North Carolina Department of Health and Human Services

Pat McCrory
Governor

Aldona Z. Wos, M.D.
Ambassador (Ret.)
Secretary DHHS

April 1, 2013

The Honorable Louis Pate, Co-Chair
Joint Legislative Oversight Committee
on Health and Human Services
Room 1028, Legislative Building
Raleigh, NC 27601

The Honorable Justin P. Burr, Co-Chair
Joint Legislative Oversight Committee
on Health and Human Services
Room 307A, Legislative Office Building
Raleigh, NC 27603

The Honorable Nelson Dollar, Co-Chair
Joint Legislative Oversight Committee
on Health and Human Services
Room 307B1, Legislative Oversight Committee
On Health and Human Services

Dear Senator Pate, Representatives Burr and Dollar:

The Subcommittee on Mental Health provided recommendations to the Joint Legislative Oversight Committee on Health and Human Services in the Report to the 2013 General Assembly. Recommendation 1 directs the North Carolina Department of Health and Human Services to determine the cost of increasing the number of beds in State psychiatric hospitals and to explore and determine the possibility of placing a new psychiatric facility in a newly established south central mental health region. The projected costs included in this report for the expansion of beds in existing State hospitals and the construction and operation of a psychiatric hospital in the proposed south central region are preliminary cost projections and do not include any inflationary factor. If directed to proceed further, DHHS will continue to review and revise cost projections as additional determinations are made about the facility size, location, construction timelines and other associated cost factors. This report also includes a discussion of enhanced community services that would serve to reduce the need for inpatient hospitalization for some individuals.

This report is due to the Joint Legislative Oversight Committee on Health and Human Services on April 1, 2013. Pursuant to the provisions of law, the Department is pleased to submit the attached report.

Please direct all questions concerning this report to J. Luckey Welsh, Jr., Interim Director of the NC Division of State Operated Healthcare Facilities. Mr. Welsh can be reached at (919) 855-4700.

Sincerely,

Aldona Wos, M.D.
Secretary

AW:mth

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Report on
Exploring the Costs and Feasibility
Of
A New Psychiatric Facility

Joint Legislative Committee on Health and Human Services,
Mental Health Subcommittee
2013 Report to the North Carolina General Assembly

April 1, 2013

Department of Health and Human Services

Exploring the Costs and Feasibility of a New Psychiatric Facility
April 1, 2013

Cost projections provided in this report for inpatient psychiatric beds are very preliminary and do not include an inflationary factor. If directed to proceed, DHHS will continue to review and revise cost projections as additional determinations are made about populations served, required staffing, the size of the facility, location, construction timelines and other cost factors.

In the January 2013 Report to the General Assembly, the Joint Legislative Oversight Committee on Health and Human Services recommended that *the General Assembly direct the Department of Health and Human Services (DHHS) to (i) determine the cost of increasing the number of beds in State psychiatric hospitals, (ii) explore the possibility of creating a south central mental health region to include at least Anson, Cabarrus, Davidson, Mecklenburg, Montgomery, Moore, Randolph, Richmond, Rowan, Scotland, Stanly, and Union counties, and (iii) investigate the possibility of placing a new psychiatric facility in this region of the State.*

This report will address current issues that indicate the need for additional State psychiatric hospital beds in North Carolina and will also provide a discussion of issues regarding community service development. The report specifically addresses each of the three recommendations in the report to the General Assembly. First, the report identifies the potential capacity expansion in existing State hospitals and the cost of adding those beds. The report then analyzes factors involved in creating the proposed south central region including population, admission, and proximity considerations. An alternate catchment area for a south central region that is more equitable in population and hospital admissions is suggested. The possibility of placing a new psychiatric facility in the proposed south central region is discussed and two models for the operation of a new hospital are provided. Finally, the report reviews the potential for development of community based services in conjunction with some expansion of inpatient beds to enhance the continuum of services available to individuals with mental health treatment needs living in the proposed south central region.

I. Current Issues

Reduction of State Inpatient Beds Like most states, North Carolina has reduced the number of psychiatric inpatient hospital beds statewide. The number of State operated psychiatric inpatient beds decreased from 1,755 beds in SFY01 to 850 beds in SFY12. Approximately 500 of these bed closures were part of an initiative to transfer funds from the State hospitals to the community so that individuals would be served in less restrictive settings closer to their homes.

Emergency Department - Admission Delays The majority of individuals who are admitted to a psychiatric inpatient unit/hospital are referred through an emergency department (ED). The average length of stay for individuals presenting to an ED with a behavioral crisis was 15 hours and 52 minutes (NCHA Behavioral Health ED Utilization, 2012 First Quarter Summary). In this survey, some of the dispositions of those presenting to the ED included:

- 53% were discharged to home or self-care
- 28% were admitted to community psychiatric beds
- 11% were admitted to acute care beds
- 1% were admitted to a State hospital

The 1% of individuals presenting to an ED with psychiatric problems who were admitted to a State psychiatric hospital represent a unique subset of people with psychiatric needs. They are individuals who typically have chronic, severe and treatment refractory illnesses that the community hospitals cannot address. Many in need of hospitalization at a Sate hospital have multiple problems related to mental illness including aggressive behaviors, housing issues, lack of family/social support, financial problems, problems with medications, drug/alcohol abuse and co-occurring chronic medical problems and/or intellectual developmental disabilities. These problems result in a clinical determination by community hospitals that they simply cannot meet the individual's needs on their psychiatric unit. This results in long ED wait times for people who need State hospital level of care. The State hospital units often operate at capacity based on staffing and space availability. In SFY12, 72% of individuals admitted to State hospitals were delayed prior to admission. Of those admitted to State hospitals who experienced delay, the average delay between referral and admission to a State hospital was 73 hours in SFY12. The average delay increased to 84.6 hours for the first two quarters of SFY13.

Professional journals and newspapers nationwide are full of accounts of individuals who have had excessive delays in EDs resulting in delay in adequate treatment or, from the perspective of the ED, how delays of individuals with behavioral health issues have effectively reduced the overall capacity of the ED for individuals with other types of medical issues.

Law Enforcement Resources These admission delays have resulted in an increased demand on law enforcement, straining their resources. Nearly all individuals admitted to a State hospital from an ED are admitted through an involuntary commitment. To meet custody requirements specified in N.C.G.S. 122C, typically law enforcement officers remain with the individual from the time they are involuntarily committed until they are admitted to a State hospital. The combination of delays in the ED until transfer to a State hospital is possible and the actual travel time to and from the State hospital can be substantial and limit the law enforcement agency's ability to complete other duties. This can be especially difficult in more rural counties where a small number of officers are on duty at any given time.

National Trends and Comparisons North Carolina is not unique in the nation. Most states have reduced state operated inpatient psychiatric beds over the past decade or more (*No Room at the Inn, Trends and Consequences of Closing Public Psychiatric Hospitals* 2012, Treatment Advocacy Center). One way to compare the number of state operated hospital beds across states is to evaluate the number of beds per 100,000 population. In the paper, *No Room at the Inn, Trends and Consequences of Closing Public Psychiatric Hospitals*, the number of state operated civil beds (beds that are not dedicated to individuals with forensic status of Not Guilty by Reason of Insanity or Incapable to Proceed) per 100,000 is listed. Using 2010 data, the national average was 14.1 civil beds/100,000 with North Carolina having 8 civil beds/100,000, ranking 44th out of 50 states. In order to increase North Carolina's ratio to 14.1 civil beds/100,000, the State would need a total of 1,365 civil beds.

