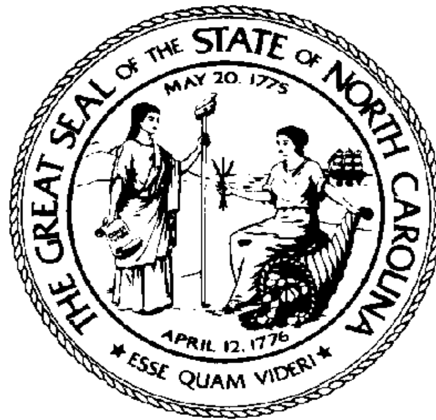
STRATEGIC PLAN FOR IMPROVEMENT OF BEHAVIORAL HEALTH SERVICES

Session Law 2016-94, Section 12F.10.(a-d)
Session Law 2017-57, Section 11F.6.(a-b)



Report to the
Joint Legislative Oversight Committee
on Health and Human Services

Joint Legislative Oversight Committee
on Medicaid and NC Health Choice

and

Fiscal Research Division

By

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Table of Contents

1. Executive Summary ... 3
2. Challenges Facing North Carolina's Behavioral Health System ... 4
3. Vision & Goals ... 6
4. Strategic Planning Process ... 7
5. Current Behavioral Health System in North Carolina ... 7
6. North Carolina Session Law 2016 – 94, Section 12F.10.(a-b) ... 18
7. North Carolina Session Law 2017 – 57, Section 11F.6.(a-b) ... 26
8. Future of Behavioral Health System in North Carolina ... 31
9. Appendices ... 54

1. Executive Summary

The North Carolina Department of Health and Human Services (DHHS) is submitting the Behavioral Health Strategic Plan pursuant to Session Law 2016-94, Section 12F.10.(a-d) and Session Law 2017-57, Section 11F.6.(a-b), to the Joint Legislative Oversight Committee on Health and Human Services, Joint Legislative Oversight Committee on Medicaid and NC Health Choice, and the Fiscal Research Division, North Carolina General Assembly.

Background: To develop the Strategic Plan, DHHS undertook extensive efforts to examine how behavioral health programs and delivery systems can be improved to better meet the needs of North Carolina's most vulnerable citizens. Numerous public listening sessions and stakeholder meetings were held across the state that provided invaluable expertise to this process.

This plan represents a first step, and our foundation for, how DHHS will shape and evolve the behavioral health delivery system. As changes are made to the Medicaid program, and as needs of people in need of services may change, DHHS will amend and refine both areas of focus as well as approaches to implementation of improvements.

Context: North Carolina's behavioral health system faces many challenges, from a chronic lack of funding, to the stigma associated with mental illness, to a workforce that is hard to recruit and retain. Some challenges have been decades in the making, while others have emerged or worsened dramatically in recent years with the Opioid Epidemic. Fortunately, North Carolina has a robust infrastructure for the management and delivery of behavioral health on which to build as outlined in Section 5. Last year, more than 207,000 adults received a mental service across all DHHS funding streams, and more than 69,000 received a substance use disorder service. More than 24,000 adults and 24,000 children received a service related to an intellectual or developmental disability, including 12,738 individuals receiving services through 1915(c) Innovations Waiver slots. The state operated healthcare facility system has staff to support a capacity of more than 2,800 beds and also runs Alcohol and Drug Abuse Treatment Centers (ADATCs), state psychiatric hospitals, and a variety of other specialized facilities and programs.

The Opioid Crisis: The Opioid Crisis has further strained our behavioral health system. Much work has been done over the past year – from the passage of the STOP Act to the release of a state-wide Opioid Action Plan – but more is needed to turn the tide stop the senseless loss of life.

Overview: This plan identifies two focus areas for strengthening the behavioral health system:

- Ensure timely access to high-quality services
- Integrate behavioral health, I/DD, and physical health for children and adults

Ensure timely access to high-quality services: Our highest priority is doing everything we can to help North Carolinians live healthy and productive lives. This includes ensuring that all North Carolinians have timely access to high-quality behavioral health services, and achieving that goal will require coordination across the healthcare system on multiple strategies. We need to broaden the pool of people who are insured, as access to coverage allows people to get the services they need when they need them. We also need to develop community-based services that match the behavioral health needs of our state, from strengthening our workforce to increasing access to telehealth, to developing appropriate step-down services. Other strategies will also be key, such as finding the right balance of inpatient beds and Home and Community-Based Services, and strengthening community collaboration to help address unmet resource needs.

Integrate behavioral health, I/DD, and physical health for children and adults: As the state transforms its Medicaid program from fee-for-service to managed care, is it imperative to also integrate behavioral health and physical health services for children and adults. Best practices from other states show that integration is critical to advancing care that is both high-quality and high-value. Addressing physical health and behavioral health needs in a single insurance product in Medicaid managed care is the foundation of the goal, and other efforts can then be incorporated to maximize the benefits of integration. These include performing routine screening for children and adults, focusing on the needs of young children, implementing robust communication between physical and behavioral health providers, and improving data to help the behavioral health system improve care delivery.

Next steps: This Strategic Plan provides a roadmap to improve the behavioral health system and will evolve as the needs of our state change. It recognizes the complex challenges of the current system but also builds on our existing strengths and looks to a future where all North Carolinians can get the behavioral health care they need, when they need it, and where they need it.

2. Challenges Facing North Carolina's Behavioral Health System

North Carolina Department of Health and Human Services aspires to provide excellent service to all residents with behavioral health needs—where all people get the right care, at the right time, in the right setting. From treating mental illness and substance use disorders, to serving those with intellectual and developmental disabilities, our behavioral health system can – and does – deliver tremendous improvements in health, well-being, and quality of life for North Carolinians. At the same time, our system faces significant challenges. Some of these challenges have been decades in the making, while others have emerged or worsened dramatically in recent years. To understand the vision and plan to improve the behavioral system in the state, it is important to understand the challenges that we face.

About 1 in 5 American adults have a mental health condition. Yet about 56% of adults with mental illness do not receive treatment. Barriers to care include a chronically underfunded mental healthcare system, the social stigma of behavioral health conditions, high costs of care, a lack of mental health professionals, and insufficient community-based resources to meet the needs of these populations.

Nationally, the behavioral health system is chronically underfunded and has experienced funding reductions in recent years. The National Alliance of Mental Illness (NAMI) reported that from 2009 to 2013, states collectively cut $4.45 billion in funding from their mental health services program. in North Carolina, there have cuts in mental health spending each year since the Great Recession. These cuts have exacerbated the many barriers to mental health care in North Carolina.

Behavioral health needs also present unique challenges. Mental illness and substance use disorder are stigmatized in our culture and many individuals find it difficult to seek care. Community and individual resistance to clinically appropriate care leads to delays in seeking treatment, which can result in deterioration of an individual's health and well-being. Delays in

treatment can also result in individuals having more complex and often more expensive care needs.

Even those who do seek care often face access and cost barriers. While North Carolina has brought down its uninsured rate following the Affordable Care Act, 13.6% of North Carolinians are still uninsured and lack access to high-quality, affordable health insurance. Legislation proposed by the General Assembly would allow our state to pull down nearly $4 billion in federal dollars to increase access to health insurance for about 500,000 more people across the state—an estimated 144,000 of which have a mental illness or substance use disorder. However, in the current landscape, thousands of North Carolinians are uninsured and cannot access needed behavioral health services.

In addition, in many parts of our state, access to health insurance does not guarantee access to the right behavioral health care. That's due to a dwindling behavioral health workforce. Despite growing need, there was a 10% decrease in the number of practicing psychiatrists nationwide between 2003-2013.

There also is an imbalance of community-based services relative to inpatient, residential, and institutional care in North Carolina, even though community-based services are often more cost-effective. Because our state lacks robust community-based behavioral healthcare services, more people go into crisis for otherwise manageable conditions. They often wait until their symptoms worsen and they have no choice but to seek care at their last resort—the emergency department (ED). Once in the ED, it can be days before they find another placement.

The lack of community-based behavioral health services also creates a bottleneck in our state-run psychiatric hospitals. There are many people in our hospitals who are ready for discharge, but they need certain community-based supports to be in place before they can leave, and those services often don't exist. As a result, fewer people are being discharged from the psychiatric hospitals, and therefore fewer inpatient beds are being freed up for the North Carolinians who are in crisis and stuck in EDs throughout the state.

At its core, the "ED boarding" issue in North Carolina is not a psychiatric bed issue. It is a community-based services issue.

Presently, North Carolina has separate payment and delivery systems for physical health services and behavioral health and intellectual/ development disabilities (I/DD) services. Physical health services are managed through DHHS' Primary Care Case Management (PCCM) program, while behavioral health and I/DD services are delivered by local management entity-managed care organizations (LME-MCOs). LME-MCOs have standardized delivery of services and managed behavioral health and I/DD service costs, but the current bifurcated structure limits DHHS' ability to provide whole-person care. This bifurcation is an obstacle to the delivery of integrated clinical care—which research shows provides the best health outcomes for patients, increases access to care, provides more opportunity for delivery system innovation, and saves money and resources. While DHHS is working with the General Assembly to change this, North Carolina does not today integrate physical and behavioral health care, which results in disjointed care for consumers.

While the state's behavioral health care system has faced these significant challenges for decades, the opioid crisis has intensified them. Since 1999, over 13,000 North Carolinians have died from an opioid overdose. In 2016, 1,384 North Carolinians died from an unintentional opioid overdose, which is 39% more than the previous year. This harrowing statistic doesn't account for the more than 13,000 naloxone administrations for suspected opioid overdoses by our EMS and first responders. While the opioid crisis exacerbates many of the challenges described above, such as an insufficient health workforce and community-based resources, it also impairs our schools, social services, law enforcement and health system as a whole. In the last 5 years, the state has seen a 25% increase in children in foster care. In addition, as we see more pregnant women fighting an opioid addiction, NC has seen 893% increase in hospitalizations associated with drug withdrawal in newborns. While there has been hard work done to turn the tide on the opioid crisis, including launching North Carolina's Opioid Action Plan, passing the bipartisan STOP Act, and making changes to North Carolina's Medicaid program, we still see increased numbers of people dying from opioid overdoses each month.

Our behavioral health system has experienced significant change and finds itself at a moment of uncertainty. Over the last sixteen years, there has been hard work undertaken across the state to stabilize the system following the closure of state hospital beds, multiple reform efforts, and shifting management of mental health care to the LME-MCOs. Even with this work, a lack of integration, robust behavioral health workforce, and sufficient community-based services have kept North Carolina from achieving the best quality health care for residents. As the state transitions to managed care, DHHS will continue to work with the General Assembly, providers, LME-MCOs, and other stakeholders to improve the health, safety and well-being of all North Carolinians.

3. Vision & Goals

Vision for Behavioral Health Services in North Carolina:

> North Carolinians will have access to integrated behavioral, developmental, and physical health services across their lifespan. Efforts within this plan will enhance the quality and capacity of services and supports in partnership with providers, clients, family members, and communities to promote hope and resilience and achieve wellness and recovery.

Goals for Behavioral Health Services in North Carolina:

Timely access to high-quality services:

North Carolina is committed to ensuring all individuals have reliable access to quality behavioral health services of the right intensity and at the right frequency through sufficient coverage, appropriate referrals, and adequate provider networks. Individuals with behavioral health needs will receive the right care, at the right time, in the right setting. To ensure access to services, DHHS is committed to improving quality in all services and developing a strong, evidence based treatment continuum with ongoing quality improvement in the provider workforce.

Integrate behavioral health, intellectual and developmental disabilities (I/DD), and physical health services for children and adults:

Addressing an individual's health, looking at both physical and behavioral health needs and developing an integrated treatment plan, allows for better long-term outcomes for an individual's total health.

4. Strategic Planning Process

The Department of Health and Human Services was tasked by the North Carolina General Assembly with creating this strategic plan at a moment of significant transition. The Medicaid program is in the process of transforming from a primarily fee-for-service delivery system to managed care, which will change the way beneficiaries interact with the health care system and create new challenges and opportunities. A worsening opioid crisis is devastating North Carolina communities and straining all aspects of our behavioral health care infrastructure. The purpose of the Strategic Plan is to align with those forces of change and drive the transformation of the health service system into one that is integrated, outcomes-oriented and community-based.

To support the creation of this plan, DHHS created a multi-disciplinary Behavioral Health Steering Committee. The Steering Committee partnered with subject matter experts to understand the current state of behavioral health delivery and articulate a vision for the future. Stakeholder meetings were held with providers, consumers, family members, private advocacy organizations, Local Management Entity-Managed Care Organizations, State Consumer Family Advisory Committees, Disability Rights NC, Benchmarks, The Coalition, State Hospital Social Work Directors, and local and state agency representatives. Public listening sessions were held in Charlotte, Elizabeth City, Raleigh, Sylva, Wilmington and Winston-Salem with more than 300 people attending. Across North Carolina, themes emerged around the lack of coordination between primary care and behavioral health care, inadequate funding and workforce resources, and stigma about behavioral health conditions. Their collective concerns have been invaluable to this process.

5. Current Behavioral Health System in North Carolina

5.1. North Carolina Population Overview

Geographic location and population density can affect how individuals access behavioral health services, the availability of behavioral health services, and the qualified workforce to provide those behavioral health services. According to the North Carolina Department of Commerce, North Carolina has the second-largest rural population in the nation.

