be taken when drawing conclusions about payers with relatively small volumes.*

Physicians

Approximately 150 physicians discharged patients from hospitals in PD 19. Nine of these 150 physicians accounted for approximately 80% of the patients readmitted within 30 as well as within 90 days (Table 11). Available evidence indicates that inpatient hospitalization covers a very broad range of acute psychiatric conditions. The top APRDRG's for these physicians are psychoses, schizophrenia, bipolar disorders, and depression. Some task force members noted that they believe some of these physicians' practices include a disproportionately high number of patients with severe and persistent mental illness. Physician practice support techniques may be useful in reducing the length of stay for many of these conditions as well as potentially decreasing the rate of readmission and/or increasing the length of time between readmissions.

INVOLUNTARY HOSPITALIZATIONS/COMMUNITY SERVICES BOARDS (CSB)

A Temporary Detention Order (TDO) is an order issued by a magistrate, allowing a law enforcement officer to take into custody someone who is alleged to be mentally ill, in need of hospitalization and presents an imminent danger to himself/herself or others. Upon issuance of a TDO, an individual is admitted involuntarily to a psychiatric facility and held pending the outcome of a civil commitment hearing. Prior to the hearing, the individual is evaluated by an independent examiner and an attorney is appointed to represent the individual at the hearing. The commitment hearing, which is presided over by a "special justice" appointed by the Circuit Court, must be held within 48 hours. At the commitment hearing, the special justice takes testimony and makes a determination whether the individual meets commitment criteria. As a result of the findings the special justice may decide one of the following: 1) release the individual from custody; 2) allow the individual to voluntarily admit himself/herself to a psychiatric hospital; 3) order the individual into outpatient treatment; or 4) order the individual admitted to a psychiatric hospital for up to 180 days.

TDOs issued from FY 2000 through FY 2002 were reviewed. This report provided TDO data based on the locality of the court. As noted, the TDO rate per 1000 population is highest for Petersburg, followed by Emporia and then Hopewell.

Rate of TDOs Issued

	Petersburg	Emporia	Hopewell	PD 19	VA
FY 2000	9.28	7.59	5.32	3.87	2.40
FY 2001	10.06	6.66	4.98	4.14	2.44
FY 2002	11.80	5.40	5.49	4.15	2.57

Source: Virginia Department of Medical Assistance Services (DMAS)

This rate may be influenced by the location of the acute care hospitals in PD 19. The Department of Medical Assistance Services was asked if the TDO data could be broken out by the residence of the TDO patient versus the locality where the TDO was issued, but the department was unable to provide it.

Information provided by District 19's Community Services Board (CSB) indicates that the majority of its emergency service contacts involve evaluations for emergency hospitalizations. From the time period between January 1 to June 30, 2002, 702 evaluations for emergency hospitalization were conducted: 29.8% were diverted to other treatment resources; 17.9% were hospitalized voluntarily; and 52.3% were hospitalized under a TDO. Of these 702 evaluations, approximately 30% of these cases came from outside District 19's catchment area. Comparisons to other areas may assist in evaluating if PD 19 receives an extraordinary large number of TDOs of individuals residing outside of PD 19.

District 19 performs approximately 120 TDO evaluations monthly. Much of the outpatient services are being eliminated, and substance abuse/jail services have been curtailed. The focus is on the substantially mentally ill population at risk for state hospital admissions.

FINANCIAL ISSUES

The following chart shows the FY 2002's per capita amount District 19 received from each of its localities compared to the region and the State. Of the eight CSB's in HPR IV, the range of the per capita amount is from $2.43 (Southside CSB) to $33.95 (Henrico Area CSB). The District 19 CSB ranks third from the bottom based on the per capita amount. Obviously, limited funding can impact the availability of outpatient and other support services to a locality's population.

FY 2002 Per Capita Contributions for CSB Activities

Locality	Per Capita Amount
Colonial Heights	$3.95
Dinwiddie	$1.98

Emporia	$7.33
Greensville	$5.66
Hopewell	$3.13
Petersburg	$2.61
Prince George	$1.59
Surry	$7.56
Sussex	$3.94
District 19	$3.19
HPR IV	$16.65
Virginia	$20.58

Source: DMHMRSAS, Office of Community Contracting

Given Virginia's current financial situation, funding to CSBs will be reduced by approximately $30.8 million over the next two years. These reductions clearly will impact the CSBs' ability to maintain services and will cause some clients to not receive treatment, seek treatment elsewhere, or be diverted to the criminal justice, social services, or other public and private systems.

In addition, the proposed reduction in the Medicaid program will clearly impact other providers' ability to maintain mental health services provided to these patients. The estimated reduction to hospitals, including psychiatric hospitals, from the Health and Human Services' General Funds is $18.2 million. This reduction is in addition to the current Medicaid reimbursements, which are generally less than 80% of costs for inpatient psychiatric hospital services.

ALTERNATIVES TO INPATIENT TREATMENT

PACT Program

Programs of Assertive Community Treatment (PACT) are self contained clinical teams, which assume responsibility for directly providing needed treatment, rehabilitation, and support services to identified clients with severe and persistent mental illness. Fifteen PACTs, which served approximately 1,200 clients in FY 2002, operate in Virginia.
District 19's PACT program has 80 clients, which is the maximum capacity currently available.

To assess the program's impact, PACT consumers' hospitalization rates before and after their involvement with the PACT program were compared. In the most recent PACT program analysis from January 11, 2002, PACT programs are managing 899 clients throughout Virginia, resulting in a savings of 20,209 hospital bed days. The following chart shows the positive impact the PACT programs have on reducing utilization and costs.

Comparison of State and PD 19 PACT Programs

	State PACT	PD 19 PACT
State hospital admissions reduction	79%	79%
Bed day utilization reduction	88%	91%

Source: District 19 CSB

For the 15 PACTs operating in Virginia, the average cost per consumer served was between $10,000 and $15,000 in FY 2002. The cost of District 19's PACT Team is $991,132 or $12,389 per client, which includes all costs related to services as well as some financial support for the clients.