Department Of Justice Settlement/Olmstead Large appropriations for additional State hospital beds may be viewed by some as supporting an institutional bias rather than using funds to support community services. Recently North Carolina entered into an agreement with the United States Department of Justice to provide independent housing units and enhanced community mental health services to help people who have a mental illness live in the community. This

focus on community living allows inclusion and independence for people with mental illness to participate fully in community life. The settlement includes specific requirements for services to support people living in the community. In addition to the Local Management Entity/Managed Care Organization (LME/MCO) crisis service system the settlement requires Assertive Community Treatment Team (ACT) services that have fidelity to an evidence based model, supportive employment and peer support services. Crisis services must be sufficient to offer timely and accessible services and supports to individuals with a diagnosis of serious mental illness experiencing a behavioral health crisis. The services need to include mobile crisis teams, walk-in crisis clinics, community hospital beds, and 24-hour-per-day/7-day-per-week crisis telephone lines.

Community Psychiatric Inpatient Beds An Annual Comprehensive 2013 State Medical Facilities Plan examines need for additional community inpatient beds across the state. While some areas of the state actually have extra capacity, it was found that there was not sufficient capacity in community psychiatric hospital beds in Coastal Care MCO (Brunswick, Carteret, New Hanover, Onslow, Pender) and Smoky Mountain MCO (Alleghany, Alexander, Ashe, Avery, Caldwell, McDowell, Watauga, Wilkes). Both have need for increased community psychiatric hospital beds. This report does not take into account State Psychiatric Hospital beds. The Annual Comprehensive 2013 State Medical Facilities Plan supports a need for increased psychiatric beds in community hospitals in the above mentioned regions.

Community Mental Health System The North Carolina mental health system continues its transition to the 1915(b)(c) waiver and development of Managed Care Organizations (MCOs) in which a primary goal of the system is to serve more people in community based services, reserving state psychiatric hospitalization only for those individuals whose needs truly cannot be met by services in their own communities. It remains to be seen what the referral rates and patterns for the MCOs will be as the system matures.

II. Exploring the Costs and Feasibility of a New Psychiatric Facility

(i) Determine the Cost of Increasing the Number of Beds in State Psychiatric Hospitals

Current Operating Capacity North Carolina's state operated psychiatric hospitals currently operate 866 beds, including 84 forensic beds. Central Regional Hospital (CRH) recently increased their capacity by 16 beds, accounting for the increase over the previously published 850 bed capacity. The overall occupancy rate for the hospitals is generally at 90% with the lowest occupancy on specialized units such as medical units. In the hospital industry, 90% occupancy is considered full occupancy and, according to the 2013 State Medical Facilities Plan, 71.4 - 75.2% is the target occupancy for facilities the size of the State hospitals.

Funded Future Beds In the 2012-2013 Appropriations Act, the North Carolina General Assembly appropriated nearly $7,000,000 to increase inpatient beds: $3,513,000 recurring contingent on the Medicaid program for 19 beds at Broughton Hospital in Morganton and $3,472,954 R for 124 beds at Cherry Hospital in Goldsboro (annualized to $13,099,246 recurring). Broughton Hospital is prepared to operate the beds within 90 days of the funds being released by the Office of State Budget and Management; however, a projected Medicaid shortfall makes this unlikely in the current fiscal year. Cherry Hospital will begin adding the beds when it moves into its new hospital, projected to be completed in summer 2013.

Unfunded Potential Beds In addition to the state operated inpatient beds currently operational and those for which funding has already been appropriated, there is the potential for an additional 128 beds contingent on additional appropriations for staffing. The new Broughton Hospital, currently under construction with a projected completion date of late 2014, will have the physical capacity for an additional 85 beds. Central Regional Hospital has useable space in the CRH Annex (old John Umstead Hospital) for 43 additional beds contingent on appropriations for staffing. The space would require some minor refurbishing including upgrade of IT infrastructure, wall construction, improvements in lighting, installation of exterior fencing and similar items.

Therefore, the total potential capacity for the existing three hospitals is 1,137 beds, an increase of 271 beds over the current operating capacity.

Current and Potential Operating Capacity – Existing State Operated Hospitals				
	Current Beds (February 2013)	**Funded: Additional Potential Beds (February 2013)**	**Not Funded: Additional Potential Beds**	**Total Potential Beds (2015)**
Broughton	278	19**	85	382
Central Regional	398*	0	43	441*
Cherry	190	124	0	314
Total	**866**	**143**	**128**	**1137**

*includes 84 forensic beds

** Per SL2012-142 10.9G: *...the Department of Health and Human Services shall not...expend any of the funds appropriated...until January 1, 2013, pending a determination by the Office of State Budget and Management that there is adequate funding for the Medicaid budget for the 2012-2013 fiscal year.*

Subtracting North Carolina's 84 forensic beds from the 1137 total potential beds results in a total potential capacity of 1,053 civil beds, which is a ratio of 10.9 beds/100,000.

Costs of Unfunded/Potential Beds in Current Facilities Additional costs to bring up 43 additional beds at CRH and 85 beds at Broughton Hospital when the new hospital construction is completed are limited mostly to staffing with some start up costs at CRH. Minimal operating costs for food and drugs would be required and minor refurbishing would be necessary at CRH. Staffing costs are based on appropriations for additional staff at Cherry Hospital, prorated for the number of beds to be added. Total annual operating cost for the 128 beds is projected to be $27,903,882 with state appropriations of $22,107,959. Additionally, $948,875 would be needed at CRH for IT infrastructure costs, building refurbishing and other start up costs. See Attachment 2 for detail.

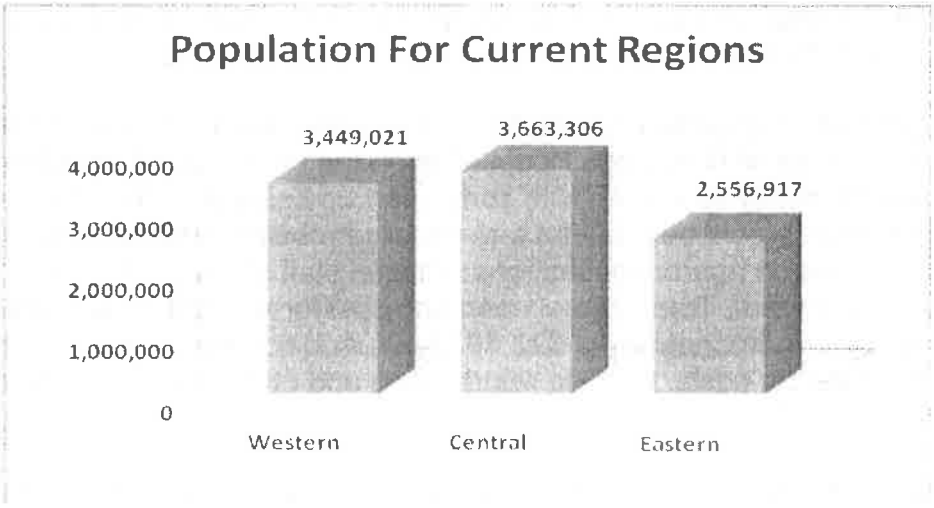
Timeline All of the 271 potential additional beds could be operational by the end of calendar year 2015. The ability of each hospital to recruit and hire staff, especially professional staff such as nurses and physicians, may impact the timeline. The timeline for the beds to be operational is as follows:

