Section Two -
Health and Human Services Issues

State Mental Health Facilities

KPMG Peat Marwick
Government Services Management Consultants
for
North Carolina General Assembly
Government Performance Audit Committee
December 1992

Issue Statement

This analysis assesses the future role of North Carolina's mental health facilities in the treatment of its citizens with mental illness. Specifically, it evaluates how North Carolina can best utilize its existing psychiatric facilities in the face of rising costs and the need to effectively serve the mentally ill.

Background

North Carolina has a total of 5,449 mental health beds in its public and privately owned mental health hospitals. (See Exhibits 1 and 2.) The mental health hospitals treat clients with acute psychiatric, medical, and long-term needs.

The private sector operates 2,579 mental health beds within 13 stand alone psychiatric hospitals and 42 general acute care hospitals with designated psychiatric units. Privately operated mental health hospitals provide acute psychiatric care services, residential psychiatric care, day hospital services and substance abuse treatment. The 1989 Statewide average occupancy rate in the private psychiatric hospitals and acute care hospitals with psychiatric units was 55.8 percent. (See Exhibit 3.)

The State operates four psychiatric hospitals with a total of 2,870 beds. (See Exhibit 4.) The hospital staff provide acute psychiatric care, medical care for psychiatric patients, and long-term psychiatric care. In FY 1992, the average resident population in the four State mental health hospitals was 2,347. The average occupancy rate for 1992 was 81.2 percent in the four State mental health hospitals. One of the State mental health hospitals had an occupancy rate below the "full occupancy level" of 85 percent and the other three were at 85 percent or above.

EXHIBIT 4

State Average Utilization Rates and Costs

State Hospitals	Average Daily Census	Total Beds	Average Utilization	Cost/Avg. Daily Census
Dorthea Dix Hospital	519	595	87.2%	281.45
Broughton Hospital	632	893	70.8%	225.17
Cherry Hospital	613	697	87.9%	219.44
John Umstead Hospital	583	685	85.1%	230.60
TOTAL	2,347	2,870	81.7%	237.41

Source: Department of Mental Health

EXHIBIT 1
North Carolina Mental Health Beds

Free Standing Private Psychiatric Hospitals	Total Beds
Appalachian Hall	70
Highland	125
Ten Broek	64
CPC Cedar Springs	48
Charter Pines	60
Charter of Win-Salem	75
Charter of Greensboro	100
Cumberland	121
Charter Northridge	19
Holly Hill	108
Recovery Centers of America	21
Brynn Marr	52
Coastal Plains Hospital	22
Freestanding Beds	**690**
General Hospital Psychiatric Beds (42)	**1,889**
Total Private Psychiatric Beds	**2,579**
Public Mental Health Hospitals	
Dorthea Dix Hospital	595
Broughton Hospital	893
Cherry Hospital	697
John Umstead Hospital	685
Total Public Beds	**2,870**
TOTAL BEDS IN NORTH CAROLINA	**5,449**