Day Treatment Programs

Day treatment programs, also known as partial hospitalization programs, provide structure, monitoring and support for individuals when they are at risk of acute hospitalization or when they are leaving an acute setting and need transitional support as they return to the community. In a day treatment program, patients are educated about their medications, coping skills, symptom recognition, management of mood, and other activities that will enhance their level of functioning and independence.

Day treatment programs are another option to acute care and are less expensive than inpatient treatment. Because the patient remains in the community/home setting, he/she can put into practice the information and lessons that are acquired during the day.

Data and information from John Randolph Medical Center and Southside Regional Medical Center's day treatment programs were obtained. The average daily census for John Randolph Medical Center's day treatment program has ranged from 2 to 3 from 1999 to 2002 to date. Southside Regional Medical Center's day treatment program treated 128 patients in 2000; 154 patients in 2001, and 107 patients through June 2002. (Only a few patients have experienced an escalation of symptoms and required hospitalization. When this occurs, the intervention can take place quickly while in the care of professionals and the inpatient length of stay can be minimized due to early intervention.) During these three years (from January 2000 to June 2002), depression is the overwhelming diagnosis, representing 73.0% of the patients. During this time period, the top three zip codes for the patients in the program were Petersburg (43.7%); Fort Lee (22.9%); and Colonial Heights (8.5%). Approximately 59.4% of the patients who are in the program are between the ages of 18 to 49.

RECOMMENDATIONS

Based on the data reviewed by and the consensus of the task force, the following is a list of recommendations for further action to address the unusually high level of psychiatric hospitalization of PD 19 residents:

- Review the impact of access to prescribed medications in preventing readmissions and reducing emergency department visits and inpatient days through the implementation a medication access program at Southside Outpatient Behavioral Health Services (SOBHS). The task force has already been involved in the review of a medication access study to be conducted by SOBHS.

  SOBHS, a department of Southside Regional Medical Center, submitted a proposal to the John Randolph Foundation to develop the Community Access to Medication Program (CAMP), focusing on a specified population in need of access to medications at either a reasonable cost or no cost. Financial inability to access prescribed medications can cause a decline in a patient's ability to function. If the patient continues to significantly deteriorate, he/she probably will need to be hospitalized. Thus, the cycle of repeated hospital admissions continues because of various reasons, one of which is the lack of medication. The project's goals are to reduce preventable admissions and decrease emergency department visits and length of stay to acute psychiatric facilities in PD 19 for the study's participants while establishing the costs and benefits of such a program. This proposal fits with the overall purpose of the Mental Health Task Force to develop initiatives to reduce inpatient psychiatric admissions. In fact, the program has been funded and will be implemented shortly. The initial project's scope has been expanded based on the input from the task force, including enhanced tracking mechanisms of program participants.

- Concentrate efforts and interventions on patients with schizophrenia and psychoses, as these diagnoses are two of the primary ones for readmissions.

- Analyze the factors influencing the 30 and 90 day readmission rates relative to providing physician practice support. Such factors as primary and secondary psychiatric diagnoses, co-existing psychiatric conditions, enrollment in outpatient and case management programs, and regional clinical consultation may be relevant in supporting physician practice. Validate these factors with a survey of the practicing psychiatrists in PD 19, using the information obtained to design a pilot project through the local psychiatric association.

- Review available outpatient mental health resources and research best practices in evidence based outpatient programs that could be used as an alternative or deterrent to inpatient mental health programs.

- Work with primary care physicians to educate them on mental health issues, with possible implementation of new diagnostic technology.

- Develop an awareness campaign on mental health to include such items as identifying symptoms of the disease, locating treatment, and reducing the stigma of seeking treatment.

- Study further the relationship, if any, between the recent trends in state facility discharges and private facility discharges.

- Analyze further the impact of a state facility on the readmission rates of planning districts' population.

- Review and implement/expand case management programs.

- Establish a centralized, regional triage system to assist in locating available mental health beds as well as other alternative services.

- Research grant opportunities to fund pilot projects and/or expansion of successful programs.

- Replicate this planning process in neighboring planning districts to coordinate efforts.

In conclusion, this project illustrates an example of a public and private collaboration. This process as well as the resulting initiatives originated from the process can be replicated in other planning districts. It is expected that the task force will be reconvened at least semiannually to review the status of mental health initiatives and progress toward reducing inpatient mental health admissions while enhancing the care of those with mental illness.