Supportive Data:

North Carolina Population (number/percentage)	Characteristics
10,146,788[1]	North Carolina's estimated population in 2016
6.4%[1]	Percentage change of North Carolina's population from 2010 to 2016
15.5%[1]	Percentage of North Carolina's population aged 65 or older
22.7%[1]	Percentage of North Carolina's population under the age of 18
80[2]	Number of counties considered rural
4,000,000[2]	Approximate number of people that live in a rural county (41 percent of the state population)
1,879,268	Number of citizens enrolled in Medicaid covered under the Waivers in FY17 (22.7% of the state population between ages 3 and 64)
1,122,526[3]	Estimated number of citizens that are uninsured (13.6% of the state population between ages 3 and 64)

5.2. Local Management Entities – Managed Care Organizations

Seven Local Management Entities-Managed Care Organizations (LME-MCOs) operate in the state of North Carolina. Their role is to provide coordination of behavioral health services and payments of those services. This is done through a network of local, community service providers that contracted with and monitored by the LME-MCOs. LME-MCOs receive a monthly payment from DHHS' Division of Medical Assistance (DMA), the state Medicaid agency, based on the number of Medicaid beneficiaries residing in the LME-MCO catchment area. Medicaid beneficiaries receive mental health and substance use, intellectual, and other developmental disability services through the LME-MCOs authorization for services within their network.

LME-MCOs are also charged by General Statute to serve the uninsured. Funding for the uninsured is done through federal block grants that include federally required state funds to match as a "Maintenance of Effort." The state portion of non-Medicaid funding is appropriated by the General Assembly and referred to as "Single Stream Funding."

Below is a list of the LME-MCOs and the counties they serve:

[1] United States Census Bureau, July 1, 2016
https://www.census.gov/quickfacts/fact/table/NC,US/PST045216

[2] North Carolina Department of Commerce, Labor & Economic Analysis, July 9, 2015
https://www.nccommerce.com/lead/research-publications/the-lead-feed/artmid/11056/articleid/123/rural-center-expands-its-classification-of-north-carolina-counties

[3] July 2017 NC OSBM Population estimates for each county and age group by the county-level uninsured rates for each age group from the Model-based Small Area Health Insurance Estimates (SAHIE) for Counties and States 2015, produced by the U.S. Census Bureau/Small Area Health Insurance (SAHIE) Program

LME-MCO	Counties Served
Alliance Behavioral Healthcare	Cumberland, Durham, Johnston, Wake
Cardinal Innovations Healthcare	Alamance, Cabarrus, Caswell, Chatham, Davidson, Davie, Forsyth, Franklin, Granville, Halifax, Mecklenburg, Orange, Rockingham, Person, Rowan, Stanly, Stokes, Union, Vance, Warren
Eastpointe	Bladen, Columbus, Duplin, Edgecombe, Greene, Lenoir, Robeson, Sampson, Scotland, Wayne, Wilson
Partners Behavioral Health Management	Burke, Catawba, Cleveland, Gaston, Iredell, Lincoln, Surry, Yadkin
Sandhills Center	Anson, Guilford, Harnett, Hoke, Lee, Montgomery, Moore, Randolph, Richmond
Trillium Heath Resources	Brunswick, Carteret, Beaufort, Bertie, Camden, Chowan, Craven, Currituck, Dare, Gates, Hertford, Hyde, Jones, Martin, Nash, New Hanover, Northampton, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Pitt, Tyrrell, Washington
Vaya Health	Alexander, Alleghany, Ashe, Avery, Buncombe, Caldwell, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Swain, Transylvania, Watauga, Wilkes, Yancey

LME-MCOs are responsible for meeting the behavioral health needs of most Medicaid beneficiaries,[4] but, in any given year only a fraction use the Medicaid benefits covered by LME-MCOs. LME-MCOs also receive funding to provide services to uninsured or underinsured individuals. These services are not an entitlement and individuals only receive them consistent with the availability of funding. While the majority who receive services paid for by non-Medicaid funds are either completely uninsured, or underinsured, many Medicaid recipients benefit by receiving services paid for by non-Medicaid funding because the services, such as housing supports, are not identified as "medically necessary" and therefore not reimbursable by Medicaid.

Additional detail on service utilization by Medicaid and uninsured individuals is found in section 6.3 of this plan.

Appendix:

[4] Children enrolled in NCHC receive behavioral health services outside of LME-MCOs. Individuals enrolled in the family planning benefit are not eligible for Medicaid-covered behavioral health services. Partial benefit duals (where Medicaid pays a portion of the Medicare costs for an individual) receive behavioral health services through their Medicare benefits.

- Appendix A – Map of North Carolina and each LME-MCO catchment area.

Supportive Data:

FY17 Statewide Summary

Payer	Eligible Population		Persons Served with MH/SUD/IDD (1)	Penetration (% of Population Served)
LME/MCO State/Block Grant	1,122,526	Uninsured (2)	94,819	8%
LME/MCO Medicaid Waiver	1,879,268	Medicaid Enrollees (3)	305,798	16%
Medicaid Fee-For-Service	1,879,268	Medicaid Enrollees (3)	148,513	8%

(1) 11-17% of those served received services from more than one payer.

(2) LME/MCO State/Block Grant clients include Uninsured, Under-insured, and Medicaid enrollees (for services not covered under Medicaid), thus the eligible population exceeds the Uninsured shown here.

(3) Medicaid Enrollees includes those enrolled in FY17 in Categories of Aid covered under the Waivers.

5.3. Community Care of North Carolina/Carolina ACCESS

Community Care of North Carolina/Carolina ACCESS (CCNC/CA) is a managed primary care program which serves most Medicaid beneficiaries in the state, as well as North Carolina Health Choice beneficiaries between the ages of 6 and 18 years.

Under CCNC/CA, eligible beneficiaries join medical homes which coordinate a patient's health care services. Primary care services are managed through the medical home, and access to specialty care is coordinated through the primary care provider. CCNC/CA supports primary care practices becoming the medical home both for enrollees with mild behavioral health issues being served in the primary care system, and those with more serious needs being served in their specialty behavioral health system (i.e., LME-MCO).

Also under CCNC/CA, each patient has access to a care manager to ensure individualized care. CCNC/CA provides health education to its plan members and assists them in maximizing their own health care through self-management.

5.4. Mental Health Disorders

The Substance Abuse and Mental Health Services Administration (SAMHSA) defines serious mental illness (SMI) as a diagnosable mental, behavior, or emotional disorder that causes serious functional impairment among people who are age 18 and older that substantially interferes with or limits one or more major life activities. While basic treatment for mental health services can be provided both in the fee-for-service (FFS) system by primary care and under the LME-MCOs, enhanced services are only provided under the LME-MCOs. LME-MCOs also provide services with State and Federal Block Grant funds, prioritizing adults with

serious and persistent mental illness and children with serious mental health and/or substance use disorders (MHSUD), given the funds are limited. These services are targeted for uninsured, and those with Medicaid or other insurance whose needs cannot be met under covered services.

Supportive Data:

The table below shows the numbers of persons served in FY17 with Medicaid (MCO and FFS) and all funding streams, relative to estimated prevalence rates.

Disability	Medicaid MCO & FFS Undup. Persons Served	Estimated Prevalence Medicaid	% of Prevalence Receiving Services	Unduplicated Persons Svd Across Medicaid and State Streams	Total Estimated Prevalence	% of Prevalence Receiving Services
Adult MH	157,634	265,142	59%	207,577	478,357	43%
Child MHSUD	156,594	228,929	68%	158,705	249,398	64%

5.5. Substance Use Disorders

Per SAMHSA, Substance Use Disorders (SUD) occur when the recurrent use of alcohol and/or other drugs cause clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home. Some basic treatment for SUDs can be provided in the FFS system by primary care provider and under the LME-MCOs, however community-based intervention services are only provided under the LME-MCOs. For example, individuals can receive office-based medication management from a physician in FFS or from a psychiatrist under the LME-MCOs; however, if individuals require more intensive treatment such as Substance Abuse Comprehensive Outpatient Treatment, they will have to seek treatment via the LME-MCOs. In addition, LME-MCOs receive federal block grant funds and state appropriated single stream funds to provide services for individuals with substance use disorders.

Supportive Data:

Disability	Medicaid MCO & FFS Undup. Persons Served	Estimated Prevalence Medicaid	% of Prevalence Receiving Services	Unduplicated Persons Svd Across Medicaid and State Streams	Total Estimated Prevalence	% of Prevalence Receiving Services
Adult SUD	40,410	101,535	40%	69,490	227,514	31%

5.6. Intellectual & Developmental Disabilities

An intellectual/developmental disability (I/DD) is chronic and can begin at birth or during childhood up to age 22. I/DD adversely affects an individuals' daily living and functioning Developmental disabilities can be caused by a mental/cognitive impairment, a physical impairment or combination of both. These can result in functional limitations for extended periods of time including difficulties communicating, learning and caring for oneself.
The North Carolina Innovations Waiver provides home and community-based services and supports to individuals with I/DD in the community. The current state budget authorizes the program to serve 12,738 individuals.

The NC Innovations Waiver is managed by the LME-MCOs. The LME-MCOs ensure that NC Innovations Waiver participants receive the supports and services needed by enrolling participants in the waiver program, providing individual support planning and linking participants to necessary supports and services. The LME-MCOs are also responsible for ensuring the health and safety of Innovations Waiver participants.

Individuals on the Innovations Waiver have access to a variety of supports and services in addition to State Plan Medicaid services. Services include:

- Habilitative services that help teach individuals new skills or help them maintain existing skills. Supported Employment is an example of a habilitative service where a participant can learn new job skills or receive the support needed to maintain employment. In addition, children and older adults receive habilitation that is necessary toward success in accessing community, managing around the home, and achieving certain learning objectives.
- Supported living and community living and supports help individuals learn community living skills
- Personal care
- Residential services
- Opportunities to participate in leisure or recreational activities at home or in the community
- Environmental supports, such as home or vehicle modifications and assistive technology, to make the community more accessible to them.
- Respite services are available in and out of the home and offer individuals on the Innovations Waiver and their families an opportunity to have scheduled breaks, including during times of crisis.
- Continuum of crisis services, including crisis prevention and intervention, to further support individuals in their communities.

Similarly, individuals with I/DD who are determined to be Medicaid eligible but do not have an Innovations Waiver slot may receive Medicaid psychical health services and the same non-Medicaid state-funded services listed above through the LME-MCOs outside the Waiver. (Individuals with I/DD receiving Medicaid physical health services but not behavioral health services will *not* be counted as a "person served" in the data below, so these results should be interpreted with caution.)

Supportive Data:

- 12,738[6] - Current 1915(c) Innovations Waiver slots for I/DD
- 11,308[6] - Current wait list for Innovations Waiver slots

Disability	Unduplicated Persons Svd Across Medicaid and State Streams	Total Estimated Prevalence	% of Prevalence Receiving Services	# of Persons on Waiting List for Innovations Medicaid	Estimated Persons in Need Without Services
Adult IDD	24,010	62,801	38%	6,468	38,791
Child IDD	24,364	64,116	38%	5,230	39,752

5.7. Autism Spectrum Disorder

Autism Spectrum Disorder (ASD) is defined by the Autism Science Foundation as a brain-based disorder characterized by social-communication challenges and restricted repetitive behaviors, activities, and interests. Individuals with ASD may communicate, interact, behave, and learn in ways that are different from most other people. Some individuals with ASD need substantial support in their daily lives; others need less.

Treatment for children on Medicaid diagnosed with ASD is covered under Early Periodic Screening, Diagnosis and Treatment (EPSDT). DHHS' DMA is in the process of submitting a State Plan Amendment (SPA) to CMS to add Research Based-Behavioral Health Treatment (RB-BHT) as a covered service.

Supportive Data:

Estimated Number of Children with Autism Spectrum Disorder in North Carolina *	Adults & Children Served with Autism Spectrum Disorder with LME/MCO Medicaid Funds	Adults & Children Served with Autism Spectrum Disorder with LME/MCO State/BG
28,412	10,890	1,450

*Based on estimated prevalence from the Centers for Disease Control and Prevention,

Prevalence and Characteristics of Autism Spectrum Disorder, Published April 1, 2016.
Adult prevalence rates are unknown

[6] LME-MCO Reporting, May 2017

5.8. Traumatic Brain Injury

Traumatic Brain Injury (TBI) is an injury to the brain that is caused by an external physical force, such as hitting your head or other types of blunt force trauma. The most common causes of TBI that result in physical and mental challenges include: slips and falls, motor vehicle accidents, and being struck by or against an object. Individuals with TBI can only access Medicaid and/or non-Medicaid state-funded I/DD services if they are injured prior to the age of 22. Currently, there are three, publicly-funded day programs and 10 publicly funded residential programs designed for individuals with brain injuries TBI-specific group homes are currently at capacity.

DMA has requested from the Centers for Medicare & Medicaid Services (CMS) a 1915(c) TBI waiver for a TBI pilot program in four counties for 109 members. Once approved, the pilot program will be funded for three years in Durham, Wake, Cumberland, and Johnston counties.

Supportive Data:

North Carolina Population (number)	**Characteristics** (children and adults)
76,708[7]	Number of North Carolina citizens that sustained a TBI in 2014
190,000[8]	Approximate number of TBI survivors in the state (one-third of those individuals may need long-term care)
113,852[9]	Number of individuals with a TBI who received Medicaid covered or non-Medicaid-funded (state-funded) services from July 1, 2013 to Sep. 30, 2015.