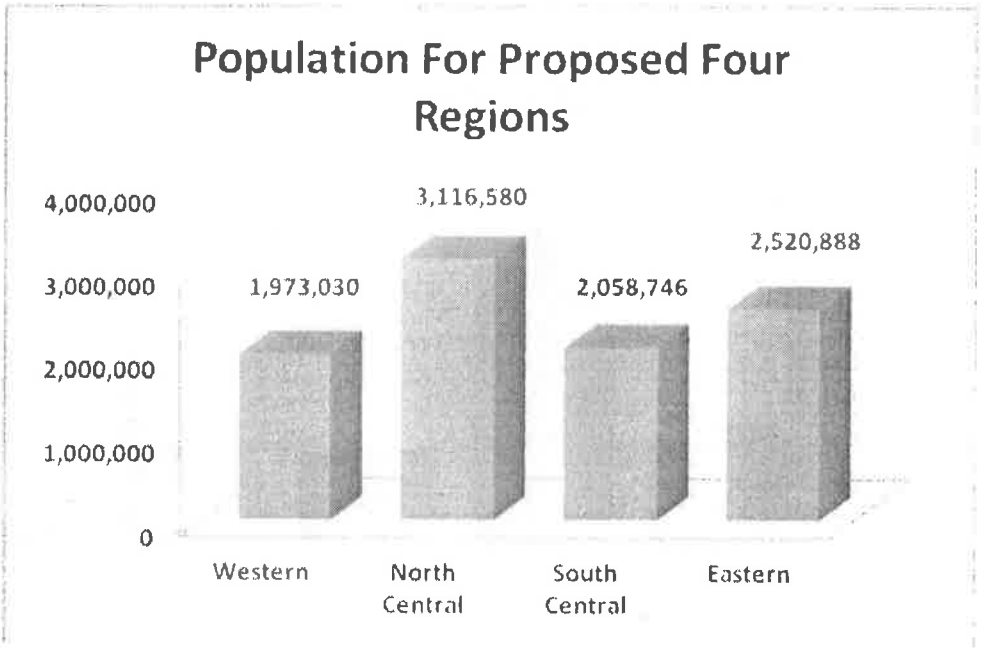
Timeline for Beds Being Operational			
Hospital	**Number of Beds**	**Comment**	**Calendar Year**
Broughton	19	Contingencies prior to July 1, 2013	2013
Central Regional	43	No contingencies	2014
Cherry	124	Post construction	2015
Broughton	85	Post construction	2015

(ii) Explore the Possibility of Creating a South Central Mental Health Region to Include at Least Anson, Cabarrus, Davidson, Mecklenburg, Montgomery, Moore, Randolph, Richmond, Rowan, Scotland, Stanly and Union Counties.

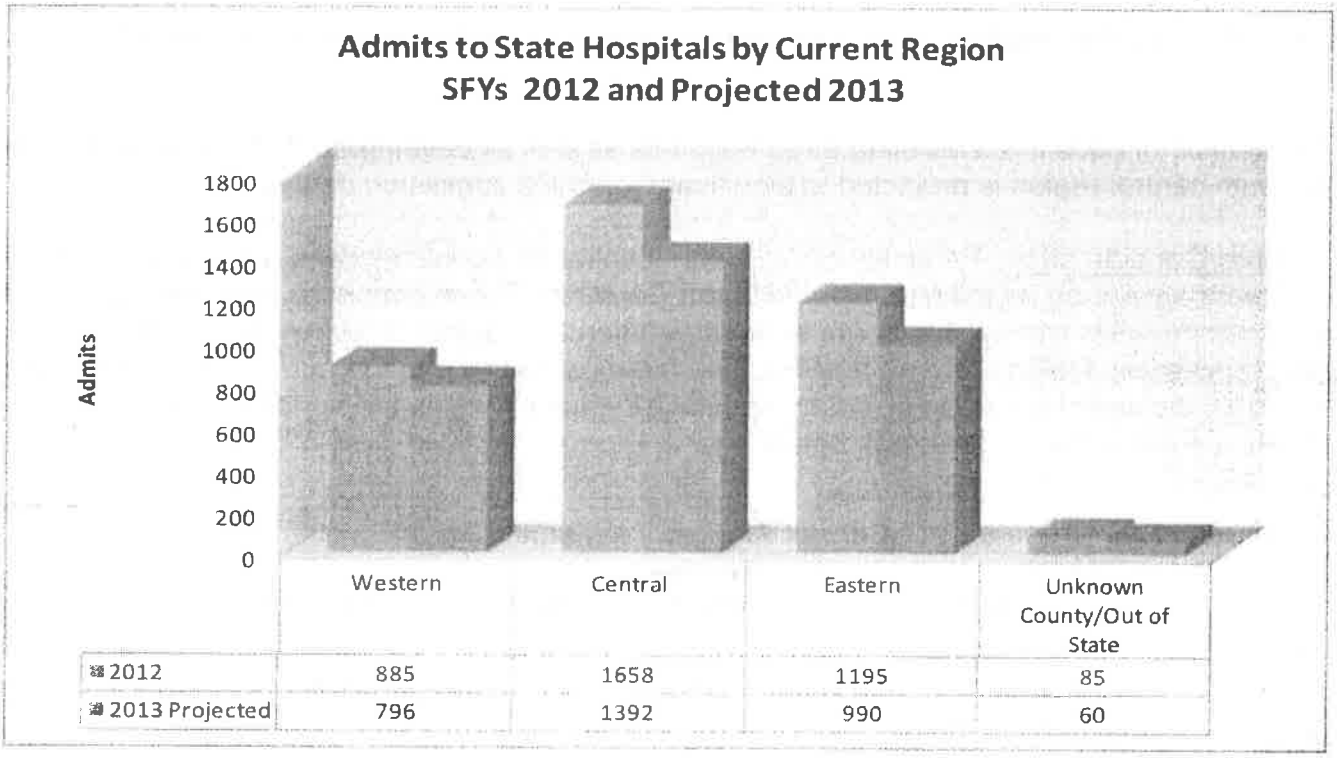
Population Considerations The current configuration of state hospital catchment areas includes three state psychiatric hospitals for the population in their assigned regions with Broughton Hospital in the western region, Central Regional Hospital in the central region and Cherry Hospital in the eastern region.