EXHIBIT 2

Number of State and Private Mental Health Beds

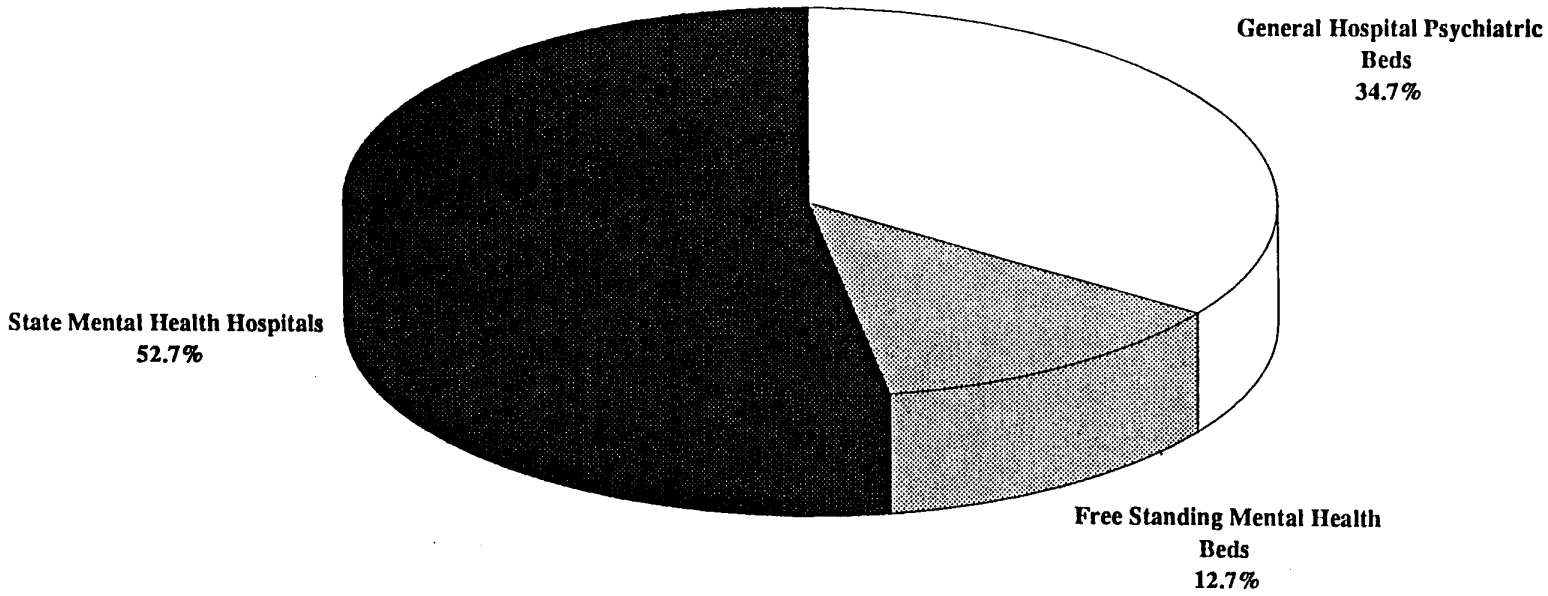
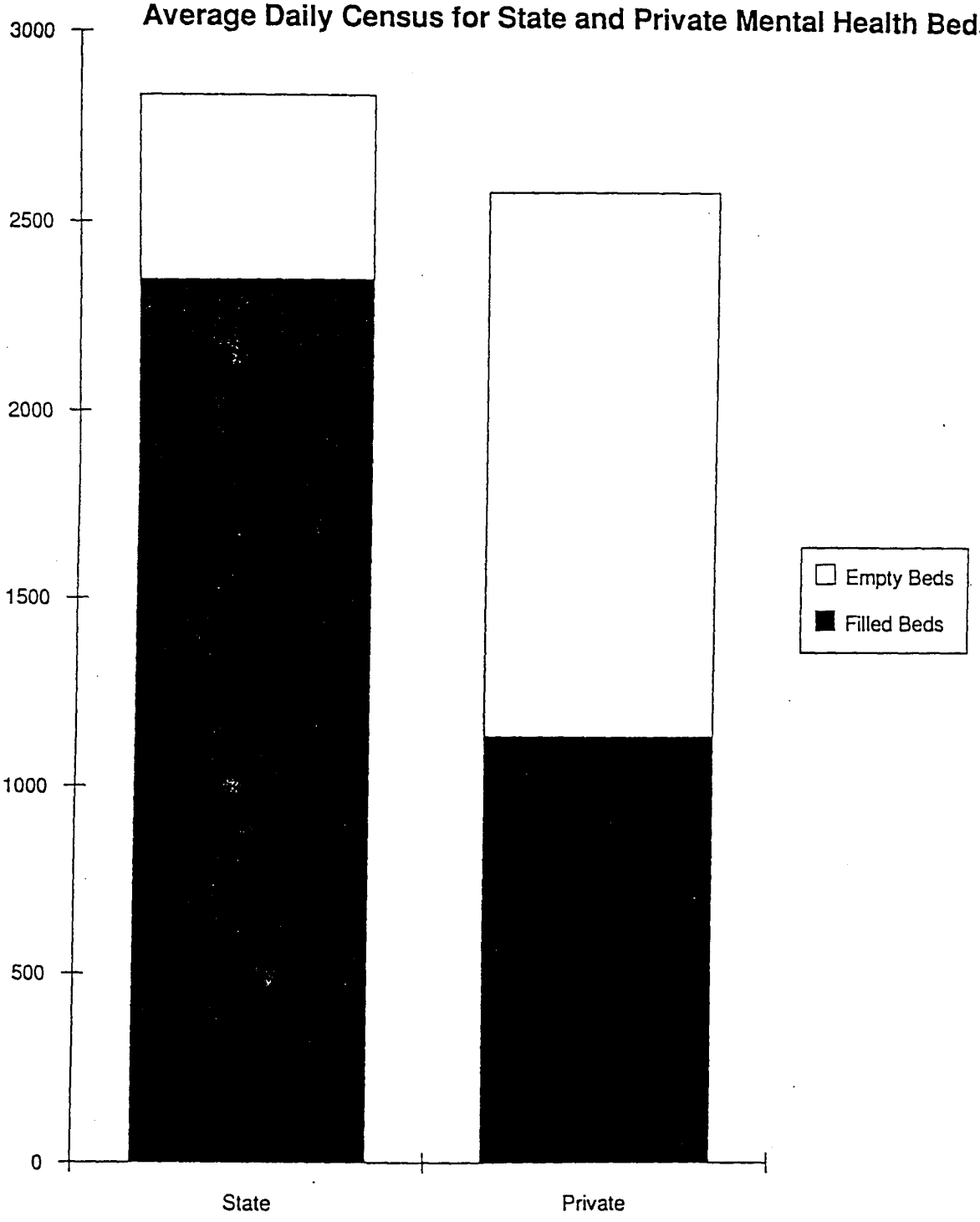