5.9. State Operated Healthcare Facility System

DHHS' Division of State Operated Healthcare Facilities (DSOHF) oversees and manages 14 facilities that treat adults and children with mental illness, traumatic brain injuries, developmental disabilities, substance use disorders and neuro-medical treatment needs. DSOHF serves as the safety net in the behavioral healthcare system for individuals whose treatment requirements exceed the level of care available in the community. Most state facilities serve specific populations in one of the three regional catchment areas. DHHS partners with regional advocacy groups, LME-MCOs, provider systems, as well as other stakeholders to devise state-wide standards of care that are unique to each specialty population and program that best meet the treatment and care needs of the populations served.

[7] N.C. Division of Public Health. (October, 2016). *Annual Injury Report Special Emphasis Report: Traumatic Brain Injury 2014.*
[8] Centers for Disease Control and Prevention. (2015). Report to Congress on Traumatic Brain Injury in the United States: Epidemiology and Rehabilitation.
[9] Note (NCTracks): There are 113,852 individuals who had a TBI diagnosis in at least one of seven diagnosis code positions using applicable ICD-9 codes, based on paid claims for any Medicaid-funded service or non-Medicaid-funded (DMH/DD/SAS) mental health service paid through the NCTracks system after July 1, 2013 for services beginning on or before September 30, 2015. July 1, 2013 is when NCTracks began and October 1, 2015 is when use of ICD-10 codes was required.

1. Bed Capacity

In SFY 17, North Carolina operated 2,812 beds.

Appendices:

- Appendix B – List of each facility with their corresponding number of beds and people served.

2. Alcohol and Drug Abuse Treatment Centers

The three Alcohol and Drug Abuse Treatment Centers (ADATCs) serve adults in need of substance use disorder treatment and psychiatric stabilization. ADATC's provide an inpatient hospital level of care. They offer an array of specialized programs to meet the complex needs of their population, such as evidence-based treatment for trauma survivors, veteran's treatment, criminal diversion programs, and state-wide perinatal and opioid treatment programs.

ADATC services are designed to assist individuals who may:

- Experience toxic effects and potentially dangerous withdrawal symptoms that require a medical detoxification, have chronic medical problems that pose significant risk during detoxification and treatment, and/or they have concurrent acute medical problems that require medical consultation and monitoring by primary care physicians.
- Have a need for supervised medication management.
- Require daily monitoring and support, and cannot be served in a lower level of care.
- Be on an Involuntary Substance Abuse and/or Involuntary Mental Health Commitment.

3. Developmental Centers

The three Developmental Centers provide comprehensive residential supports to maintain and improve the health and functioning of individuals with I/DD with complex behavioral challenges and/or medical conditions whose clinical treatment needs exceed the level of care available in the community. The services may include time-limited, specialized programs for individuals in identified target populations (Autism, I/DD, mental illness, etc.) with the goal of community reintegration. The types of admissions include general, therapeutic, respite, and specialty programs.

As CMS-certified Intermediate Care Facilities for Individuals with Intellectual Disabilities (ICF/IID), the goal for all admissions to Development Centers is successful reintegration into the community. Services include habilitation training, personal care, medical, dental, physical therapy, occupational therapy, speech therapy, education, vocational, nursing, psychology, nutrition, pharmacy, recreation, chaplaincy, and other support services. Unlike

the Riddle Center, Murdoch and Caswell Centers also provide short-term, specialized programs for individuals in specific target populations.
Appendices:

- Appendix C – List of specialized services and/or targeted populations served by the Murdoch Center.
- Appendix D – List of specialized services and/or targeted populations served by the Caswell Center.

4. Residential Programs for Children

Wright School and Whitaker Psychiatric Residential Treatment Facilities (PRTFs) serve children and adolescents who have severe emotional and behavioral needs. These facilities serve the entire state.

Wright School:

- Employs a re-education model which prepares the child to successfully return to the community.
- Provides week day residential mental health treatment to children ages 6 to 12 with serious emotional and behavioral disorders.
- Supports each child's family and community in building the capacity to meet children's special needs in their home, school, and local community.

Whitaker Psychiatric Residential Treatment Facility:

- Provides psychiatric residential mental health treatment to adolescents ages 13 to 18.
- Secure, non-acute treatment program for males and females who are experiencing severe and persistent emotional and behavioral challenges.
- Coordinates with community-based resources to help adolescents return to successful, productive lives in their home community.
- Adolescents receive individualized treatment to increase their academic, social and behavioral competencies - allowing them to live successfully in less restrictive environments.

5. Neuro-Medical Treatment Centers

The three Neuro-Medical Treatment Centers are specialized skilled nursing facilities certified by CMS under the Omnibus Budget Reconciliation Act long-term care regulations. The facilities serve adults with chronic and complex medical conditions that co-exist with neuro-cognitive disorders often related to a diagnosis of severe and persistent mental illness or intellectual disability.

Neuro-Medical Treatment Centers are not a substitute placement for the traditional community skilled nursing facility. However, the facilities serve individuals who need a skilled nursing level of care and may have a history of unsuccessful placement in community settings due to symptoms of their mental illness, neuropsychiatric disorder, health and/or clinical treatment needs that exceed the level of care available.

- Each individual requires 24-hour supervision, daily nursing assessment, and assistance with activities of daily living.
- Services provided include psychological, medical and skilled nursing care support, a range of rehabilitations services (i.e., Occupational Therapy, Physical Therapy, Speech Pathology, and Nutritional Services) and palliative end of life care.

Appendices:

- Appendix E – Additional information regarding the three Neuro-Medical Treatment Centers.

6. State Psychiatric Hospitals

The three state psychiatric hospitals (SPH) provide comprehensive inpatient mental health treatment to individuals with psychiatric illness who cannot be safely treated at a lower level of care. These individuals typically have chronic, severe, and treatment refractory illnesses that community hospital inpatient psychiatric units cannot address.

Many individuals in need of hospitalization at a SPH have multiple problems related to mental illness, including involvement with the criminal justice system, aggressive behaviors, lack of housing, lack of family/social support, financial problems, problems with medications, drug/alcohol abuse, chronic co-occurring medical problems, and/or intellectual developmental disabilities. Treatment may be acute or long-term, and the SPHs typically are at capacity, resulting in a delay for people needing this level of care.
The SPHs are accredited by the Joint Commission for Accreditation of Healthcare Organization and are certified by CMS. The overall mission of all SPHs is to provide compassionate care to facilitate everyone’s return to pre-crisis functioning levels and transition back into the community with the necessary support systems in place. The SPHs accept both voluntary and involuntary admissions coordinated by the LME-MCOs stemming from emergency departments.

The state’s three SPHs provide the following in their active treatment programs:

- Psychiatric/medical services including: psychiatric evaluation, stabilization, medication management, and pharmacy assistance with medication access, physical evaluation and medical care, dental, nutrition, radiology, physical therapy and referral to specialist, if needed, while in the hospital.
- Mental health services including: psychology, social work and nursing services, including assessment, therapy, an overall therapeutic environment that promotes development of emotion regulation and coping skills, effective social and communication skills and self-care.

- Rehabilitation therapies including: advocacy, vocational therapy, pastoral services, art therapy, recreation therapy, speech/language therapy, and beauty/barber services.
- All SPH's provide treatment to adult, geriatric and adolescent North Carolinians. This includes court ordered Incapacity To Proceed (ITP) evaluations, treatment, and case management.
- Statewide specialty services/programs are provided as follows:
    - Deaf Individuals: Broughton Hospital
    - Children (ages 5 to12): Central Regional Hospital
    - Forensic: Central Regional Hospital
    - Electroconvulsive Therapy: Central Regional Hospital
    - ITP Community Screeners Training: Central Regional Hospital
    - Health Care Technician Training and Certification Programs (All Hospitals)

6. North Carolina Session Law 2016 – 94, Section 12F.10.(a-b)

6.1. North Carolina Session Law 2016 – 94, Section 12F.10.(b1), Provides the following reporting requirement:

"Identification of the Division that will (i) assume lead responsibility for the organization and delivery of publicly funded behavioral health services and (ii) define the current and future roles and responsibilities of local management entities/managed care organizations (LME-MCOs) with respect to the organization and delivery of publicly funded behavioral health services."

The Secretary of the Department of Health and Human Services will assume lead responsibility for the organization and delivery of publicly funded behavioral health services and define the current and future roles of LME-MCOs.

6.2. North Carolina Session Law 2016 – 94, Section 12F.10.(b2), provides the following reporting requirement:

"A Process for Ensuring that all State Contracts with Behavioral Health Providers and Managed Care Organizations Responsible for Managing Medicaid Behavioral Health Services (Including LME-MCOs) Contain Goals for Overall Behavioral Health Services, Along with Specific Measurable Outcomes for all Publicly Funded Mental Health, Developmental Disabilities, Substance Abuse, and Traumatic Brain Injury Services."

DMA and DMH/DD/SAS have tracked LME/MCO performance on at least three dozen clinical and financial measures. Beginning with the 2017 LME-MCO contracts, DMA and DMH/DD/SAS, DHHS identified a series of contract measures with concrete expectations for outcomes and associated penalties for failure to achieve those outcomes. These 'super measures' reflect priorities of the Department regarding integrated care, improving follow-up care and coordination, and increasing access to community-based housing and services. The

Department expects to adjust as well as expand these measures in each subsequent LME/MCO contract.

For DMA, three measures were chosen to address each of the disability groups for mental health, substance use, and developmental disabilities. The measures and associated penalties are:

Measure	**Benchmark**	**Penalty**
Medical Care Coordination – I/DD with health visit in last year	90%	$100,000
Follow Up After Discharge: Detox/FBC (SUD) within 0-7 days	40%	$100,000
Follow Up After Discharge: Community Hospitals (MH) within 7 days	40%	$100,000

For DMH/DD/SAS, the measures and penalties are:

Measure	Benchmark	Penalty
Follow Up After Discharge: Detox/FBC (SUD) within 0-7 days	40%	$50,000
Number of Transitions to Community Living Initiative population members transitioned into supportive housing	100%	$50,000
Follow Up After Discharge: Community Hospitals (MH) within 7 days	40%	$50,000

These measures are the baseline for managing behavioral health managed care, and will be adjusted and expanded in future contracts. DHHS experience in the first year of implementing these contract standards and penalties will inform future efforts to expand and improve this approach.

6.3. North Carolina Session Law 2016 – 94, Section 12F.10.(b3), provides the following reporting requirement:

"Statewide Needs Assessment for Mental Health, Developmental Disabilities, Substance Abuse, and Traumatic Brain Injury Services by County and Type of Service, Broken Down by the Source of Funding. The Needs Assessment Must Include a Defined Service Continuum to Address Identified Needs for Targeted Populations."

Overview

To complete the Statewide Needs Assessment, DHHS analyzed claims from the Medicaid waivers, Medicaid fee-for-service, and state/block grants funds for five populations across a defined service continuum: Adult Mental Health (AMH), Adult Substance Use Disorder (ASUD), Child Mental Health/Substance Use Disorder (CMHSUD), Adult Intellectual/Developmental Disorder (AIDD), and Child Intellectual/Developmental Disorder (CIDD). Prevalence for each disability was estimated for the 100 counties in NC, utilizing the most current and relevant published rates available for each disability, age group, and payer, when available.

Claims data was further compiled to determine penetration rates, and the percent of estimated prevalence receiving at least one service for Medicaid and the combined Medicaid/uninsured population. Although over 475,000 persons with MH, I/DD and SUD received one or more services in FY17 (including Medicaid and state-funded services), it is estimated that close to 600,000 adults and children have these disorders and received no treatment. Nationally, the SAMHSA noted in 2014 that almost half (44.7 percent) of the 43.6 million American adults (aged 18 and older) who experienced a mental illness in the past year received mental health care, while over half did not receive treatment.[3] The NC-specific penetration rate varied considerably between counties and between LME-MCO regions. Additionally, utilization of the particular services was analyzed, and in some cases the patterns of service utilization varied widely between LME-MCOs.

The descriptive analysis of this data suggests that:

- There is considerable unmet need in most parts of the state, particularly among uninsured individuals and in rural areas of the state;
- The amount of unmet need varies by county, disability and payer, with the uninsured being far less likely to receive services;
- The continuum of services currently available in NC is inconsistently available; and
- The majority of funding is spent on inpatient, institutional, residential and facility-based treatment as opposed to community-based treatment.

A summary of the data appears below. DHHS continues to asses this information, and to identify contracting and performance management strategies to help achieve a service delivery system consistent with high quality, uniformly accessible community-based treatment.

Approach

The determination of need and unmet need for behavioral health services is not an exact science. Service penetration, the number of persons receiving services for a class of

[3] https://www.samhsa.gov/data/sites/default/files/NSDUH-DR-FRR3-2014/NSDUH-DR-FRR3-2014/NSDUH-DR-FRR3-2014.htm

diagnoses (such as Substance Use Disorders), can be compared to estimates of the prevalence of those disorders in the population of interest to determine the extent to which the need for services are being met. Prevalence estimates are found in published studies, some of which stratify those estimates by geographic location, age, insurance type, or socioeconomic level. Prevalence rates are a reasonable basis for estimating need, although not all persons with a disorder may choose or be able to participate in treatment.

The illustration below shows the conceptual relationship between Population, Prevalence, Penetration, and the grey area – those who have a disorder and are receptive to but not receiving formal treatment.

The behavioral health needs assessment that follows utilizes population prevalence estimates and service penetration rates by funding source to develop county-level estimates of unmet need of persons with mental health, intellectual/developmental, and substance use disorders.