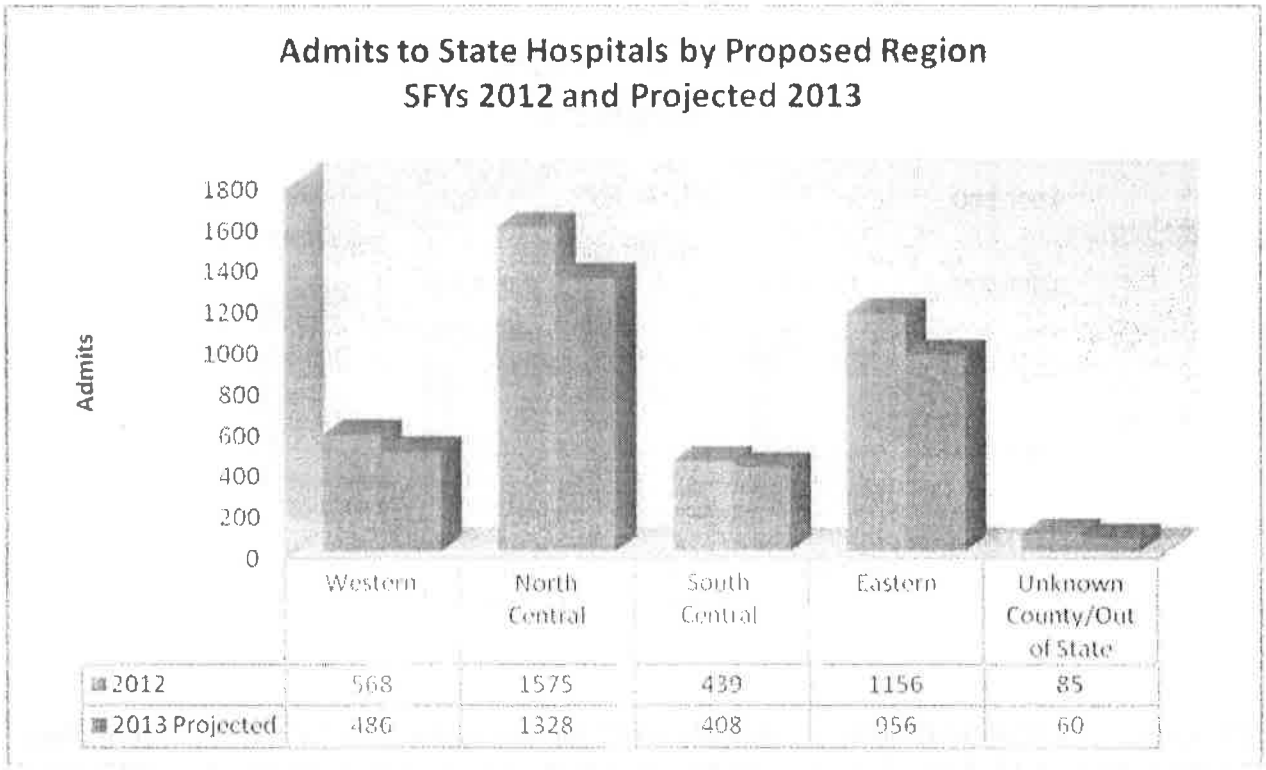
The proposed fourth region, the south central region, will include at least Anson, Cabarrus, Davidson, Mecklenburg, Montgomery, Moore, Randolph, Richmond, Rowan, Scotland, Stanly and Union counties. The following graphs show the size of the population served for the current regions and the proposed south central region. Please note that for the second graph, the north central region is the current central region served by Central Regional Hospital. In the current region and the proposed region this hospital located in Butner, provides care for the most individuals in the State. In the proposed regional configuration the eastern region maintains similar population sizes in both configurations. The western region has the greatest change going from a population of 3,449,021 to a population of 1,973,030. The proposed new region takes six counties from the western region including the densely populated Mecklenburg County, six rural or lower population counties from the central region and one lower population county from the eastern region.





Admissions The following graphs show state hospital admissions for SFY12 and projected admissions for SFY13, based on the first two quarters of SFY13 both for the current three region model and for the proposed four region model, inclusive of the south central region. As seen in the following graphs, there has been a decrease in admissions between SFY12 and SFY13. Two primary reasons for this decrease in admissions in the hospitals is an increase in the acuity/severity of patients served and difficulty developing adequate discharge placements and services.





Admissions for the proposed south central region have historically been lower per capita than admissions for the remaining three regions because Mecklenburg County, the State's largest county by population, has significant inpatient resources and admits relatively fewer individuals to the State hospital. In addition to the current inpatient resources in Mecklenburg County, plans are underway to add 66 inpatient beds in the County. Due to the lower usage of State hospital beds by Mecklenburg County, the new hospital in the proposed region is recommended to be 200 beds, the smallest of the four State hospitals. See Attachment 1 for admissions by county.

The addition of beds in the existing three hospitals as well as development of a new hospital in the south central region is projected to significantly reduce admission delays.

Proximity Considerations Proximity of the state hospital for people seeking admission in their catchment area is an ongoing concern in North Carolina. Travel time is an important issue with some communities coping with hours in transportation time alone. This results in a burden on law enforcement, individuals and families. The average distance to the current state hospitals (based on distance from county seat to hospital for each county in the region) in the three regions are presented in the graph below.

Current Regions - Average Miles			
Hospital	**Average Distance**	**Minimum**	**Maximum**
Central Regional	70	16	145
Cherry	90	22	185
Broughton Hospital	72	16	165

Note: For mileage charts, all averages were calculated with the exclusion of any distance = 0.

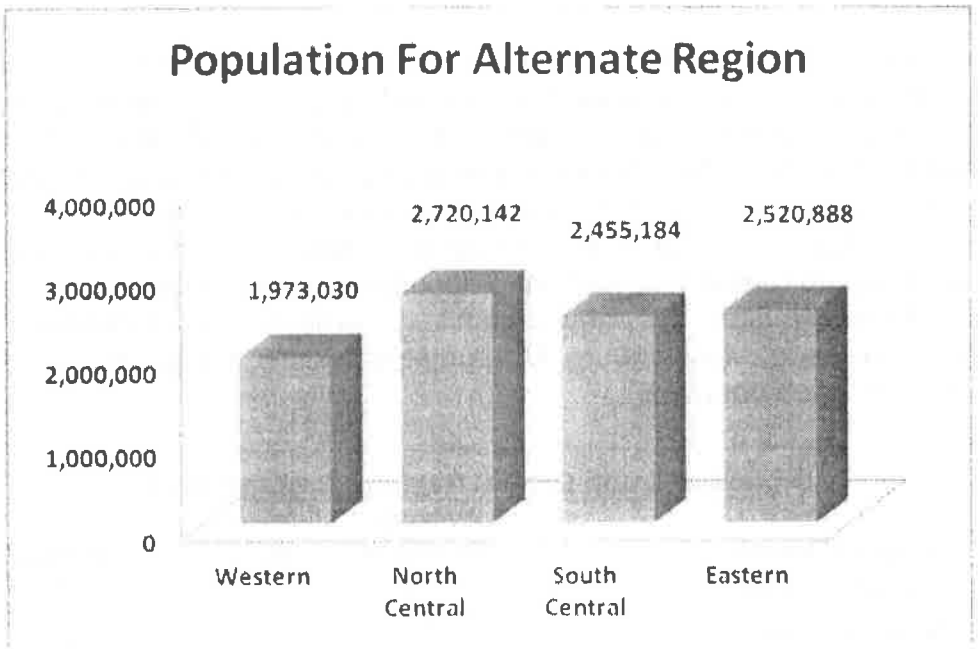
To demonstrate how a fourth hospital and region may influence the proximity of state hospital services for the proposed regions several State-owned sites were identified. Further study of potential sites should occur in the future when the four regions are identified. It is quite possible that a location other than those listed below for illustrative purposes would be preferable; these locations are provided for purposes of demonstration only. At this time it is not clear if all of the sites can support this type of facility. The following table provides a comparison of the average distance for the proposed region's current state hospital and the average distance for five potential sites in the new region. This new region is the proposed south central region including Anson, Cabarrus, Davidson, Mecklenburg, Montgomery, Moore, Randolph, Richmond, Rowan, Scotland, Stanly and Union counties.