EXHIBIT 3

Average Daily Census for State and Private Mental Health Beds



Source: Department of Human Resources

From 1989-90 to 1991-92 the cost of delivering services in the State mental health facilities increased by 11.1 percent from $213.80/day/person to $237.51/day/person. The increase in cost is a result of the large fixed costs associated with operating a large state mental health hospital.

In 1989-90 the number of staff in the four State mental health hospitals was 4,994. From 1989-90 to 1990-91 the number of staff increased by 5.4 percent to 5,263 which coincides with a 4.9 percent increase in patient workload. However, from 1990-91 to 1991-92 patient workload decreased by 3.8 percent while staff at the institutions remained constant at 5,263.

EXHIBIT 5

Number of Employees in State Mental Health Hospitals

	1989-90	1990-91	1991-92
Dorthea Dix Hospital	1,279	1,295	1,295
Broughton Hospital	1,552	1,549	1,549
Cherry Hospital	1,003	1,183	1,183
John Umstead Hospital	1,160	1,236	1,236
TOTAL	4,994	5,263	5,263

Source: Department of Human Resources 1991-93 Budget

The average general fund budget for the four State hospitals, according to the 1991-93 Department of Human Resources budget, was $45,218,538 per hospital for 1989-90 and has increased by 14.9 percent to $51,942,629 for 1992-93. Exhibit 6 details the 1991-92 budget for each State mental health hospital. The total amount budgeted for 1991-92 for the four State mental health hospitals was $207,345,572. North Carolina spends $58,469,832 annually on maintenance and housekeeping staff, the service and maintenance contracts, utilities, and housekeeping supplies. The maintenance costs exclude direct services to clients. The costs are significant because of the size and age of the hospitals.

EXHIBIT 6

State Hospital 1991-92 Budget Data

Expenditures	Dorthea Dix	Broughton	Cherry	John Umstead
Maintenance	$ 5,983,927	$ 3,825,781	$ 3,738,447	$ 3,260,182
Support Services	$11,884,417	$12,344,395	$12,580,001	$ 8,760,440
Medical Care/Treatment	$32,715,838	$32,655,574	$29,102,158	$29,628,721
Services for Children	$ 5,208,567	$ 2,965,722	$ 3,262,874	$ 6,548,716
Other	$ 744,645	$ 832,095	$ 683,811	$ 645,386
TOTAL	$56,537,394	$52,623,567	$49,367,291	$48,817,320