Results

The statewide Penetration and Prevalence Estimates can be found in Table 3 below. The County and LME-MCO estimates can be found in the Appendix I

TABLE 3:

Statewide Summary of Penetration Relative to Prevalence by Disability

Disability	Medicaid Undup. Persons Served	Estimated Prevalence Medicaid	% of Prevalence Receiving Services	State/BG Persons Served with Medicaid at Time of Svc	State/BG Persons Served NonMedicaid at Time of Svc	Estimated Prevalence Among Uninsured	% of Prevalence Receiving Svcs - NonMedicaid (Uninsured) Only	Estimated Persons in Need Without Services
Adult MH	157,634	265,142	**59%**	3,442	51,165	213,215	**24%**	209,773
Adult SUD	40,410	101,535	**40%**	1,953	29,014	125,979	**23%**	124,026
Child MHSUD	156,594	228,929	**68%**	145	2,257	20,469	**11%**	20,324

Disability	Unduplicated Persons Svd Across Medicaid and State Streams	Total Estimated Prevalence	% of Prevalence Receiving Services	# of Persons on Waiting List for Innovations Medicaid	Estimated Persons in Need Without Services
Adult IDD	24,010	62,801	38%	6,468	38,791
Child IDD	24,364	64,116	38%	5,230	39,752

Note: The Medicaid figures above are included in the overall Unduplicated Persons Served across funding streams, and so influence the overall numbers.

The Adult I/DD number reflects NC estimated prevalence less those that receive public services. The estimated population who would qualify and utilize public services if made available is

unknown. Many individuals in this category may have other resources that provide sufficient supports and would not require public services.

Appendix I also shows expenditures by service category. These tables and graphs show, for each disability and funding stream, the absolute and proportionate expenditure by service category.

Discussion

While this analysis highlighted many examples of the positive impact behavioral health providers have on North Carolina citizens, it also raised four overarching concerns:

- **There is significant unmet need for behavioral health services, especially among the uninsured**. Over 475,000 people received mental health, substance use, and/or intellectual/developmental disorder services in FY17 from the public system, but this analysis estimates that close to 600,000 have these disorders and received no treatment. A lack of access to services, particularly among the uninsured, is a primary driver of this problem.

- **Service penetration varies widely across the state** (Appendix I). The percent of individuals with a diagnosis who received at least one related service, relative to the estimated prevalence of the behavioral health disorders, is different from county to county. For example, among the Adult SUD population, Duplin County had the lowest penetration rate at 12% while Haywood County had the highest penetration rate at 58%, nearly five times higher. The range of penetration rates between LME-MCOs also varies, although less than the variance between counties. Some variation, particularly among small counties, would be expected. DHHS has not conducted an analysis to determine the extent to which this variation is statistically significant, and the issue merits further attention.

- **There is substantial variability in how LME-MCOs appear to utilize the available service array** (Appendix I). For example, in the Adult SUD population, Outpatient is the major expenditure of some LME-MCOs, while Enhanced and Support services are primary at other LME-MCOs. The differences for Child MH/SUD raise similar concerns, but the graph depicting State block grant funds needs to be viewed with caution, as the dollar amount is low for some LME-MCOs. DHHS continues to analyze this data.

- **Community services are not funded to the extent of institutional, residential, and inpatient services, especially for mental health and I/DD**. In the mental health population, 38% of expenditures are community-based and 62% are facility-based. In the I/DD population, 37% of expenditures are community-based and 63% are facility-based. The ideal ratio of community services to facility-based services is not established, but there is agreement that the current system is too heavily dependent on facility-based treatment and supports.

Additional observations by population appear in Appendix I. This needs assessment is an important step towards understanding the magnitude of unmet need in our community and in developing tools to ensure our existing funding is leveraged to best meet community needs.

6.4. North Carolina Session Law 2016 – 94, Section 12F.10.(b4), provides the following reporting requirement:

"Specific Solvency Standards to be Incorporated into State Contracts with LME-MCOs that Define Appropriate Cash Balances, Predictors for Sustainability, and Measures for Performance that the LME-MCOs Will Monitor and Report to the Department on a Monthly, Quarterly, and Annual Basis."

Further, Session Law 2017 – 57, Section 11F.2.(f), provides the following reporting requirement:

"Secretary shall evaluate the financial position of each LME/MCO relative to the solvency standards to be developed… and included in the Strategic Plan for Behavioral Health Services."

DHHS addressed these requirements in a legislative report submitted on October 1, 2017. The text of the report follows which describes the changes that DHHS proposes to implement to the fiscal structure and reporting process of LME-MCOs relative to:

- Medicaid Risk Reserve;
- Accumulation and use of Fund Balances; and
- Application of a reliable Solvency Standard to quantify the fiscal stability of each LME-MCO.

DHHS Contracts with LME-MCOs

DHHS executes contracts with LME-MCOs through DMA and DMH/DD/SAS. LME-MCOs are funded by DHHS to provide a system for the management of delivering behavioral health services to the citizens of North Carolina. The contract between DMA and the LME-MCOs specifically requires the LME-MCOs to function as a prepaid inpatient health plan (PIHP) managing services for Medicaid recipient members in a capitated funding environment; and the contract between DMH/DD/SAS and the LME-MCOs requires that they ensure the needs of the uninsured/underinsured are being met and that they also fulfill their local convening and connecting functions.

Medicaid Risk Reserve Fund

CMS requires states to establish risk mitigation for PIHPs. DMA determined the establishment of a Medicaid Risk Reserve Fund would be used to accumulate and protect funds equal to 15 percent of the total managed care contract, to preserve payments to

providers in the event an LME-MCO experienced a catastrophic loss or failure. DHHS currently requires each LME-MCO to maintain a separate Risk Reserve Fund and also provides the funding required to generate the Risk Reserve through an add-on to the Per Member Per Month (PMPM) payments made to the LME-MCOs. The funds that have been provided to generate the Risk Reserve must be allocated to the Risk Reserve; the LME-MCO may not use this funding for any purpose (unless DMA authorizes use in the event of a catastrophic loss or failure).

As the General Assembly considers changes to the behavioral health care system, it could consider alternatives to the Risk Reserve. For example, one alternative would be to establish a state-level Risk Reserve account and remove the risk reserve funds from the individual LME-MCOs and place the funds in the state account. Under this approach, DHHS would not continue to include the Risk Reserve as part of the PMPM to each LME-MCO, reducing the total PMPM paid and, thereby, also reducing the state match dollars necessary to support the PMPM (Appendix F). While the state would have to pay back the federal share of the Risk Reserve removed from the individual LME-MCOs, the remaining state funds/match in the Risk Reserve would continue to be available for use by DHHS for any catastrophic failure to any part, or all, of the system. In addition, the state match dollars saved through the reduction of the PMPM would be available to support other services.

Accumulation and Use of Fund Balances

In addition to the Risk Reserve, LME-MCOs have additional funds available. These funds are designated as spendable and non-spendable (See Appendix G for additional details). Amounts are designated as non-spendable if they are necessary for specific fixed expenses (ex: property and casualty insurance), or if the LME-MCO intends to use the funds for a specific reinvestment project. The remaining funds are designated as spendable.

LME-MCOs should maintain within their Spendable Fund Balance an amount no more than the equivalent of forty-five (45) days of operating expense.

The General Assembly could direct DHHS to establish a process to require the departmental review and approval of the uses of spendable funds which exceed 45 days of operating expenses. The legislature could further require the Spendable Fund Balance to be subdivided into the following three (3) categories and submitted annually to DHHS for prior approval:

- Investments in fixed assets.
- Board restrictions for non-reinvestment items such as buildings, retirement payments, etc.
- Reinvestments to grow and expand direct care services.

When the plan for use of Spendable Fund Balance is approved by DHHS, the funding to implement the plan would then be considered committed, be labeled as Non-Spendable, and be reported in that particular Fund Balance.

Solvency Standard

DHHS has, and will continue to use, the Defensive Interval as a measure of solvency for LME-MCOs. The Defensive Interval calculation accounts for both Spendable and Non-Spendable Fund Balances.

Defensive interval: Cash plus current investments divided by the total of operating expense minus non-cash expense (See Appendix H). This calculation is done using all funding sources (Medicaid and non-Medicaid) and the result is a number that represents the number of days that an LME-MCO could continue to pay bills if there was no income. This measure is recognized as an industry standard and translates into a description of LME-MCO financial standing that is relevant for understanding solvency and communicating the significance of maintaining sufficient cash reserves.

DHHS has applied the defensive interval calculation to the seven current LME-MCOs: Alliance, Cardinal, Eastpointe, Partners, Sandhills, Trillium and Vaya. At the time of this report, all LME-MCOs have sufficient funds to satisfy the defensive interval solvency standard (Appendix H).

Summary

The LME-MCOs report financial data to DHHS monthly. This data is reviewed and analyzed to monitor the fiscal performance of each. The financial report for the close of state fiscal year 2016, indicated that all LME-MCOs were within the expectations for the financial performance requirements as currently defined.

There are other non-Medicaid funding types and state reserve fund requirements that contribute to the perceived cash reserves of the LME-MCOs (10A NCAC27A.0111; G.S.122C-112,144,146; GS143B-10 and GS159-8(a)). These funds also include county funds, funds appropriated by the General Assembly in response to federal Department of Justice settlements (Transitions to Community Living and Children with Complex Needs), and other special categorical appropriations and grants that are included in the total budget.

The design of the LME-MCO function was intended to stabilize the predictability of spending for Medicaid services and generate savings that could be reinvested in the development of the service delivery system. As the LME-MCOs have matured in their fiscal performance by demonstrating both stability and savings, and in keeping with the requirements of Session Law 2017-57, Section 11F.2.(f), the General Assembly could consider alternatives related to these funds.

Appendices:

- Appendix F – PMPM Risk Reserve Analysis
- Appendix G – Fund Balance and Risk Reserve
- Appendix H – Defensive Interval: All Funding Sources

7. North Carolina Session Law 2017 – 57, Section 11F.6.(a-b)

7.1. North Carolina Session Law 2017 – 57, Section 11F.6.(b1-4), provides the following reporting requirements:

"The causes…. for the growing waitlist for NC Innovations Waiver slots."

As mentioned earlier in this report, North Carolina has a waiver for individuals with I/DD, known as the Innovations Waiver, with 12,738 slots. While the current legislation added 400 additional slots to the waiver effective January 1, 2018, there are 11,308 individuals on the wait list for waiver service. The growing waiting list is the result of:

- Outside of the Innovations Waiver there are few services that are specific to the support needs of individuals with I/DD, and many of these are funded with only state appropriations.
- Prior to 2012, slots were often 'frozen' when an individual left the waiver and no one else could access that slot at the beginning of the next waiver year. This created an environment where people were added to the list, but few people were removed from the list. While LME-MCOs have been able to fill these empty slots for the past five years, the number of people leaving each year is not enough to address the full waitlist.
- While 250 slots were added to the waiver in 2012, no additional slots were added until January 1, 2017. The addition of 250 slots has not been enough to address the wait list.

"Potential solutions to be studied include the following: Increasing the funding for the 1915(c) Innovations Waiver to result in more individuals served."

The innovations waiver slots have been increased by 500 slots since 2012 with an additional 400 to be added effective 1/1/18. To add an additional 1,000 slots would result in an average yearly State cost of $19,872,000 with a Federal match of $40,128,000. Given the size of the wait list, this option would not be able to address the entire wait list but should continue to be a priority.

"Creating new support waiver slots as recommended in the March 2015 'Study Additional 1915(c) Waiver' *report from the Department of Health and Human Services, Division of Medical Assistance, to the Joint Legislative Oversight Committee on Health and Human Services."*

To implement a low acuity waiver for 1,000 individuals with a maximum benefit of $30,000 per year would result in a yearly cost to the state of $9,936,000, and a federal match of $20,064,000. This waiver would have the same level of care as the Innovations Waiver (ICF-I/ID) and offer a more limited range of services. For example, it would not offer residential supports and supported living as service options.

To implement a low acuity waiver for 1,000 individuals with a maximum benefit of $30,000 per year would result in a yearly State cost of $ 9,936,000 and a Federal match of $20,064,000. This waiver would have the same level of care as the Innovations Waiver (Intermediate Care Facility for Individuals with Intellectual Disabilities (ICF-IID)). This waiver could fully meet the needs of individuals with less acute needs as well as benefit individuals with higher needs who were waiting to access the Innovations waiver.

The DHHS will continue to work with stakeholders to further develop plans for the support waiver and how best to integrate these plans into the future of the Behavioral Health /I/DD system.

"Utilizing in lieu of services targeted toward individuals with I/DD and available under managed care may assist in addressing current waitlist for services."

The LME-MCOs currently offer a variety of in lieu of services as alternatives to services available in the State plan to more effectively target the needs of beneficiaries in local communities. For example, Vaya Health has developed an in-lieu of definition targeted for individuals who do not have an Innovations slot but do meet ICF-ID level of care to allow them to remain in the community instead of an institution.

In addition to LME-MCOs developing in lieu of services, North Carolina DHHS partnered with stakeholders comprised of individuals receiving or eligible for Innovations services, parents and guardians, providers, and advocates in 2012 with the intent to develop a service called "Individualized Support." This service was a habilitative service for individuals to acquire, improve, and retain skills in:

- Self-help
- General household management and meal preparation
- Personal finance management
- Socialization, and other adaptive areas

The proposed target population was Medicaid members ages 18 or older with a documented I/DD diagnosis who did not meet eligibility criteria for treatment in an ICF/I/ID. The purpose of the service was to address individuals who were no longer eligible for State Plan Personal Care Services. This service has not yet been authorized by the General Assembly.