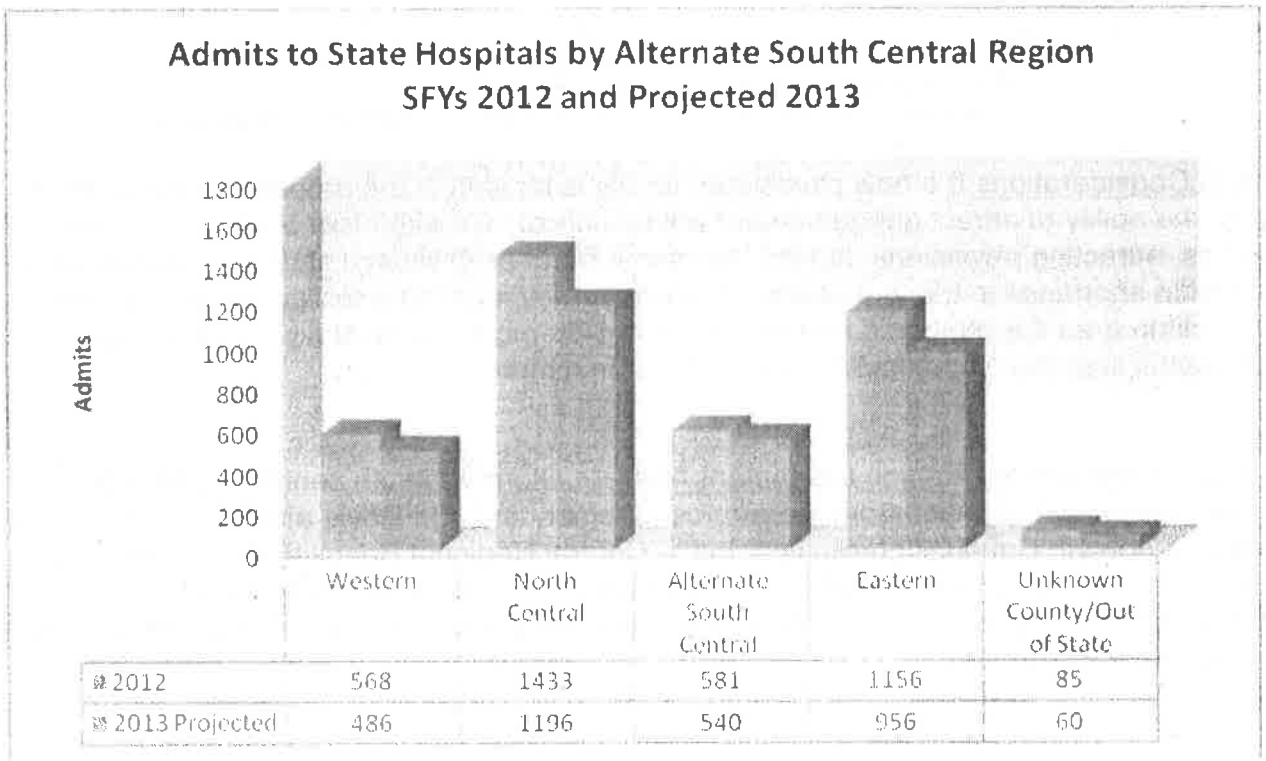
Proposed South Central Region - Average Miles			
Hospital Location	**Average Distance**	**Minimum**	**Maximum**
Current State Hospital	102	73	145
Waxhaw (Union County)	61	12	101
Monroe (Union County)	51	25	89
Steele Township (Salisbury-Rowan County)	52	19	123
Jackson Springs (Union County)	53	19	90
Troy (Montgomery County)	43	27	65

Note: For mileage charts, all averages were calculated with the exclusion of any distance = 0.

Staffing Considerations If a new psychiatric facility is located in the proposed south central region, the ability to attract adequate staff will be critical. As with other State and community hospitals, attracting physicians, nurses and some other professional staff may be difficult due to nationwide shortages in these disciplines. However, by locating a facility closer to a large metropolitan area it is expected that the facility will be more successful with attracting professional staff than if the facility were located in a more rural area.

Alternate South Central Region Catchment Area An alternate south central region would maintain the twelve counties from the proposed region and add Davie and Forsyth Counties. Davie and Forsyth Counties currently admit to Central Regional Hospital. This combination of counties provides for a more equitable distribution of population and hospital admissions between the four regions. The two graphs below show population and admissions based on this alternate south central region.





The addition of Davie and Forsyth Counties in the alternate south central region does increase the geographic area for the region. The table below shows the average mileage to various hospital sites from all the counties in the alternate region, including Davie and Forsyth.

Alternate South Central Region - Average Miles			
Hospital Location	**Average Distance**	**Minimum**	**Maximum**
Current State Hospital	101	74	143
Waxhaw (Union County)	65	12	103
Monroe (Union County)	60	25	98
Steele Township (Salisbury-Rowan County)	54	18	123
Jackson Springs (Union County)	59	19	95
Troy (Montgomery County)	46	20	66

Note: For mileage charts, all averages were calculated with the exclusion of any distance = 0.

Inclusion of Davie and Forsyth Counties in the south central region may require the size of a proposed hospital to be larger. If requested to do so by the General Assembly, DHHS will provide additional information on capacity and costs for an alternate south central region hospital.

(iii) Investigate the Possibility of Placing a New Psychiatric Facility in this Region of the State.

As outlined in the section titled Current Issues on page 2, it is evident that North Carolina needs additional psychiatric inpatient beds to meet current demand for this level of care. However, additional community based crisis services could address the needs of some individuals preventing need for the highest level of services in a hospital setting and reducing the need for inpatient beds. Enhancing community services, including crisis services, is consistent with the settlement agreement that North Carolina recently entered into with the United State Department of Justice. This section identifies two options for development of a psychiatric hospital in the south central region.

New State Operated Psychiatric Facility One option for locating a psychiatric facility in the proposed south central region is to build a fourth State operated hospital. A 200 bed hospital would be recommended to provide inpatient services for the population in the region.

If a fourth psychiatric hospital with a capacity of 200 beds was developed in the proposed south central region, along with the beds currently under construction, the total civil capacity in North Carolina would be1,253 beds. However, if a new hospital is constructed, DHHS does not recommend adding 43 beds at CRH since they would be located in an old, outdated structure. Therefore, North Carolina's total civil capacity would increase to 1,210 beds. This would place the State at 12.5 beds/100,000, closer to the national average of 14.1 beds/100,000. See the following table for details.