Planning District 19

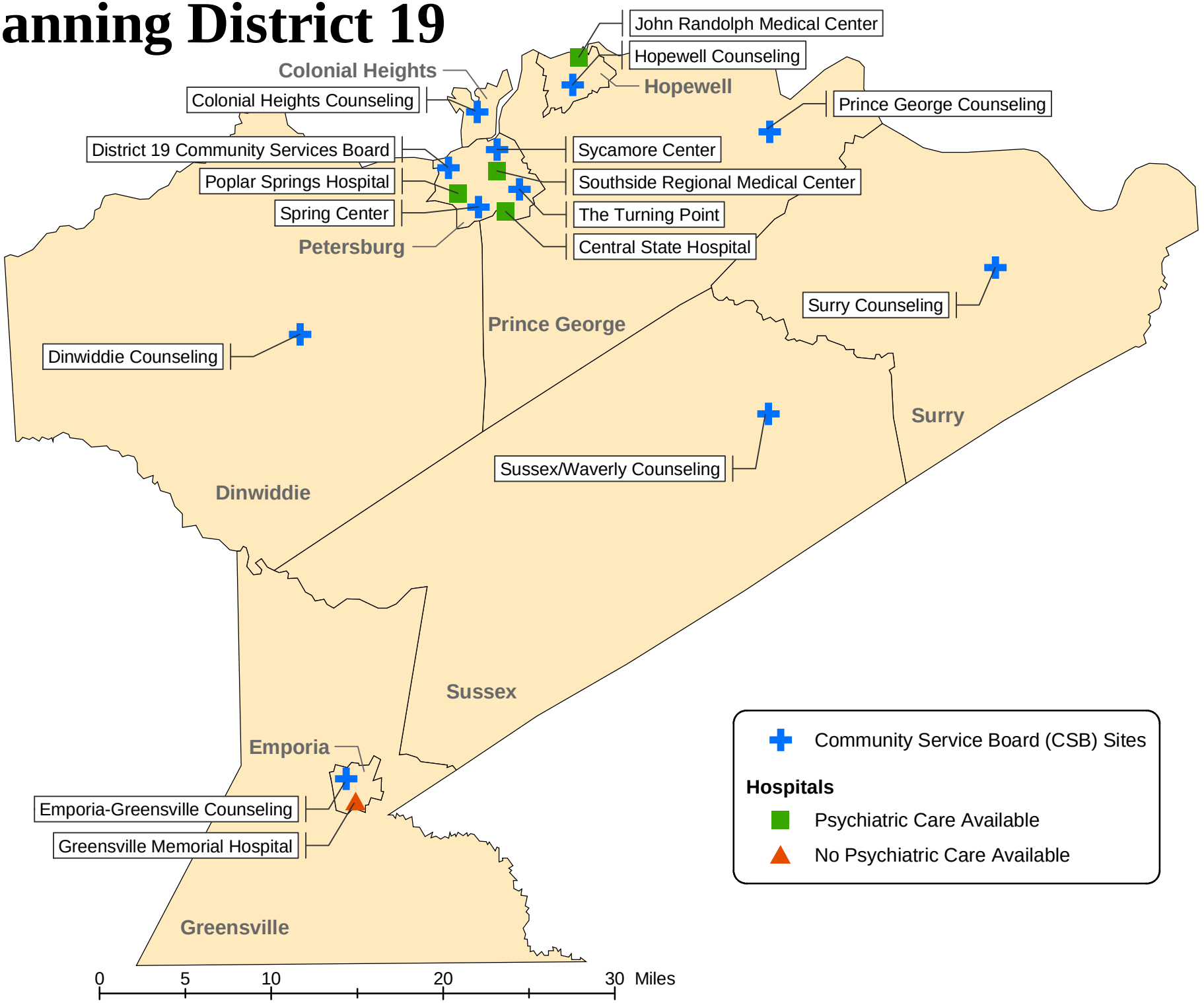


Table 1: Prevalence of Selected Mental Disorders among Adults during a One Year Period

			----------PD 19 Adult Population----------			
	Number in U.S. with disorder (in millions)	**% of U.S.adult pop.**	**18+** 126,987	**Estimated % with Disorder**	**18-54** 92,230	**Estimated % with Disorder**
Depressive Disorders*	18.8	9.5%		12,064		
Major Depressive Disorder	9.9	5.0%		6,349		
Dysthymic Disorder**	10.9	5.4%		6,857		
Bipolar Disorder	2.3	1.2%		1,524		
Schizophrenia*	2.2	1.1%		1,397		
Anxiety Disorders***	19.1	13.3%				12,267
Panic Disorder	2.4	1.7%				1,568
Obsessive-Compulsive Disorder	3.3	2.3%				2,121
Post Traumatic Stress Disorder	5.2	3.6%				3,320
Generalized Anxiety Disorder	4.0	2.8%				2,582
Social Phobia	5.3	3.7%				3,413
Agoraphobia	3.2	2.2%				2,029
Special Phobia	6.3	4.4%				4,058

Note:
*-Adults defined as individuals 18 and older
**-Dysthymic disorder - during lifetime
***-Adults defined as individuals 18-54

An estimated 22.1% of Americans 18 and older (about 1 in 5 adults) suffer from a diagnosable mental disorder in a given year

Source: The National Institute of Mental Health, The Numbers Count: Mental Disorders in America, January 2001

Prepared by Central Virginia Health Planning Agency

Table 2: Selected Statistics for Private Psychiatric Beds in Planning District 19

	Licensed Beds				Staffed Beds				Occupancy Rate (licensed beds)				Occupancy Rate (staffed beds)			
	1999	2000	2001	% Change	1999	2000	2001	% Change	1999	2000	2001	% Change	1999	2000	2001	% Change
John Randolph	34	34	24	-29.4%	20	20	17	-15.0%	40.3%	44.4%	70.6%	75.2%	68.5%	75.5%	99.7%	45.5%
Poplar Springs	120	120	130	8.3%	111	116	119	7.2%	71.4%	81.5%	80.5%	12.7%	77.2%	84.3%	87.9%	13.9%
Southside Regional	30	30	30	0.0%	30	30	30	0.0%	55.0%	57.0%	72.6%	32.0%	55.0%	57.0%	72.6%	32.0%
Total	**184**	**184**	**184**	**0.0%**	**161**	**166**	**166**	**3.1%**	**63.0%**	**70.8%**	**77.9%**	**23.6%**	**72.0%**	**78.5%**	**86.3%**	**19.9%**

	Discharges				Inpatient Days				Discharge Days				ALOS (based on discharge days)			
	1999	2000	2001	% Change	1999	2000	2001	% Change	1999	2000	2001	% Change	1999	2000	2001	% Change
John Randolph	925	981	985	6.5%	5,000	5,510	6,185	23.7%	4,978	5,507	6,195	24.4%	5.4	5.6	6.3	16.7%
Poplar Springs	1,636	1,810	2,077	27.0%	31,292	35,788	38,173	22.0%	29,131	31,686	36,021	23.7%	17.8	17.5	17.3	-2.6%
Southside Regional	1,192	1,134	1,280	7.4%	6,021	6,241	7,945	32.0%	6,161	6,302	8,052	30.7%	5.2	5.6	6.3	21.2%
Total	**3,753**	**3,925**	**4,342**	**15.7%**	**42,313**	**47,539**	**52,303**	**23.6%**	**40,270**	**43,495**	**50,268**	**24.8%**	**10.7**	**11.1**	**11.6**	**8.4%**

