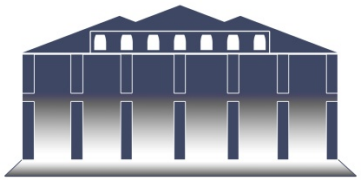
DHHS Should Integrate State Substance Abuse Treatment Facilities into the Community-Based System and Improve Performance Management

Final Report to the Joint Legislative Program Evaluation Oversight Committee

Report Number 2014-14

November 19, 2014



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John W. Turcotte
Director

November 19, 2014

Senator Fletcher L. Hartsell, Jr., Co-Chair, Joint Legislative Program Evaluation Oversight Committee
Representative Julia Howard, Co-Chair, Joint Legislative Program Evaluation Oversight Committee

North Carolina General Assembly
Legislative Building
16 West Jones Street
Raleigh, NC 27601

Honorable Co-Chairs:

Session Law 2013-360, Section 12F.7.(b) directed the Joint Legislative Program Evaluation Oversight Committee to consider including in the 2014 Work Plan for the Program Evaluation Division of the General Assembly a study of the most effective and efficient ways to operate inpatient alcohol and drug abuse treatment programs. The committee subsequently added this study to its 2013–15 work plan as part of a larger review of adult alcohol and drug abuse programs, prescription drug abuse, and programs for veterans.

I am pleased to report that the Department of Health and Human Services cooperated with us fully and was at all times courteous to our evaluators during the evaluation.

Sincerely,

John W. Turcotte
Director

PROGRAM EVALUATION DIVISION
NORTH CAROLINA GENERAL ASSEMBLY

November 2014 Report No. 2014-14

DHHS Should Integrate State Substance Abuse Treatment Facilities into the Community-Based System and Improve Performance Management

Summary

North Carolina's public system for adult substance abuse treatment has two primary components—the community-based system and the state-operated Alcohol and Drug Abuse Treatment Centers (ADATCs). The community-based system is managed by nine Local Management Entities/Managed Care Organizations (LME/MCOs) that contract with providers throughout the State for an array of treatment services. Three state-operated ADATCs also provide inpatient treatment and expended over $46 million in Fiscal Year 2013–14 to provide services. This report focuses on the provision of adult inpatient substance abuse treatment, examining how the ADATCs fit into the system and whether there is a more efficient or effective way for North Carolina to organize treatment services.

The three ADATCs operate semi-autonomously, resulting in operational and treatment differences among facilities. In addition, the ADATCs operate autonomously of the community-based treatment system. The operational silos that exist between the ADATCs and the community-based system challenge resource utilization, continuity of care, and information management.

Separation of the Alcohol and Drug Abuse Treatment Centers from the community-based system also limits North Carolina's ability to address service gaps, provide a seamless continuum of care, and manage cost. Integrating the ADATCs into the community-based system would allow LME/MCOs to more efficiently manage care at all levels by ensuring that individuals are placed at the most appropriate level of care.

The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS), which oversees the community-based treatment system, lacks an adequate performance management system to track long-term outcomes of substance abuse treatment. Indicators exist that DMH/DD/SAS could use to measure the effectiveness of treatment in North Carolina.

The General Assembly should integrate funding for the ADATCs into North Carolina's community-based substance abuse treatment system and require LME/MCOs to pay for and manage the utilization of services provided by the ADATCs. In addition, the General Assembly should direct DMH/DD/SAS to strengthen its performance management system for substance abuse treatment services by creating a plan to improve data collection and track long-term outcomes.

Purpose and Scope

The General Assembly directed the Program Evaluation Division to examine the most effective and efficient ways to operate inpatient alcohol and drug abuse treatment programs.[1] North Carolina operates three Alcohol and Drug Abuse Treatment Centers (ADATCs).

This evaluation addressed three central research questions:

1. How do practices, costs, and outcomes compare between private and state-operated adult inpatient substance abuse treatment programs in North Carolina?[2]
2. How do North Carolina's practices, costs, and outcomes for adult inpatient substance abuse treatment programs compare with other states?
3. What are best practices to achieve improved efficiency and effectiveness for inpatient substance abuse treatment programs in North Carolina?

The following data were collected to address these questions:

- interviews with Department of Health and Human Services staff, selected residential and inpatient substance abuse treatment providers, Local Management Entities/Managed Care Organizations (LME/MCOs), and other stakeholders;
- survey of all LME/MCOs in North Carolina;
- interviews with other states with similar community-based substance abuse treatment systems and other states that operate inpatient substance abuse treatment facilities;
- administrative query of the Division of State Operated Health Facilities;
- site visits to all three state-operated Alcohol and Drug Abuse Treatment Centers;
- analysis of administrative and financial data of the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services and the Division of State Operated Health Facilities;
- analysis of substance abuse treatment claims data in North Carolina;
- review of federal laws and North Carolina General Statutes and Session Laws related to substance abuse treatment ; and
- review of literature related to best practices in substance abuse treatment, patient placement, and performance management.

In some cases, the Program Evaluation Division had to rely upon Fiscal Year 2011–12 data from the legacy claims system, the Integrated Payment and Reporting System (IPRS). More recent data from NCTracks lacked integrity because the system denied 30% to 50% of total claims, which is a historic anomaly.

[1] Session Law 2013-360, Section 12F.7.(b) directed the Joint Legislative Program Evaluation Oversight Committee to consider including this study in the 2014 Work Plan for the Program Evaluation Division. The Committee subsequently added this study to the 2013-15 Work Plan.

[2] This report looks specifically at the provision of adult substance abuse treatment. Including Medicaid, adults made up approximately 95% of total state expenditures on substance abuse treatment in Fiscal Year 2011–12.

Background

In a national survey, 7% of North Carolinians age 12 or older reported abuse or dependence on drugs or alcohol in the past year.[3] Substance abuse in North Carolina harms individuals, their families, and society. Substance abuse increases a person's risk for a multitude of physical and mental illnesses and can result in premature death.

Substance abuse imposes higher costs to the State than what the State expends on substance abuse treatment. Some of the agencies that experience costs dealing with the effects of substance abuse include the North Carolina Department of Public Safety, Division of Adult Correction and Juvenile Justice; the North Carolina Court System, and the Department of Health and Human Services, Division of Social Services. The National Center on Addiction and Substance Abuse at Columbia University estimates that states spend 13 times more dealing with the effects of substance abuse in their justice systems alone than the spend on prevention, treatment, and research combined.[4]

Because substance abuse costs states in many ways, effective treatment programs have demonstrated an overall positive monetary benefit.[5] A study in California found that the benefits of substance abuse treatment generally had a benefit-to-cost ratio of more than 7:1. The benefits primarily took the form of reduced crime and increased employment earnings by those receiving treatment.

Scientific literature increasingly supports the view of substance use disorder as a chronic medical condition resulting in changes in brain chemistry and function that persist even after use has ceased. Instead of treating substance use disorder as an acute illness, treatment now focuses on long-term recovery, which frequently requires multiple episodes of treatment. Like other chronic illnesses, substance abuse treatment varies depending on the type of drug and the needs of the individual.

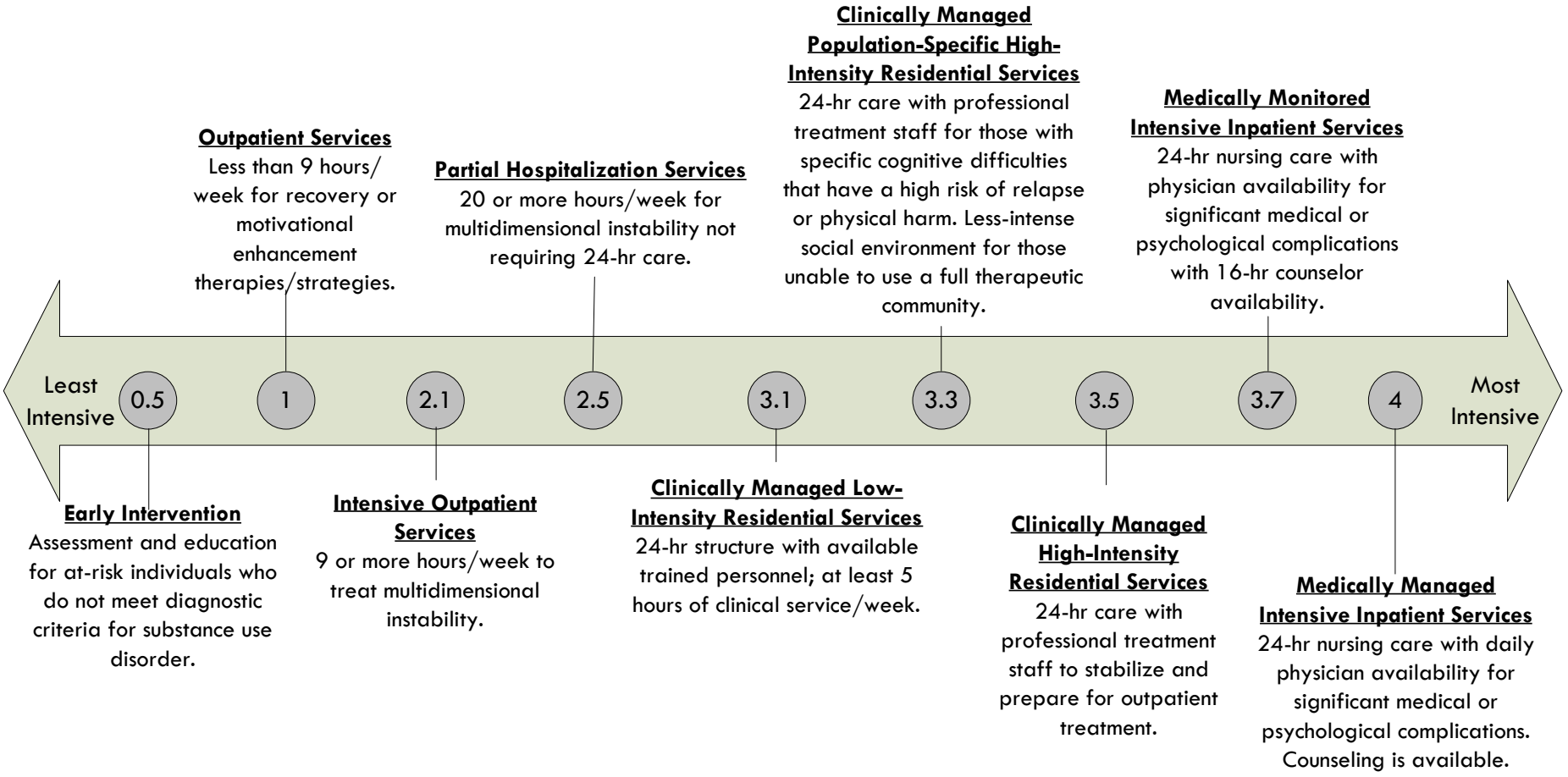
In order to help guide the treatment an individual receives, the American Society of Addiction Medicine (ASAM) developed criteria to assist clinicians in matching individuals in need of treatment with the appropriate level of care. The Department of Health and Human Services (DHHS) requires the use of the ASAM Criteria in all level-of-care determinations for substance abuse services. The ASAM Criteria are intended to improve clinical outcomes and cost effectiveness by matching treatment to the needs of the individual, preventing harmful undertreatment and costly overtreatment. Exhibit 1 describes the ASAM continuum of care, which assigns a number from zero to four to each level of care.

[3] The Substance Abuse and Mental Health Services Administration (SAMHSA) publishes state survey estimates of the percentage of the state population age 12 and older reporting dependence or abuse of illicit drugs or alcohol in the past year. Based on 2010 and 2011 data, SAMHSA estimates that 7.03% of North Carolinians aged 12 or older fall into this category.

[4] "Shoveling Up II: The Impact of Substance Abuse on Federal, State and Local Budgets." National Center on Addiction and Substance Abuse at Columbia University. New York: May 2009.

[5] For example, the Washington State Institute for Public Policy has identified several adult substance abuse treatment programs with a positive benefit to cost ratio. This analysis can be found at http://www.wsipp.wa.gov/BenefitCost.

Exhibit 1: The Continuum of Care for Adult Substance Abuse Treatment



Note: Each level of care is associated with a number with decimals used to express gradations of intensity.

Source: Program Evaluation Division based on the American Society of Addiction Medicine continuum of care.

One goal of the ASAM Criteria is for treatment episodes at different levels of care to be seamlessly linked. For example, an individual may step down from medically monitored intensive inpatient services to a less-intensive outpatient service after they have stabilized their level of function and developed their recovery skills. In the ASAM levels of care for adults, levels 3.7 and higher are considered inpatient, while residential services are delivered from levels 3.1 through 3.5.

ASAM has a separate continuum for detoxification, which is a set of interventions aimed at managing acute intoxication and withdrawal.[6] However, detoxification is not designed to resolve the psychological, social, and behavioral problems associated with alcohol and drug abuse, and experts note that detoxification is not equivalent to substance abuse treatment and rehabilitation. Detoxification is unbundled from treatment services, in part because it can be delivered in a separate setting from treatment.

The North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS) is the single state agency designated to implement the public system for substance abuse treatment. Of the three disability types that DMH/DD/SAS serves, substance abuse services consumes the smallest portion of the division's budget.

In North Carolina, there are two sources of payment for individuals receiving treatment through the public substance abuse treatment system: Medicaid and non-Medicaid funds. Medicaid funds do not represent the majority of state spending on substance abuse treatment services because many individuals with substance use disorder are ineligible for Medicaid. Even when individuals have Medicaid coverage, certain residential and inpatient services may not be covered by Medicaid.[7] As a result, state treatment funds play an important role in treating individuals who have no insurance or Medicaid coverage.

Non-Medicaid funds make up the majority of the expenditures for adult substance abuse treatment in North Carolina. For that reason, this report focuses primarily on the treatment system that is funded with state dollars that flow through DMH/DD/SAS.[8] Non-Medicaid expenditures can be further divided into dollars that fund the community-based treatment system overseen by DMH/DD/SAS and dollars that fund the ADATCs.

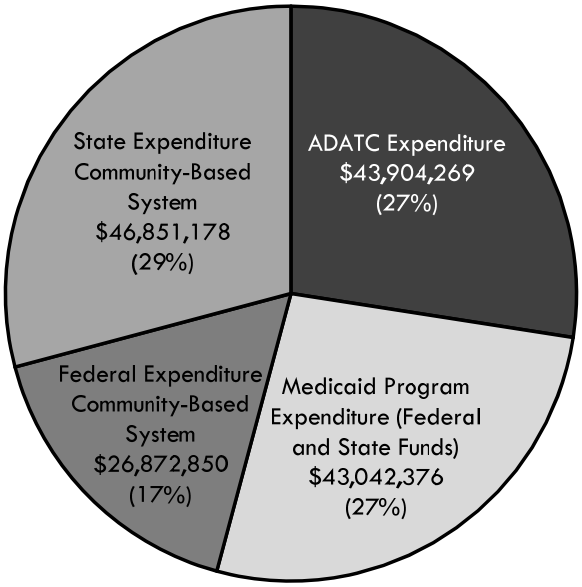
[6] The third edition of the American Society of Addiction Medicine Criteria (2013) replaces references to detoxification with the term "withdrawal management."

[7] A service is not available for Medicaid reimbursement if the federal government deems that the facility is an "institution for mental diseases (IMD)." An IMD is defined as a hospital, nursing facility, or other institution of more than 16 beds that is primarily engaged in providing diagnosis, treatment or care of persons with mental diseases, including medical attention, nursing care and related services." The IMD payment exclusion is a federal rule designed to ensure that states have the principal responsibility for payment for inpatient behavioral health facilities, rather than shifting those costs to the federal government. Substance abuse treatment facilities with more than 16 beds are considered IMDs, which means that many residential or inpatient facilities in North Carolina, including the Alcohol and Drug Abuse Treatment Centers (ADATCs), cannot receive Medicaid reimbursement for many of their patients. Children 21 and under and adults over age 65 are not bound by the IMD exclusion, meaning that a facility can receive reimbursement for services delivered to those age groups even if it qualifies as an IMD.

[8] Medicaid dollars are administered by the Division of Medical Assistance. Though the Alcohol and Drug Abuse Treatment Centers are organized under the Division of State Operated Health Facilities, their budget is part of the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services budget.

Exhibit 2 depicts the source and expenditures of the public system for adult substance abuse treatment in North Carolina.

Exhibit 2: Over $160 Million Was Spent on the Public System of Adult Substance Abuse Treatment in North Carolina in Fiscal Year 2011–12



Total Expenditures = $160,670,673

Notes: This chart only includes state and federal funds and does not include any local funds expended on providing substance abuse treatment. In addition, this chart includes federal dollars that are spent on treatment, but does not include prevention dollars. Medicaid costs are shared between the State and federal government. In Fiscal Year 2011–12 the federal share of Medicaid for adult substance abuse treatment was $28,054,888 (65% of Medicaid expenditures) while the State spent $14,987,487 (35%). State appropriations to the ADATCs in Fiscal Year 2011–12 were $40,721,237, which covered 92% of total ADATC expenditures. Of the $43 million in Medicaid program expenditures, $255,084 was spent at the ADATCs but is not reflected in ADATC expenditures to avoid counting those expenditures twice.

Source: Program Evaluation Division based on Fiscal Year 2011–12 expenditure data from the Integrated Payment & Reporting System.