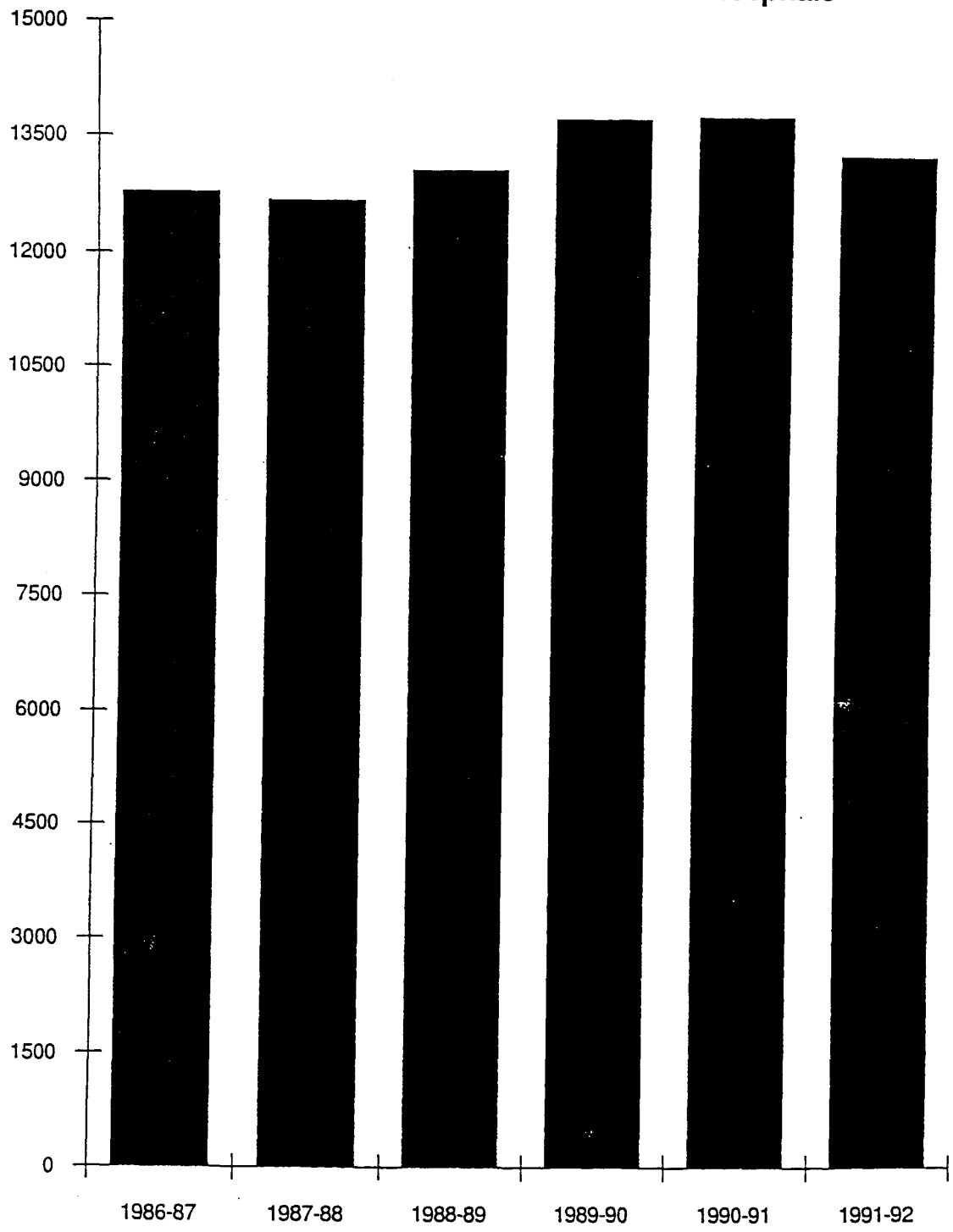
Source: Department of Human Resources 1991-93 Budget

Through 41 area programs, services are available to North Carolina citizens with mental health, developmental disabilities, and alcohol and drug addiction problems. The area programs offer services including prevention, screening, evaluation, and a variety of treatment services. The 41 area programs assess the client and determine the level of care needed. The area program has the option of referring clients to a private mental health hospital, a state operated mental health hospital, a community-based treatment program, or providing outpatient services. Half of the clients enter the State mental health hospitals by the single portal of entry system at the 41 area programs. Single portal of entry requires a person in need of psychiatric care to first approach an area program for an assessment and treatment recommendation before entering into a State mental health facility. Other clients are referred to a State mental health hospital through a family member or friend.

The decision on the type of treatment and whether to place a client in a State or private mental health hospital is made by professionals at the area programs. The clinicians and the client work together to determine a client's treatment options. The majority of individuals in the State hospitals are people who the courts have determined to be insane. A client's finances are considered in the referral to a state or private facility. Clinicians work with the clients to determine whether third party insurance will cover the costs of treatment in a private mental health facility.