For the "Individualized Support" service to be effective in addressing the wait list concerns, it would also need to target individuals who potentially meet the eligibility criteria for ICF/I/ID. Since the criteria limits the living arrangement and must be available to all eligible individuals, there would need to be a maximum number of hours set to allow all individuals to be served.

7.2. North Carolina Session Law 2017 – 57, Section 11F.6.(b2), provides the following reporting requirement:

"Issues surrounding single-stream funding and how single-stream funding is used to support services for people with intellectual and developmental disabilities."

Single-stream funding will remain an integral source of support for indigent individuals because they rely on the funding for any service provision. Even with additional Innovation Waiver slots and other sources of support from Medicaid, individuals with I/DD will continue to need the non-medical support services paid for by single-stream funding.

In the 2016-2017 fiscal year, LME-MCOs were allocated $189,988,161 in single-stream funding. However, they were required to maintain the same level of non-Medicaid paid services provided during the 2015 fiscal year. Thus, LME-MCOs spent $265,018,761 for services.

Of the $265 million spent in single-stream funding in SFY 2016-17, $70,835,798 was specifically expended on I/DD services. A total of 7,032 I/DD consumers received care at an average cost of $10,073 per person. Nearly eighty percent (78%) of these individuals were on Medicaid the same date the single-stream service was paid. The highest total expenditures were for Adult Day Vocational Program (ADVP), Group Living, day activities and personal assistance services.

Since 2015, the NC General Assembly has required the LME-MCOs to invest in services for uninsured and underinsured consumers at the same levels provided in SFY2014-2015. Because of these service level requirements, the expenditures for non-Medicaid State-funded services exceeds the annual allocations of Single Stream Funds and federal block grant funds allocated from DMH/DD/SAS. All of the additional expenditures are for consumers who are uninsured and underinsured using services approved in the DMH/DD/SAS Services array. Given the structure and expenditure of these funds, the data available shows the total amount of services expenditures that are in excess of those allocated. At this time, it is not possible to track these expenditures back to their originating funding source by LME-MCO (e.g., Single Stream Funds versus LME-MCO savings).

7.3. North Carolina Session Law 2017 – 57, Section 11F.6.(b3), provides the following reporting requirement:

"Multiple federal mandates that will directly impact current services and supports for people with intellectual and developmental disabilities, including Home and Community-Based Services changes, the Work Force Innovations and Opportunities Act, and changes under section 14(c) of the federal Fair Labor Standards Act."

Home and Community-Based Services

The Home and Community-Based Services (HCBS) Final Rule requires states to ensure members receive services through its 1915(c) waivers and (i) options have full access to the benefit of community living and the opportunity to receive services in the most integrated setting possible.

In addition, the final rule applies to (b)(3) services that are HCBS, such as Supported Employment. States that had a waiver when the rule went into effect were required to submit a transition plan to CMS to demonstrate how they would be compliant. Thus, any new waiver must be in full compliance with the requirements of the final rule prior to the approval of the waiver.

Below is an abbreviated list of HCBS Final Rule requirements and include expectations that may be challenging for providers to implement.

- The setting is integrated in and supports full access of individuals receiving Medicaid HCBS to the greater community;
- Individuals are provided opportunities to seek employment and work in competitive integrated settings, engage in community life and control personal resources;
- Individuals receive services in the community to the same degree of access as individuals not receiving Medicaid HCBS;
- Individuals select the setting from among available options, including non-disability specific settings and an option for a private unit in a residential setting (with consideration being given to financial resources);
- Each individual's rights of privacy, dignity, respect and freedom from coercion and restraint are protected;
- Settings optimize, but do not regiment, individual initiative, autonomy and independence in making life choices; and
- They also facilitate individual choice regarding services and supports, and who provides these.

Provider owned or controlled residential settings must meet the following additional requirements:

- Provide, at a minimum, the same responsibilities and protections from eviction that tenants have under the landlord tenant law for the state, county, city or other designated entity;
- Provide privacy in sleeping or living unit;
    - Units have lockable entrance door lockable by the individual, with appropriate staff having keys to doors as needed.
    - Individuals sharing units have a choice of roommates in that setting.
    - Individuals have the freedom to furnish and decorate their sleeping or living units within the lease or other agreement.
- Provide freedom and support to control individual schedules and activities, and to have access to food at any time;
- Allow visitors of choosing at any time;
- Are physically accessible;
- Requires any modification (of the additional conditions) under 42 CFR 441.301(c)(4)(VI)(A) through (D) must be supported by a specific assessed need and justified in the person-centered service plan.

CMS approved DHHS' Statewide Transitional Plan (STP) for HCBS compliance on September 6, 2017.

Work Force Innovations and Opportunities Act

The Work Force Innovations and Opportunities Act (WIOA) requires that the North Carolina Division of Vocational Rehabilitation (DVR) have a formal cooperative agreement with the state agency responsible for administering the State Medicaid Plan and with the state I/DD agency which pertains to beneficiaries who have been determined to be eligible for home and community-based services under a Medicaid waiver, Medicaid SPA, or another authority related to a State Medicaid program. DVR, DMH/DD/SAS, and DMA are partnering on a joint Memorandum of Understanding regarding the intersection of their responsibilities.

To help meet the objectives of the WIOA, the Innovations Waiver offers Supported Employment to individuals who are employed in competitive employment and paid at least minimum wage. The waiver also offers Day Supports, which occurs in a licensed facility setting and to ensure informed choice among a variety of options for a meaningful day, individuals new to the service and 16 years of age and older, will receive education on available options during the planning meeting. This includes Supported Employment if the individual is interested in employment.

Changes Under Section 14(c) of the Federal Fair Labor Standards Act

These changes relate to the payment of subminimum wages to workers with disabilities. This would only affect individuals receiving services in a sheltered workshop/day program facility. For Supported Employment services under the (b)(c) waiver, individuals must be paid minimum wage to quality for the service.

7.4. North Carolina Session Law 2017 – 57, Section 11F.6.(b4), provides the following reporting requirements:

"The coverage of services for the treatment of autism, including any State Plan amendment needed to address guidance issued by the Centers for Medicare and Medicaid Services."

While treatment of Medicaid children diagnosed with ASD is currently covered under EPSDT, DMA has submitted to CMS a SPA to cover RB-BHT which are research-based behavioral intervention services that prevent or minimize the disabilities and behavioral challenges associated with ASD and promote, to the extent practicable, the adaptive functioning of an individual. DMA is in the process of responding to initial questions from CMS. The proposed SPA is pending DHHS approval prior to its submission to CMS. The proposed cost is $73,105,806. State funds are $23,678,971, and will allow for future savings - as individuals who receive interventions at an earlier age are able to achieve higher functioning benefits later in life.

8. Future of Behavioral Health System in North Carolina

As described above, North Carolina's behavioral health system faces significant challenges. The system has been in a constant state of change while being underfunded and struggling to find community resources. In addition, the system has faced workforce capacity issues with declining coverage ranging from psychiatrists to direct support professionals, and lack of fully integrated care has led to disjointed care delivery.

At the same time, we have significant resources and have made significant investments in improving this system. State-operated facilities provide safety net services to thousands of our citizens every year. The LME-MCO system has made investments in community capacity, though there is work still to do. Over the next five years, DHHS will work to implement electronic health records in state operated healthcare facilities, additional step-down units and services in the community to allow for stabilization after an inpatient course of care, and increased access to evidence based treatment methodologies.

To address these challenges and build on these resources, DHHS has identified two overarching goals to guide the future of the behavioral health delivery system:

Timely access to high-quality services:

NC is committed to ensuring all individuals have reliable access to quality behavioral health services of the right intensity and at the right frequency through sufficient coverage, appropriate referrals, and adequate provider networks. Individuals with behavioral health needs will receive the right care, at the right time, in the right setting. To ensure access to services, NC DHHS is committed to improving quality in all services and developing a strong, evidence based treatment continuum with ongoing quality improvement in the provider workforce.

Integrate behavioral health, intellectual and developmental disabilities (I/DD), and physical health services for children and adults:

Addressing an individual's health, looking at both physical and behavioral health needs and developing an integrated treatment plan, allows for better long-term outcomes for an individual's total health.

In this section, we describe the strategies that we will employ to achieve these goals and deliver better health and wellness for North Carolina families.

8.1. Timely Access to High Quality Services

Ensuring that North Carolinians have timely access to high-quality services throughout the state is a critical priority. Our families deserve access to the right care, at the right time, in the right setting to meet their needs and promote their health and wellness.

A critical component of achieving this vision is to build upon and enhance community-based networks of care. When individuals can access lower-level and less costly services before going into crisis, everyone benefits. However, there is a shortage of community-based

providers in North Carolina. This shortage leads to significant increases in ED wait-times, more frequent ED visits, extended placements in institutional settings, and higher system costs.

It also creates ripple effects in individuals' lives. The more time North Carolinians spend in crisis, in the ED, or in an institutional setting, the less time they spend maintaining a job, remaining in safe housing, staying healthy, and keeping their families intact. This, in turn, imposes many hidden costs on North Carolina's economy, justice system, healthcare providers, and county Divisions of Social Services, among others.

As seen in other states, one of the most seamless and effective ways of increasing North Carolina's community-based services capacity is integrating physical and behavioral healthcare.

1. Broaden the pool of North Carolinians who are insured

Our highest priority is the health and well-being of the North Carolinians we serve and doing everything we can to help them live health, productive lives. A critical component of that effort is ensuring that as many North Carolinians as possible have access to affordable, high-quality health care. For individuals with behavioral health needs, promoting access to care requires multiple strategies, from developing our workforce in underserved communities to reducing the stigma of mental illness to integrating our behavioral and physical health systems.

The most powerful tool for increasing access to care for individuals with behavioral health needs, however, is increasing access to affordable insurance coverage. Having health insurance allows North Carolinians to get the health services they need when they need them, including sometimes life-saving services for individuals with mental health and substance use disorder conditions. Coverage helps get those with behavioral health conditions into the health system and working with a physician, giving them faster and more direct access to the treatment they need. Individuals also benefit from access to coverage is they do not currently have a behavioral health condition but are at-risk of developing them in the future. Insurance coverage makes it easier for people to access preventative and wellness services that can keep them leading the healthiest and most productive lives possible. There is a significant body of evidence showing that being uninsured often restricts a person's access to care. 55.7% of uninsured people report having no usual source of care, compared to just 18.7% of people with only private insurance and 15.9% with only public insurance. Uninsured individuals are almost twice as likely as individuals with private insurance to experience difficulty in receiving needed medical care (6.5% vs 3.4%), and 87% of uninsured said the main reason they experienced difficulty was that they couldn't afford care.

Broadening the pool of people with access to health insurance also facilitates other important components of a strong behavioral health system. With more members of the community

able to seek care when they need it, providers - particularly those in rural and underserved areas - can receive higher and more predictable levels of reimbursement that allow them to make key investments in infrastructure (such as telemedicine) and workforce (such as new addiction specialists). Reducing the number of uninsured people also generates savings in the numerous direct and indirect areas where communities today spend money on the uninsured. This includes block grant funding spent on services for the uninsured, but also includes other spending, such as uncompensated care in emergency rooms and law enforcement and justice system costs. Broadening the insurance pool also increases local economic activity by allowing more community members to achieve the health they need to enter the workforce, start a small business, or continue their education.

This stable access is particularly important in North Carolina's rural communities, where there are often not enough providers. More than twenty percent of American live in rural areas, but only ten percent of physicians practice there. There are only 13.1 physicians per 10,000 people in rural areas in the United States versus 31.2 in urban areas. Among specialists, this disparity is even greater, with only 30 specialists per 100,000 people in rural areas versus 263 in urban areas. Rural areas also tend to have a higher uninsured rate. 15% of rural residents nationwide are in the coverage gap versus only 9% of metropolitan residents. Rural Americans are more likely than urban Americans to be uninsured (12% vs. 11%) and rural children are also more likely than their urban counterparts to be uninsured (7% vs. 6%).

More than 900,000 North Carolinians are uninsured today, including hundreds of thousands of individuals with mental health or substance use disorder needs. Most of these individuals are working adults who are not eligible for Medicaid but who cannot afford other insurance options. They do not have access to affordable health care, which jeopardizes their ability to lead healthy and productive lives.

North Carolina has an opportunity to increase access to Medicaid without any additional state appropriation, primarily using federal dollars. The federal government will pay 90% of the costs if North Carolina makes working-age adults with low incomes eligible for Medicaid, bringing an estimated four billion dollars in new federal funding into our state each year. This change to Medicaid would ensure that up to 150,000 individuals with mental health and/or substance use disorder needs have access to affordable health care.

Other states have seen the benefits of increasing access to Medicaid to provide affordable coverage to more individuals with behavioral health needs. Ohio's decision to increase access to their Medicaid program has helped them fight the opioid crisis. Many previously uninsured Ohioans with opioid use disorders enrolled in Medicaid, and 75% of those individuals reported that they had better access to care than when they were uninsured.

A 2014 opioid-related public health crisis in rural Scott County, Indiana illustrates how increasing access to Medicaid can play a vital role in addressing the repercussions of the opioid epidemic. In one year in Scott County, 181 cases of HIV were diagnosed (where typically there had been about five cases per year), and the cases were linked to the injection of opioid drugs. Then Governor Pence led a campaign to enroll those affected in Indiana's new program to increase access to Medicaid. This provided immediate access to HIV treatment, opioid treatment, and other needed services. A spokeswoman for the Indiana Department of Health said, "A lack of health insurance was one of the first barriers to testing and treatment identified in Scott County. [Our program that increased access to Medicaid] helped address that gap and opened doors to medical care and treatment that have been life-changing."