Note:
Occupancy rate uses inpatient days
ALOS uses discharge days

Source: 1999-2001 Annual Licensure Survey; VHI

Prepared by Central Virginia Health Planning Agency

Table 3: Psychiatric Discharges for CY 2000 by Planning District

Health Planning District	District Name	2000 Population	Psychiatric Discharges	Discharges per 1,000 Population	Readmissions within 90 days	Recidivism Rate
1	LENOWISCO	91,019	440	4.83	122	27.73%
2	CUMBERLAND PLATEAU	118,279	651	5.50	179	27.50%
3	MOUNT ROGERS	190,020	1,013	5.33	241	23.79%
4	NEW RIVER VALLEY	165,146	1,425	8.63	290	20.35%
5	FIFTH	264,541	2,794	10.56	605	21.65%
6	CENTRAL SHENANDOAH	258,789	2,043	7.89	534	26.14%
7	LORD FAIRFAX	185,282	1,107	5.97	248	22.40%
8	NORTHERN VIRGINIA	1,815,197	7,828	4.31	1,833	23.42%
9	RAPPAHANNOCK-RAPIDAN	134,785	850	6.31	211	24.82%
10	THOMAS JEFFERSON	199,648	1,669	8.36	468	28.04%
11	CENTRAL VIRGINIA	228,616	1,564	6.84	335	21.42%
12	WEST PIEDMONT	250,195	2,023	8.09	412	20.37%
13	SOUTHSIDE	88,154	604	6.85	143	23.68%
14	PIEDMONT	97,103	689	7.10	172	24.96%
15	RICHMOND REGIONAL	865,941	10,657	12.31	3,666	34.40%
16	RADCO	241,044	1,674	6.94	465	27.78%
17	NORTHERN NECK	49,353	277	5.61	44	15.88%
18	MIDDLE PENINSULA	83,684	451	5.39	86	19.07%
19	**CRATER**	**167,129**	**3,020**	**18.07**	**1,081**	**35.79%**
22	ACCOMACK-NORTHAMPTON	51,398	402	7.82	107	26.62%
23	HAMPTON ROADS	1,533,192	10,354	6.75	2,702	26.10%
	Total	**7,078,515**	**51,535**	**7.28**	**13,944**	**27.06%**

Note:
The following Planning Districts have state hospitals:
PD 3, PD 5, PD 6, PD 8, PD 12, PD 14, PD 19, and PD 23

Source: DMHMRSAS, VHI, US Census 2000

Prepared by Central Virginia Health Planning Agency

Table 4A: Comparison of Use Rates and Number of Psychiatric Beds in Acute Care Hospitals
Planning Districts 15 and 19

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Planning District 15										
Total Population	752,356	764,977	777,598	790,219	802,840	815,461	828,082	840,703	853,324	865,941
Use Rate Per 1,000 Population	9.22	9.74	11.32	11.74	11.45	11.48	11.52	9.83	10.04	9.77
Number of Licensed Beds	421	389	436	400	400	406	400	319	311	311
Discharges	6936	7449	8804	9277	9193	9359	9538	8266	8568	8458
Planning District 19										
Total Population	157,524	158,591	159,658	160,725	161,792	162,859	163,926	164,993	166,060	167,129
Use Rate Per 1,000 Population	11.03	12.74	13.38	13.74	13.70	13.02	14.31	12.30	12.75	12.65
Number of Licensed Beds	65	65	65	65	65	65	65	64	64	64
Discharges	1737	2021	2137	2209	2217	2121	2345	2029	2117	2115

Note: Psychiatric and CD beds and discharges combined

Source: United States Census Bureau 1990 & 2000; 1991-2000 Annual Licensure Survey, VDH

Table 4B: Comparison of Use Rates and Number of Psychiatric Beds in Acute Care Hospitals
Planning Districts 15 and 19

	1998	1999	2000
Planning District 15			
Total Population	840,703	853,324	865,941
Use Rate Per 1,000 Population	13.32	10.04	9.77
Number of Licensed Beds	529	311	311
Discharges*	11,198	8568	8458
Planning District 19			
Total Population	164,993	166,060	167,129
Use Rate Per 1,000 Population	22.36	22.67	23.52
Number of Licensed Beds	184	184	184
Discharges*	3689	3765	3931

Note:
Charter Westbrook closed in December 1998
For freestanding facilities, admissions used instead of discharges

Source: United States Census Bureau 1990 & 2000; 1991-2000 Annual Licensure Survey, VDH

Prepared by Central Virginia Health Planning Agency

Table 5: ED Behavioral Visits Trends in Planning District 19 and Health Planning Region IV

	1995	1996	1997	1998	1999	2000	2001	Avg. Beh. ED Visits 1995-2001	Avg.Total ED Visits 1995-2001	Avg. % of Beh. ED to Total ED Visits
PLANNING DISTRICT 19										
Greensville Memorial*	89	115	122	120	120	120	279	138	13,489	1.0%
John Randolph	685	630	517	268	1,866	487	655	730	25,455	2.9%
Southside Regional**	3,079	3,183	3,374	3,638	1,927	2,363	768	2,619	41,810	6.3%
Total PD 19 Behavioral ED Visits	3,853	3,928	4,013	4,026	3,913	2,970	1,702	3,486		
Total PD 19 ED Visits	74,960	78,025	80,088	83,018	82,574	84,853	90,368	81,984		
Percentage of Behavioral to Total	**5.1%**	**5.0%**	**5.0%**	**4.8%**	**4.7%**	**3.5%**	**1.9%**	**4.3%**		
HEALTH PLANNING REGION IV										
Total HPR IV Behavioral Visits	18,169	15,183	16,043	18,286	11,241	12,264	14,826	15,145		
Total HPR IV ED Visits	434,983	437,066	420,542	422,083	437,694	459,822	478,401	441,513		
Percentage of Behavioral to Total	**4.2%**	**3.5%**	**3.8%**	**4.3%**	**2.6%**	**2.7%**	**3.1%**	**3.4%**		