In 1968, the number of persons served in the four State hospitals peaked at 22,802. From 1968 to 1984, the number of persons treated in State hospitals declined. The number of people served in North Carolina's psychiatric hospitals has increased since 1984. (See Exhibit 7.) According to Department of Human Resource officials, the increase in the number of people served is a result of:

EXHIBIT 7
Served in Four State Mental Health Hospitals



- Growth in the population of North Carolina
- Insufficient availability of community-based services

According to the North Carolina's Mental Health Plan, the current trend in the treatment of individuals with mental illness is to provide services in the least restrictive environment. Other states have provided services in the least restrictive environment by:

- Diversifying the types of mental health services the State provides
- Improving and expanding the number and types of community-based services
- Purchasing, renovating, or constructing housing suitable for providing community-based mental health services
- Developing a plan to transfer inpatients to community-based services

The North Carolina Mental Health Study Commission recommends community-based mental health care for individuals that do not need specialized, intensive, hospital-based services.

Findings

Finding 1: ***The occupancy rate in North Carolina's private sector is only 56 percent.***

For 1989, the latest year the data are available, the private hospitals had an average occupancy rate of 55.8 percent which left 1,135 beds empty. Full occupancy, as determined by North Carolina's Certificate of Need Office, is considered to be 85 percent or 2,192 beds. According to the Certificate of Need Office, North Carolina's private mental health hospitals have an excess capacity of 748 beds.

These 748 beds represent the difference between full occupancy or an 85 percent occupancy rate and the actual utilization of the private psychiatric hospitals. The cost of maintaining a low occupancy rate in the private sector mental health hospital beds is passed on to the citizens of North Carolina through higher insurance premiums. This cost increase occurs because there are fixed costs or expenses present regardless of the number of people in the hospital. Fixed costs include maintenance, administration, and housekeeping.

The difference in the occupancy rates at the State mental health hospitals and the private hospitals is a result of the 41 area programs referring more patients to the State hospitals than to the private hospitals. More referrals are made to the State mental health hospitals than the private hospitals because a working relationship exists between the State hospitals and the area program staff. In many cases the costs in the private hospitals are higher than the State hospitals. State facilities are

more likely to receive referrals from an area program if the hospital is close to the area program. However, the private psychiatric care facilities are spread more evenly throughout North Carolina than the State mental health hospitals. Private psychiatric care facilities are located in all but five of the 41 mental health areas. Because the private psychiatric hospitals are spread throughout North Carolina, they provide a better opportunity to treat clients in a hospital that is close to home. The private psychiatric hospitals provide the area programs with an alternative to State mental health hospitals.

Finding 2: ***The majority of patients in the State's mental health hospitals can be treated in the community. By moving clients into the community, the state mental health hospitals can decrease the number of psychiatric beds.***

According to North Carolina's psychiatric experts, the percent of mentally ill that must be treated in the State's mental health institutions ranges from 30 to 70 percent of the 2,347 that currently are treated in an institution. Of the total number in the State institutions, between 704 and 1,643 can be better served in community-based programs, private free standing hospitals, and general hospital psychiatric beds. The remaining patients can only be effectively treated in a State facility.

If 30-70% of the mentally ill in the State's institutions were treated in community-based programs, there would be between 1,200 and 2,000 excess beds. The State operates more psychiatric beds than it needs in its mental health hospitals. At the current occupancy rates, approximately 600 beds are empty. These are the beds that remain available with an average daily census of 2,347.

Finding 3: ***North Carolina makes its Certificate of Need determination for private mental health beds without considering the State operated mental health hospital beds.***

The system of public and private mental health beds is not coordinated in North Carolina. Half of the mental health beds in North Carolina are ignored when the determination of Certificate of Need is made without considering the number of State operated beds. The State Medical Facilities Plan is crafted without regard to the number and location of the State mental health hospitals. By not coordinating the location and number of psychiatric beds in North Carolina, the potential for a low occupancy rate exists. A low occupancy rate results in excess capacity and leads to higher per person costs. These high costs will be passed on to the citizens.

In contrast, the utilization in the private sector psychiatric hospitals is just over 50 percent. As a result, the cost per client is higher at the private facilities than in the State mental health hospitals because there are fewer clients to spread the costs among. The cost per patient at the private hospitals would decrease if the private hospitals had a higher utilization rate.