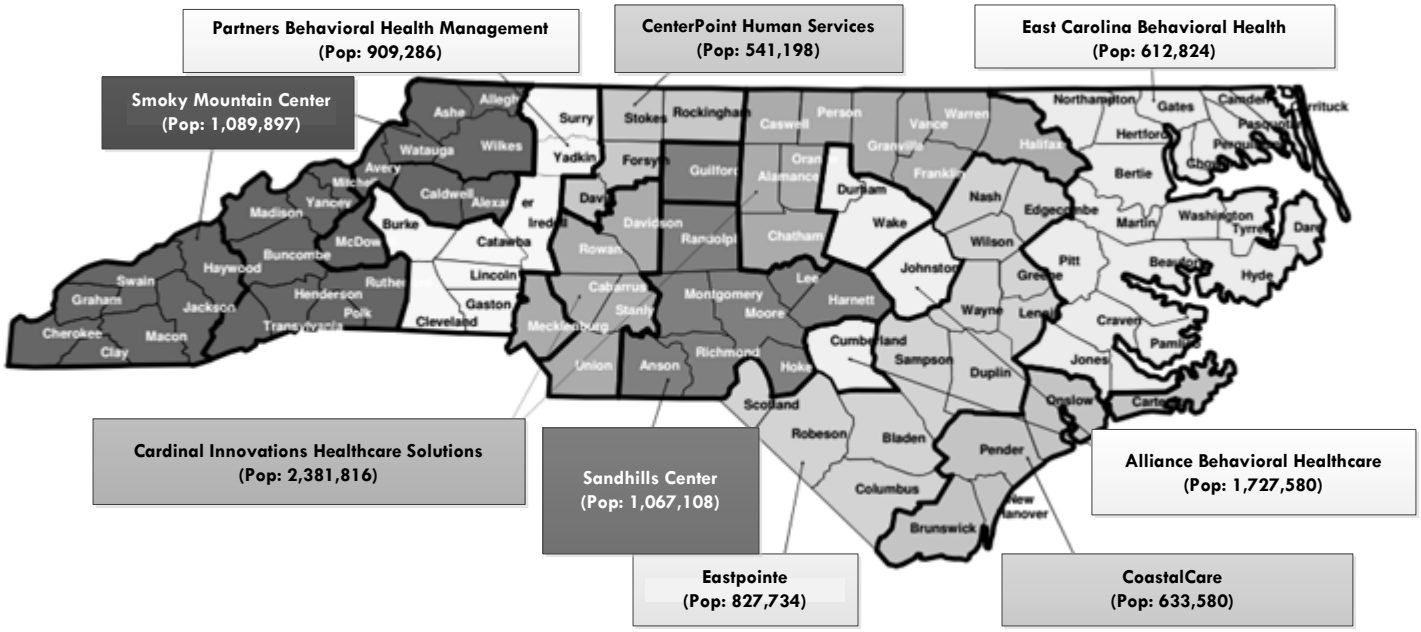
Federal dollars shown in Exhibit 2 are received by DMH/DD/SAS through the Substance Abuse Prevention and Treatment Block Grant. In Fiscal Year 2013–14, DMH/DD/SAS received roughly $37.5 million through the Block Grant, which is used to fund both treatment and prevention. The Substance Abuse Prevention and Treatment Block Grant carries restrictions on how the State can use the funds including a maintenance of effort (MOE) requirement. States must maintain expenditures for substance abuse prevention and treatment activities at a level that is greater than or equal to the average level of expenditures for the two-year period preceding the year for which the State is applying for a grant. If the federal government determines that a state has failed to comply with the MOE requirement, the state will be penalized by an amount equal to the shortfall for the applicable fiscal year.

The community-based system is overseen by DMH/DD/SAS, but the provision of substance abuse treatment is administered by nine Local Management Entities/Managed Care Organizations (LME/MCOs). LME/MCOs are responsible for the management of the public system of mental health, developmental disabilities, and substance abuse services at

the community level.[9] Exhibit 3 identifies the counties in the State that each LME/MCO serves. LME/MCOs establish networks of providers to deliver services. Some of the specific responsibilities of LME/MCOs include:

- provider monitoring, technical assistance, capacity development, and quality control;
- implementation of a 24-hour-a-day, seven-day-a-week screening, triage, and referral process for all citizens;
- utilization management, utilization review, and determination of the appropriate level and intensity of services;
- care coordination and quality management; and
- financial management and accountability for the use of state and local funds and information management for the delivery of publicly funded services.

Exhibit 3: Nine LME/MCOs Were Providing Services as of April 2014



Source: North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services.

The current configuration of nine LME/MCOs is the result of past consolidation, which is likely to continue. In December 2013, LME/MCO leadership announced their intention to merge into four regional LME-MCOs.[10]

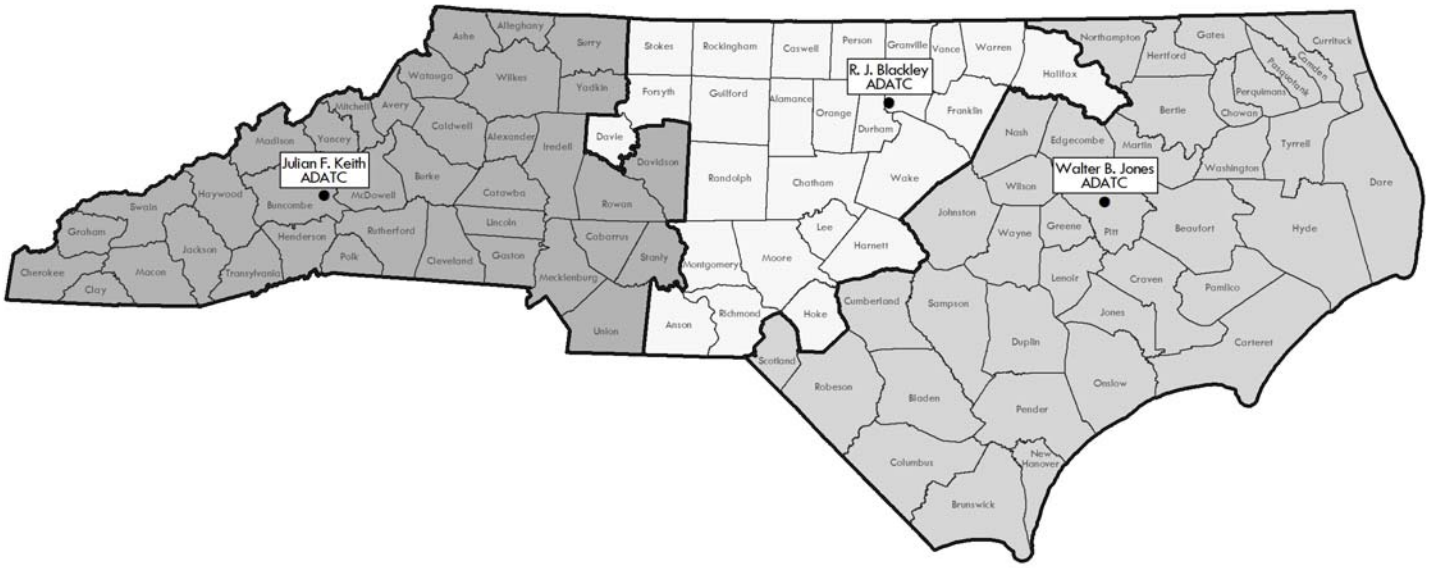
One source of funding for LME/MCOs is "single stream funding" from DMH/DD/SAS. State service dollars for mental health, developmental disabilities, and substance abuse services are combined into one single

[9] The nine existing LME/MCOs in North Carolina have responsibility for the functions of Local Management Entities listed in G.S. § 122C-115.4., which entails the management of mental health, developmental disabilities, and substance abuse services at the community level. In addition, LME/MCOs are also defined in G.S. § 122C-3 as entities that are under contract with DHHS to operate the combined Medicaid Waiver program authorized under Section 1915(b) and Section 1915(c) of the Social Security Act.
[10] More recently, Session Law 2014-100 reduced appropriations for administrative cost allocations to LME/MCOs based on cost savings achieved by merging the nine LME/MCOs to seven or fewer by June 30, 2015.

funding allocation as opposed to being separated into allocations to specific disability categories. Single stream funding expenditures from the community-based system must then be reported back to DMH/DD/SAS in order for the division to know what services LME/MCOs purchased and for DMH/DD/SAS to ensure that the State continues to meet Substance Abuse Prevention and Treatment Block Grant requirements.

In addition to the community-based treatment system overseen by DMH/DD/SAS, the Alcohol and Drug Abuse Treatment Centers (ADATCs) are the other main component of substance abuse treatment services and expenditures in North Carolina. The ADATCs are overseen by a separate division of DHHS, the Division of State Operated Healthcare Facilities (DSOHF). Exhibit 4 shows the location of the three facilities and the counties that each facility serves.

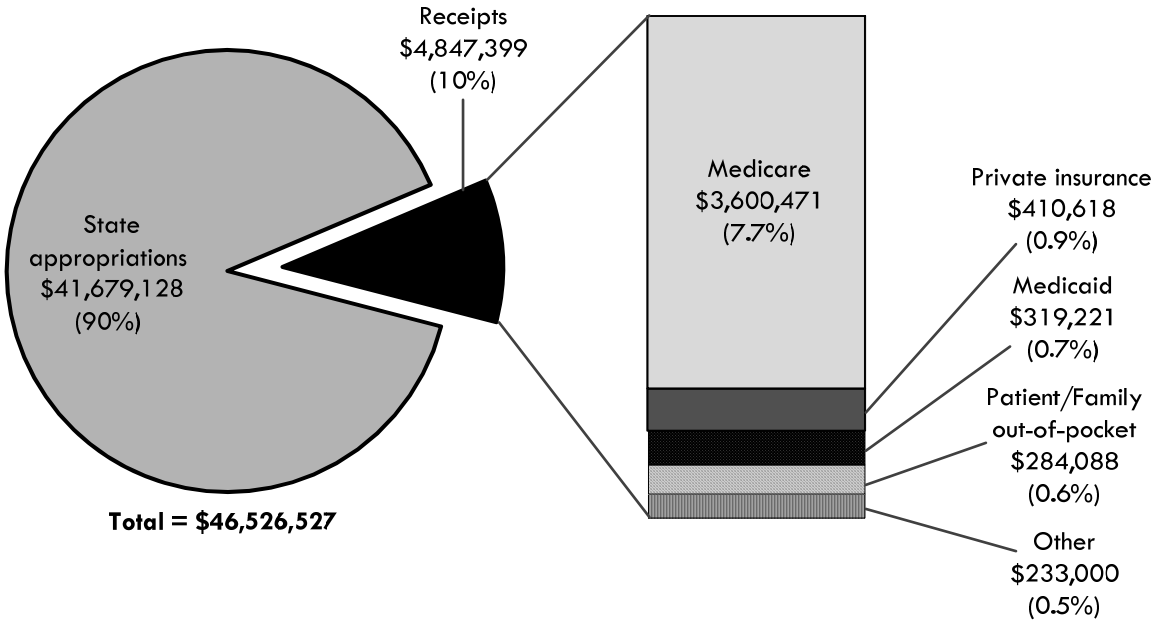
Exhibit 4: North Carolina Has Three Alcohol and Drug Abuse Treatment Centers (ADATCs)



Source: North Carolina General Assembly Information Services Division based upon ADATC catchment areas.

The ADATCs rely primarily on state appropriations. The ADATCs receive 90% of their operating revenues through state appropriations, with Medicare representing the second-largest revenue source, contributing almost 8%. Exhibit 5 details sources of operating revenue for the ADATCs in Fiscal Year 2013–14. State law requires the ADATCs to treat all interested persons regardless of their ability to pay, while those with the ability to pay are required to pay the actual cost of treatment. In practice, the ADATCs receive less than one percent of their operating revenue from individuals or their families paying out-of-pocket and rely heavily on state appropriations.

Exhibit 5: State Appropriations Funded 90% of ADATC Operations in Fiscal Year 2013–14

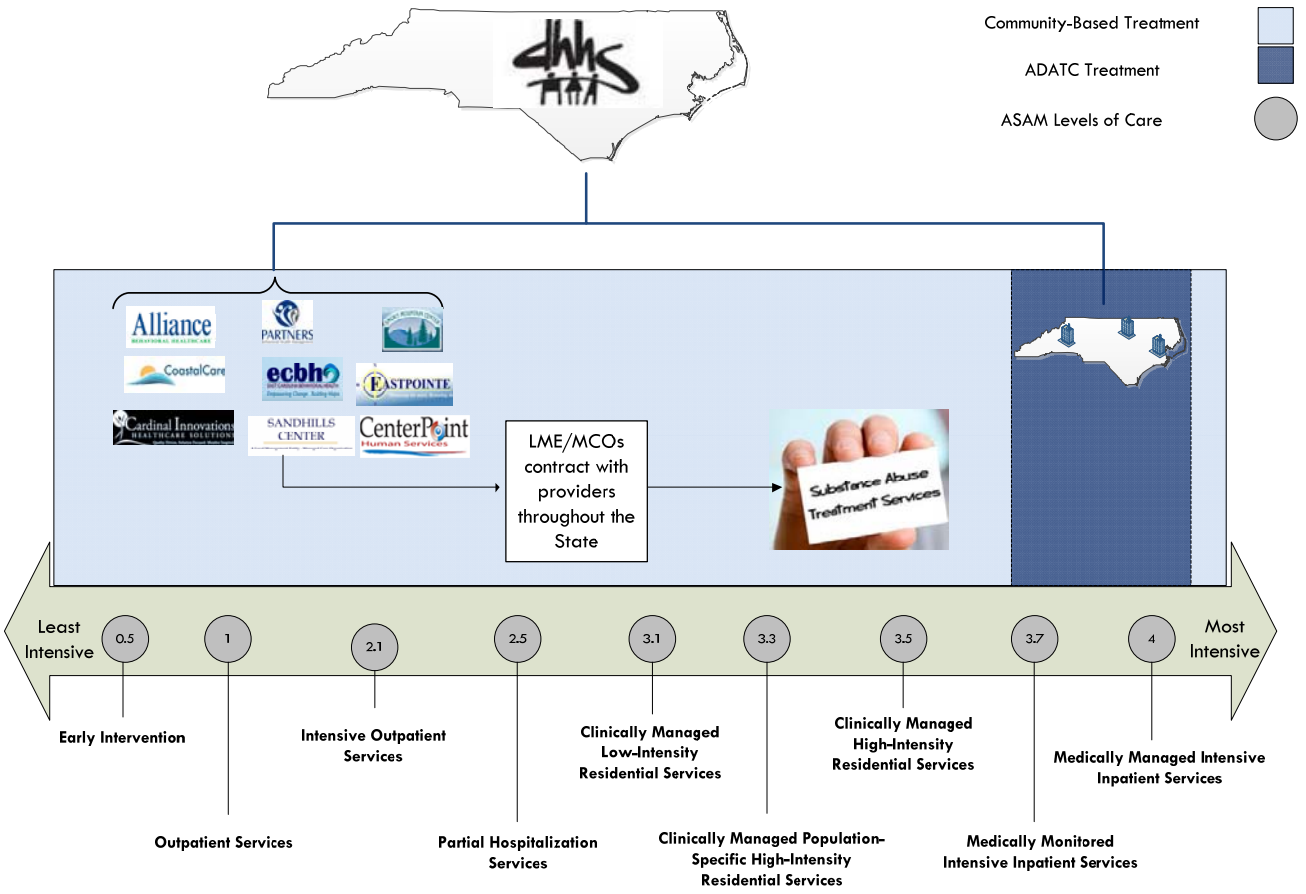


Source: Program Evaluation Division based on Fiscal Year 2013–14 expenditure data from the Division of State Operated Healthcare Facilities.

The ADATCs and the community-based system are separate components of the State's system for public substance abuse treatment. The community-based system operates under a managed care model with LME/MCOs managing treatment through the use of service contracts. LME/MCOs receive a finite amount of dollars through single stream funding and must maximize the services that individuals receive within available funds. The role of DMH/DD/SAS is to oversee the community-based system. By contrast, the ADATCs are part of the Division of State Operated Healthcare Facilities (DSOHF), and in this role the State acts as direct treatment provider. The ADATCs receive appropriations that fund the facilities and funding is not tied to individuals or the amount of treatment provided at each facility.

These two treatment system components are overseen and administered by two distinct divisions within DHHS. In 2009, DSOHF became its own division separate from DMH/DD/SAS, though the two divisions remain under the same budget code. The two divisions further diverge in terms of how care is provided and in the continuum of services offered, as described in Exhibit 6.

Exhibit 6: ADATCs and the Community-Based System Offer Different Arrays of Services

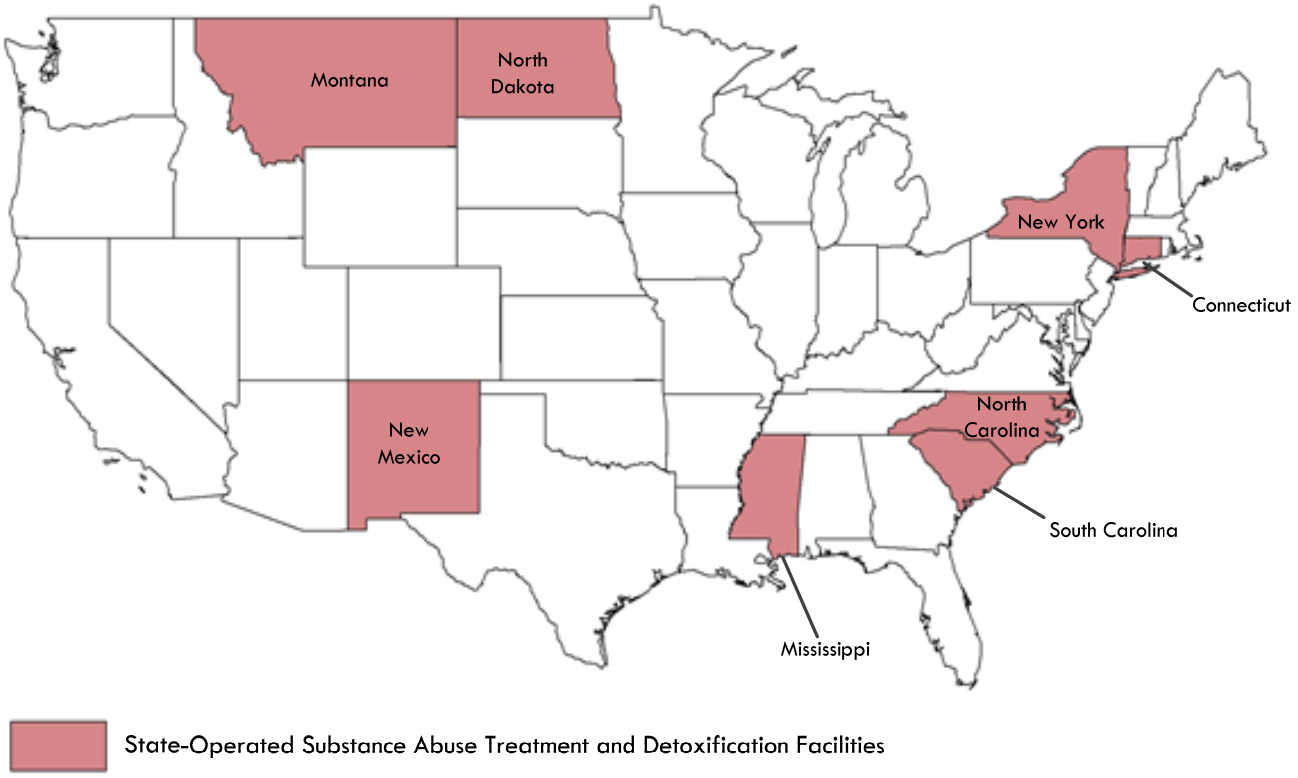


Source: Program Evaluation Division based on information from the American Society of Addiction Medicine, Division of State Operated Healthcare Facilities, and the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services.