Beds/100,000 with Proposed South Central Hospital						
	Population (Catchment Area)	*Current Civil Beds (February 2013)*	*Funded: Additional Potential Civil Beds (February 2013)*	*Not Funded: Additional Potential Civil Beds*	*Total Potential Civil Beds (2015)*	*Total Potential Civil Beds/100,000 Population (Catchment Area)*
Broughton	1,973,030	278	19	85	382	19.4
Central Regional	3,116,580	314	0	0	314	10.1
Cherry	2,520,888	190	124	0	314	12.5
Proposed New Hospital	2,058,746	0	0	200	200 (date TBD)	9.7
Total	9,669,244	782	143	285	1210	12.5

Cost projections for a new State operated psychiatric hospital are based on two basic assumptions: 1) the facility would be certified by the Centers for Medicare and Medicaid Services (CMS) and accredited by the Joint Commission, and 2) the facility would provide the same services as the existing State hospitals to the same populations groups: adult admissions, adult long term, gero-psychiatric, adolescent and medical. (Specific populations served and the number of beds for each population will be determined by DHHS if directed to proceed further.) To develop projected costs for a new State operated psychiatric hospital in the proposed south central region the following costs were considered:

- Design - includes fees to a design firm to modify the basic hospital design to meet the geography of the site, address issues identified at previously constructed hospitals and ensure the size and layout of the hospital is adequate for the proposed patient populations and staffing. Design also includes specific design of specialty areas such as the pharmacy, laboratory, and kitchen.
- Special Inspections and Testing - includes such specialized activities as soil testing and steel strength.
- Construction - cost of contract with general contractor for actual construction of the facility.
- Equipment - includes all medical, dietary, maintenance and other equipment needed to operate a hospital.
- Furnishings - includes furnishing for patient, staff and common areas.
- Information Technology - includes all technology infrastructure equipment including servers, computers, telephony, duress system, etc.
- Start up costs not including equipment - one time costs to acquire supplies and materials.
- Operating budget - includes staffing costs.

The basic model used for developing cost projections was based on a two prong approach. The first category of cost relates to items needed regardless of the size of the facility. Costs in this category typically include one-of-a-kind items such as radiology equipment, lab equipment (within the lab), etc. The second category of cost relates to areas which are dependent upon patient populations. These types of cost include the following: patient furnishings, food, drugs, nursing, other clinical staff, etc. These costs have been projected based on a per bed need, for a 200-bed hospital.

The total projected construction and other one-time start-up costs are estimated at $137,242,120. See Attachment 3 for details.

The total estimated annual operating expenses totals $78,107,719. This includes staffing, food, drugs, utilities, etc. Of this amount, it is projected that $16,222,973 can be earned in receipts, which leaves a net state appropriation need of $61,884,746. See Attachment 4 for specific line items.

Additional costs that have not been factored into these projections are those related to property acquisition if existing State-owned property is not selected as well as necessary infrastructure upgrades to the property. Until a site is selected, it cannot be determined if the city/county infrastructure (water, sewer, roads, natural gas, etc.) exists for the property or if it does exist, if it will support a facility the size of the proposed hospital.

These costs projections are very preliminary and do not include any inflationary factor. If directed to proceed further, DHHS will continue to review and revise the cost projections as additional determinations are made about size of the facility, location, construction timelines, etc.

Other Psychiatric Hospital Models A second option for the development of a psychiatric hospital in the proposed region is to contract with a private corporation to build and operate the facility. The vendor would likely build the facility and include the cost of the construction in the daily rate; eliminating any capital outlay by the State. The facility would be considered an Institute for Mental Disease (IMD) and, therefore, subject to the CMS IMD exclusion which would prohibit any Medicaid billing for patients between the ages of 21 and 64. This would require the State to appropriate funds for the operating budget of a privately operated hospital.

A variation on the privately operated model would be a public-private partnership in which the State and a vendor share responsibility for the facility. Typical models for public-private partnerships include the State owning and managing the physical plant while the vendor employs the staff and manages daily operations or the State contracts with a vendor to manage the facility while employees remain State employees and the facility is owned by the State.

III. Contributions from Community Services

Although community services do not replace inpatient psychiatric treatment, robust community services prevent some individuals from deteriorating psychiatrically to the point of needing hospitalization. These services also support individuals returning to the community from hospital stays, increasing their ability to remain successfully in the community.

A services gap analysis of Mental Health, Developmental Disabilities and Substance Abuse Services conducted in 2008 found gaps in long term supports that promote independence and recovery. Insufficient supports were found in the following areas:

- Safe affordable housing
- Employment opportunities and supports

- Emergency respite
- Timely access to affordable medications
- Primary healthcare
- Transportation
- Post secondary educational opportunities
- Other opportunities for recreation and community inclusion

Through the Department of Justice Settlement, Transitions to Community Living Initiative, additional opportunities will be developed for supported housing, supported employment and access to healthcare and medication management. A more recent analysis indicates a State-wide need for more Assertive Community Treatment (ACT) that meets the criteria for evidence based practices and for peer support services. Both have also been included in the Transitions to Community Living Initiative. In their 2012 report, Mercer suggested that although North Carolina has a robust service array, the services do not meet the standards of evidence based practices that would provide greater efficacy and improved outcomes for individuals. It further recommends enhancing services provided through Money Follows the Person (MFP) into services such as transition year stability funds, peer specialists and supported employment. Enhancing these services could lead to better outcomes for individuals and reduce utilization and length of stay in community and state hospital inpatient units.

One community service that does not exist in North Carolina is long term structured residences which provide a 24-hour therapeutic environment and employs active psychiatric treatment and psychosocial rehabilitation skills training in a structured residential milieu. These could be used to transition individuals who have significant treatment needs who have been hospitalized for extended periods of time. Additionally, with this higher level of structured residence in the community, some individuals who would have otherwise needed inpatient care may remain stable thus reducing the need for hospitalization. Long term structured residences provide a less restrictive and less costly alternative to inpatient hospitalization. The operational policies and procedures empower residents to take an active role in their treatment and other decisions which affect their lives, and create an environment which reduces stigma, promotes independence and fosters self-esteem. The typical model for long term structured residences is 16 beds or less with each resident receiving at least 1/2 hour of psychiatric time per week.

Another potential community resource is non-hospital crisis diversionary units that are up to 16 beds run by mental health professionals. These crisis units would reduce the need for additional inpatient beds in state or community hospitals if they can prevent escalation of the individual's crisis. These units are highly structured mental health residential treatment. They provide behavioral health treatment and specialized programming in a controlled environment with a high degree of supervision. Crisis diversionary units would provide in-house psychiatric treatment, therapeutic groups, activities and recreation.

Additional capacity in psychiatric units in community hospitals across the state should reduce wait times in EDs. However, the current system allows community hospitals to decline admission of persons who are then referred to the State psychiatric hospitals. As stated earlier, individuals delayed for admission to a State psychiatric hospital have multiple problems related to mental illness including aggressive behaviors, housing issues, lack of family/social support, financial problems, problems with medications, drug/alcohol abuse and co-occurring chronic medical problems and/or intellectual developmental disabilities. Prior to being referred for

admission to a State hospital, most individuals have already been denied admission by the community hospitals. They are individuals who typically have chronic, severe and treatment refractory illnesses and community hospitals consistently make clinical decisions that they cannot provide the care needed by the individual. One option is to work with community hospitals to better enable them to serve more of those patients. The ability to decline admission results in some communities having excess community hospital beds while we maintain inadequate capacity to serve individuals who are most in need.