Increasing access to affordable health care allows more North Carolinians to be as healthy and productive as possible. Broadening the pool of people with health insurance, including by increasing access to Medicaid, would bring us much closer to this goal, while using state resources more efficiently and getting better results for North Carolina families; and for those already insured, requiring that health insurance companies offer parity in behavioral health services would also bring us much closer to our access goals.

2. *Ensure the right mix of services are available statewide by developing community-based services that match existing needs*

2a. Develop North Carolina's behavioral, TBI, I/DD, and substance use disorder treatment workforce

North Carolina has acute behavioral health workforce shortages, which presents a barrier to improving the delivery of services and can also decrease access to care. The state has 103 Mental Health Care Professional Shortage Areas (HPSA) and is only able to meet 38 percent of residents' needs for a psychiatrist.[4] Workforce shortages have limited access to critical services (e.g., crisis services, opioid/substance abuse comprehensive outpatient treatment, and child/adolescent day treatment).[5]

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[4] To be designated a mental health HPSA, an area must have a population to psychiatrist ratio of at least 30,000 to 1. Percentage of met need is calculated by dividing the number of psychiatrists available to serve a given area by the number of psychiatrists needed to remove the mental health HPSA (Sources: Kaiser Family Foundation: Mental Health Care Health Professional Shortage Areas and Bureau of Clinician Recruitment and Service, Health Resources and Services Administration (HRSA), U.S. DHHS, HRSA Data Warehouse: Designated Health Professional Shortage Area Statistics, as of January 1, 2017.)

[4] LME-MCO Service Gaps Analysis 2016

[4] CCNC and DHHS have identified SAMHSA's six level approach to physical and BH integration as the preferred care model approach, but have not yet implemented it in provider practices on a statewide basis.

Provide training and support for behavioral health providers

Recruitment and retention of a well-trained multi-disciplinary workforce will be critical to ensuring adequate access to services in rural and underserved communities and in the state operated health care facilities. Incentives must attract and retain a diverse and interdisciplinary care team, including physicians, nurse practitioners, physician assistants, therapists, substance abuse counselors, care managers, peer support personnel, community health workers and others.

Through Medicaid Transition Support Initiatives under Medicaid Transformation, DHHS will seek to provide more training opportunities to expand availability of specialized behavioral health training for advanced practice nurses, licensed clinical addiction specialists, certified substance abuse counselors, peers, and other extenders to address the workforce shortage.

DHHS proposes to expand, and is seeking federal funding to support, community-based residency programs that promote essential workforce training with a primary focus on ambulatory and preventive care. These programs advance the goals of higher-value health care that can reduce long-term costs.

Part of this expansion will include training about the social determinants of health, especially within rural, underserved and high-risk populations. It will also include targeted training to increase the numbers and types of providers who can provide high-quality behavioral health and substance use disorder-related services. For example, DHHS is considering providing more specialized behavioral health training opportunities for advanced practice nurses and other physician extenders.

Pharmacists and pharmacy technicians could serve as effective front-line providers to assist with identification of individuals with, or at risk of developing, a substance use disorder, and linking those individuals with coverage and treatment. With training opportunities, DHHS intends to better equip a broader range of providers with knowledge of evidence-based practices in behavioral health and substance use disorder-related treatment.

North Carolina historically has focused on building health care capacity in rural and underserved areas. The state needs to ensure continued progress in this and other areas, including addressing the shortage of para-professionals and direct care workers for LTSS populations, as DHHS transforms its Medicaid program.

DHHS will work to expand programs that reduce long-standing health workforce shortages in rural and underserved communities and ensure the availability of the team-based workforce required to transform health care delivery and reimbursement. This effort will include continuation of existing loan repayment, community grant, and Area Health Education Centers (AHEC) residency programs. This may also include new community-based graduate medical education and fellowship programs.

Like other health care providers, the state operated health care facilities are having difficulty in recruiting and retaining psychiatrists, other physicians, nurses, and allied health professionals, such as social workers, physical therapists, occupational therapists, speech, and language therapists. Psychiatrists are particularly difficult to recruit and positions have typically remained vacant for 18 months or more.

Recruitment difficulties of psychiatrists and nurses at DSOHF are compounded by the national shortages of these clinicians. Merritt Hawkins & Associates, a leading national physician search firm, reports that requests for placements for psychiatry have increased each year for the past four years and is now the second most requested specialty behind only family practice physicians. [6] The American Association of Colleges of Nursing also identifies a nursing shortage "that is expected to intensify as Baby Boomers age and the need for health care grows." [7]

To address this critical issue, DSOHF is exploring creating residency programs at Broughton and Cherry Hospitals like the program at Central Regional Hospital. The Central Regional Hospital program has helped counteract difficulties with hiring psychiatrists and medical practitioners, and increased the number of qualified medical professionals available to meet the needs of North Carolinians.

DHHS is also focused on how we can nimbly recruit and be more competitive in our process and offers to decrease vacancies and create a comprehensive workforce that can be responsive to the behavioral health and integrated care treatment needs.
DHHS will also examine the feasibility of introducing a community health worker model to assist in addressing social determinants of health. To expand existing and to implement new programs, DHHS is requesting federal matching funds as part of the 1115 Waiver for existing state-only funded community-based initiatives.

Ensure providers are prepared and supported through Medicaid Transformation

North Carolina has historically maintained high rates of provider participation in Medicaid, including among behavioral health providers. As Medicaid transitions to managed care, it is important to maintain this participation. Providers are crucial partners in ensuring a successful transition to Medicaid managed care. DHHS will partner with providers to ensure they are ready for Medicaid managed care and work toward easing administrative barriers during and through the transition.

Providers will have varying needs for practice supports, depending on the type, size, and capacity of the practice. Providers operating in small practices (regardless of location), rural, and essential providers may require more intensive support to prepare for new contracting, reporting, and administrative responsibilities.

[6] 2016 Review of Physicians and Advanced Practitioners Recruiting Incentives, 2016 Merritt Hawkins
[7] Nursing Shortage Fact Sheet, American Association of Colleges of Nursing, April, 2014.

To ensure that providers are prepared to adapt their practices and support their patients/individuals throughout the transition, DHHS will develop a provider support infrastructure which will initially include:

- Managed care education and training (e.g., contracting strategies, changes to administrative and operational processes, changes to state systems, etc.);
- Practice transformation and education (e.g., continuous quality improvement, evidence-based practice models, best practices around addressing individual's unmet social needs, etc.); and
- Advanced Medical Home (AMH) Certification (e.g., maintenance and track migration support) for those providers providing primary care services.

In addition to supporting provider readiness for Medicaid managed care, DHHS will contract with Regional Provider Support Centers (RPSCs) to assist providers in clinical transformation and care improvement efforts. DHHS will have a competitive bid process to select RPSCs that will supplement other provider support efforts in North Carolina, such as those offered by AHECs which offer electronic health record and HIE connectivity services, and other supports.

The RPSC entities will be nonprofit organizations with substantial experience and/or current capabilities delivering the types of practice support envisioned. This includes assisting provider practice in meeting different "tracks" of AMH certification, providing support in reviewing and quality reports and enhancing performance, and assisting practices in accessing and using any data and information systems designed to support their efforts.
These provider supports will be available to all provider types, and DHHS will ensure that behavioral health providers receive specialized outreach to ensure their needs are met.

Build peer support personnel networks

Peer Support can be an important component of substance use disorder treatment. It is a supportive relationship between people who have a lived experience in common. Peer Support Service is an individualized, recovery-focused service that allows individuals the opportunity to learn to manage their own recovery and advocacy process. Interventions of Peer Support staff serve to enhance the development of natural supports, as well as coping and self-management skills. Interventions of Peer Support staff may also provide supportive services to assist an individual in promoting a sense of belonging in the community following hospitalization.

Peer Support Services also emphasize hope, self-worth, confidence, growth, connection to the community, self-advocacy, personal fulfillment, development of social supports, and recovery. Services emphasize the acquisition, development, and expansion of skills needed to move forward in recovery.

In the current delivery system, peer supports are available to Medicaid recipients via the services managed by the LME-MCOs. In the waiver renewal for the 1915 (b) waiver, the

state will be requesting an expansion of this service to include a family peer support model as well as the individual peer support option that is already available. Many LME-MCOs also have peer support services that are unique to their catchment area.

DHHS is also exploring expansion of available peer support service definitions for both Medicaid and non-Medicaid populations to further develop the peer support workforce.

Explore adequate supports for a robust, thriving Direct Support Workforce

A direct support professional (DSP) is defined as, "individuals who receive monetary compensation to provide a wide range of supportive services to individuals with I/DD on a day-to-day basis, including habilitation, health needs, personal care and hygiene, employment, transportation, recreation, and housekeeping and other home management-related supports and services so that these individuals can live and work in their communities and lead self-directed, community and social lives."[8]

DSPs work in a range of settings, including family homes, intermediate care facilities, small community residential settings, vocational and day training programs and others. They include full and part-time employees.

DSPs play a critical role in the provision of services for individuals with I/DD. However, there is a shortage of these professionals in North Carolina and this could have negative effects on the individuals and their families. In the report to Congress, training and livable wage are two key factors in sustaining the predicted demand for this service.

2b. Explore the need for increased bed capacity and address those needs

The 2018 State Medical Facilities Plan recommends additional inpatient beds for child and adolescent services and for substance use disorder services for adolescents and for women in some regions of the state. It does not recommend additional adult psychiatric beds or for individuals with I/DD.

These results are consistent with the 2014 Legislative Report to the North Carolina General Assembly on *Strategies to Increase Child and Adolescent Behavioral Health Inpatient Beds*, which recommends:

- Continue to capitalize on the specialization of our state psychiatric facilities' ability to serve highly complex populations while maximizing federal contribution for inpatient psychiatric utilization by individuals with Medicaid. Given these state facilities are one of the few options to serve the uninsured and underinsured children in North Carolina, broader reforms may be necessary to provide access a full array of community services to prevent hospitalization.

[8] https://aspe.hhs.gov/basic-report/supply-direct-support-professionals-serving-individuals-intellectual-disabilities-and-other-developmental-disabilities-report-congress

- Focus on community hospital bed use to leverage maximum federal funding, and continuously monitor and assess the utilization rates of community inpatient beds in rural areas to help keep people closer to potential community supports.
- Analyze data requiring 45 child- and adolescent-specific community beds, considering available services and geographical distribution.
- Continue to follow Session Law 1995-739 (Senate Bill 859 in 1995-1996 Session) legislation, by developing multiple inpatient diversion sites across North Carolina for children and adolescents who have Intellectual/Developmental Disabilities and Mental Illness. This will allow treatment in the appropriate setting and may improve discharge back to the community, as providers will have the assurance that there are reasonable options available in times of crisis. Timely assessment and treatment will also help people with Intellectual/Developmental Disabilities and Mental Illness remain in community.
- Dedicate funding to community hospitals and 24-hour crisis centers specifically for people who have I/DD and mental illness. This could accomplish diversion to in-patient beds.
- Investigate the development of geographically dispersed residential placements to serve as step-up/step-down treatment before and after inpatient admission.
- Increase capacity to serve special populations in the state facility safety net system.
- Continue to work with the LME-MCOs to analyze utilization trends to determine where community beds will be most effective.
- Collaborate with the LME-MCOs to analyze utilization trends for targeting unmet need, acknowledging that the number of inpatient beds needed directly relates to the make-up and capacity of the community-based system.
- Require the management of inpatient bed utilization by LME-MCOs while ensuring that protections are in place to preserve an adequate safety net for individuals.

DHHS recognizes that the demand for inpatient treatment options is connected to the mechanisms that the state has in place to find and communicate those treatment options. The department launched the Behavioral Health Crisis Referral System (BH-CRSys), a web-based referral system to reduce the length of time behavioral health crisis patients wait to be placed in an appropriate treatment facility. The system expands the capabilities of the State Medical Asset Resource Tracking Tool (SMARTT), part of the Continuum System that is maintained by the North Carolina Office of Emergency Services. This secure access system will be available to providers and staff at facilities that routinely encounter individual in or at-risk of crisis and needing behavioral health care, and facilities that can assess and treat these individuals. DHHS is receiving Business Associate Agreements (BAA) and Memoranda of Agreements (MOA) from hospitals and other entities eligible to participate in the BH-CRSys. The System is available for those who have concluded the BAA and MOA process to enter the facility specific configuration. Referrals can begin between facilities that have BAAs, MOAs and are loaded into the system beginning January 29th, 2018. DHHS anticipates an opportunity to enhance the functionality of the system to allow for collection of data around Involuntary Commitments and to support better communication between facilities which may require additional funding.

2c. Provide service navigation to individuals who need it

Feedback from consumer and family stakeholders indicates a strong desire for assistance in connecting people to services and navigating the system of benefit plans. In the current environment, this function is delegated CCNC/CA for physical health, and LME-MCOs for behavioral health.

These organizations provide care coordination to authorize services and provide some connectivity for individuals to providers. This is intended to assure that individuals in need get the most appropriate service and to serve as a warm hand from individuals to providers that will continue to assist in developing a person-centered plan and connecting the consumer to other needed services.

Case management, in a more traditional sense, is only available as a feature of some enhanced services or on a time-limited basis through Targeted Case Management. Targeted Case Management is a service for individuals with a Social-Emotional Disturbances (SED), a Serious Mental Illness (SMI), or a SUD. Functions of the service include case management, person-centered planning, referral and linkage, monitoring, and follow-up.