Recommendations

Recommendation 1: The General Assembly should expand community-based services and downsize residential services by implementing a single stream of funding for mental health.

North Carolina should create more opportunities for its mentally ill to be served in the community. To do this the State should move expeditiously to:

- Provide technical assistance to the area programs to prepare them for the single portal of entry and single stream of funding systems
- Expand the single portal of entry service delivery system to include all mental health institutions and area programs across the State
- Transfer $3.7 million annually from the State mental hospital budget to the area program budget to purchase community-based services.[1]

The national trend in the delivery of mental health treatment is the creation of community-based services. These services provide alternative options for the mentally ill currently being treated in the State's institutions. If North Carolina moves toward a community-based system, the area programs could benefit from technical assistance with the single stream of funding system. The single stream of funding system can help the area program staff to make treatment decisions based on the best type of care. Currently, the area program does not pay for treatment services provided by the State mental health hospitals. If North Carolina moves toward a single stream of funding system, the area program will purchase services for its clients from all available treatment providers, including the State mental institutions.

Services in the community will be assisted by the implementation of the single portal of entry system. By expanding the single portal of entry system to include all the area programs, the State mental health hospitals could only accept patients from an area program referral.

The combination of the single portal of entry and the single stream of funding transfers responsibility for case management of all mental health patients to area programs. Currently this responsibility is shared by the State and area programs. Using the single stream of funding approach, an increasing portion of the funds used now to support patient care in the State hospitals would be allocated over time to the 41 area programs to serve clients in their catchment areas. The area programs should be given choice of purchasing care from the State hospitals or purchasing care from some other community-based treatment option, including community mental health clinics, non-residential treatment, free-standing psychiatric hospitals, or general hospitals with psychiatric beds.

---

[1] Based on the experience of other states, $3.7 million could fund about 150 community-based slots for mentally ill patients.

Staffing Implications. To provide services to more clients in the community, staff may increase in the 41 area programs by approximately 150 employees per year. Since community-based organizations are not State entities, transition between the State institutions and the community-based organizations will not be automatic. The option of training institutional staff for community-based employment may take time and effort.

Financial Implications. The State will need to provide an investment of $3.7 million the first year and a total of $166.5 million over the next ten years. This investment can purchase an additional 150 community-based slots each year for the next ten years.

Service Implications. If more community treatment programs are available, clients can choose to be served in the community instead of being treated in the State's mental health hospitals. Mental health clients in North Carolina can be served most effectively in the least restrictive environment.

Recommendation 2: North Carolina should build 4 new and efficient mental health institutions to accommodate the downsizing in the mental health institutions.

Decrease annual appropriations to mental health institutions by $13.3 million, consistent with the 150 clients moved from hospitals and into the community each year through 2004. As clients move from the institutions to the newly created community-based alternatives, the mental health institutions could be faced with a large number of excess beds. The excess beds will increase the overall cost/bed in the state mental health hospitals.

Once options exist in the community, clients will likely choose to be treated in the community rather than the State hospitals. A natural downsizing of the State hospitals will occur as fewer clients are treated in State hospitals. The State should then direct its inpatient treatment resources toward building smaller, more modern and efficient state hospitals.

Staffing Implications. In the State mental health hospitals, inpatient care staff can be reduced by approximately 2,000 positions over ten years. The staff reductions can be in proportion to the number of patients receiving community-based services. Staff can decrease in the State institutions by approximately 340 per year. (See Exhibit 8.)

EXHIBIT 8

Estimated Savings in Personnel Costs from Staff Reductions for a Fiscal Biennium (1992 dollars)

	1994-96	1996-98	1998-00	2000-02	2002-04
Yearly Staff	(672)	(672)	(672)	(672)	(672)
Staff Increases	0	0	0	0	0
Net Staff Change	(672)	(672)	(672)	(672)	(672)
Net Dollar Savings	$20,500,000	$20,500,000	$20,500,000	$20,500,000	$20,500,000

Financial Implication. Through a combination of a phase-down of State mental health hospitals, single portal of entry, and the single stream of funding concept, North Carolina can realize of net savings of $97.4 million over the next nine years.

Operating reductions include the following:

- $548.0 million in cost reductions through downsizing of the State mental health institutions from 2,347 beds to 800. This savings estimate is base on an average annual cost per bed of $81,183. (Maintenance costs are excluded.)