IV. Conclusion

This report addresses several options for increasing the number of inpatient psychiatric beds across the State and in the proposed south central region. The most immediate and cost effective way to increase the number State inpatient beds is to expand capacity by 43 beds at Central Regional Hospital and by 84 at Broughton Hospital when construction is completed in late 2014. This increase in beds, along with 124 beds that have already been funded, but are not yet operational, would increase total capacity in State hospitals to 1,137. This option, of course, does not lessen the distance between individuals in the proposed south central region and the State operated facilities. A second option for increasing the number of State operated inpatient beds is to build a fourth hospital with 200 beds in the proposed south central region. The State could also choose to contract with a private vendor to build and operate a facility in the proposed region.

This report also addresses community based services in the proposed south central region as well as State-wide. Expansion of these critical community services is consistent with the settlement that North Carolina recently entered into with the United States Department of Justice and the basis for the Transitions to Community Initiative. Community based services could currently reduce the need for additional State psychiatric beds and reduce delays.

Improved access to the level of psychiatric care currently provided by our State operated hospital system should improve treatment for some of North Carolina's most vulnerable residents. The needs of individuals served in these hospitals are complicated and multi-faceted. They are individuals who typically have chronic, severe and treatment refractory illnesses and community hospitals consistently make clinical decisions that they cannot provide the care needed by the individual. Increased capacity in the State hospital system would ensure more timely treatment for people with the greatest psychiatric needs who currently experience significant delays. This coupled with comprehensive care in the community upon discharge from the hospital would offer the support people need to lead the fullest life possible. Increasing the State hospital capacity to care for people who need more than a brief hospitalization, while bolstering community services and housing options, should improve outcomes for each individual and support local communities by easing the difficulties faced by law enforcement, families and local emergency departments.

Attachment 1

State Hospital Admissions: 2012 and 2013 (Projected) – Data Are Original Admit Dates from HEARTS

	Year	
Region/County	2012	2013 (Projected based on data for 7.1.11-12.31.12)
West		
ALEXANDER COUNTY	7	6
ALLEGHANY COUNTY	3	0
ASHE COUNTY	7	12
AVERY COUNTY	4	6
BUNCOMBE COUNTY	47	52
BURKE COUNTY	53	32
CABARRUS COUNTY	42	46
CALDWELL COUNTY	40	26
CATAWBA COUNTY	26	22
CHEROKEE COUNTY	8	12
CLAY COUNTY	5	0
CLEVELAND COUNTY	22	22
DAVIDSON COUNTY	31	24
GASTON COUNTY	24	20
GRAHAM COUNTY	5	0
HAYWOOD COUNTY	24	10
HENDERSON COUNTY	23	26
IREDELL COUNTY	67	48
JACKSON COUNTY	10	10
LINCOLN COUNTY	18	6
MACON COUNTY	17	10
MADISON COUNTY	3	8
MCDOWELL COUNTY	18	18
MECKLENBURG COUNTY	180	178
MITCHELL COUNTY	4	0
POLK COUNTY	8	4
ROWAN COUNTY	32	44
RUTHERFORD COUNTY	38	38
STANLY COUNTY	10	4
SURRY COUNTY	23	20
SWAIN COUNTY	3	6
TRANSYLVANIA COUNTY	9	18
UNION COUNTY	22	14
WATAUGA COUNTY	13	6

Region/County	Year 2012	2013 (Projected based on data for 7.1.11-12.31.12)
WILKES COUNTY	17	24
YADKIN COUNTY	19	22
YANCEY COUNTY	3	2
Total West	885	796
Central		
ALAMANCE COUNTY	66	74
ANSON COUNTY	13	6
CASWELL COUNTY	7	4
CHATHAM COUNTY	22	28
DAVIE COUNTY	9	4
DURHAM COUNTY	242	190
FORSYTH COUNTY	133	128
FRANKLIN COUNTY	20	32
GRANVILLE COUNTY	34	34
GUILFORD COUNTY	240	202
HALIFAX COUNTY	24	12
HARNETT COUNTY	107	64
HOKE COUNTY	13	4
LEE COUNTY	24	28
MONTGOMERY COUNTY	2	2
MOORE COUNTY	18	18
ORANGE COUNTY	56	46
PERSON COUNTY	34	22
RANDOLPH COUNTY	44	32
RICHMOND COUNTY	6	6
ROCKINGHAM COUNTY	35	32
STOKES COUNTY	11	2
VANCE COUNTY	37	30
WAKE COUNTY	449	390
WARREN COUNTY	12	2
Total Central	1658	1392
East		
BEAUFORT COUNTY	7	6
BERTIE COUNTY	8	2
BLADEN COUNTY	27	22
BRUNSWICK COUNTY	44	40
CAMDEN COUNTY		0
CARTERET COUNTY	12	6

	Year	
Region/County	**2012**	**2013 (Projected based on data for 7.1.11-12.31.12)**
CHOWAN COUNTY	2	4
COLUMBUS COUNTY	51	30
CRAVEN COUNTY	36	26
CUMBERLAND COUNTY	147	106
CURRITUCK COUNTY	2	6
DARE COUNTY	14	4
DUPLIN COUNTY	7	10
EDGECOMBE COUNTY	46	32
GATES COUNTY	1	0
GREENE COUNTY	11	10
HERTFORD COUNTY	5	0
HYDE COUNTY		0
JOHNSTON COUNTY	48	58
JONES COUNTY		4
LENOIR COUNTY	36	38
MARTIN COUNTY	10	10
NASH COUNTY	87	30
NEW HANOVER COUNTY	124	122
NORTHAMPTON COUNTY	8	12
ONSLOW COUNTY	26	12
PAMLICO COUNTY	4	6
PASQUOTANK COUNTY	8	4
PENDER COUNTY	21	14
PERQUIMANS COUNTY	2	2
PITT COUNTY	65	56
ROBESON COUNTY	63	36
SAMPSON COUNTY	53	50
SCOTLAND COUNTY	39	34
TYRRELL COUNTY		0
WASHINGTON COUNTY	3	0
WAYNE COUNTY	139	152
WILSON COUNTY	39	46
Total East	1195	990
NA		
OUT OF STATE COUNTY	83	58
UNKNOWN COUNTY	2	2
Total NA	85	60
Grand Total	3823	3238

North Carolina Department of Health and Human Services
Division of State Operated Healthcare Facilities
Estimated Cost for Additional Beds at Existing Facilities

	CRH Annex 43 Additional Beds	Broughton Hospital 85 Additional Beds	Totals
*Projected One-Time IT Infrastructure Cost	$ 586,175		
**Other Start-Up (Building Renovations and Other One-Time Prep Cost)	362,700		
All STATE APPROPRIATIONS - Year One	**$ 948,875**		
Number of FTE's	**130.00**	**255.75**	**385.75**
Estimated Recurring Expenditures			
Total Salaries & Fringes	$ 8,657,130	$ 16,946,449	$ 25,603,579
Staff Operating Cost	19,584	38,713	58,297
*IT Maintenance	46,567		46,567
***Patient Cost	737,530	1,457,909	2,195,439
TOTAL ESTIMATED ANNUALLY RECURRING EXPENDITURES	**$ 9,460,812**	**$ 18,443,071**	**$ 27,903,882**
Less: Estimated Patient Receipts	**1,965,011**	**3,830,913**	**5,795,923**
STATE APPROPRIATIONS	**$ 7,495,801**	**$ 14,612,158**	**$ 22,107,959**
Average Expenditure Cost/Patient/Day	**$ 603**	**$ 594**	**$ 597**

*Additional IT Infrastructure, Staffing & Maintenance Costs for 85 Additional Beds at Broughton previously included in expansion request for the new Hospital, as the same Infrastructure will be needed regardless of number of beds.