As shown in Exhibit 6, the ADATCs provide care to individuals requiring ASAM 3.7 or 4.0 services. However, on the ASAM continuum of care, the ADATCs provide a level of service consistent with ASAM 4.0. The ADATCs meet the criteria because they provide treatment 24 hours a day in a permanent facility with inpatient beds. In fact, the ADATCs are certified by the Centers for Medicare & Medicaid Services as psychiatric hospitals. Physicians manage diagnosis, treatment, and treatment plans at ADATCs. With respect to the ASAM continuum for detoxification, the ADATCs provide a level of service consistent with medically monitored inpatient withdrawal management (ASAM 3.7) because ADATCs cannot handle the most complex withdrawal management cases that require an acute care general hospital.

North Carolina is one of eight states that operate inpatient substance abuse treatment and detoxification facilities. The Program Evaluation Division identified seven other states that operate inpatient substance abuse treatment and detoxification facilities.[11] Exhibit 7 shows the states with facilities that provide treatment at ASAM levels 3.7 or 4.0.

Exhibit 7: Eight States Operate Inpatient Substance Abuse Treatment and Detoxification Facilities



Source: Program Evaluation Division based on data from the National Survey of Substance Abuse Treatment Services (N-SSATS).

Due to complexities resulting from having a system made up of both ADATCs and community-based treatment, North Carolina has long struggled with questions related to how best to organize its system of substance abuse treatment and the State's role as a direct provider of treatment services. For example, a 1992 North Carolina General Assembly Government Performance Audit Committee (GPAC) report analyzed substance abuse treatment options in North Carolina and recommended the State transfer appropriations for the ADATCs to the community-based system and give the predecessors to the LME/MCOs the option to purchase treatment from the ADATCs.[12] Though never implemented, the rationale of the recommendation was that substance abuse treatment options in the State would improve if funds were

[11] Utilizing data from the 2012 National Survey of Substance Abuse Treatment Services (N-SSATS), the Program Evaluation Division identified six states that met the following criteria: focusing primarily on substance abuse treatment, offering the highest levels of inpatient treatment services (ASAM 3.7 or 4.0), and offering hospital-level inpatient detoxification. In addition, the Program Evaluation Division separately determined that Montana operates a facility that also meets the criteria.

[12] See "Alcohol and Drug Abuse Treatment Centers." KPMG Peat Marwick for North Carolina General Assembly Government Performance Audit Committee. December 1992. At the time of the report, the community-based system in North Carolina consisted of 41 area programs rather than the 9 LME/MCOs that presently exist.

attached to the individual rather than directly appropriated for ADATC operations.

The role of the ADATCs was reconsidered again in 2001 as part of a larger mental health reform plan. As part of a study for the Joint Legislative Oversight Committee on Mental Health, Developmental Disabilities, and Substance Abuse Services, MGT of America recommended the ADATCs be adapted to accept all primary substance abuse admissions that were then being admitted to state psychiatric hospitals.[13] The recommendation included providing additional staffing at the ADATCs to manage those admissions. The recommendation was accepted and as a result the ADATCs have increased staffing and expenditures. ADATC staff increased from over 350 positions in Fiscal Year 2000-01 to 501 in Fiscal Year 2013–14. The MGT of America report also made a similar recommendation to the 1992 GPAC report that state institutions become receipt-supported and increase their ability to function in a more competitive environment; this recommendation was not implemented.

Most recently, in 2013, the General Assembly reduced the budget of the ADATCs by 12%. At the same time, the General Assembly directed DHHS to study ways to improve outcomes and reduce operating costs associated with inpatient treatment at the ADATCs and directed the Program Evaluation Division to study the most effective and efficient ways to operate inpatient alcohol and drug abuse treatment programs.

With the evolving nature of North Carolina's system of LME/MCOs and ADATCs, reexamining North Carolina's system for substance abuse treatment offers opportunities to consider improvements. Specifically, this report focuses on the provision of adult inpatient substance abuse treatment, how the ADATCs fit into the system, and whether there is a more efficient or effective way for North Carolina to organize treatment services.

Beyond questions related to the structure of inpatient treatment, this report also examines whether the State has the proper management systems in place to measure the effectiveness and efficiency of substance abuse treatment, monitor LME/MCO and ADATC performance, and make informed decisions about how to best allocate limited resources throughout the continuum of treatment.

Findings

Finding 1. The three Alcohol and Drug Abuse Treatment Centers operate with a high degree of autonomy, resulting in operational and treatment differences.

The Program Evaluation Division expected that the Division of State Operated Healthcare Facilities (DSOHF) would require operational and treatment consistency among the three Alcohol and Drug Abuse Treatment Centers (ADATCs). Consistency across the three ADATCs would ensure North Carolina citizens can receive uniform treatment regardless of which ADATC provides services. DSOHF does provide guidance and oversight,

[13] See "Study of Mental Health/Substance Abuse Facilities and Their Role in North Carolina's System of Care Final Report." MGT America for Joint Legislative Oversight Committee on Mental Health, Developmental Disabilities, and Substance Abuse Services. October 2001.

but also allows the ADATCs to operate with a high degree of autonomy, which results in differences in how the ADATCs approach managing their resources, organizing and developing policies and procedures, and providing treatment services.

ADATCs have the discretion to manage their own budgets. During interviews with Program Evaluation Division staff, ADATC administrators noted that their facilities had authorization to spend their allocated funds as necessary. While facilities have the ability to manage their own budgets, DSOHF noted that it does monitor spending from the Raleigh Central Office.

In Fiscal Year 2013–14, the three ADATCs expended $46.5 million to provide services to 3,875 individuals. State appropriations paid for 90% ($41.7 million) of expenditures with receipts from Medicare, Medicaid, and other sources covering the remaining 10%. As shown in Exhibit 8, R.J. Blackley had the highest expenditures and Walter B. Jones had the lowest expenditures during Fiscal Year 2013–14.

Exhibit 8

Capacity, Admissions, Personnel, and Expenditures at the ADATCs in Fiscal Year 2013–14

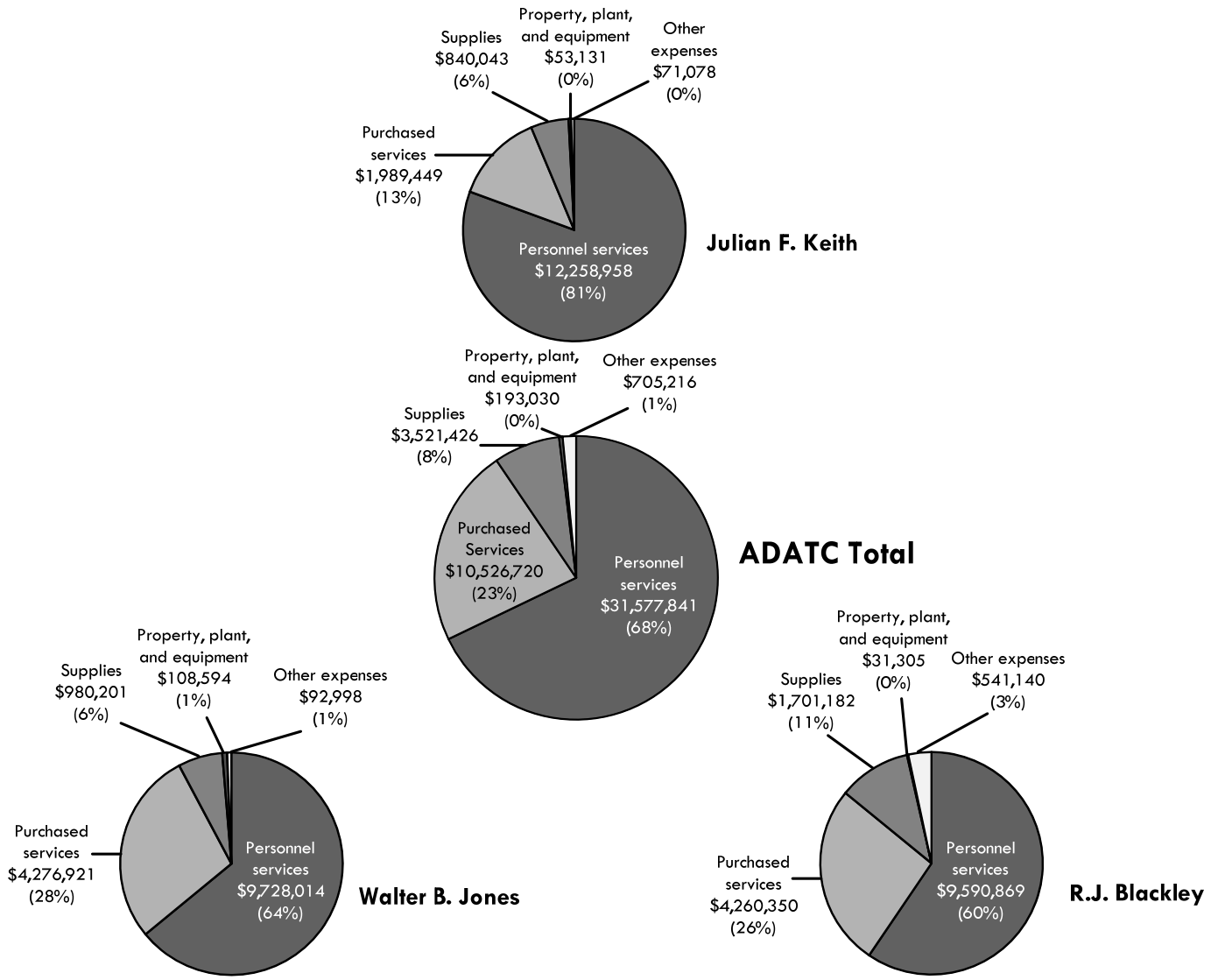
ADATC Facility	Number of Beds	Annual Admissions	Number of Personnel	2013–14 Expenditures
Julian F. Keith Black Mountain	68	1,203	194	$15,212,660
R.J. Blackley Butner	62	1,291	152	$16,126,312
Walter B. Jones Greenville	66	1,381	155	$15,187,556
Total	**196**	**3,875**	**501**	**$46,526,527**

Note: State Appropriations cover approximately 90% of total ADATC expenditures. The number of beds at each facility is representative of beds operated after the ADATCs implemented reductions in October 2013. The number of personnel represents positions at each ADATC as of June 30, 2014.

Source: Program Evaluation Division based on expenditure data and admissions data from the Division of State Operated Healthcare Facilities.

Personnel costs accounted for over two-thirds of total expenditures across the three ADATC facilities. Purchased services represented the second-highest category of ADATC expenditures (23%). Funding for purchased services is used primarily for contract medical staff such as nurses and psychiatrists or service staff such as food service employees. Supplies constituted the third-highest category (8%), followed by other expenses (2%). Combined, the three ADATCs made 91% of their total expenditures on personnel and purchased services, as shown in Exhibit 9.

Exhibit 9: Over 90% of Fiscal Year 2013–14 Expenditures by the Three ADATCs Paid for Personnel and Purchased Services



Source: Program Evaluation Division based on expenditure data from the Division of State Operated Healthcare Facilities.

Among the three ADATCs, the widest variance in expenditures exists in the categories of personnel and purchased services. Julian F. Keith has more authorized positions than the other two ADATCs, and so it spends the most for state employees. Because the R. J. Blackley and Walter B. Jones facilities have fewer authorized positions, they spend twice as much as Julian F. Keith for purchased services to pay for contract medical personnel to meet their staffing needs.

In Fiscal Year 2013–14, the ADATCs overspent their state appropriations by $5.2 million, requiring DSOHF to transfer funds from other state facilities to the ADATCs. The 2013 Appropriations Act required the ADATCs to reduce their state appropriations to $36.5 million—a $4.9 million reduction for Fiscal Year 2013–14 from the

preceding year.[14] The Department of Health and Human Services had the discretion to allocate the reductions among the three ADATCs. DSOHF and the ADATCs attempted to meet the reductions by eliminating vacant positions and reducing the number of beds at each facility. Before the reductions, the ADATCs had 240 beds (80 at each facility); 44 beds were eliminated, leaving the ADATCs with 196 beds.

The ADATCs were unsuccessful in meeting their budget reductions even though they served fewer patients. DSOHF attributed the over-expenditures to the bed reductions not taking effect until October 2013, whereas the budget reduction was for the entire state fiscal year. The over-expenditures for the ADATCs were covered by under-expenditures of state appropriations by the O'Berry Neuro-Medical Treatment Center and Murdoch Developmental Center, which are also operated by DSOHF.

ADATC autonomy allows each facility to organize and develop policies and procedures, resulting in inconsistencies. Policies and procedures establish the process for performing tasks to ensure consistent, efficient, and effective operations. The Program Evaluation Division expected the three ADATCs to have similarly structured policies and procedures because they have the same mission and responsibilities, but each ADATC had a separate set of policies and procedures that are organized differently. In some cases, similar policies are categorized differently across facilities. To ensure consistent policies and procedures across the ADATCs, DSOHF could have developed a standardized set of policies and procedures that, when needed, could be modified at each facility.

Differences in policies and procedures can affect cost and present a risk to operations. The Program Evaluation Division found policy differences that can affect expenditures for state personnel at each facility. For example, policies and procedures related to overtime differ among the three ADATCs. Julian F. Keith and Walter B. Jones have similar policies and procedures for overtime. The relevant documents for both facilities state that exceptions to the policies must be approved by the Director of the Division of State Operated Healthcare Facilities. However, the two facilities differ in the amount of overtime allowed for each employee. Julian F. Keith's policy stipulates overtime cannot exceed eight hours each week, whereas Walter B. Jones' policy stipulates overtime shall not exceed 20 hours per week. This policy difference allows Walter B. Jones employees to earn 12 more hours of overtime per week than Julian F. Keith employees. In comparison, R. J. Blackley's policies do not address how much overtime can be earned per week.

Policy differences affect how each ADATC provides treatment services to individuals. To ensure North Carolina citizens have access to uniform treatment services, the provision of substance abuse treatment should be consistent among the three ADATCs. However, the Program Evaluation Division found DSOHF allows the ADATCs to have autonomy in the type and amount of substance abuse treatment programming provided and also found variance in the average length of stay for individuals. These

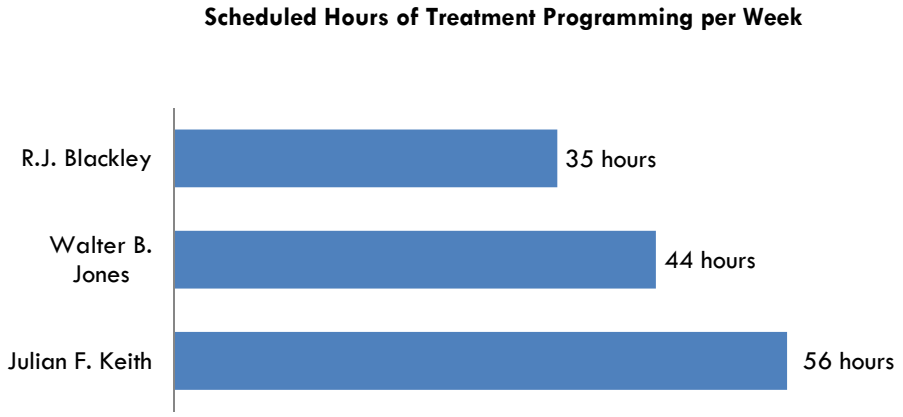
[14] In Fiscal Year 2013–14, the ADATCs spent $41.7 million in state appropriations, which was $5.2 million more than the General Assembly appropriated. The $5.2 million over-expenditure exceeded the required reduction in appropriations of $4.9 million.

differences affect the cost of substance abuse services provided by each ADATC.

Substance abuse treatment programming. The type and amount of substance abuse treatment programming varies among the three ADATCs. Hours provided should be a reflection of staff requirements and the intensity of services. The Program Evaluation Division did not expect to observe differences in scheduled treatment programming hours per week. As shown in Exhibit 10, Julian F. Keith patients receive the highest number of weekly treatment programming hours, while R. J. Blackley patients receive the lowest number of treatment programming hours—a 21 hour difference per week.[15]

Exhibit 10

Hours of Treatment Differ Among the Three ADATCs



Source: Program Evaluation Division as reported by ADATC facility administration during June-July 2014 interviews.

Differences in facility-specific philosophies may explain why treatment programming hours vary among the three facilities. For example, Julian F. Keith staff noted during interviews that their facility provides unique programming (Acute Recovery Track) for patients that is not offered at the other two ADATCs.

Length of stay at ADATCs. The Program Evaluation Division compared each ADATC's length of stay data to the other ADATCs. Exhibit 11 shows that the average stay among the three ADATCs is 16 days. However, when compared to other ADATCs, Walter B. Jones provides treatment an average of three days fewer than the other two facilities. During interviews with the Program Evaluation Division, Walter B. Jones administrators noted that their services are a limited resource, and therefore their treatment philosophy emphasized stabilizing patients and preparing them for less-intensive community-based substance abuse treatment services. The longer lengths of stay at R. J. Blackley and Julian F. Keith suggest these facilities have a different approach to substance abuse treatment that results in a longer duration of services.