Source: 1991-2001 Hospital Application for License Renewal, VA Dept. of Health
*=For 1999 and 2000, 1998 data used
**=1998 figures are estimates

Prepared by Central Virginia Health Planning Agency

Table 6: Virginia Inpatient Psychiatric Discharges (2000)
Average Length of Stay by Age and Readmission

		Volume	ALOS	% Readmitted			Volume	ALOS	% Readmitted
Planning District 19					**State of Virginia**				
No Readmission		1,997	6.7		No Readmission		41,848	6.7	
Readmission within 30 Days		646	6.6	20.9%	Readmission within 30 Days		8,639	6.8	15.3%
Readmission 31 to 90 days		441	6.8	35.2%	Readmission 31 to 90 days		5,945	7.0	25.8%
	Total	*3,084*				*Total*	*56,432*		
Ages 0 to 18 No Readmission		238	13.0		Ages 0 to 18 No Readmission		6,702	10.8	
Ages 0 to 18 Readmissions within 30 days		36	10.9	12.6%	Ages 0 to 18 Readmissions within 30 days		772	7.8	9.6%
Ages 0 to 18 Readmissions 31 to 90 days		12	11.1	16.8%	Ages 0 to 18 Readmissions 31 to 90 days		552	13.0	16.5%
	Total	*286*				*Total*	*8,026*		
Ages 19 to 39 No Readmission		762	4.3		Ages 19 to 39 No Readmission		15,333	4.6	
Ages 19 to 39 Readmissions within 30 days		288	6.0	24.1%	Ages 19 to 39 Readmissions within 30 days		3,574	5.7	17.0%
Ages 19 to 39 Readmissions 31 to 90 days		146	6.1	36.3%	Ages 19 to 39 Readmissions 31 to 90 days		2,129	5.4	27.1%
	Total	*1,196*				*Total*	*21,036*		
Ages 40 to 64 No Readmission		717	6.5		Ages 40 to 64 No Readmission		14,200	5.8	
Ages 40 to 64 Readmissions within 30 days		310	6.8	25.4%	Ages 40 to 64 Readmissions within 30 days		3,320	6.9	16.6%
Ages 40 to 64 Readmissions 31 to 90 days		195	7.0	41.3%	Ages 40 to 64 Readmissions 31 to 90 days		2,469	6.4	29.0%
	Total	*1,222*				*Total*	*19,989*		
Ages 65 and up No Readmission		236	8.7		Ages 65 and up No Readmission		5,613	10.2	
Ages 65 and up Readmissions within 30 days		63	9.8	18.8%	Ages 65 and up Readmissions within 30 days		973	10.3	13.2%
Ages 65 and up Readmissions 31 to 90 days		37	10.1	29.8%	Ages 65 and up Readmissions 31 to 90 days		795	10.2	24.0%
	Total	*336*				*Total*	*7,381*		

Source: VHI

Prepared by Central Virginia Health Planning Agency

Table 7: Psychiatric Readmissions for CY 2000 by Facility and Health Planning District