To realize the $97.4 million in estimated savings, the State will have to make a substantial investment. Needed investments include:

- $57.0 million in amortized building costs for four smaller (200 bed) efficient mental health hospitals.

- $227.3 million in operating costs for the new mental health hospitals.

- $166.5 million to fund additional community-based slots through the area programs.

Implementation of this recommendation would require that the General Assembly allocate a larger and larger portion of the mental hospital budget each year to area programs. Based on the experience of other states, we estimate that the State could fund 150 community-based slots with $3.7 million. By adding 150 slots per year, 1,350 slots would be transferred from the State mental health hospitals to community-based programs under the guidance of area programs.

Service Implication. North Carolina's Comprehensive Mental Health Services Plan Implementation Report recommends that the State reduce inappropriate hospitalization and increase community-based alternatives. Clients that require long-term care in a hospital environment can continue to receive the necessary care in smaller, more modern state hospitals or through a private provider. Because the

private sector mental health hospitals are spread throughout North Carolina, family members interested in visiting the mental health hospitals will find them more convenient. Services for the mentally ill will improve because there will be more options available in the community.

Implementation

The first step in implementing these recommendations is for the State to reshape its mission in mental health service delivery. North Carolina should do this by identifying obstacles to implementing single portal of entry and integrated funding stream concepts. The area programs may need assistance implementing these two concepts. To facilitate implementation of the single stream of funding and the single portal of entry systems, the Department of Mental Health should identify one of the mental health hospitals to pilot the two programs.

Included in the implementation plan should be incentives for the private sector to add more acute care community-based treatment beds. The State should begin to refer clients that can be served in a community program to the 150 new community slots that are to be added annually. Over the next two years, more community-based programs should be created to serve the mentally ill clients that can be served in a less restrictive environment.

After phasing down in-patient mental health services for two years, North Carolina should begin construction on a 200 bed hospital in the East. As more clients are treated in the community-based programs, the State can start closing hospitals. With the funds saved from downsizing the State mental health hospitals, North Carolina should be able to build smaller, more modern hospitals in years 2,5,7, and 9 to replace its existing large, antiquated mental health hospitals. At the end of the 10 years, North Carolina should hire a private non-profit to operate the four newly constructed mental health hospitals.

This plan could be difficult to implement for the following reasons:

- Additional expenditures will be necessary in the first year of the plan
- Community opposition to closing psychiatric hospitals
- State employees fear of job loss

An additional expenditure of $3,700,000 will be needed to increase community-based alternatives during year one of the plan. The majority of the investment for alternative psychiatric care will come from the savings achieved from moving patients into the community. Opposition may come from the community where the hospital is located because it employs local citizens and those citizens could be displaced when the hospital is closed. However, positions potentially can be reduced through attrition as well as a comprehensive plan for retraining State employees to serve clients in the expanded community-based programs. Some family members of clients may be opposed because of their belief that hospital care is better than a community-based alternative.