This structure has created gaps in service support. If an individual is not in crisis, support is expected by the provider of the consumer's first service through the development of the person-centered plan.

Many individuals do not initially receive an enhanced service and, therefore, do not receive any care coordination support. In the current structure, enhanced services may include a form of case management, and only a limited number of individuals receive Targeted Case Management.

To address this gap in service support and to be consistent with clinical evidence and best practices, the state intends to create integrated managed care products that cover the full complement of physical, behavioral, and pharmacy services for all enrollees. In the amended 1115 waiver that DHHS submitted to CMS in November 2017, North Carolina also seeks expenditure authority for funding to build capacity for care management, including the implementation of a behavioral health home model for the BH/I/DD Tailored Plan population.

Under this approach, Medicaid beneficiaries with serious behavioral health and I/DD needs will enroll in tailored plans designed to address this population's unique needs, while most other individuals will be enrolled in standard plans. Service navigation features available in both standard and tailored plans will include:

- Providing care coordination across settings;
- Providing and following up on referrals;
- Providing linkages to community resources;

- Providing care management services for enrollees with intensive needs in community settings to the maximum extent possible; and
- Monitoring service utilization and response to treatment.

That means in both standard plans and tailored plans, individuals will receive support to ensure that their behavioral health and physical health needs are met. When they launch in mid-2021, tailored plans will offer targeted, whole-person service navigation specifically tailored to the unique physical health, behavioral health, developmental and social needs of this clinically complex population. The tailored plan service navigation model will meet federal standards for advanced health home services, and North Carolina has already requested CMS authority to invest in building the capacity necessary to implement this model.

2d. Increase access to telehealth and telepsychiatry in rural and other underserved areas in our state

Telehealth and telepsychiatry will not by themselves address all access problems, but they are an important tool to build capacity. DHHS will work to ensure individuals in rural areas have enhanced access to quality services by investing in rural health care provider initiatives. This will include enhanced technologies intended to improve access to primary and specialty care, including telehealth and telepsychiatry.

The initiatives will enable an improved exchange of member health information that will reduce redundant care, enhance timeliness of care and improve overall care coordination. Through provider support efforts, DHHS will work with rural practices to ensure the staff employed by those practices are equipped to transition to managed care and engage in Medicaid transformation efforts.

Recognizing the potential of telemedicine to increase access to care and improve health outcomes – especially across rural areas of the state – North Carolina’s Medicaid program has covered telemedicine for almost 20 years. The current policy reimburses a broad array of providers for services rendered via telemedicine – at the same rates as in-person visits – when both beneficiaries and providers are located at Medicaid enrolled sites.

As DHHS’ Medicaid program transitions to managed care, telemedicine can play a crucial role in increasing individual access to care, improving outcomes, and decreasing costs. These benefits are particularly relevant in rural areas with physician shortages, especially for specialists, and poorer overall health outcomes.

Under managed care, Prepaid Health Plans (PHPs) will be encouraged to support the use of telemedicine as a tool for ensuring access to needed services. When an enrollee requires a medically necessary service that is not available within the PHP network, the PHP may provide access to the service via telemedicine with approval. Accordingly, PHPs will be permitted to leverage telemedicine in meeting DHHS’ network adequacy standards.

DHHS also encourages PHPs to implement pilots that test additional telemedicine strategies and will invite PHPs to propose innovative pilots related to telemedicine in their responses to DHHS' Medicaid managed care procurement.

DHHS recognizes that the field of telemedicine is rapidly evolving and plans to work with PHPs, providers, and other stakeholders to further develop a comprehensive strategy related to telemedicine during the coming months. This strategy will contemplate use of other types of telemedicine, including smart home technology and enabling assistive technology that can be helpful to aging and long-term support populations, in addition to providing access to underserved areas. Increasing the utilization of telemedicine will require investment in community-based health resources, such as infrastructure investment to ensure broadband services are available in rural areas so that individuals are able to access telemedicine resources. Initial investment into infrastructure development will lead to overall health improvement as individuals are able to utilize community-based resources for stabilization and reduce the burden on crisis services.

In addition, providing services to people who need long term support is becoming increasingly difficult due the inadequate work force. The use of enabling technology is one option that will help address the workforce issues and provide the opportunity for more independence for individuals with disabilities. By using technology like sensor based support systems we can reduce the need for 24-7 direct support intervention for many individuals with disabilities. Creating an expectation that technology based solutions will be considered for all individuals will expand the use of innovation. The DHHS will aggressively explore policy and funding changes that encourage the use of this technology.

2e. Develop step-down to services to transition people from costly inpatient treatment and improve admission wait times

Psychiatric hospitals are designed to treat people with acute psychiatric symptoms. Upwards of one-third of the people in our state-operated psychiatric hospitals no longer meet those criteria. They need to be discharged to their communities and treated with less costly, more clinically appropriate services.

However, many of them cannot be safely discharged without appropriate supports in place. Currently, two things are hindering their discharge. First, as already discussed, there is an insufficient supply of community-based behavioral health providers in the state. Second, there is a lack of robust step-down services to transition these people out of the psychiatric hospitals and into those more appropriate and less costly community-based services.

When people aren't being discharged from the psychiatric hospitals, fewer inpatient beds are being freed up for the North Carolinians who are in crisis and stuck in EDs throughout the state. Moreover, many of the people waiting in EDs likely could have avoided going into crisis had they been receiving those less costly community-based services to begin with. At its core, the "ED boarding" issue in North Carolina is not a psychiatric bed issue. It is a community-based services issue.

We need to address this bottleneck. DHHS proposes to pilot and later implement robust psychiatric step-down services as part of building a continuum of care, which also includes increasing the capacity of our state's community-based services system. Beginning at admission, treatment teams will begin looking at whether step-down services will be needed when each person is ready for discharge. At discharge, for those needing step-down services, the step-down team would provide clinical treatment and connect people with low-cost, high-impact community-based services for long-term stabilization. They would also focus on identifying and developing specific skills (job skills, daily living skills, etc.) that will keep people living in their communities and out of EDs and state hospitals.

Although intensive, DHHS anticipates that these step-down services would cost less than the amount currently spent on the patients awaiting discharge in the state's psychiatric hospitals. This would require some upfront investment, but DHHS believes that the combination of step-down services and increasing community-based service capacity would create a positive feedback loop. A result would be more people discharged from the psychiatric hospitals, which will open beds and ease the burden on North Carolina's EDs. Moreover, fewer people would be going to the EDs in need of inpatient treatment because they were receiving the lower-level and less costly community-based services that keep them stable, healthy, employed, and at home. For those still needing inpatient care, emerging symptoms could be caught earlier, which can shorten overall hospital stays. As a return on investment, our state would be spending its treatment dollars more effectively—by providing the right care, at the right time in the right setting.

3. Monitor the balance of In-Patient Beds and Home and Community-Based Services

DHHS will strive to ensure the right balance between inpatient treatment options and community treatment options that can prevent or divert individuals from requiring inpatient treatment. This requires an increase in community services to prevent re-hospitalization and in-patient care.

LME/MCOs do currently utilize reinvestment plans to develop community services. For example, Vaya Health, the LME/MCO that covers the Western counties of NC, has partnered with RHA Behavioral Health and Mission Hospital to establish a crisis center near Mission Hospital to allow for easier diversion of individuals in behavioral health crisis to behavioral health resources more targeted than services in the hospital emergency department. However, further investments in services like this need to be undertaken.

DHHS will work to ensure that North Carolina has adequate community-based services and provider networks to match existing needs and promote evidence-based services. The Department recognizes that simply increasing funds is not sufficient. The state must be cautious and mindful about growing the HCBS provider networks incrementally, by investing in existing programs that have proven to be successful and encouraging data-driven innovation in the service-delivery sphere. It also means aligning marketplace incentives to favor less-costly, more effective community-based services whenever possible.

In addition to building community-based services capacity, DHHS will focus on improving the reach of the inpatient treatment dollars that are currently being spent to increase access to care. One such example is a change in the IMD exclusion. As part of its substance use disorder delivery system reform, DHHS is seeking to waive the IMD exclusion, thereby enabling the state to receive federal matching funds for stays of up to 30 days delivered in IMDs with more than 16 beds. This waiver would expand access for longer stay residential treatment services and reduce state expenditures to support the ADATCs.

4. Establish or strengthen community collaboration to develop, assess, and improve services

DHHS recognizes that the health and wellness of individuals are strengthened by strong local communities, educated and supported stakeholders and providers, and a service structure that values family participation at all levels of the system. The department is committed to building an effective System of Care.

The term System of Care refers to a comprehensive network of community-based services and supports organized to meet the needs of families who are involved with multiple service agencies, such as child welfare, mental health, schools, juvenile justice and health care. The goal is for families and youth to work in partnership with public and private organizations, ensuring supports are effective and built on the individual's strengths and needs. System of Care is a way of working together with youth and families to achieve the desired outcomes identified by the youth and family.

An effective System of Care improves coordination of care for children with serious emotional disturbance (SED) and their families, improves collaboration between child serving agencies, increases family-centered practices and family representation at all levels of governance and service delivery, and enhances the array of community-based services.

A Community Collaborative brings together decision-makers and stakeholders to drive, manage, and monitor the local System of Care. Local collaboratives find and build common goals, promote concrete ways to collaborate and supports effective services. Local collaborative promotes teamwork and change in the broader community that is necessary for providers to succeed in their work with children and families. These support providers work to meet housing, transportation, and food needs of individuals where local support is not available. DHHS values and supports the work of these Community Collaboratives and will continue to strengthen them to improve services for individuals across North Carolina.
North Carolina is committed to optimizing health and well-being for all individuals by effectively stewarding our collective resources to unite our communities and health care system. Central to these efforts is a commitment to address unmet social needs or the social determinants of health – "the structural determinants and conditions in which people are born, grow, live, work, and age."[9]

[9] Michael Marmot et al., "Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health," The Lancet 372, no 9650 (Nov.8,2008): 1661-1669

These can include things like access to healthy food, safe and affordable housing, reliable transportation, employment supports, and community supports. Research shows that while access to high-quality health care is vital, up to 70 percent of health outcomes are tied to non-medical social determinants, and these social determinants contribute twice as much as health care to premature death.[10,11]

Even with a growing body of research highlighting the need to address social determinants of health, we have not designed our health care system – or its interface with our social service systems – to address these realities. In North Carolina, 15.9 percent of households are food insecure – one of the highest percentages in the United States.[12] Eighty-one percent of North Carolina households receiving food assistance do not know where their next meal is coming from, 73 percent of households receiving food assistance have had to choose between paying for food or paying for health care or medicine.[13]

Additionally, more than 1.2 million North Carolinians, in rural and urban communities alike, cannot find affordable housing.[14] North Carolina children are particularly at risk. Thirty-seven percent of children are living in single-parent families, and 23 percent of children are living in poverty.[15]

Stakeholder feedback from across the state has consistently cited food insecurity, housing instability, and transportation challenges as crucial barriers to health and wellness. These and other social determinants disproportionately impact Medicaid beneficiaries and those who are uninsured, increase the risk of developing chronic conditions, and drive cost higher.[16]

5. State Operated Healthcare Facilities will continue to provide and develop integrated high-quality safety net services

DHHS is aligning the DSOHF administrative structure to support an enterprise approach to the care provided across the 14 state operated facilities. Doing so will better position these facilities to respond to the ongoing changes in the healthcare delivery system. An enterprise approach to service delivery will also promote greater consistency and shared best practices as well as improved efficiencies in business operations.

DSOHF is continually refining its treatment models and service array to special populations (substance use, forensics, capacity restoration, I/DD and neuro-medical) to optimize our bed usage and to improve the continuum of care across the behavioral healthcare system. The use of technology, particularly telemedicine and electronic health records, could greatly improve staff efficiencies and the clinical care provided to those served in our facilities.

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[10] McGinnis JM, Williams-Russo P, Knickman JR. The case for more active policy attention to health promotion. Health Aff (Millwood) 2002;21:78-93
[11] Galea S, Tracy M, Hoggatt KJ, Dimaggio C, Karparti A. Estimated deaths attributable to social factors in the United States. Am J Public Health. 2011;1456-65
[12] USDA Economic Research Service, "Food Security Status of U.S. Households in 2015"
[13] http://ncfoodbanks.org/hunger-in-north-carolina/
[14] Robert Wood Johnson, County Health Rankings, http://www.countyhealthrankings.org/app/north-carolina/2017/overview
[15] 2017 Kids County Profile, the Annie E. Casey Foundation
[16] Linkins KW, Byra JJ, Chandler DW. Frequent users of health services initiative: final evaluation report. 2008 Institute of Health. 2015. Capturing Social and Behavioral Domains and Measures in Electronic Health Records: Phase 2. Washington, DC.: National Academics Press.

And to thrive as a health care system, DSOHF must also have the flexibility in human resource recruitment and retention processes to meet their current and future staffing needs. They must also create a billing and payment structure that supports long-term sustainability of the facilities, as well as plan for the future resources that will be needed to maintain their infrastructure.

Included in our efforts to improve recruitment and retention efforts is establishing a psychiatry residency program at both Broughton and Cherry Hospitals.