Health Planning District	Facility	Total Volume	*Readmissions within 30 days* Number	*Readmissions within 30 days* Percentage	*Readmissions within 90 days* Number	*Readmissions within 90 days* Percentage
1	Norton Community Hospital	31	7	22.6%	10	32.3%
1	Lee County Community Hospital	26	2	7.7%	4	15.4%
1	St. Mary's Hospital-Norton	279	39	14.0%	67	24.0%
1	Lonesome Pine Hospital	36	7	19.4%	13	36.1%
		372	**55**	**14.8%**	**94**	**25.3%**
2	Russell County Medical Center	610	83	13.6%	176	28.9%
2	Columbi Clinch Valley Medical Ctr.	31	5	16.1%	9	29.0%
2	Tazewell Community Hospital	10	3	30.0%	4	40.0%
2	Buchanan General Hospital	20	1	5.0%	4	20.0%
2	Dickenson County Medical Center	7	0	0.0%	1	14.3%
		678	**92**	**13.6%**	**194**	**28.6%**
3	Smyth County Community Hospital	14	0	0.0%	1	7.1%
3	Johnston Memorial Hospital	23	0	0.0%	2	8.7%
3	Wythe County Community Hospital	20	4	20.0%	6	30.0%
3	Twin County Regional Hospital	394	61	15.5%	111	28.2%
		451	**65**	**14.4%**	**120**	**26.6%**
4	Carilion New River Valley Med. Ctr.	41	8	19.5%	12	29.3%
4	Carilion Giles Memorial Hospital	7	1	14.3%	2	28.6%
4	Columbia Montgomery Regional Hosp.	25	6	24.0%	11	44.0%
4	Columbia Pulaski Community Hospital	52	2	3.8%	8	15.4%
4	Carilion St. Alban's Hospital	1643	177	10.8%	324	19.7%
		1768	**194**	**11.0%**	**357**	**20.2%**
5	Carilion Roanoke Memorial Hospital	1811	195	10.8%	367	20.3%
5	Lewis-Gale Hospitals, Inc.	2206	244	11.1%	477	21.6%
5	Columbia Alleghany Regional Hosp.	25	5	20.0%	7	28.0%
		4042	**444**	**11.0%**	**851**	**21.1%**
6	Rockingham Memorial Hospital	723	103	14.2%	196	27.1%
6	Augusta Medical Center	1039	172	16.6%	294	28.3%
6	Stonewall Jackson Hospital	6	3	50.0%	3	50.0%
6	Bath County Community Hospital	10	1	10.0%	2	20.0%
		1778	**279**	**15.7%**	**495**	**27.8%**
7	Winchester Medical Center	850	110	12.9%	180	21.2%
7	Shenandoah Memorial Hospital	303	36	11.9%	61	20.1%
7	Warren Memorial Hospital	21	0	0.0%	1	4.8%
7	Page Memorial Hospital	6	2	33.3%	3	50.0%
		1180	**148**	**12.5%**	**245**	**20.8%**
8	Alexandria Hospital	654	95	14.5%	147	22.5%
8	Loudoun Hospital Center	308	38	12.3%	68	22.1%
8	Prince William Hospital	916	97	10.6%	167	18.2%
8	Arlington Hospital	998	143	14.3%	253	25.4%
8	Fairfax Hospital	1757	282	16.1%	438	24.9%
8	Northern Virginia Community Hosp.	646	103	15.9%	160	24.8%
8	Fair Oaks Hospital	106	14	13.2%	22	20.8%
8	Columbia Reston Hospital Center	29	3	10.3%	7	24.1%
8	Potomac Hospital	472	75	15.9%	114	24.2%
8	Mount Vernon Hospital	1062	116	10.9%	196	18.5%
8	Dominion Hospital	2278	317	13.9%	502	22.0%
8	Graydon Manor	11	0	0.0%	2	18.2%
		9237	**1283**	**13.9%**	**2076**	**22.5%**
9	Culpeper Memorial Hospital	479	82	17.1%	130	27.1%
9	Fauquier Hospital	65	5	7.7%	10	15.4%
		544	**87**	**16.0%**	**140**	**25.7%**
10	University of Virginia Medical Ctr	1966	302	15.4%	521	26.5%
10	Martha Jefferson Hospital	67	12	17.9%	16	23.9%
10	Charter BHS-Charlottesville	99	10	10.1%	16	16.2%
		2132	**324**	**15.2%**	**553**	**25.9%**
11	CentraHealth LGH/VBH	1657	172	10.4%	330	19.9%
11	Carilion Bedford Memorial Hospital	16	1	6.3%	3	18.8%
		1673	**173**	**10.3%**	**333**	**19.9%**
12	RJ Reynolds/Patrick County Hospital	8	0	0.0%	2	25.0%
12	Danville Regional Medical Center	905	111	12.3%	194	21.4%
12	Mem. Hosp.-Martinsville&Henry Co.	533	58	10.9%	97	18.2%
12	Carilion Franklin Memorial Hospital	31	4	12.9%	8	25.8%
		1477	**173**	**11.7%**	**301**	**20.4%**
13	Halifax Regional Health System	49	5	10.2%	10	20.4%
13	Community Memorial Health Center	475	61	12.8%	97	20.4%
		524	66	**12.6%**	107	**20.4%**

Table 7: Psychiatric Readmissions for CY 2000 by Facility and Health Planning District

Health Planning District	Facility	Total Volume	*Readmissions within 30 days* Number	*Readmissions within 30 days* Percentage	*Readmissions within 90 days* Number	*Readmissions within 90 days* Percentage
14	Southside Community Hospital	**44**	**6**	**13.6%**	**8**	**18.2%**
15	HealthSouth Medical Center	18	1	5.6%	6	33.3%
15	MCV Hospital	2093	323	15.4%	539	25.8%
15	St. Mary's Hospital of Richmond	1517	269	17.7%	463	30.5%
15	Memorial Regional Medical Center	38	4	10.5%	9	23.7%
15	Columbia Retreat Hospital	36	5	13.9%	11	30.6%
15	Bon Secours-Stuart Circle Hospital	5	0	0.0%	2	40.0%
15	Bon Secours-Richmond Comm. Hospital	1109	316	28.5%	530	47.8%
15	Columbia Chippenham Medical Center	4911	887	18.1%	1446	29.4%
15	Columbia Henrico Doctors Hospital	44	6	13.6%	14	31.8%
15	Metropolitan Hospital	2164	658	30.4%	1008	46.6%
15	Children's Hospital	3	0	0.0%	1	33.3%
15	Cumberland Hospital	5	0	0.0%	0	0.0%
		11943	**2469**	**20.7%**	**4029**	**33.7%**
16	Mary Washington Hospital	661	141	21.3%	226	34.2%
16	Snowden at Fredericksburg	1223	184	15.0%	282	23.1%
		1884	**325**	**17.3%**	**508**	**27.0%**
17	Rappahannock General Hospital	**17**	**1**	**5.9%**	**4**	**23.5%**
18	Riverside Tappahannock Hospital	14	1	7.1%	5	35.7%
18	Riverside Walter Reed Hospital	10	0	0.0%	1	10.0%
		24	**1**	**4.2%**	**6**	**25.0%**
19	Columbia John Randolph Medical Ctr.	1010	190	18.8%	314	31.1%
19	Southside Regional Medical Center	1084	266	24.5%	449	41.4%
19	Greensville Memorial Hospital	21	3	14.3%	4	19.0%
19	Poplar Springs Hospital	1690	252	14.9%	426	25.2%
		3805	**711**	**18.7%**	**1193**	**31.4%**
22	Northampton-Accomack Mem Hospital	**281**	**42**	**14.9%**	**84**	**29.9%**
23	Sentara Norfolk General Hospital	1325	237	17.9%	398	30.0%
23	DePaul Medical Center	46	5	10.9%	6	13.0%
23	Bon Secours-Maryview Medical Center	1993	301	15.1%	521	26.1%
23	Mary Immaculate Hospital	18	2	11.1%	3	16.7%
23	Obici Hospital	396	50	12.6%	98	24.7%
23	Sentara Leigh Hospital	63	6	9.5%	10	15.9%
23	Riverside Regional Medical Center	1315	277	21.1%	415	31.6%
23	Virginia Beach General Hospital	79	13	16.5%	21	26.6%
23	Williamsburg Community Hospital	49	7	14.3%	11	22.4%
23	Southampton Memorial Hospital	12	0	0.0%	2	16.7%
23	Sentara Hampton General Hospital	27	1	3.7%	4	14.8%
23	Sentara Bayside Hospital	24	2	8.3%	6	25.0%
23	Chesapeake General Hospital	363	53	14.6%	90	24.8%
23	Lake Taylor Hospital	9	2	22.2%	2	22.2%
23	Children's Hosp/King's Daughters	7	0	0.0%	0	0.0%
23	Peninsula Ctr for Behavorial Health	2584	350	13.5%	601	23.3%
23	Norfolk Psychiatric Center	783	85	10.9%	161	20.6%
23	Virginia Beach Psychiatric Center	2355	310	13.2%	537	22.8%
		11448	**1701**	**14.9%**	**2886**	**25.2%**
		55302	**8639**	**15.6%**	**14584**	**26.4%**