**Building renovations and other one-time preparation cost will not be needed with Broughton's new building.

***Patient Cost includes the following:
Janitorial Supplies
Bedding & Textile Prod
Food Supplies
Dietary Supplies
Recreational Supplies
Rehabilitation Supplies
Drug Supplies
Other Pharmaceutical Supplies
Other Materials/Supplies

Attachment 3

North Carolina Department of Health and Human Services

Division of State Operated Healthcare Facilities

Preliminary Cost Projections for Construction of New 200-Bed Psychiatric Hospital - without Inflation

Cost for Construction of New 200-Bed Hospital

* Base Construction Cost Before Construction Contigency		
320,000 SF x $301 per SF	$	96,320,000
Add: 3% Construction Contigency		2,889,600
Subtotal - Base Construction Cost		99,209,600
Add: 8.5% Design Fee		8,432,816
Add: Cost of Special Inspections and Testing		1,000,000
Add: Commissioning Cost (for HVAC System)		320,000
Add: Senate Bill 668 Compliance Costs		225,000
*** Total - Estimated Construction Cost**	**$**	**109,187,416**
Add: IT Infrastructure Cost		16,521,446
Add: Furniture Cost + 3% Escalation		4,083,950
Add: ^ Medical & Other Equipment Cost		7,100,000
Add: ^ Hospital-Wide Supplies for Start-Up - See Attached		349,308
Grand Total - Estimated Cost for Construction and Completion of New 200-Bed Psychiatric Hospital	**$**	**137,242,120**

Notes:

* Costs for construction, design and inspections have been derived from actual contracts for the New Broughton Hospital currently under construction.

^ In calculating Medical & Other Equipment and Hospital-Wide Supplies, it was assumed that there would be no equipment/supplies to move from any other State Operated Healthcare Facility.

North Carolina Department of Health and Human Services

Division of State Operated Healthcare Facilities
Projected One-Time Start-Up Costs, other than Equipment

Environmental Services	
Linens (Sheets, Pillow Cases, Blankets, Towels, Washcloths, Linen Carts, etc).	$ 43,639
Floor Supplies (Wet Mops, Dust Mops, Wet Floor Signs, Floor Mats, etc).	49,291
Chemicals & Supplies (Disinfectant, Bleach, Paper Towels, Trash Cans, Soap, etc).	22,218
Nutrition Services	
Kitchen Essentials, such as Pots & Pans, Dish Carts, Drying Racks, Sheet Pans, etc.	150,000
Patient Care Unit (assuming ten 20-bed units)	
Supplies for PCU, such as Bulletin Boards, Clocks, Mailboxes, Lockers, etc.	46,652
Warehouse	
Warehouse Supplies (Hand Trucks, Rolling Tables, Tape Guns, Utility Knives, etc).	17,508
Maintenance Department	
Uniforms	15,000
General Office Supplies	
Hospital-Wide, such as Paper, Pens, Highlighers, Folders, Paperclips, Staples, etc.	5,000
^ Total Projected One-Time Start-Up Costs for New 200-Bed Hospital	**$ 349,308**

^ In calculating Hospital-Wide Supplies for start-up, it was assumed that there would be no supplies to move from any other State Operated Healthcare Facility.

North Carolina Department of Health and Human Services

Division of State Operated Healthcare Facilities

Estimated **Operating Cost** for New 200-Bed Psychiatric Hospital

Account No.	Account Title	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
531xxx	**PERSONAL SERVICES**				
5312xx	Base Salaries	$ 47,991,131	$ 48,637,245	$ 49,209,336	$ 49,744,153
5314xx	Other Pay (OT, Shift, Holiday, Longevity, etc)	$ 2,784,667	$ 2,822,158	$ 2,855,353	$ 2,886,386
5315xx	Fringe Benefits	$ 15,957,564	$ 16,172,404	$ 16,362,630	$ 16,540,463
5316xx	Other Personal Services	$ 921,413	$ 933,818	$ 944,802	$ 955,070
532xxx	**PURCHASED SERVICES**				
5321xx	Contractual Services	$ 3,704,829	$ 3,798,541	$ 3,889,669	$ 3,980,095
5322xx	Utility/Energy Services	$ 1,130,793	$ 1,176,899	$ 1,221,775	$ 1,268,226
5323xx	Repair Services	$ 34,702	$ 35,580	$ 36,433	$ 37,280
5324xx	Maintenance Agreements	$ 269,179	$ 275,988	$ 282,609	$ 289,179
5325xx	Rentals/Leases	$ 197,018	$ 202,001	$ 206,847	$ 211,656
5327xx	Travel	$ 12,228	$ 12,537	$ 12,838	$ 13,136
5328xx	Communications & Data Processing	$ 110,075	$ 112,859	$ 115,567	$ 118,254
5329xx	Other Services	$ 137,142	$ 140,611	$ 143,984	$ 147,332
533XXX	**SUPPLIES**				
5331xx	General Admin Supplies	$ 154,651	$ 158,563	$ 162,367	$ 166,141
5332xx	Facility & Hardware Supplies	$ 342,300	$ 350,958	$ 359,378	$ 367,733
5333xx	Vehicle/Equipment Operating Supplies	$ 454,504	$ 466,001	$ 477,180	$ 488,274
5334xx	Food Supplies	$ 990,009	$ 1,015,051	$ 1,039,402	$ 1,063,566
5335xx	Clothing and Recreational Supplies	$ 114,869	$ 117,775	$ 120,600	$ 123,404
5336xx	Drugs/Pharmaceutical Supplies	$ 2,003,934	$ 2,084,503	$ 2,168,727	$ 2,255,085
5337xx	Research/Development & Educational Supplies	$ 51,512	$ 52,815	$ 54,082	$ 55,339
5339xx	Other Materials and Supplies	$ 95,189	$ 97,597	$ 99,938	$ 102,261
534XXX	**PROPERTY, PLANT AND EQUIPMENT**				
5345xx	Equipment (Furniture, Office Equip, Computers)	$ 349,845	$ 358,694	$ 367,299	$ 375,838
5347xx	Intangible Assets	$ 97,646	$ 100,116	$ 102,518	$ 104,901
535XXX	**OTHER EXPENSES**				
5358xx	Other Expenses (Licenses, Other Admin, etc)	$ 202,521	$ 207,643	$ 212,625	$ 217,568
	Total Estimated Operating Expenses	***$ 78,107,719***	***$ 79,330,354***	***$ 80,445,959***	***$ 81,511,339***
	Less: Projected Receipts (Based on Average for Other State Hospitals)	***$ 16,222,973***	***$ 16,476,915***	***$ 16,708,626***	***$ 16,929,905***
	Net State Appropriations	***$ 61,884,746***	***$ 62,853,440***	***$ 63,737,333***	***$ 64,581,434***