[15] After the Program Evaluation Division provided this analysis to DHHS, the Division of State Operated Healthcare Facilities presented different scheduled treatment hours per week at R.J. Blackley and Walter B. Jones as of October 2014. The increase in treatment hours at Walter B. Jones also occurred after the Centers for Medicare & Medicaid Services identified a deficiency at the facility in providing therapeutic treatment offerings during evenings and weekends.

Exhibit 11

Length of Stay Differs Among the Three ADATCs

ADATC Facility	Average Length of Stay
Julian F. Keith	18 days
R.J. Blackley	16 days
Walter B. Jones	14 days
Average	**16 days**

Note: The differences in the average length of stay among the three ADATCs were statistically significant at $p<.05$.

Source: Program Evaluation Division based on Division of State Operated Healthcare Facilities admissions from July 2012 through April 2014.

Cost of ADATC services. The different approaches to providing substance abuse treatment services at the ADATCs directly affect the cost of their services. The Program Evaluation Division calculated the average cost per bed day and the average cost per stay for each ADATC during Fiscal Year 2013–14. As shown in Exhibit 12, the analysis reveals that Julian F. Keith had the lowest average cost per bed day and the highest average cost per stay. Julian F. Keith had the lowest cost per bed day because it has more beds available than the other facilities and used more of its available capacity than Walter B. Jones. Having the longest length of stay, in conjunction with serving the fewest number of patients, resulted in Julian F. Keith having the highest average cost per stay. Walter B. Jones had the lowest average cost per stay because it served the most patients and did so with shorter lengths of stay.

Exhibit 12

Longer Lengths of Stay Result in Higher Cost Per Admission During Fiscal Year 2013–14

Facility	Fiscal Year 2013–14			
	Average Cost Per Stay	Number of Admissions	Average Cost Per Bed Day	Number of Bed Days
Julian F. Keith	$12,646	1,203	$709	21,468
R. J. Blackley	$12,491	1,291	$809	19,941
Walter B. Jones	$10,998	1,381	$801	18,964

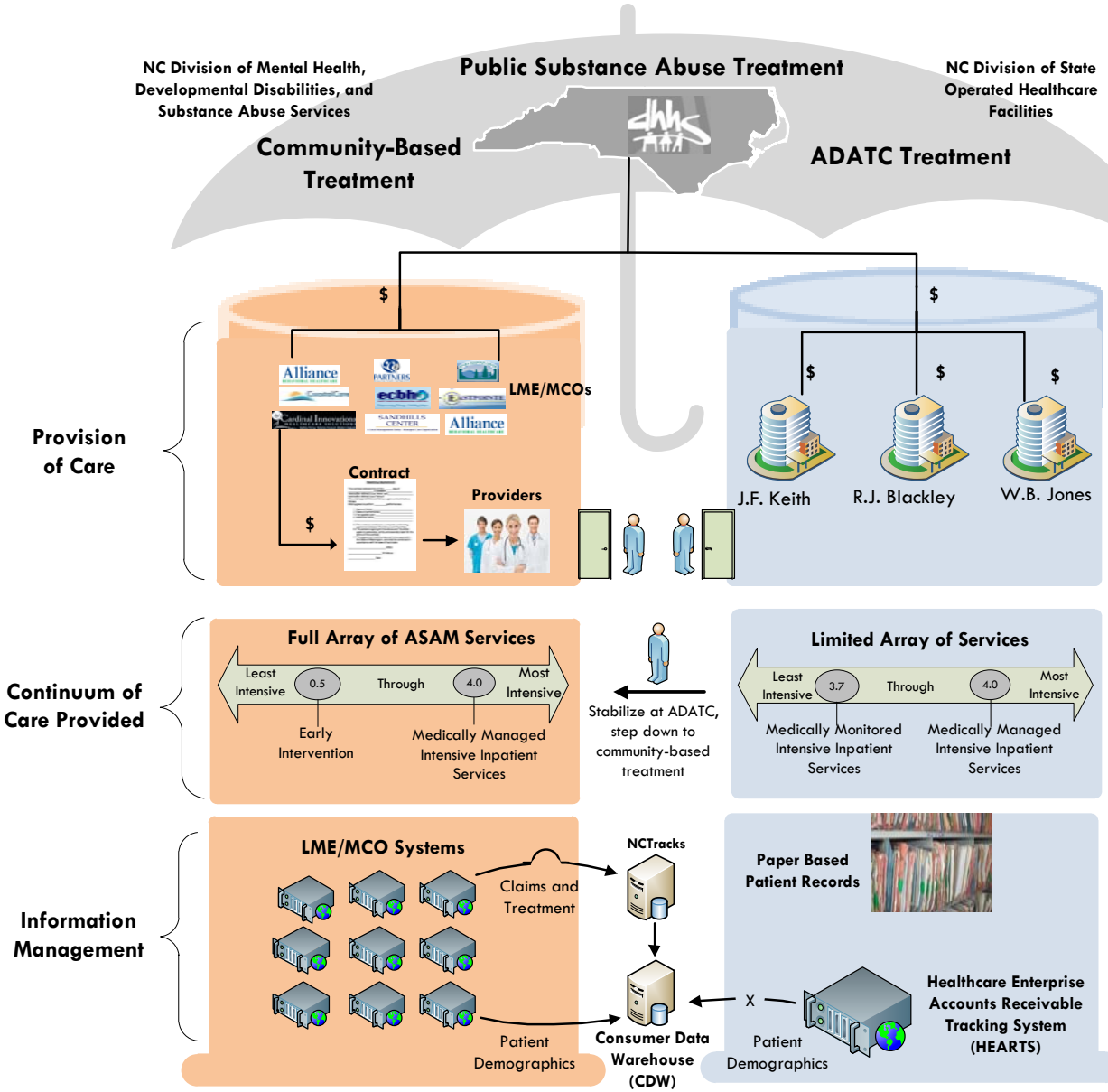
Source: Program Evaluation Division based on Division of State Operated Healthcare Facilities admissions and expenditure data from Fiscal Year 2013–14.

In summary, each ADATC operates with autonomy, resulting in differing approaches to managing their resources, organizing and developing policies and procedures, and providing treatment services. The lack of uniformity across the three facilities affects the cost of providing ADATC services because each ADATC approaches substance abuse treatment services differently.

Finding 2. Separation of the Alcohol and Drug Abuse Treatment Centers from the community-based system creates operational silos that impose challenges to utilization management, continuity of care, and information management.

Publicly funded substance abuse treatment in North Carolina is managed through the system of Local Management Entities/Managed Care Organizations (LME/MCOs), but the State also has a role as a direct provider of inpatient hospitalization substance abuse treatment through its three Alcohol and Drug Abuse Treatment Centers (ADATCs). These two distinct treatment settings are characterized by differences in the provision of care, continuum of care provided, and information management. These differences are illustrated in Exhibit 13 and discussed throughout the finding.

Exhibit 13: Substance Abuse Treatment Silos Impose Challenges to Resource Utilization, Continuity of Care, and Information Management



Description

- Individuals can access treatment through the community or through the ADATCs
- LME/MCOs operate under a managed care model, developing networks of providers
- ADATCs receive state appropriations to operate 365 days a year
- Individuals receive multiple episodes of treatment along the continuum of care
- Individuals who move across treatment settings require seamless care coordination
- Health information management systems capture and convert data about patients and treatment into information for decision making
- The different systems and gaps in data complicate health information management and integration efforts

Source: Program Evaluation Division based on information from the American Society of Addiction Medicine, Division of State Operated Healthcare Facilities, and the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services.

LME/MCOs have no financial incentive to manage utilization of costly, state-operated resources directed towards the ADATCs. Differences in the provision of care create structural incentives that encourage overutilization of ADATC services. As Exhibit 13 shows, North Carolina separates the provision of care for adult substance abuse treatment into two distinct components: the community-based setting and the ADATCs. These two components of the system are funded distinctly as well. The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS) provides single stream funding to the nine LME/MCOs to develop managed care networks of providers that treat individuals. Meanwhile, ADATCs receive a state appropriation to operate 24-hour facilities. The three ADATCs admit patients that are referred from a LME/MCO, a community hospital, or private provider. ADATCs also admit walk-in patients who arrive unannounced at the facilities.

Although LME/MCOs are often the entities authorizing treatment when a patient is referred to an ADATC, the ADATCs themselves are not within the managed care treatment provider network, and therefore LME/MCOs bear no financial responsibility for treatment at ADATCs.[16] When an individual is referred to an ADATC by a community hospital or LME/MCO, neither of these entities incurs any costs for treatment at the ADATC. In fact, placing an individual at an ADATC likely allows both entities to avoid paying for treatment. Hence, community hospitals and LME/MCOs have an inherent incentive to send individuals to ADATCs because the referring entities, either LME/MCOs or community hospitals, do not pay for or absorb the cost of treatment.

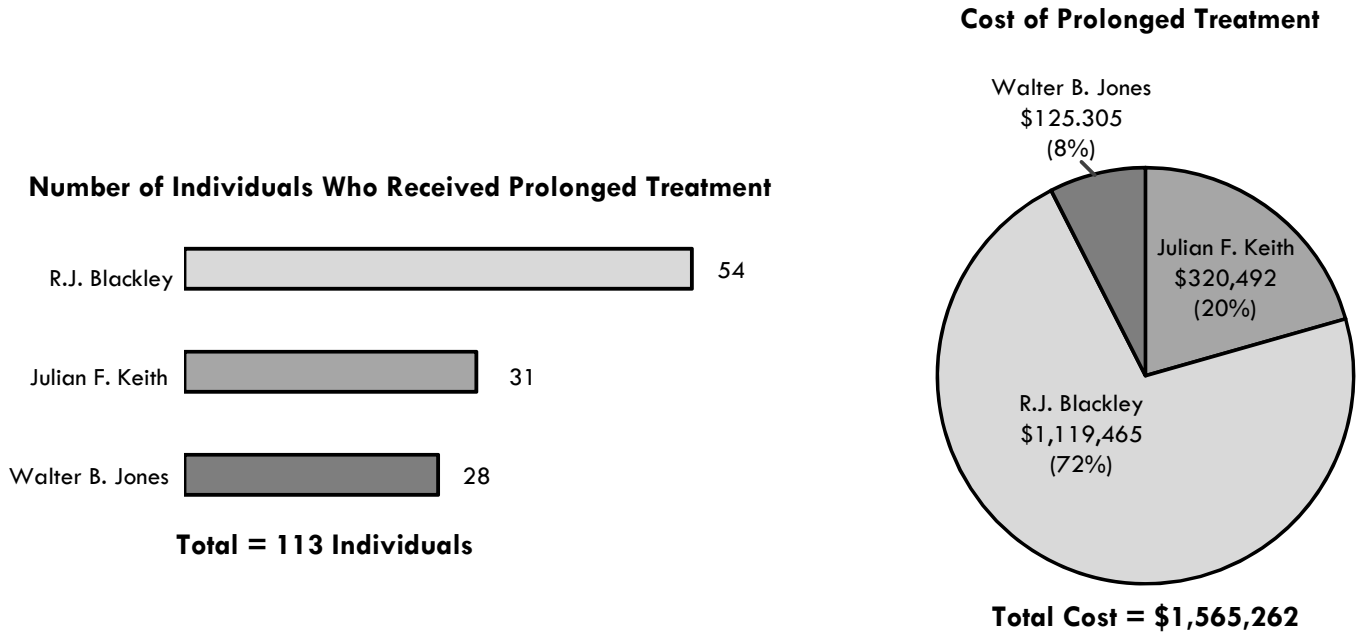
Incentivizing treatment at an ADATC also occurs when LME/MCOs refer individuals to an ADATC because the LME/MCO is not permitted to pay for any further treatment. Under state policy, an individual is only permitted 30 days of residential treatment over a 12-month period in the community-based system. Because the ADATCs operate outside of the community-based system, they do not have to comply with this policy and have no restriction on the number of residential or inpatient treatment days. As a result, LME/MCOs can refer individuals to ADATCs for treatment when individuals have exhausted their 30 days of treatment. This practice allows individuals to continue to receive treatment, but it is not efficient because an individual may not require the level of care provided at an ADATC.

ADATCs also have limited financial incentive to restrict utilization of their services. Because the ADATCs do not receive reimbursement for the cost of most patient care and instead receive fixed state appropriations every year, they can treat individuals for a longer period of time than other providers who operate within the managed care setting. The Program Evaluation Division analyzed admission and discharge data at each of the ADATCs and Exhibit 14 shows instances where the length of stay far exceeded the average length of treatment.[17]

[16] One exception is that LME/MCOs must pay ADATCs when Medicaid beneficiaries 21 and under or over 65 are treated at ADATCs. These payments account for less than 1% of ADATC operating revenues.

[17] Cases that far exceeded the treatment duration were greater than or equal to two standard deviations from the average treatment duration.

Exhibit 14: Individuals with Prolonged Lengths of Stay at ADATCs Cost the State More Than $1.5 Million in Fiscal Years 2012–14



Notes: Prolonged lengths of stay were determined by analyzing the number of individuals whose treatment duration exceeded two standard deviations from the mean number of treatment days at each facility. Costs were calculated using the average cost to the State per bed day from Fiscal Year 2012–13 through 2013–14

Source: Program Evaluation Division based on admissions data from Fiscal Year 2012–13 through April 2014.

As Exhibit 14 illustrates, these prolonged lengths of stay have cost the State more than $1.5 million. For example, ADATC admissions and discharge data revealed one patient who stayed at an ADATC for 335 days. When given an opportunity to address the occurrence, one administrator at an ADATC explained many patients with prolonged lengths of stay had nowhere else to go. Placing ADATC services under the managed care setting would lessen these prolonged lengths of stay because LME/MCOs would preauthorize patients for a fixed amount of treatment and would have an incentive to minimize overutilization.

Structural silos also limit incentives to invest in expanded community-based treatment options. Where treatment capacity exists, a patient in crisis can be placed and treated within the community-based setting instead of receiving services at a state institution. In this community-based setting, the LME/MCOs have the responsibility for managing and coordinating care and bear responsibility for the cost. However, when treatment options are available that do not require LME/MCOs to purchase or arrange for services, there exists little incentive to invest in serving those individuals who can be served at an ADATC at no cost to the LME/MCO. One LME/MCO told the Program Evaluation Division, "If the ADATC was non-existent in our region, there are few, if any, alternative resources to provide care for this population." Under the current system, there is little incentive for a LME/MCO to spend its limited dollars on a service that individuals can receive from an ADATC.

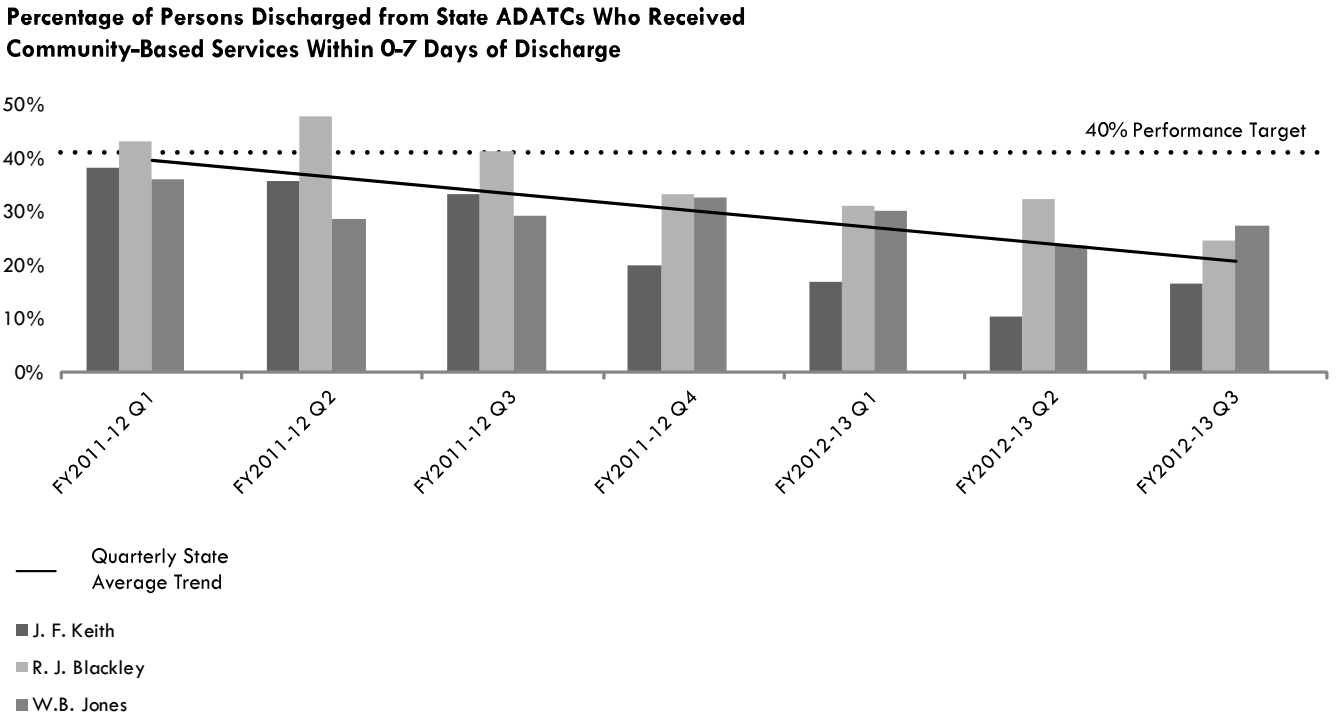
The two silos impose challenges to continuity of care, leaving many consumers treated at ADATCs without timely follow-up treatment. As

stated in the background section of this report, substance use disorders are chronic illnesses often requiring individuals to receive multiple episodes of treatment along the continuum of care defined by the American Society of Addiction Medicine (ASAM). One goal of the ASAM Criteria is that treatment episodes at different levels of care should be seamlessly linked. For example, an individual may receive medically managed intensive inpatient services before stepping down to a less-intensive residential or outpatient service. Because an individual leaving an ADATC needs to continue treatment in the community-based setting, both ADATCs and LME/MCOs must ensure that the "handoff" occurs so that the individual continues to receive treatment. Ensuring continuity of treatment may be particularly challenging in cases where the individual presents directly to the ADATC or is referred by a community hospital and has no established relationship with either the LME/MCO or any provider in the community setting.