Note:
Facility shown is facility where readmission occurred

Source: DMRMHSAS, VHI

Prepared by Central Virginia Health Planning Agency

Table 8: Psychiatric Readmissions for 2000 by APRDRG

APRDRG	Description	Virginia Total	*Readmissions within 30 days* Number	*Readmissions within 30 days* Percent	*Readmissions within 90 days* Number	*Readmissions within 90 days* Percent	PD 19 Total	PD 19 % of VA's Adms.	*Readmissions within 30 days* Number	*Readmissions within 30 days* Percent	*Readmissions within 90 days* Number	*Readmissions within 90 days* Percent
750	SCHIZOPHRENIA	9,548	2,274	23.8%	3,715	38.9%	797	8.3%	246	30.9%	407	51.1%
751	PSYCHOSES	17,189	2,410	14.0%	4,047	23.5%	1,176	6.8%	222	18.9%	387	32.9%
753	BIPOLAR DISORDERS	8,630	1,440	16.7%	2,411	27.9%	415	4.8%	102	24.6%	170	41.0%
757	ORGANIC DISTURBANCES & MENTAL RETARDATION	1,892	326	17.2%	524	27.7%	110	5.8%	19	17.3%	35	31.8%
754	DEPRESSION	4,498	507	11.3%	840	18.7%	165	3.7%	18	10.9%	32	19.4%
775	ALCOHOL ABUSE & DEPENDENCE	4,696	609	13.0%	1,180	25.1%	107	2.3%	13	12.1%	19	17.8%
774	COCAINE ABUSE & DEPENDENCE	928	107	11.5%	177	19.1%	44	4.7%	11	25.0%	12	27.3%
755	NEUROSES EXCEPT DEPRESSIVE	1,852	202	10.9%	360	19.4%	48	2.6%	4	8.3%	7	14.6%
770	DRUG OR ALCOHOL ABUSE OR DEPENDENCE, LEFT AGAINST MEDICAL ADVICI	702	142	20.2%	223	31.8%	20	2.8%	3	15.0%	6	30.0%
758	CHILDHOOD MENTAL DISORDERS	804	76	9.5%	139	17.3%	17	2.1%	1	5.9%	4	23.5%
756	ACUTE ADJUST REACT & DISTURB OF PSYCHO DYSFUNCTION	1,315	167	12.7%	289	22.0%	43	3.3%	3	7.0%	4	9.3%
776	OTHER DRUG ABUSE & DEPENDENCE	875	114	13.0%	207	23.7%	14	1.6%	2	14.3%	4	28.6%
760	OTHER MENTAL DISORDERS	369	36	9.8%	67	18.2%	14	3.8%	2	14.3%	3	21.4%
771	ALCOHOL & DRUG DEPENDENCE WCOMBINED REHAD & DETOXTHERAPY	612	54	8.8%	101	16.5%	2	0.3%	1	50.0%	1	50.0%
773	OPIOID ABUSE & DEPENDENCE	1,057	120	11.4%	223	21.1%	19	1.8%			1	5.3%
752	DISORDERS OF PERSONALITY & IMPULSE CONTROL	279	50	17.9%	70	25.1%	8	2.9%				
759	COMPULSIVE NUTRITION DISORDERS	40	4	10.0%	10	25.0%						
772	ALCOHOL & DRUG DEPENDENCEW REHABILITATION THERAPY	16	1	6.3%	1	6.3%						
	Total	**55,302**	**8,639**	**15.6%**	**14,584**	**26.4%**	**2,999**	**5.4%**	**647**	**21.6%**	**1,092**	**36.4%**

Source: VHI 2000

Prepared by Central Virginia Health Planning Agency

Table 9: Psychiatric Readmissions for 2000 by Principal Diagnosis

Principal Diagnosis	Description	Total Discharges VA	Total Discharges PD 19	Readmissions within 30 days Number VA	Readmissions within 30 days Number PD 19	Readmissions within 30 days Percent VA	Readmissions within 30 days Percent PD 19
29570	Schizoaffective-unspec	4,250	384	1,159	126	27.7%	32.8%
29633	Recur depr psych-severe	4,414	510	646	101	14.6%	19.8%
29634	Rec depr psych-psychotic	1,674	198	275	43	16.4%	21.7%
2967	Bipolar affective nos	1,590	139	312	41	19.6%	29.5%
29574	Schizoaffect-chr/exacer	709	109	173	32	24.4%	29.4%
29534	Paran schizo-chr/exacerb	1,028	114	184	30	17.9%	26.3%
	Subtotal	13,665	1,454	2,749	373		
	Subtotal as % of total	*24.7%*	*47.8%*	*31.8%*	*57.7%*		
	Total	**55,302**	**3,040**	**8,639**	**646**	**15.6%**	**21.3%**