EXHIBIT 9

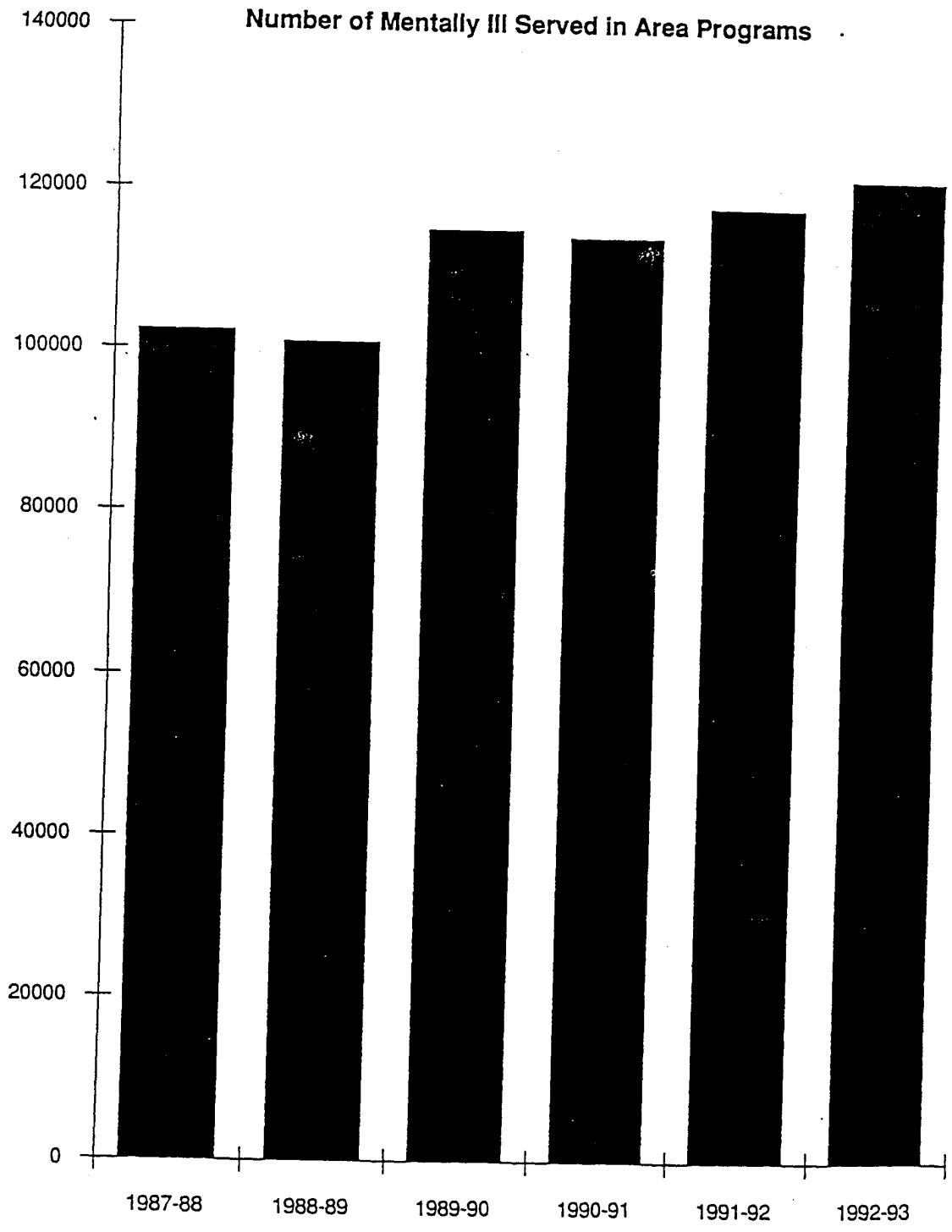
Estimated Annual Savings from Down-sizing State Mental Health Hospitals

(1992 dollars)

	Fiscal Year ending June 30 ($ in millions)									
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Current Operating Cost	$207.8	$207.8	$207.8	$207.8	$207.8	$207.8	$207.8	$207.8	$207.8	$207.8
(-) Operating Reductions	$0.0	($12.2)	($24.4)	($36.5)	($48.7)	($60.9)	($73.1)	($85.2)	($97.4)	($109.6)
(+) Investment	$0.0	$3.7	$23.4	$27.1	$33.8	$50.9	$57.5	$74.6	$81.3	$98.3
(=) Net Savings	$0.0	$8.5	$0.9	$9.4	$14.9	$10.0	$15.5	$10.6	$16.1	$11.3
Cumulative Savings	$0.0	$8.5	$9.4	$18.8	$33.7	$43.7	$59.2	$69.8	$85.9	$97.2

The goal of the plan will be to treat clients in the least restrictive environment. This will be accomplished through the creation of community-based alternatives. Improving the community-based services is consistent with the State Mental Health Plan. The Mental Health Plan recognizes that additional community-based services are necessary so that the citizens of North Carolina can be treated in the least restrictive environment. The State has been using the 41 area programs to move towards a community-based care system. (See Exhibit 10.) Also, the State mental health hospitals have begun downsizing the number of long-term clients being served. The number of individuals served in the 41 area programs has increased by 19 percent over the last five years as compared with the 4 percent increase in the number of individuals served in the State hospitals over the last five years. The goal of the State psychiatric hospitals is to prepare clients to be a productive community citizen.

EXHIBIT 10


Number of Mentally Ill Served in Area Programs
140000
120000
100000
80000
60000
40000
20000
0
1987-88
1988-89
1989-90
1990-91
1991-92
1992-93