Continuity of care requires communication and collaboration across providers and institutions. Effective communication exists when treatment providers caring for patients share needed treatment plans with other providers. Information can be shared verbally, in writing, or through information technology, such as a shared electronic health record. Within the state's system for public substance abuse treatment, these coordination activities are collectively known as continuing care planning. In a survey of LME/MCOs by the Program Evaluation Division, seven of the nine LME/MCOs reported working with the ADATCs in developing continuing care plans for individuals discharged from ADATCs, while two LME/MCOs reported participating based on the needs of the individual. However, only three of the nine LME/MCOs reported consistently receiving continuing care plans from ADATCs prior to an individual being discharged. Four LME/MCOs reported "sometimes" receiving a consumer's continuing care plan, while two stated that they received the plans only after individuals are discharged. If LME/MCOs are not receiving timely access to continuing care plans, they cannot ensure consumers receive follow-up treatment following discharge from an ADATC.

The importance of care coordination within the community-based, managed care setting is demonstrated by the State contract with LME/MCOs. The contract specifies that LME/MCOs should have sufficient numbers of experienced care coordination staff and that LME-MCOs shall ensure that individuals discharged from state facilities have a scheduled appointment with a community provider within seven calendar days of discharge. This contract requirement has been translated into a performance measure for continuity of care; DMH/DD/SAS established the goal of having 40% of persons who are discharged from an ADATC receive community-based follow-up treatment within seven days of discharge. As Exhibit 15 shows, coordination among the ADATCs and LME/MCOs falls short of the continuity of care performance target, and performance has declined over time.

Exhibit 15: Continuity of Care Between the ADATCs and LME/MCOs Has Fallen Short of the Performance Target



Notes: In some cases resulting from implementation of the Medicaid 1915(b)(c) waiver, DMH/DD/SAS had to rely on self-reported data from LME/MCOs in order to produce this analysis. In addition, Fiscal Year 2012–13 Q3 data for some LME/MCOs were incomplete and only partial data were available.

Source: Program Evaluation Division based on analysis from DMH/DD/SAS.

Substance abuse treatment silos complicate health information management and integration efforts, which undergird performance management and decision making. Health information management systems capture data from providers and convert data about patients and treatment into information for decision making. Health information management systems are useful in providing information for evaluation, monitoring, facility management, planning, trends analysis, and global reporting.

As Exhibit 13 shows, LME/MCOs contribute data to NCTracks and the Consumer Data Warehouse (CDW). NCTracks is the replacement Medicaid Management Information System (MMIS) that consolidates claims processing activities for multiple DHHS services. The CDW is important because it serves as the data repository for demographic and clinical data about individuals served by DMH/DD/SAS and is the primary source of information for federal block grant reporting. Data in the CDW is supplemented by claims data that the LME/MCOs submit to NCTracks.

Claims data from NCTracks are matched with patient demographic data in the CDW in an effort to create a continuity of care record. A continuity of care record is a core set of the most relevant administrative, demographic, and clinical information about a patient's health care, covering one or more health care encounters. Challenges with NCTracks,

discussed in Finding 4 of this report, have resulted in incomplete continuity of care records for individuals who receive substance abuse treatment in the community setting.

Meanwhile, the ADATCs use the Healthcare Enterprise Accounts Receivable Tracking System (HEARTS) as their primary information management system. ADATC patient information can be submitted to the CDW. However, HEARTS data cannot be submitted to each of the information management systems that LME/MCOs use.

The utility of HEARTS data in the CDW is hindered by missing clinical data that is not entered into the system. The information captured by HEARTS is limited to administrative and demographic data. This information can be useful when trying to understand the populations being served or analyzing program processes and outputs, but HEARTS lacks clinical data attributes about diagnosis and treatment modalities such as how often a specific treatment is provided. At the ADATCs, this information is contained within patient records, which are paper-based files. Clinical information is not recorded in HEARTS and therefore is not part of the patient information contributed to the CDW, resulting in an absence of treatment information in the continuity of care record for individuals treated at ADATCs.

Furthermore, HEARTS does not contain a Common Name Data Service number, which is an enterprise-level tool that allows applications and information systems used across DHHS to store and retrieve unique identification information for clients who are receiving services and benefits from the State.[18] DMH/DD/SAS must rely on a manual matching process to try to link patients across the information systems. These challenges with integration and gaps in treatment data impede the State's ability to evaluate the effectiveness of substance abuse treatment at ADATCs within the context of the larger public substance abuse treatment system.

DHHS has begun to address the operational silos between DMH/DD/SAS and DSOHF. In February 2014, DHHS brought both divisions under the management of the Deputy Secretary for Behavioral Health and Developmental Disabilities Services. This restructuring has improved the likelihood that the divisions will work cooperatively toward the same goals. However, the ADATCs and the community-based system continue to operate with disparate financial incentives and information management systems, and challenges persist in ensuring continuity of care.

In summary, there are two operational silos within DHHS for public substance abuse treatment that are distinct in their provision of care. These silos create structural incentives that encourage overutilization of ADATC services and impose challenges to continuity of care. Lastly, separate treatment settings complicate health information management and integration efforts, which undergird performance management.

[18] The Common Name Data Service is an integral part of case management consolidation; it allows DMH/DD/SAS to aggregate all services an individual receives, providing a complete picture of treatment.

Finding 3. Separation of the Alcohol and Drug Abuse Treatment Centers from the community-based system limits North Carolina's ability to address service gaps and manage cost.

When North Carolina transitioned to a managed care model for behavioral health, some of the expected benefits were a decrease in inappropriate inpatient care and an expansion of the array of services provided at the community level. These expectations were not unreasonable; managed care typically results in decreased utilization of expensive inpatient hospitalization, as some services are shifted to less-costly residential or outpatient settings. For example, when Iowa shifted from a fee-for-service arrangement to managed care for substance abuse treatment in 1995, it led to the introduction of residential alternatives to inpatient hospital care and an increased use of outpatient services. In North Carolina, ADATC utilization remains outside of managed care, hindering the State's ability to fully realize these benefits.

Integrating ADATC funding into the community-based system would allow LME/MCOs to begin to address service gaps, create a more seamless continuum of care, and better ensure that only those in need of inpatient services receive them. ADATCs would also have a more defined role as providers in the community-based system, as opposed to being separate components of the treatment system within the State.

ADATCs represented approximately 49% of state dollars expended for adult non-Medicaid substance abuse treatment services in Fiscal Year 2011–12. By keeping 49% of non-Medicaid state dollars outside of managed care, North Carolina has limited the ability of its LME/MCOs to manage state appropriations for non-Medicaid adult substance abuse treatment. The managed care model seeks to manage utilization of costly inpatient services—exactly the type of services that North Carolina has left outside of the community-based system and reserved for ADATC operations.

Managed care in the public sector was developed not only to control costs, but also to address other problems such as inappropriate matching of services to needed level of care and poor coordination of care. An LME/MCO is incentivized to quickly steer clients into the most appropriate level of treatment so that an individual's problems do not escalate and require more acute and costly services. As one LME/MCO stated, "We could reduce the need for inpatient with more community-based treatment designed to intervene early on in the development of the addiction."

Beyond trying to intervene quickly, managed care also attempts to ensure that individuals receive the proper level of care so that an individual does not receive resource-inefficient overtreatment or harmful undertreatment. With respect to overtreatment, some levels of care cost much more than others. One pronounced cost savings LME/MCOs can achieve is through ensuring that individuals who are in need of an ASAM level 3 residential service are not instead placed in an ASAM level 4 inpatient service facility. Exhibit 16 outlines differences in ASAM level 3 and 4 service costs per day. As shown in the exhibit, ASAM 3.7 services cost much less than 4.0 services. There are also differences in the cost of services within the same ASAM level.

Exhibit 16: North Carolina Public System Adult Substance Abuse Treatment Services and Costs

ASAM 4.0 Medically Managed Intensive Inpatient Services	Cost Per Day	Total Expenditure	Total Receiving Service
ADATC Bed A 24-hour inpatient service that includes psychiatric stabilization, medical detoxification, substance abuse and mental health treatment and education, and medical care.	$771	$44,159,353	4,265
3-Way Contract A service used to ensure that an individual experiencing a crisis related to mental illness, substance use disorder, or developmental disability receives appropriate care in the community. A 3-Way Contract bed is procured under contract with the community hospital, LME/MCO, and DMH/DD/SAS. Detoxification may be provided as part of this service.	$750	$5,239,500	1,257
Inpatient Hospital A 24-hour intensive treatment service in a hospital setting. Supportive nursing and medical care are provided under the supervision of a psychiatrist or physician. This service is designed to provide continuous treatment for individuals with acute substance abuse problems. Detoxification may be provided as part of this service.	$479	$3,334,491	837
ASAM 3.7 Medically Monitored Intensive Inpatient Services			
Substance Abuse Medically Monitored Community Residential Treatment A service that occurs in a non-hospital, 24-hour rehabilitation facility for adults, with medical or nursing monitoring. Includes a planned program of professionally directed evaluation, care, and treatment.	$273	$8,647	6
Group Living – High A 24-hour residential placement that includes a significant amount of individualized therapeutic or rehabilitative programming. Individuals can receive day treatment services either on-site or off-site, but day and residential programming is highly integrated.	$142 + day treatment cost	$5,519,905	2,182
ASAM 3.7 Medically Monitored Inpatient Withdrawal Management			
Non-Hospital Medical Detox A 24-hour permanent facility affiliated with a hospital or in a freestanding facility of 16 beds or less with services delivered by medical and nursing professionals. Individuals receive medically supervised evaluation and withdrawal management. Services are delivered under a defined set of physician-approved policies and physician-monitored procedures and clinical protocols.	$368	$2,843,281	1,765
Facility-Based Crisis Program (Non-Medicaid) A 24-hour residential facility that provides support and crisis services in a community setting. Provides an alternative to hospitalization for recipients who have a mental illness, developmental disability, or substance abuse disorder. Can be provided in a non-hospital setting for recipients in crisis who need short-term intensive evaluation, treatment intervention, or behavioral management to stabilize acute or crisis situations.	$300	$6,589,120	4,700

Notes: ADATC cost per day is an average based upon a Program Evaluation Division calculation of ADATC Fiscal Year 2013–14 expenditures divided by the number of bed days provided in the year. The ADATC cost per day varies annually based upon expenditures and utilization. All other cost per day amounts presented are based on the 2014 rates established by DMH/DD/SAS. The rate for Group Living-High does not include the cost of day treatment services received either on-site or off-site. When Group Living-High is combined with additional treatment, DMH/DD/SAS contends that it is effectively an ASAM 3.7 service.

Source: Program Evaluation Division based on Integrated Payment and Reporting System expenditure and utilization data from Fiscal Year 2011–12, DMH/DD/SAS service definitions, 2014 service rates established by DMH/DD/SAS, and ADATC expenditure and utilization data.

Length of stay is another important factor in understanding cost differences between the community-based system and ADATCs. An ADATC bed day cost is similar to that of a 3-way contract bed day, but an ADATC bed day costs more than an inpatient hospital bed day. The average community-based inpatient stay (ASAM 4.0) was 6.3 days in Fiscal Year 2011–12, whereas the average ADATC stay was 18.3 days, resulting in a higher overall cost per inpatient treatment episode at the ADATCs compared to the community-based system. Exhibit 17 compares community-based inpatient hospitalization (ASAM 4.0) services with ADATC inpatient hospital services.

Exhibit 17

Longer Lengths of Stay at ADATCs Caused Higher Cost per Treatment Episode in Fiscal Year 2011–12

Medically Managed Intensive Inpatient Services (ASAM 4.0)	ADATCs	Community-Based Providers
Total Expenditures (Non-Medicaid)	$44,159,353	$8,573,991
Total Number of Persons Served	4,265	2,023
Cost per Person Served	$10,354	$4,238

Source: Program Evaluation Division based upon Fiscal Year 2011–12 IPRS data and Fiscal Year 2011–12 ADATC expenditure data.

In North Carolina, the Piedmont Demonstration Project shows that changing the incentive structure and expanding community-based services results in reduced utilization of ADATC services. Piedmont Behavioral Health (PBH) was the pilot LME/MCO entity for behavioral health managed care in North Carolina and served Cabarrus, Davidson, Stanly, Rowan, and Union counties.[19] Piedmont has since merged with other entities to form what is now called Cardinal Innovations Healthcare Solutions (Cardinal) and is one of the nine LME/MCOs.

In 2003, PBH entered into a memorandum of understanding with DHHS as part of the "Piedmont Demonstration Project," resulting in PBH receiving a non-Medicaid per capita per-month payment. The payment includes a per capita share of state institution funding—an arrangement that brings a calculated share of state institution funds into PBH's managed care system. PBH receives approximately $10.7 million as a per capita share of dollars from state institutions based on a calculation of what state institutions were spending to serve PBH consumers at the psychiatric hospitals and ADATCs. In exchange for receiving the state institution funds, PBH pays the state institutions whenever an individual from one of the PBH counties is treated at a psychiatric hospital or ADATC.

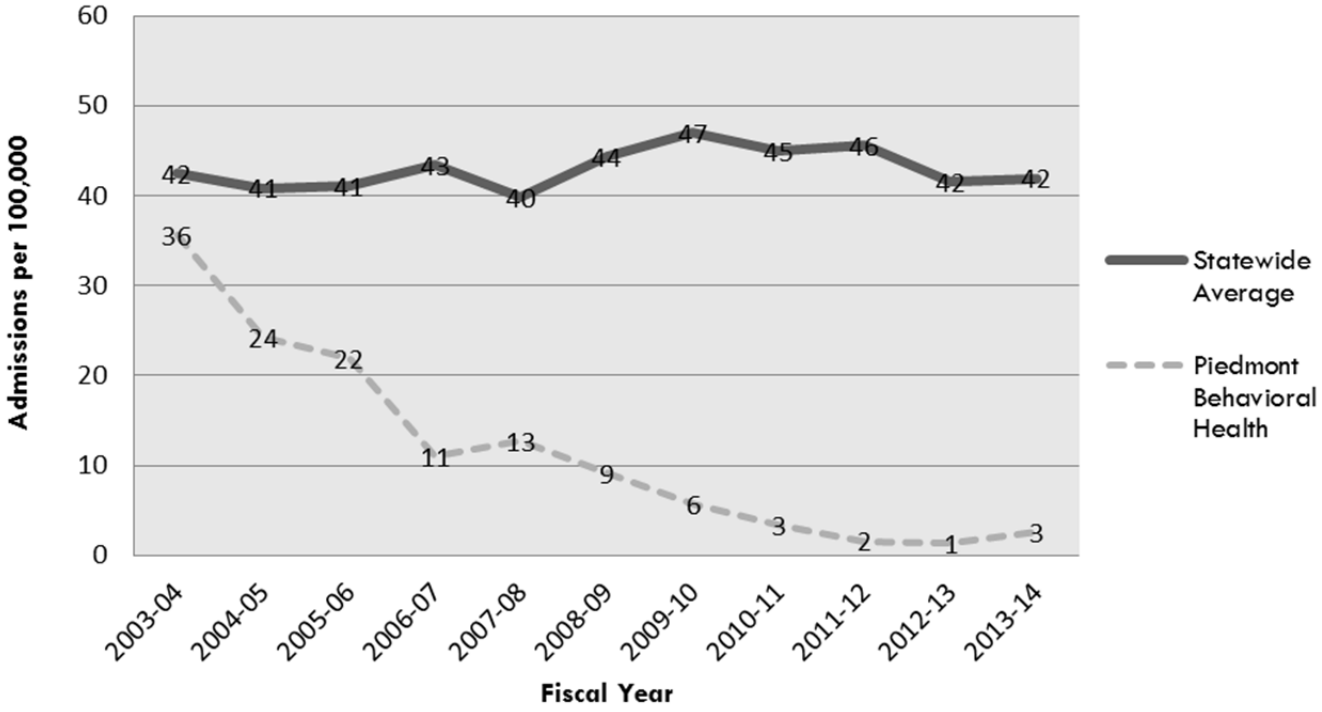
This arrangement wherein PBH receives a share of state institution funding remains in effect for the original five PBH counties, but was never replicated as additional LME/MCOs became operational.[20] The PBH demonstration project represents a unique case of what happens when

[19] A predecessor to Cardinal Innovations Healthcare Solutions, Piedmont Behavioral Health (PBH) served as the pilot for the 1915 b/c Medicaid waiver in North Carolina.

[20] Replication of the exact arrangement would be challenging statewide because the payment that Cardinal makes to the ADATCs under the arrangement is $260.75 per patient per day, far less than what ADATCs expend to provide the service.

ADATC and other state institution funds are controlled by a managed care organization. As shown in Exhibit 18, PBH utilization of the ADATCs has declined since Fiscal Year 2003-2004, which was the first year PBH began receiving the per capita share of state institution funds. Currently, in comparison to other LME/MCOs, few individuals admitted to the ADATCs come from one of the five PBH counties. In Fiscal Year 2012–13, PBH counties averaged 2.6 admissions to ADATCs per 100,000 individuals; the statewide average was 42.[21]

Exhibit 18: Fewer Individuals Are Admitted to ADATCs from Piedmont Behavioral Health Counties



Source: Division of Mental Health, Developmental Disabilities, and Substance Abuse Services annual statistical reports on ADATCs and 2003-2014 state population data.

Staff at Cardinal (formerly PBH) noted that one reason ADATC admissions are lower in PBH counties is due to the use of facility-based crisis services. Prior to transitioning to managed care, PBH completed a 2003 Local Business Plan, which included comprehensive assessments of community needs. Among stakeholders from the substance abuse community, local detoxification capacity was considered the top priority. In addition, stakeholders strongly supported options other than emergency room admissions as a first step for crisis intervention.