Principal Diagnosis	Description	Readmissions within 0-90 days Number VA	Readmissions within 0-90 days Number PD 19	Readmissions within 0-90 days Percent VA	Readmissions within 0-90 days Percent PD 19
29570	Schizoaffective-unspec	1,883	216	44.3%	56.3%
29633	Recur depr psych-severe	1,107	162	25.1%	31.8%
29634	Rec depr psych-psychotic	482	83	28.8%	41.9%
2967	Bipolar affective nos	532	70	33.5%	50.4%
29534	Paran schizo-chr/exacerb	317	54	30.8%	47.4%
29574	Schizoaffect-chr/exacer	297	50	41.9%	45.9%
2989	Psychosis nos	477	42	24.3%	36.8%
		5,095	677		
		34.9%	*62.3%*		
		14,584	**1,087**	**26.4%**	**35.8%**

Source: VHI

Prepared by Central Virginia Health Planning Agency

Table 10: Psychiatric Readmissions for 2000 by Payer

Planning District 19

Payer Category	Total Volume	*Readmissions within 30 days* Number	Percent	*Readmissions within 90 days* Number	Percent	PD 19 90 Readmit % by VA 90 Readmit %
Medicare	1,009	254	25.2%	461	45.7%	1.29
Medicaid	434	117	27.0%	196	45.2%	1.34
Self Pay	291	65	22.3%	93	32.0%	1.34
Trigon/BC/BS	326	50	15.3%	85	26.1%	1.23
HMO/PPO-Unspecified	238	42	17.6%	64	26.9%	1.18
State Government	128	35	27.3%	42	32.8%	1.11
Sentara	67	21	31.3%	40	59.7%	2.52
Tricare/Champus	115	16	13.9%	23	20.0%	1.17
Jail/Detention	85	10	11.8%	14	16.5%	1.25
Other Commercial	111	7	6.3%	11	9.9%	0.54
MAMSI	23	3	13.0%	9	39.1%	1.72
Southern Health	18	4	22.2%	8	44.4%	1.19
Cigna	51	4	7.8%	7	13.7%	0.71
BC/BS Out-of-State	14	2	14.3%	6	42.9%	2.05
Qualchoice	12	4	33.3%	6	50.0%	2.58
Unknown	39	3	7.7%	6	15.4%	0.55
Local Government	33	2	6.1%	5	15.2%	0.79
Aetna/US Healthcare	20	2	10.0%	4	20.0%	1.08
Medicaid Out-of-State	4	1	25.0%	3	75.0%	4.21
Worker's Comp	4	1	25.0%	1	25.0%	1.84
Prudential	4	1	25.0%	1	25.0%	1.41
Other Government	2	1	50.0%	1	50.0%	4.07
Kaiser Permanente	2	1	50.0%	1	50.0%	2.59
United Healthcare	10	0	0.0%	0	0.0%	0.00
Total	**3,040**	**646**	**21.3%**	**1,087**	**35.8%**	**1.36**

Virginia

Payer Category	Total Volume	*Readmissions within 30 days* Number	Percent	*Readmissions within 90 days* Number	Percent
Medicare	14,137	2,926	20.7%	5,013	35.5%
Medicaid	7,682	1,554	20.2%	2,583	33.6%
Self Pay	3,737	551	14.7%	890	23.8%
Trigon/BC/BS	5,707	714	12.5%	1,214	21.3%
HMO/PPO-Unspecified	3,215	423	13.2%	732	22.8%
State Government	1,491	279	18.7%	440	29.5%
Sentara	1,163	152	13.1%	275	23.6%
Tricare/Champus	1,116	123	11.0%	190	17.0%
Jail/Detention	2,641	195	7.4%	349	13.2%
Other Commercial	5,096	542	10.6%	940	18.4%
MAMSI	1,062	147	13.8%	241	22.7%
Southern Health	180	38	21.1%	67	37.2%
Cigna	1,124	127	11.3%	217	19.3%
BC/BS Out-of-State	1,090	139	12.8%	228	20.9%
Qualchoice	367	41	11.2%	71	19.3%
Unknown	466	81	17.4%	130	27.9%
Local Government	1,134	123	10.8%	218	19.2%
Aetna/US Healthcare	1,146	130	11.3%	212	18.5%
Medicaid Out-of-State	118	12	10.2%	21	17.8%
Worker's Comp	81	5	6.2%	11	13.6%
Prudential	141	17	12.1%	25	17.7%
Other Government	187	13	7.0%	23	12.3%
Kaiser Permanente	1,014	116	11.4%	196	19.3%
United Healthcare	491	55	11.2%	97	19.8%
Total	**54,586**	**8,503**	**15.6%**	**14,383**	**26.3%**

Source: VHI

Prepared by Central Virginia Health Planning Agency

Table 11: Planning District 19 Psychiatric Readmissions for CY 2000 by Physician

Attending Physician	Total Volume	*Readmissions within 30 Days*		*Readmissions within 90 Days*	
		Number	*Percent*	*Number*	*Percent*
1	559	147	26.3%	253	45.3%
2	457	80	17.5%	143	31.3%
3	293	62	21.2%	94	32.1%
4	275	68	24.7%	111	40.4%
5	183	52	28.4%	78	42.6%
6	161	22	13.7%	35	21.7%
7	134	41	30.6%	92	68.7%
8	124	25	20.2%	44	35.5%
9	104	15	14.4%	28	26.9%
UNKNOWN	92	25	27.2%	36	39.1%
10	44	6	13.6%	9	20.5%
11	44	7	15.9%	10	22.7%
12	38	4	10.5%	6	15.8%
13	27	1	3.7%	1	3.7%
#N/A	22	6	27.3%	9	40.9%
14	20	9	45.0%	14	70.0%
15	18	3	16.7%	3	16.7%
16	17	5	29.4%	8	47.1%
17	17	2	11.8%	3	17.6%
18	16	4	25.0%	8	50.0%
19	16	3	18.8%	5	31.3%
Subtotal	2,661	587		990	
Subtotal as percent of total	*87.5%*	*91.3%*		*91.5%*	
Total	**3,040**	**643**	**21.2%**	**1,082**	**35.6%**

Source: VHI

Prepared by Central Virginia Health Planning Agency