As a result of the local business plan, Cardinal now contracts with a provider to operate two 16-bed crisis/detoxification facilities that serve the PBH counties and are supported primarily with dollars received from the state institution resources. The crisis/detoxification facilities have daily psychiatric support, 24-hour nursing, and accept involuntary

[21] The Program Evaluation Division verified that this difference is statistically significant at $p<.05$.

commitments.[22] The average length of stay in the crisis/detoxification facility is four days. Following discharge, individuals have the option to continue with the same provider or select a different provider for ongoing treatment in services such as Substance Abuse Intensive Outpatient Treatment.

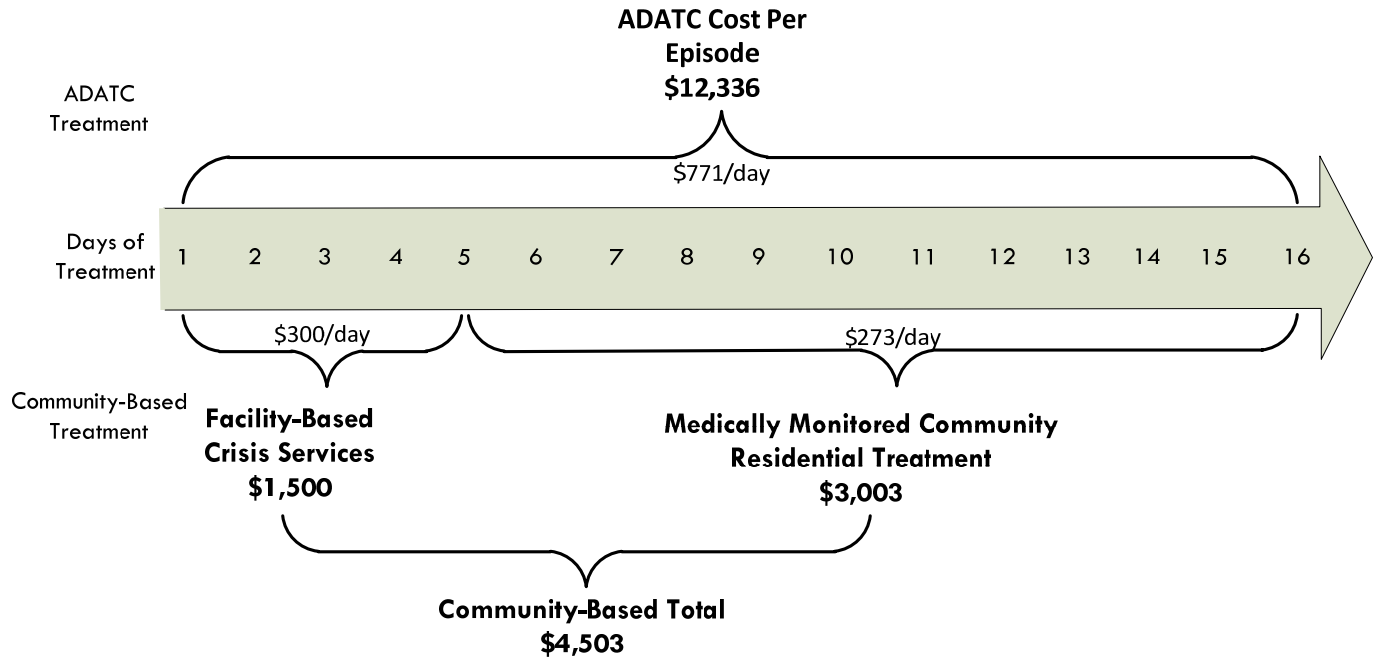
Cardinal also utilizes other services to provide treatment for individuals in need of more intensive levels of care. Cardinal reports having seven hospital detoxification providers and two non-hospital medical detoxification providers that served the PBH counties in Fiscal Year 2012–13. Cardinal reported that over 300 individuals were served at a medically monitored community residential treatment facility (ASAM 3.7), and that there were 20 admissions to ADATCs during that time period.

When appropriate, serving individuals through less-intensive community-based services is more efficient than utilizing an ADATC. For example, the state rate per day for non-Medicaid facility-based crisis services is $300, compared with an average ADATC cost of $771. The average stay at a facility-based crisis center in Cardinal's network is four days, whereas the average stay at an ADATC is 16 days. At both facility-based crisis centers and ADATCs, the goal is for the individual in treatment to continue treatment at a lower level of service after discharge.

Exhibit 19 provides an example of an individual who needs Medically Monitored Intensive Inpatient Services (ASAM 3.7). The example shows that it is more cost-effective to serve that individual through community-based services than at an ADATC.

[22] Facility-based crisis is an intensified short-term, medically supervised service that is provided at certain 24-hour service sites. The objectives of the service include implementing intensive treatment, behavioral management interventions, or detoxification protocols; stabilizing the immediate problems that have resulted in the need for crisis intervention or detoxification; and arranging for linkage to services that will provide further treatment or rehabilitation upon discharge from the service.

Exhibit 19: The Cost of Treatment for An Individual Requiring Medically Monitored Intensive Inpatient Services is Less in the Community-Based System



Source: Program Evaluation Division example based on Fiscal Year 2013–14 cost per day for each service.

Treatment of individuals in the community-based system is limited by gaps in levels of care for substance abuse services. A review of substance abuse treatment services offered by LME/MCOs reveals gaps, as some LME/MCOs do not provide a full continuum of services. When an LME/MCO funds only a few levels of care, it can inhibit seamless transitions from one level of care to another and prevent treatment from occurring at the most appropriate level and setting. In addition, if the appropriate level of care is not available, the ASAM Criteria state that a strategy must be crafted that gives the individual the needed services, which usually requires a higher level of care than would otherwise be necessary. For example, if an individual in North Carolina needs a clinically managed high-intensity residential service (ASAM 3.5) but this service is not available in the community, the individual may instead be placed at a community hospital or an ADATC. Because of the gap in the continuum of services, the individual in this example would be served at a higher level than required and at a greater cost.

LME/MCOs are required in their contracts with the State to provide a full array of services. The LME/MCO scope of work states: "For state-funded services, consumers shall have a choice of at least two providers for every service, except for those services with very limited usage and where alternative providers cannot be recruited." This contract language ensures that individuals have a choice of providers in the network and also that LME/MCOs build robust networks that provide services at all levels in the continuum of care.

Some LME/MCOs did not expend any dollars on services at certain ASAM levels of care. In reviewing LME/MCO utilization data from Fiscal

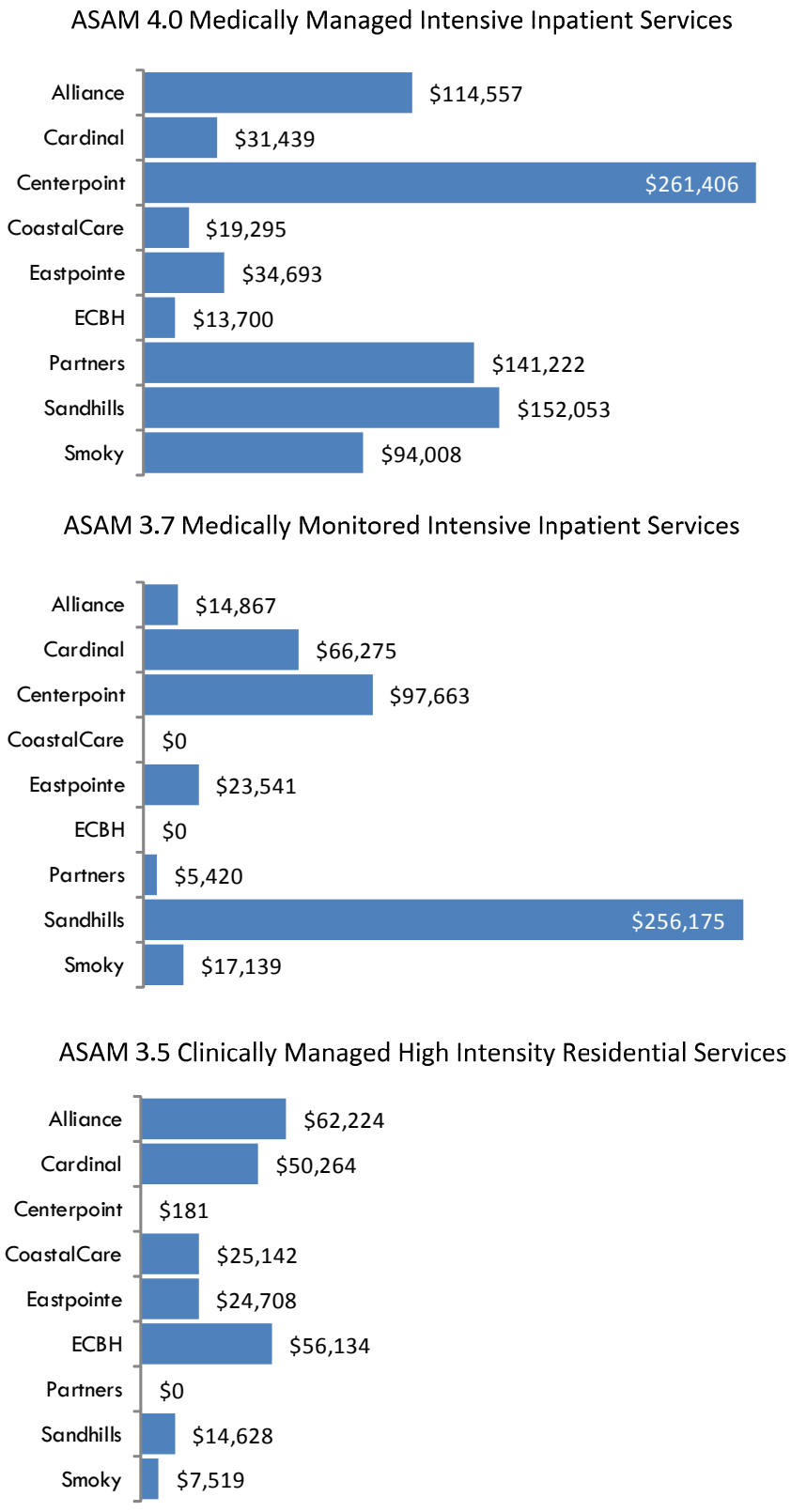
Year 2011–12, there were certain services for which there appear to be gaps.[23] One example of a gap in LME/MCO networks is the provision of medically-monitored intensive inpatient services (ASAM 3.7). Based on Fiscal Year 2011–12 data, two LME/MCOs, Coastal Care and East Carolina Behavioral Health, did not contract for these services. When these services were provided, it was typically accomplished through a service called "group living – high." Another ASAM 3.7 service, "substance abuse medically monitored community residential treatment," was only purchased by one of the nine LME/MCOs.

Another observed gap is in the use of clinically-managed residential withdrawal management (ASAM 3.2 WM). Detoxification has historically been considered an inpatient procedure. However, most withdrawal symptoms can be managed effectively at lower levels of care with current medication protocols. Whereas all LME/MCOs provide the higher level of medically monitored inpatient withdrawal management, only two, Cardinal Innovations and Sandhills, contracted for any clinically-managed residential withdrawal management services in Fiscal Year 2011–12.

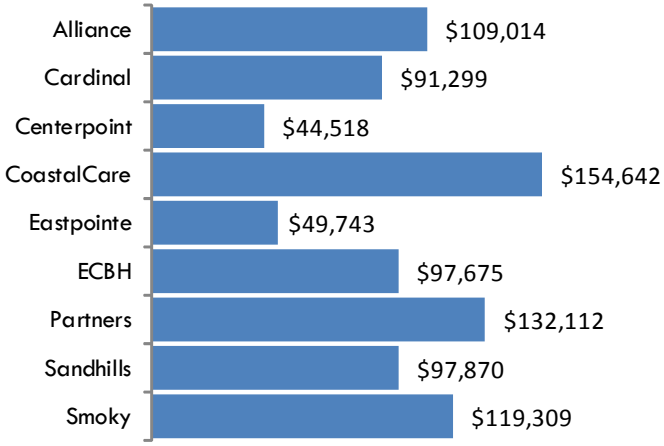
Exhibit 20 details spending by LME/MCOs in Fiscal Year 2011–12 on residential and inpatient services and is adjusted to account for variations in populations served. LME/MCOs are required to have two providers for every service, except for those services with very limited usage and where alternative providers cannot be recruited. The Program Evaluation Division analyzed LME/MCO expenditures as a proxy for contracts with providers. If an LME/MCO has no expenditures for a service it likely did not have any providers contracted for that service.

[23] The Program Evaluation Division reviewed Integrated Payment & Reporting System (IPRS) data from Fiscal Year 2011–12. More recent data from NCTracks lacked reliability.

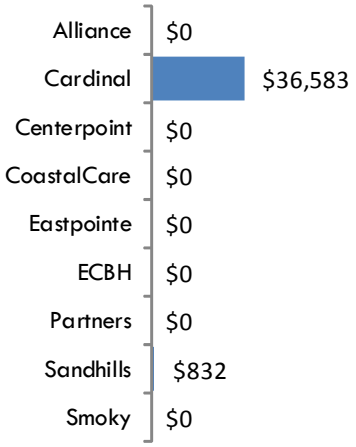
Exhibit 20: Fiscal Year 2011–12 LME/MCO State Program Expenditures by ASAM Level per 100,000 Population



ASAM 3.7 Withdrawal Management
Medically Monitored Inpatient Withdrawal Management



ASAM 3.2 Withdrawal Management
Clinically Managed Residential Withdrawal Management



Notes: Because more recent data from NCTracks lacks integrity, Fiscal Year 2011–12 data was used. LME/MCO expenditures may have changed since this data was collected. Local dollars expended by LME/MCOs are not included. Some LME/MCO configurations have changed since Fiscal Year 2011–12 due to mergers. Expenditure data in this graphic is presented based on the current configuration of LME/MCOs. State program expenditures do not include Medicaid expenditures.

Source: Program Evaluation Division based on Fiscal Year 2011–12 county-level data from the Integrated Payment & Reporting System.

When gaps do exist in certain networks, DMH/DD/SAS needs to understand how LME/MCOs are placing individuals. For example, are individuals receiving a lower level of care than they should, or are individuals receiving much higher levels of service at an increased cost to the State? Unfortunately, the majority of LME/MCOs do not track data that would allow analysis of how individuals are being placed in comparison with where they should be placed. As a result, DMH/DD/SAS does not know the extent to which individuals are being placed at the indicated level of care and cannot estimate the costs of overtreatment or undertreatment. A number of other states do track patient placement criteria data. In a 2006 survey of the National Association of State Alcohol and Drug Abuse Directors, 21 states reported collecting patient placement criteria data.

Integrating ADATCs into the community-based system would improve coordination among the ADATCs and LME/MCOs. LME/MCOs are responsible for administering the community-based system, including coordinating care and implementing a 24-hour screening, triage, and referral process for all citizens. LME/MCOs can set expectations of providers and choose to contract with those providers that provide efficient and effective services. In contrast, under the current arrangement, ADATCs interact with LME/MCOs but operate outside of the purview of a contractual relationship as providers in the community-based system are required to do.

If ADATCs were providers in the community-based system, coordination would likely improve because the LME/MCOs would pay for ADATC services. As an example of a current problem in coordination between LME/MCOs and ADATCs, some LME/MCOs mentioned difficulties in getting individuals admitted to ADATCs due to a burdensome medical clearance process at the ADATCs. One LME/MCO mentioned that the requirement of an electrocardiogram (EKG) for admission to the ADATC is a barrier to community physicians referring patients to ADATCs. Another LME/MCO stated, "Currently the LME/MCO 'coordinates' information gathering to facilitate the referral process to ADATCs. An improvement would be to allow LME-MCOs to truly manage the beds which would greatly improve the process and administrative burden."

The Program Evaluation Division examined four states with community-based managed care systems similar to North Carolina; all four states contract with providers in the managed care system for inpatient treatment. Arizona, Colorado, Florida, and Pennsylvania all use managed care organizations in some form and all use ASAM Criteria to determine the level of care clients receive. Unlike North Carolina, none of these states operate substance abuse facilities like ADATCs. Instead, they rely on private or nonprofit providers throughout the state to provide care along the ASAM continuum, including medically managed intensive inpatient services.

In summary, keeping the ADATCs outside of North Carolina's managed care system has limited the ability of LME/MCOs to fully manage substance abuse treatment. If ADATC funding was transferred to the community-based system, LME/MCOs could begin to address service gaps, create a more seamless continuum of care, and better ensure that

only those in need of inpatient services receive them. The PBH demonstration project shows that changing the incentive structure and creating capacity at the LME/MCO level can reduce the use of ADATC services. Placing the ADATCs in the community-based system would improve coordination because ADATCs would have a clear role as contracted providers in the community-based system.

Finding 4. North Carolina lacks a performance management system that tracks long-term outcomes of public substance abuse treatment.

The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS) has the responsibility to implement performance management for the public substance abuse treatment system. The existing performance management system in place emphasizes the tracking of processes and outputs rather than outcomes. In order to improve performance management, DMH/DD/SAS can use indicators that measure long-term outcomes of public substance abuse treatment.

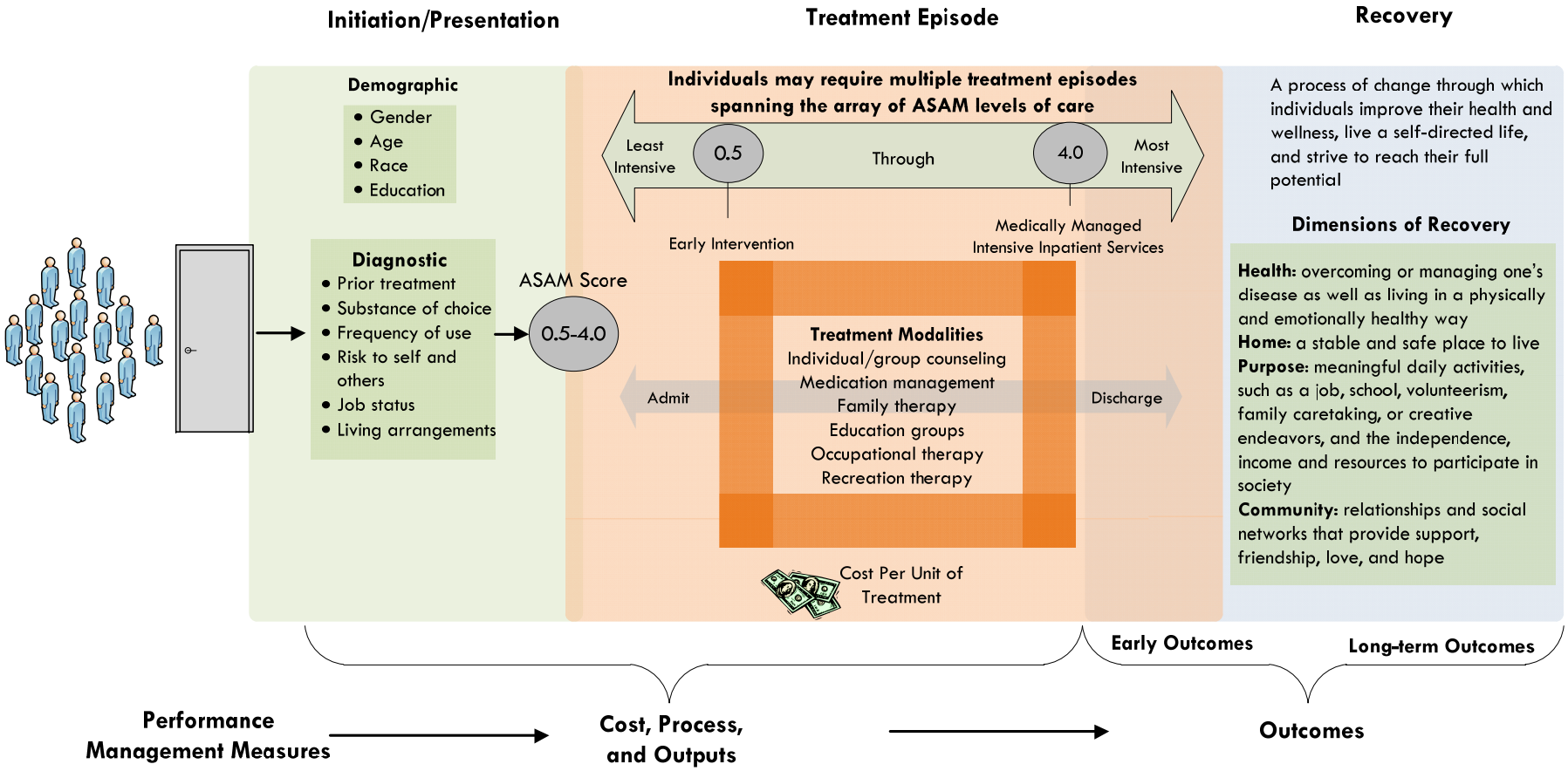
States that implement publicly-managed care for substance abuse treatment need to invest in performance management and outcome monitoring so they can assess quality of care, access to care, and utilization. This information can then be used to provide insights and guide decisions to improve the managed care system. Currently, North Carolina's approach to managing the performance of its public substance abuse treatment system emphasizes tracking and reporting processes and outputs rather than outcomes, and is challenged by data integrity and availability issues, limiting the State's ability to systematically monitor and manage performance.

The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS) has the responsibility to implement performance management measures for the public substance abuse treatment system. As the division tasked with oversight of the community-based system, DMH/DD/SAS has the responsibility for ensuring that treatment programs are effective and efficient. Whereas treatment providers all play a role in collecting individual treatment episode data, DMH/DD/SAS holds the ultimate responsibility to aggregate and analyze data that follows individuals across multiple treatment settings and episodes. In doing so, DMH/DD/SAS can ensure LME/MCOs and providers are being measured in the same manner.

ADATCs are a provider in North Carolina's treatment system and from an efficiency perspective providers should not duplicate the collection of longitudinal data on individuals served by the public system for substance abuse treatment. Individuals may be served by multiple providers in different treatment settings, and if each provider separately follows an individual longitudinally, data collection efforts are duplicated. Instead, each time a patient is treated, that information can be collected by providers and LME/MCOs and reported to DMH/DD/SAS. DMH/DD/SAS can then aggregate and analyze the data in order to look at performance at the provider level, the LME/MCO level, and the system level.

A performance management system for substance abuse treatment should monitor system costs and measure treatment processes, outputs, and outcomes. Performance management for substance abuse treatment should evaluate how well treatment contributes to an individual's recovery. These measures should consider costs, processes, outputs, and outcomes. Exhibit 21 provides an illustration of how a performance management system should be structured relative to substance abuse treatment.

Exhibit 21: Performance Management for Public Substance Abuse Treatment Should Follow an Individual from Treatment Initiation Through Recovery



Source: Program Evaluation Division based on interviews and a review of documents from the Department of Health and Human Services, American Society of Addiction Medicine, and Substance Abuse and Mental Health Services Administration.

Initiation/Presentation. When individuals present or initiate treatment the ASAM assessment captures a wide variety of consumer demographics and information. Diagnosis offers an opportunity to identify the recommended course of treatment and establish benchmarks to evaluate progression toward recovery.

Treatment Episode. Individuals often require multiple treatment episodes. Each episode occurs within a setting along the American Society of Addiction Medicine (ASAM) continuum through various treatment modalities. Ideally, if treatment is successful, each episode prepares the individual to move along the continuum to episodes requiring less intensive treatment. Establishing treatment performance measures requires capturing encounter-level data. Encounter-level data is similar to what might be contained in a standard claim form and includes information such as treatment setting and modality, treatment duration and completion, cost, and consumer perceptions. These data are commonly known as treatment processes and outputs.

Recovery. The long-term intended outcome of substance abuse treatment is recovery. Effectiveness can be measured in terms of early and long-term outcomes. Early outcomes provide quick feedback and are the easiest to measure. These early outcomes might include an individual's abstention from substance use while receiving outpatient treatment. Changes in an individual that indicate recovery can be viewed as long-term outcomes. In 2011, the Substance Abuse and Mental Health Services Administration (SAMHSA) defined recovery as "a process of change through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential." Long-term outcome indicators that can be measured include:

- reductions or abstentions from substance use,
- improvements in personal health,
- improvements in social functioning, and
- reductions in threats to public health and safety.

Due to problems with NCTracks, North Carolina does not have reliable encounter-level data to effectively measure the performance of the public substance abuse treatment system. In order for DMH/DD/SAS to measure treatment processes, outputs, and outcomes, it must capture encounter-level data. In July 2013, the North Carolina Department of Health and Human Services (DHHS) went live with NCTracks. NCTracks replaced the Medicaid Management Information System (MMIS) and the Integrated Payment and Reporting System (IPRS), which previously provided encounter-level data to DMH/DD/SAS. At full capability NCTracks is intended to provide the type of encounter-level data that will inform performance management. However, since going live NCTracks has experienced challenges in processing claims.

As of August 2014, approximately 30% of total claims for substance abuse treatment services have been denied. This denial rate was an improvement over the approximately 50% rate that was occurring in February 2014. However, both denial rates are above the normal range for the legacy IPRS system. A high rate of denied claims in NCTracks raises issues about the validity of the encounter-level data and whether it

is representative of services being delivered by providers in the community. For example, if the total dollar volume of claims for substance abuse services in NCTracks is half of what would be expected, DMH/DD/SAS cannot reliably determine whether LME/MCOs have reduced spending on substance abuse treatment or whether LME/MCOs are providing fewer services at certain levels in the treatment continuum. Without reliable encounter-level data, DHHS cannot manage substance abuse treatment system performance and cannot determine if services rendered are meeting the intended outcomes.

When encounter-level data was available, DMH/DD/SAS's performance management system emphasized tracking processes and outputs rather than outcomes. Performance management of public substance abuse treatment involves the measures and instruments used to evaluate how well treatment contributes to a patient's recovery. An output is a measure of completed services or products produced by a program. An output can be viewed as a late process measure. For example, admission and diagnosis are both processes in substance abuse treatment. After individuals are admitted and diagnosed, they receive treatment and may require continued treatment or multiple episodes. All of these measures of admission, diagnosis, and treatment are process measures and output measures. Examples of such measures would include

- admission and diagnosis rates,
- medication administration,
- treatment completion and duration, and
- treatment continuation.

Process and output measures are important because they serve as guidelines for internal improvement. Exhibit 22 provides a list of the instruments and performance measures used to report across the community-based system and shows that DMH/DD/SAS reporting instruments emphasize process and output measures.

Exhibit 22

Performance Management for Public Substance Abuse Treatment Does Not Adequately Measure Treatment Outcomes

Reporting Instrument	Performance Measures		
	Costs	Processes	Outputs
Quarterly DMH/DD/SAS Community Systems Progress Report	○	●	●
North Carolina Treatment Outcomes and Performance System (NC-TOPPS) Outcomes at a Glance 2.0	○	○	○

Source: Program Evaluation Division based on interviews and a review of documents from the Department of Health and Human Services.

DMH/DD/SAS relies upon the North Carolina Treatment Outcomes and Program Performance System (NC-TOPPS) system, which does not track long-term outcomes. NC-TOPPS was designed by DMH/DD/SAS, and the ADATCs have adopted their own version of NC-TOPPS for use at the facilities.

NC-TOPPS relies on interviews for data collection, which means the measures are self-reported. The validity of self-reported information from substance abusers has piqued the interest of the research community since the mid-1980s and conclusions on the reliability and validity of such information are mixed. However, consensus exists around the need to use multiple outcome measures, including the use of long-term outcomes. NC-TOPPS interviews are the only performance management instrument the State currently utilizes to demonstrate outcomes of public substance abuse treatment. However, NC-TOPPS was not designed to demonstrate long-term outcomes; it was designed as an in-treatment evaluation instrument to assist a provider agency and treatment consumer in determining and updating their service needs.

Beyond the methodological design of NC-TOPPS, the administration of NC-TOPPS is problematic. NC-TOPPS follows a consumer across a single "episode of care," resulting in measures that could be classified only as early outcomes because administration of NC-TOPPS occurs during treatment. Providers conduct initial interviews and update those interviews as the treatment episode continues. An additional NC-TOPPS interview is conducted at the end of an episode of care. Providers also conduct recovery follow-up interviews, but these interviews are optional and conducted infrequently. Administrators at DMH/DD/SAS estimate recovery follow-up interviews are conducted less than 1% of the time.

Indicators exist that DMH/DD/SAS could use to measure long-term outcomes of public substance abuse treatment. Substance abuse treatment literature identifies several indicators of sustained recovery. Exhibit 23 shows additional long-term outcomes DMH/DD/SAS could be tracking along with indicators that serve as proxies for recovery and the method for collecting the necessary data.

Exhibit 23: Long-term Recovery Outcome Measures and Indicators the State Could Be Tracking

Outcome Measure	Indicator	Data Collection and Analysis
Reductions or abstentions from substance use over time	• % of those treated who are no longer using • % of those treated who report reductions in use • % of those treated who report no use	• Confirmatory analysis • Follow-up surveys
Improvements in personal health over time	• Reductions in emergency room-related costs • Reductions in overall healthcare spending for those who received treatment	• Analysis of emergency room-related costs for those who have received treatment • Analysis of overall healthcare-related costs for those who have received treatment
Improvements in social functioning over time	• Obtaining employment • Maintaining employment • Reduced reliance on social support programs • Stable living environment	• Analysis of employment taxes • Analysis of enrollment and use of other social support programs • Follow-up surveys
Reductions in threats to public health and safety over time	• Reductions in criminal justice system interactions	• Analysis of criminal justice system interactions for those who have received treatment

Source: Program Evaluation Division based on interviews and a review of documents from the Department of Health and Human Services.

Other states have demonstrated the ability to implement more comprehensive performance management systems that focus on long-term outcomes. State substance abuse treatment agencies face many challenges in implementing performance management systems. Common barriers include the following:

- lack of encounter-level data on existing data systems to support performance management,
- leadership instability that erodes ongoing support, and/or
- changing resource constraints that preclude ongoing support.

Despite these barriers, states like Connecticut and Washington have taken the initiative to develop comprehensive performance management systems that not only track and report treatment processes and outputs, but also measures of recovery.

Connecticut's performance management system for public substance abuse treatment measures performance at the treatment provider level. These measures are reported through a dashboard-like system on an annual basis. Each measure is presented with targets, actuals, benchmarks, and trends. Measures at the provider level are possible because of a statute requiring providers to report client-level data to Connecticut's Department of Mental Health and Addiction Services. Data reported contribute to measures of each provider including:

- data integrity,
- service utilization,

- program activities,
- discharge outcomes, and
- recovery.

The recovery measures are of particular interest because these measures demonstrate Connecticut's ability to monitor and measure the long-term outcomes of public substance abuse treatment. The indicators of recovery Connecticut uses include:

- incarceration rates,
- stable living environment,
- employment rates, and
- improvement or maintenance of Axis V Global Assessment of Functioning (GAF) scores[24].

Although not as comprehensive as Connecticut's system for performance management of public substance abuse treatment, the state of Washington also monitors a broad array of performance measures that include indicators of recovery. Washington's measures are directly linked to the State's strategic plan for Behavioral Health and Services Integration Administration and include indicators such as rates of employment and earnings for those receiving Division of Behavioral Health and Recovery chemical dependency treatment.

In summary, DMH/DD/SAS has the responsibility to implement performance management for the public substance abuse treatment system. Because of problems with NCTracks, DMH/DD/SAS does not currently have reliable encounter-level data to effectively measure the performance of public substance abuse treatment services. Even when encounter-level data was available, DMH/DD/SAS' performance management system emphasized tracking processes and outputs rather than outcomes. One system DMH/DD/SAS uses is the North Carolina Treatment Outcomes and Program Performance System (NC-TOPPS), which does not track long-term outcomes. Additional indicators exist that DMH/DD/SAS could use to measure long-term outcomes of public substance abuse treatment.

Recommendations

North Carolina has long struggled to identify the most effective and efficient way to organize its system for providing substance abuse treatment services and define the State's role as a direct service provider. Two reports—one in 1992 and another in 2001—noted issues associated with the separation of community-based and State-operated substance abuse treatment services. Both reports recommended that the state-operated Alcohol and Drug Abuse Treatment Centers (ADATCs) become receipt-supported and function in a competitive environment with other service providers. This report confirms that the issues identified over 20 years ago continue to plague the substance abuse treatment system, and that the remedy has not changed.

[24] Axis V is part of the DSM "multiaxial" system for assessment. The five axis model is designed to provide a comprehensive diagnosis that includes a complete picture of not just acute symptoms but of the entire scope of factors that account for a patient's mental health. Axis V reports a provider's judgment of an individual's overall level of functioning. This information is useful in planning treatment and measuring its impact, and in predicting outcomes.

Recommendation 1. The General Assembly should integrate the Alcohol and Drug Abuse Treatment Centers (ADATCs) into North Carolina's community-based substance abuse treatment system and require Local Management Entities/Managed Care Organizations to pay for and manage utilization of ADATC services.

As discussed in Finding 2, the ADATCs are operated by the Division of State Operated Healthcare Facilities, which exists outside of the community-based substance abuse treatment system managed by Local Management Entities/Managed Care Organizations (LME/MCOs). This separation causes operational disconnects and leads to inefficient resource utilization and challenges to care coordination for patients receiving substance abuse treatment services.

To eliminate these inefficiencies, the General Assembly should gradually integrate the ADATCs into the community-based substance abuse treatment system so that ADATCs can operate more as private providers and become reliant on demands for service from the LME/MCOs as opposed to receiving direct state appropriations. Incorporating ADATCs into the publicly funded managed care system for substance abuse treatment would allow LME/MCOs to manage the $36 million ADATC state appropriation more efficiently. LME/MCOs can accomplish this objective by managing the utilization of ADATC services and implementing a broader array of community-based services, thus enabling more individuals to be served more comprehensively in the community setting.

Because an immediate switch could negatively affect the availability of substance abuse treatment services, the General Assembly should direct the Divisions of State Operated Healthcare Facilities (DSOHF) and Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS) to work with LME/MCOs during Fiscal Year 2015–16 to plan and prepare for the integration of the ADATCs into the community-based substance abuse treatment system.

LME/MCO Planning. The General Assembly should require, as a condition of receiving reallocated ADATC funding, each LME/MCO submit transition plans describing how it plans to use reallocated ADATC funding to build capacity for community-based substance abuse treatment services, reduce substance abuse treatment service gaps, or purchase services from the ADATCs. LME/MCOs should submit their transition plans to DMH/DD/SAS on or before February 1, 2016. DMH/DD/SAS should review the plans to ensure they propose using ADATC funds to purchase substance abuse treatment services. To assist LME/MCOs with planning, the General Assembly should direct DMH/DD/SAS to provide each LME/MCO with an estimate of its share of the reallocated ADATC funding during the full transition period by August 1, 2015. The estimate should be based on Fiscal Year 2015–16 state appropriations for ADATCs, and each LME/MCO should receive a funding allocation that is in proportion to the population of its catchment area.

ADATC Planning. The General Assembly should direct DHHS to prepare a transition business plan for the three ADATCs. The plan should

- develop an estimate of the need for and availability of ADATC services during the three-year transition period and subsequent full implementation;
- identify the procedures for making operational adjustments at the ADATCs based on the demand for services and availability of funding; [25]
- develop the methodology for establishing and updating LME/MCO payment rates for ADATC services; and
- determine the necessary adjustments to the current LME/MCO prior authorization process for ADATC services.

The General Assembly should direct the Department of Health and Human Services to submit the ADATC transition business plan to the Joint Legislative Oversight Committee on Health and Human Services and the Joint Legislative Program Evaluation Oversight Committee on or before April 1, 2016.

To effectively integrate the ADATCs into the substance abuse treatment system managed by the LME/MCOs, the General Assembly should require the three-year transition period to begin on July 1 of Fiscal Year 2016–17 with full integration in Fiscal Year 2019–20. The transition period for ADATC integration into the community-based substance abuse treatment system would allow time to implement the following changes:

- **ADATC funding reallocation.** State appropriations for ADATCs would be reduced in 25% increments over the three-year transition period. At the beginning of the fourth year, ADATCs would no longer receive direct state appropriations.
- **LME/MCO funding allocation from ADATCs.** State appropriations from the ADATCs would be reallocated to LME/MCOs in 25% increments over the three-year transition period. At the beginning of the fourth year, LME/MCOs would receive 100% of the state appropriations for ADATCs. The General Assembly should direct DMH/DD/SAS to allocate the ADATC funding based on the population of each LME/MCO catchment area. The allocation for the Cardinal Innovations Healthcare Solutions LME/MCO should be adjusted to reflect the ADATC state institution fund allocation that Cardinal receives for the original counties under the Piedmont Demonstration Project. The General Assembly should require that reallocated ADATC funding be dedicated to substance abuse treatment services and kept outside of the single stream funding that is currently provided to LME/MCOs to serve all disability groups.
- **LME/MCO use of reallocated ADATC funding.** During the transition period, LME/MCOs should use reallocated ADATC funding to build capacity for community-based substance abuse treatment services and/or purchase services from the ADATCs.

[25] Operational adjustments could include staffing adjustments, changes in the use of contract staff, or the closure of facilities. As authorized under N.C. Gen. Stat. § 122C-181(b), the Secretary of the Department of Health and Human Services may permanently close a state facility with the approval of the Governor and the Council of State, subject to action by the General Assembly to disapprove the permanent closure.

Examples of community based services that could be developed or expanded include crisis intervention and residential treatment services.

- **LME/MCO contracts with ADATCs.** Each LME/MCO that chooses to contract with DSOHF for ADATC services should commit to an amount of ADATC services that it expects to purchase based on a negotiated rate for each fiscal year by April 1 of the previous fiscal year in order to allow the ADATCs to make appropriate operational planning decisions.
- **LME/MCO payment rates for ADATC services.** During the first transition year (Fiscal Year 2016-17), LME/MCOs would begin paying 25% of the per-bed day cost for ADATC services for patients from their catchment area. LME/MCOs would pay ADATCs 50% of the per-bed day cost for services in the second transition year with the rate increasing to 100% following full implementation. The General Assembly should direct DSOHF to negotiate rates for each ADATC sufficient to cover the costs of providing services.
- **LME/MCO prior authorization process for ADATC services.** Integrating the ADATCs into the community-based substance abuse treatment system requires LME/MCOs to manage utilization of ADATC services for those individuals who rely upon state funds to pay for treatment services. ADATCs would be required to receive authorization from the appropriate LME/MCO before admitting a patient for whom the LME/MCO will be expected to pay, and this authorization would indicate the LME/MCO is financially responsible. If an individual who is reliant upon state funds for treatment seeks direct admission to an ADATC, the ADATC would provide triage services and notify the appropriate LME/MCO. The LME/MCO would determine whether the individual should be admitted to the ADATC based on the clinical information provided by the ADATC. If the LME/MCO determines that the individual should be served in the community, the LME/MCO would be responsible for making the alternative arrangements. The LME/MCO would pay the ADATC for the assessment services if the individual is moved to an alternative setting.
- **ADATC operations.** Throughout the transition period, the ADATCs must adjust their operations based on funding from direct state appropriations and estimated receipts from Medicare, Medicaid, insurance, self-pay, and LME/MCOs. At the end of the transition period, the ADATCs would be fully receipt-supported.

Exhibit 24 summarizes the integration process over the three-year transition period with full implementation in year four.

Monitoring. The General Assembly should direct the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS) to monitor the integration of ADATCs into the community-based substance abuse treatment system. DMH/DD/SAS should monitor

- LME/MCO and ADATC expenditures to ensure North Carolina continues to meet the maintenance of effort (MOE) requirement attached to the Substance Abuse Prevention and Treatment Block Grant;
- substance abuse treatment capacity building by LME/MCOs to ensure the development of community-based services to meet the needs of patients formerly served by the ADATCs; and
- utilization of ADATC services by LME/MCOs.

Reporting. The General Assembly should direct the Department of Health and Human Services (DHHS) to report to the Joint Legislative Oversight Committee on Health and Human Services and the Joint Legislative Program Evaluation Oversight Committee on the integration of the ADATCs into the community-based substance abuse treatment system and LME/MCO use of reallocated funding to purchase substance abuse treatment services. DHHS should report annually on October 1 beginning in 2016, and submit the final report on full integration in 2020.

Exhibit 24: Summary of the Recommended ADATC Integration Process During the Transition Period

Integration Process	Transition Year 1 Fiscal Year 2016–17	Transition Year 2 Fiscal Year 2017–18	Transition Year 3 Fiscal Year 2018–19	Full Integration Fiscal Year 2019–20
ADATC Funding Allocation (% of Fiscal Year 2014–15 State Appropriations)	$ 27,477,710 (75%)	$ 18,318,473 (50%)	$ 9,159,237 (25%)	$ 0 (0%)
LME/MCO Funding Allocation from ADATCs (% of Fiscal Year 2014–15 State Appropriations)	$ 9,159,237 (25%)	$ 18,318,473 (50%)	$ 27,477,710 (75%)	$ 36,636,942 (100%)
LME/MCO Use of Reallocated ADATC Funding	Develop capacity for community-based substance abuse treatment services and/or purchase services from ADATCs →			
LME/MCO Contracts with ADATCs	LME/MCOs determine amount of ADATC services they wish to purchase and contract with DSOHF for services →			
LME/MCO Payment Rate for ADATC Services	25% of the negotiated rate	50% of the negotiated rate	75% of the negotiated rate	100% of the negotiated rate
LME/MCO Prior Authorization Process	ADATCs receive prior authorization from LME/MCOs in order to receive payment for state-funded services →			
ADATC Operations	ADATCs adjust operations based on funding from direct state appropriations and estimated receipts from Medicare, Medicaid, insurance, self-pay, and LME/MCOs. →			ADATC operations are 100% supported by receipts from Medicare, Medicaid, insurance, self-pay, and LME/MCOs.

Note: The Program Evaluation Division used the Fiscal Year 2014–15 authorized budget to estimate the transition period funding allocations for the ADATCs and LME/MCOs.

Source: Program Evaluation Division.

Recommendation 2. The General Assembly should direct the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS) to strengthen its performance management system for substance abuse treatment by improving data collection and tracking long-term outcome measures.

As shown in Finding 4, North Carolina cannot determine the effectiveness of the publicly funded substance abuse treatment system because the performance management system for substance abuse treatment does not track long-term outcomes.

To ensure that North Carolina has effective substance abuse treatment services, the General Assembly should direct DMH/DD/SAS to develop a plan to improve performance management of the publicly funded substance abuse treatment system. DMH/DD/SAS should submit the plan to strengthen performance management to the Joint Legislative Oversight Committee on Health and Human Services on or before January 15, 2016.

The plan should address improving performance management of the substance abuse treatment system, but DMH/DD/SAS may consider using this process to improve performance management of mental health and developmental disability systems as well. The plan should identify

- specific long-term outcome measures DMH/DD/SAS will begin tracking, with the division considering tracking those indicators identified in Exhibit 23 in this report or proposing alternative indicators and providing rationale;
- challenges with NCTracks that limit the ability of DMH/DD/SAS to implement performance management and proposed remedies to either the NCTracks system or the process for receiving data from LME/MCOs;
- timelines for all steps required for DMH/DD/SAS to begin tracking long-term outcome measures;
- data elements, such as patient placement criteria data, that would allow DMH/DD/SAS to improve the process for analyzing gaps in the community-based system; and
- steps for using long-term outcomes in order to assess the effectiveness of treatment modalities and practices, measure the performance of providers and LME/MCOs in the public system, and hold LME/MCOs accountable for effective and efficient treatment.

DMH/DD/SAS should consult with LME/MCOs in plan development to ensure consistency and feasibility. In addition, DMH/DD/SAS should consult with other state agencies and divisions of DHHS in order to plan to integrate other administrative data into a performance management system that measures outcomes.

Appendix

Appendix A: List of Acronyms

Agency Response

A draft of this report was submitted to the Department of Health and Human Services for review. Its response is provided along with this report.

Program Evaluation Division Contact and Acknowledgements

For more information on this report, please contact the lead evaluator, Jeff Grimes at jeff.grimes@ncleg.net.

Staff members who made key contributions to this report include Sean Hamel, Brent Lucas, and Carol Shaw. John W. Turcotte is the director of the Program Evaluation Division.

Appendix A: List of Acronyms

ADATC	Alcohol and Drug Abuse Treatment Center.
ASAM	American Society of Addiction Medicine.
CDW	Consumer Data Warehouse. The CDW is a data system that provides information about individuals served through the public mental health, developmental disabilities, and substance abuse services system. Data includes demographic, clinical, treatment, and perception of care information.
DMH/DD/SAS	Division of Mental Health, Developmental Disabilities, and Substance Abuse Services. DMH/DD/SAS is a division within the Department of Health and Human Services.
DSOHF	Division of State Operated Healthcare Facilities. DSOHF is a division within the Department of Health and Human Services.
GPAC	Government Performance Audit Committee. In 1991, the General Assembly contracted for a state government performance audit. The management consulting firm KPMG Peat Marwick was hired to conduct the audit and issued a number of reports up to and including its final report of February 1993.
HEARTS	Healthcare Enterprise Accounts Receivable Tracking System. HEARTS is the primary health information management system used at the Alcohol and Drug Abuse Treatment Centers.
LME/MCO	Local Management Entity/Managed Care Organization. There are presently nine LME/MCOs in North Carolina that manage public mental health, developmental disabilities, and substance abuse services at the community level. Each LME/MCO manages these services in a defined geographic region of the State. LME/MCOs are also defined in G.S. § 122C-3 as an entity that is under contract with DHHS to operate the combined Medicaid Waiver program authorized under Section 1915(b) and Section 1915(c) of the Social Security Act.
NC-TOPPS	North Carolina Treatment Outcomes and Program Performance System. NC-TOPPS is used by the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services as an in-treatment evaluation tool.
PBH	Piedmont Behavioral Health. PBH was the pilot entity for behavioral health managed care in North Carolina and is now part of the merged entity Cardinal Innovations Healthcare Solutions.
IPRS	Integrated Payment & Reporting System. IPRS was the claims system used by DMH/DD/SAS until July 2013. IPRS has been replaced by the new claims system, NCTracks.
SAMHSA	Substance Abuse and Mental Health Services Administration. SAMHSA is a federal agency that is part of the Department of Health and Human Services.

North Carolina Department of Health and Human Services
Division of State Operated Healthcare Facilities
ADATCs/Developmental Centers/Neuro-Medical Treatment Centers/Psychiatric Hospitals

Pat McCrory
Governor

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

Dale Armstrong, MBA, FACHE
Division Director

November 12, 2014

John W. Turcotte, Director
Program Evaluation Division
North Carolina General Assembly
Legislative Office Building, Suite 100
300 N. Salisbury Street
Raleigh, NC 27603-5925

Dear Mr. Turcotte:

The Department of Health and Human Services greatly appreciates the recent evaluation of the inpatient alcohol and drug abuse treatment programs, and hereby offers its response to the recommendations outlined in the report.

The Division of State Operated Healthcare Facilities exists as a system of healthcare facilities that respects the dignity of individuals and provides individualized, compassionate, efficient quality of care to the citizens of North Carolina with intellectual and developmental disabilities, substance use disorders and psychiatric illnesses and whose needs exceed the level of care available in the community. The Alcohol and Drug Abuse Treatment Centers have evolved into specialized CMS certified inpatient facilities that are designed to treat individuals with addictions and other co-occurring disorders.

Beginning in 1949, the North Carolina General Assembly passed the Alcoholic Rehabilitation Act and appropriated $300,000 to establish the NC Alcoholic Rehabilitation Program (ARP). In 1950 the Butner Alcohol Rehabilitation Center (ARC) opened, in 1968 Walter B. Jones ARC was opened, and Black Mountain ARC opened in 1969. The facilities then offered "28-Day" programs consisting of detox, substance abuse education, recreation, vocational rehabilitation, group therapy, and AA groups. In 1989, the NC General Assembly changed the name of the 3 facilities to Alcohol and Drug Abuse Treatment Centers (ADATCs). In 1995, Butner ADATC received permission from the Division to reduce from an 80 rehab bed capacity to 45 Rehab beds and 15 acute/detox beds for a total 60 bed capacity. In 1998, the Division mandated that Julian F. Keith ADATC bring up a 10 bed Detox Unit to help reduce inappropriate SA admissions to Broughton Hospital. In October 2001, The MGT report was presented and adopted by the NC General Assembly to recommend that the three ADATCs be adapted to accept all primary substance abuse state hospital admissions.

The ADATCs began implementation of the newly redesigned evidence-based treatment model during State Fiscal Year 2006-2007 to coincide with the change in mission to reflect a varied length of stay individualized co-occurring treatment program. Walter B. Jones ADATC opened the 24-bed Acute

Care Unit (ACU) in July of 2007. The 30-bed ACU at Julian F. Keith in Black Mountain was fully operational by February 2009. R.J. Blackley moved into the renovated Barrett Building in July 2011. Currently, all three ADATCs are free-standing CMS certified and Joint Commission accredited inpatient facilities located in each region of the state to provide specialized inpatient treatment to individuals who have addiction and other co-occurring mental health issues that surpass community capacity. The Alcohol and Drug Abuse Treatment Centers, despite their names, provide evidence-based co-occurring treatment to individuals with substance abuse and significant psychiatric illnesses and often present in crisis or on involuntary commitment (IVC).

Attached, please find comments related to the findings and recommendations cited in the report. Once again, we are appreciative of the evaluation, analysis and recommendations and as a result, we are confident that the Alcohol and Drug Abuse Treatment Centers will improve the services provided to the most vulnerable citizens of North Carolina. Thank you for the objectivity, competence and expertise throughout the course of this study.

Sincerely,

Dale Armstrong, MBA, FACHE
Division Director

Addendum to Official Response

Recommendation 1. The General Assembly should integrate the Alcohol and Drug Abuse Treatment Centers (ADATCs) into North Carolina's community-based substance abuse treatment system and require Local Management Entities/Managed Care Organizations to pay for and manage utilization of ADATC services.

- LME/MCO Planning
  DHHS agrees with the required transition plans for the use of reallocated ADATC funding. The continuum of care in North Carolina will always require ASAM level 3.9 – 4.0 inpatient services. Loss of capacity at this level of care will place a burden on the local Emergency Departments and increase the use of the state psychiatric hospitals to serve individuals with substance abuse disorders.

- ADATC Planning
  DHHS agrees with the required business plan for the three ADATCs as it will be essential for the continuum of care to estimate the need for ASAM level 3.9 – 4.0 inpatient services, adjust based on demand for those services, establish rates and streamline the authorization process.

- ADATC funding reallocation
  DHHS agrees with the concept of alignment with the managed care model, as it reinforces the stance of developing a managed care model for Medicaid services as well as the formation of MCOs as the option for the behavioral health management part of the system.

- LME/MCO funding allocation from ADATCs
  DHHS acknowledges that a robust publically funded substance abuse treatment system is essential to ensuring the most vulnerable citizens in the state receive appropriate and timely services.

- LME/MCO use of reallocated ADATC funding
  DHHS encourages the ongoing consideration of the North Carolina substance abuse continuum of care. With a focus on purchasing ASAM level 3.9 – 4.0 inpatient services from the ADATCs, it ensures capacity for safety net services for those individuals with substance use and other co-occurring mental health issues that surpass community capacity. If ADATC services are dismantled, they would not easily be recreated without significant time and funding.

  Additionally, a 25% reduction in funding in which beds were not purchased from the ADATCs would require a significant downsizing of the ADATCs to the point where lost efficiencies due to economies of scale would lead to systemic instability impacting patient care. Recruitment and retention of highly skilled and qualified staff would be further hindered in light of future uncertainties around job security leading to increased use of agency staffing, temporary staffing and overtime. CMS and TJC accreditation would also be compromised directly impacting receipts. The impact of the reduction in capacity resulting from loss of funding without a proven sustainable continuum available in the community would significantly increase emergency department visits, wait times for placement in community hospitals, access to care, potential increased law enforcement expenses as well as increased admissions to community hospitals and psychiatric/substance abuse facilities.

- LME/MCO contracts with ADATCs
  DHHS agrees that LME/MCOs should contract with DSOHF for ADATC services after assessing community capacity to determine the amount of ADATC services needed for each respective catchment area.

- LME/MCO payment rates for ADATC services
  DHHS agrees that the General Assembly should direct DSOHF to negotiate rates sufficient to cover the cost of providing services.

- LME/MCO prior authorization process for ADATC services
  DHHS agrees with the appropriate management of the utilization and review functions of ADATC services as this is an appropriate means of controlling the utilization and ensuring payment for services.

- ADATC operations
  DHHS agrees that ongoing adjustment of ADATC operations throughout the transition period is essential.

- Monitoring
  DHHS agrees to the ongoing monitoring of the substance abuse treatment system. It is critical to continually assess the statewide need for ASAM level 3.9 – 4.0 inpatient services and not replace inpatient services with community based services but rather focus on appropriate placement along the ASAM continuum of care. There will always be North Carolinians that require ASAM level 3.9 – 4.0 inpatient services. Loss of capacity at this level of care will impact both Emergency Departments and state psychiatric hospitals. When ADATC inpatient services are purchased, it will ensure capacity for safety net services for those individuals with substance use and other co-occurring mental health issues that surpass community capacity.

- Reporting
  DHHS agrees to annual reporting on integration.

Recommendation 2. The General Assembly should direct the Division of Mental Health, Developmental Disabilities and Substance Abuse Services (DMH/DD/SAS) to strengthen its performance management system of substance abuse treatment by improving data collection and tracking long-term outcome measures.

- DHHS agrees with this recommendation.