5a. Implement an Electronic Health Record at the state operated facilities to improve system-wide care collaboration and data collection and analysis

The Electronic Health Record (EHR) solution for the DSOHF is another way DHHS wants to modernize and enhance care at the state facilities. An EHR system will enhance individual care and safety, allow connection to NC HIE to facilitate system-wide data analysis and cross systems service delivery and serve as a recruitment and retention tool for doctors and nurses who have been trained and worked in community healthcare settings that have well established EHRs. The General Assembly has generously supported new state psychiatric hospital buildings that better serve the treatment needs of North Carolinians with functional and healing treatment spaces; however, for now, the technology that documents and supports that treatment is largely paper-based. By replacing paper-based medical records and physician order entry with an automated electronic health record system clinical and operations staff will be able to provide the highest level of care for the individuals they serve. The EHR solution will accomplish this in DSOHF facilities by providing the capability to improve the quality of direct patient care by:

- Aiding in the consistent adherence to best practice clinical guidelines,
- Improving physician order through computerized physician order entry (CPOE) and clinical decision support (CDDS) functionality,
- Reducing adverse drug events through medication clinical alerts by up to 300 ADEs annually per hospital[17]
- Facilitating efficient provider and clinician communication through shared access to medical records,
- Reducing laboratory usage and drug costs by up to 15%[5,18],
- Decreasing length of stay (LOS) by up to 10%[5]
- Increasing access to patient care documentation, and
- Facilitate patient movement through the system to functionally increase capacity.

In addition to improvements in direct patient care, an EHR solution will improve facility clinical and financial operations by supporting the aggregation of clinical and fiscal information by enabling:

[17] Thompson, D. I. (2014). No Easy Wins with an EHR. Trustee, 15,16, 29-30

[18] Bates, D.W, 1997 The Cost of Adverse Drug Events in Hospitalized Patients, JAMA 1997 307-377

- The analysis of aggregate clinical information,
- The generation of effective quality measurements,
- Expand reporting and analytics capabilities for clinical and fiscal operations,
- Providing compatibility with Health Information Exchange (HIE) requirements,
- Mitigating future healthcare compliance and licensure risks by CMS and Joint Commission, that require improved and increasing numbers of reporting measures.

The benefits of an EHR solution will have a direct impact on both operational management and fiscal oversight and will improve an individual's treatment outcomes not only during his/her time in the facility but also across the continuum of care.

8.2. Integrate Behavioral Health, I/DD, and Physical Health Services for Children and Adults

Nationwide, individuals with behavioral health conditions are among the highest need, costliest groups of Medicaid beneficiaries.

Per-beneficiary spending for those with a behavioral health diagnosis was nearly four times higher than those without a behavioral health diagnosis. Across all payers, individuals with behavioral health conditions have higher rates of Emergency Department visits and hospitalizations. All individuals with behavioral health conditions or I/DDs, ranging from those with mild to severe needs, benefit from integrated care.

North Carolina currently has separate payment and delivery systems for physical health services and behavioral health and I/DD services. Physical health services are managed through the State's Primary Care Case Management (PCCM) program, while behavioral health and I/DD services are delivered by LME-MCOs.[19] The current bifurcated structure limits the State's ability to provide whole-person care. It duplicates care management activities and means there is no single point of accountability for ensuring seamless care that improves an individual's health and well-being. It creates confusion about who owns the plan of care, and can lead to a fragmentation of services. For instance, many people in the high risk behavioral health population also suffer from physical health conditions such as diabetes or COPD; however, they may have one plan of care for their behavioral health issues and another for their physical health issues, with goals that are conflictual or with conditions in one not being recognized in the other, such as the need for appropriate eating habits and medication management for someone with diabetes not being addressed at all by their behavioral health worker. Another example is someone with a history of opioid use being prescribed opioid based pain medication leading to difficulty with their sobriety plan.

That is why the second critical goal for the future state of our behavioral health system is a vision of integrated care. Integration means that individuals interact with our health care system, they will have seamless access to the services they need to manage their health care needs and improve their well-being. It will also mean that DHHS has the tools to hold our

Medicaid enrollees aged 0-3 and Health Choice enrollees are served through FFS, not LME-MCOs, for behavioral health services

system accountable for delivering that experience to our consumers. Integrated care services will enhance the quality of services and supports available to individuals and their families.

There are five components of achieving this goal: Address physical health and behavioral health needs in a single insurance product as Medicaid moves to managed care; routine screening for children and adults; increase awareness, appropriate training, and services for young children and support for their families; implement robust communication practices between behavioral and physical health providers; state operated healthcare facilities will continue to provide and develop integrated high-quality safety net services.

1. Address physical health and behavioral health needs in a single insurance product as Medicaid moves to managed care

North Carolina is faced with a strong imperative to improve quality of care and reduce costs for its population with significant behavioral health conditions. With this goal in mind, and consistent with emerging best practices and trends across other states, DHHS is planning to integrate behavioral health and I/DD services into its Medicaid managed care program. Specifically, DHHS seeks to:

- Minimize barriers for individuals to access services across the physical and behavioral health delivery systems;
- Incentivize plans and providers for the successful delivery of whole-person care, including implementation of integrated physical and behavioral health care models as well as care coordination;
- Create the ability to centralize physical and behavioral health claims data for use in care coordination efforts;
- Align performance metrics for physical and behavioral health care;
- Align purchasing strategies for physical and behavioral health services, including value-based approaches;
- Ensure individuals can access the comprehensive array of services; and
- Minimize complexity and disruption for individuals while supporting continuity of care.

To realize the full benefit of the managed care model and to remain consistent with current clinical evidence regarding the benefits of integrated care, DHHS will work with the General Assembly on its vision to create integrated physical and behavioral health, TBI, and I/DD managed care products for all individuals.

DHHS is committed to transitioning North Carolina to Medicaid managed care in a way that advances high-value care, improves population health, engages and supports providers, and establishes a sustainable program with predictable costs. Specifically, DHHS has identified as high priorities: working with legislators to advance whole-person care so that all plans will include physical health, behavioral health, and substance use services for beneficiaries; addressing unmet health-related resource needs (sometimes called the “social determinants of health”); and enhancing local, community-based care management. At the core of these efforts is the goal to improve the health of North Carolinians through an innovative, whole

person centered, well-coordinated system of care that addresses both medical and non-medical drivers of health.

Individuals dually diagnosed with mental health and I/DD disorders have experienced particularly acute barriers to accessing behavioral health services in North Carolina, and many have traveled out of state to receive services. DHHS will pilot new treatment models and benefits targeted towards individuals dually diagnosed with mental health conditions and I/DDs, such as Systemic, Therapeutic Assessment, Resources and Treatment (START), a national, evidence-based crisis prevention and response model.

As part of this approach, DHHS will expand community capacity to provide integrated responses to individuals and their families, as well as implement multi-level, cross-system linkages at the local, state, and national levels. To facilitate this process, DHHS will provide technical assistance through clinical education teams, online training forums, family support, and education.

For more information on DHHS's approach to the development of integrated managed care products, see the Proposed Concept Paper.

2. Perform Routine Screening for Children and Adults is a good first step in identifying and managing health needs

Meeting a family's needs requires the health care system to think about the whole person – not a single organ system or a service, and not just about the kinds of services that can be delivered within the four walls of a health care provider's office. An integrated system must assess and consider the social determinants of health. To embed social determinants of health within North Carolina's Medicaid system, and to ensure consistency across plans, it is necessary to standardize screening of individuals and begin developing best practices in responding to their unmet social needs. DHHS will convene stakeholders to standardize a social needs screening instrument, with a primary focus on food insecurity, housing instability, and transportation.

DHHS and stakeholder workgroups may also develop standard supplemental screening questions to address adverse childhood experiences and local needs while enabling consistent data collection. The social determinants screening instrument will be tested and modified as evidence develops and integrated into the whole-person evaluations/assessments at the state-operated healthcare facilities. It will also be built into any electronic medical record system that is implemented at the state-operated healthcare facilities and recommendations will be made for further system-wide implementation.

3. Increase awareness, appropriate training, and services for young children and support for their families

DHHS recognizes that children need nurturing relationships, environments, and experiences during their earliest years to develop a strong foundation to support more advanced physical, cognitive and social-emotional skills. Young children's social-emotional development and

mental health influence every critical developmental task of the first five years, whether physical, cognitive, linguistic, or social-emotional. Data shows that early prevention intervention will be more efficient and produce more favorable outcomes than remediation in later life.

An integral part of supporting young children and their families is to ensure providers and services are strengths-based, family-driven, community-based, culturally and linguistically competent, evidence-based, and driven by community needs. These principles and values should be incorporated at the practice, program and system level, and be individualized to ensure appropriate fit between the family's needs and the services/supports provided.

DHHS will build upon the work of community stakeholders and the North Carolina Infant Mental Health Association to promote the social-emotional competencies for individuals/professionals who serve or are preparing to serve young children and families in North Carolina.

For example, North Carolina, along with its public and private partners, have invested in Triple P, which is an evidence-based public health approach to reducing child maltreatment and improving family's ability to cope with raising children. Triple P programming strengthens communities and individual families. DHHS will continue this work across the state.

DHHS will also continue Community-Based Social Service Programs including family preservation, family support, respite, and reunification services utilizing blended federal, state, and local funds. These services are provided by community-based agencies, which includes non-profit organizations as well as local public agencies. These services adhere to family-centered practice that help families provide children with safe, nurturing environments that promote their physical, social and emotional well-being by promoting protective factors, addressing traumatic experiences and decreasing risk factors in families and communities. All services are voluntary and free of charge.

4. ***Implement robust communication practices between behavioral and physical health providers***

North Carolina's Health Information Exchange (HIE) Authority, NC HealthConnex, brings added value to health care conversations all levels in the health care industry. It has the potential to break down information silos between health care providers, achieves greater health care outcomes for patients, and creates efficiencies in state-funded health care programs, such as Medicaid.

Many states have been operating health information exchanges for years and are experiencing improved patient care. As the HIE grows and expands to behavioral health providers in an integrated setting, the communication between behavioral health, I/DD, and physical health providers can improve dramatically. DHHS is working closely with our colleagues at the Department of Information Technology to ensure that as our HIE develops, it can realize these gains in communication. The NC HIE seeks to link regional and private

HIEs across the state to close gaps in care that exist in the state; pursue multi-tenant connections and EHR integration of all services to minimize workflow interruptions; and provide value-added services based on stakeholder input. Additionally, as directed by the State, the NC HIE will serve as a Medicaid reform tool with the creation of a clinical data analytics warehouse that will provide a flexible toolset capable of providing analytics-ready data sets and value-added outbound services to legislators and participants.

In addition to HIE capabilities, an expectation among the managed care programs in Medicaid Transformation will be improved care management and communication between providers. PHPs will be able to incentivize this expectation in provider payment models. Plans will be able to offer higher rates for providers with integrated care management systems that promote integrated care and show positive outcome measures, such as reduced inpatient stays, increase in employment, and access to stable housing.

5. Improved data will help the behavioral health system improve its care delivery

As North Carolina continues to make strategic investments in improving our behavioral health system, it will be critical that we are able to evaluate our performance and understand where our system is working well and where there are further opportunities for improvement. We need visibility into how our system is doing that can drive actionable insights that allow us to best serve the behavioral health needs of North Carolinians while being the best possible stewards of state resources.

We do not have enough visibility today into how our behavioral health system is performing. Like many other health care organizations, DHHS is awash in data but is far from unlocking that data's full potential to drive improvements in care and value. Data often exists in many locations and formats but is insufficiently integrated to compare metrics across DMA and DMH/DD/SAS, North Carolina providers or facilities, or to aggregate disparate data sets into statewide numbers. There are not consistent national metrics or benchmarks for many important components of the behavioral health system, and it is often difficult to compare North Carolina's data to those metrics that do exist due when our state's data is not integrated or not collected and codified in a consistent way.

To ensure that our investments in the behavioral health system are addressing North Carolina's most pressing needs and are directed to the most impactful and cost-effective strategies, we must have integrated, actionable data that drives accountability and encourages innovation.

8.3. Opioids

While the state's behavioral health care system has faced these significant challenges for decades, the opioid crisis has intensified them. Since 1999, over 13,000 North Carolinians have died from an opioid overdose. In 2016, 1,384 North Carolinians died from an unintentional opioid overdose, which is 39% more than the previous year. This harrowing statistic doesn't account for the more than 13,000 naloxone administrations for suspected opioid overdoses by

our EMS and first responders.   While the opioid crisis exacerbates many of the challenges described above, such as an insufficient health workforce and community-based resources, it also impairs our schools, social services, law enforcement and health system as a whole. In the last 5 years, the state has seen a 25% increase in children in foster care. In addition, as we see more pregnant women fighting an opioid addiction, NC has seen 893% increase in hospitalizations associated with drug withdrawal in newborns. While there has been hard work done to turn the tide on the opioid crisis, including launching North Carolina's Opioid Action Plan, passing the bipartisan STOP Act, and making changes to North Carolina's Medicaid program, we still see increased numbers of people dying from opioid overdoses each month.

As the opioid crisis has worsened, it has intensified the strain on our behavioral health workforce and our community-based resources by placing additional burdens on local systems that in many cases were already insufficient to meet the needs of their communities. The opioid crisis similarly strains our community resources outside of behavioral health, including the burdens that it places on our physical health system as well as our schools, social service offices, emergency responders, and law enforcement. With more pregnant women fighting an opioid addiction, North Carolina has seen 893% increase in hospitalizations associated with drug withdrawal in newborns. In the last 5 years, NC has seen a 25% increase in children in foster care driven largely by this epidemic.

There has been hard work done to address the opioid crisis. As required by Session Law 2015-241, the state has created the Opioid and Prescription Drug Abuse Advisory Committee (previously known as the Prescription Drug Abuse Advisory Committee) and developed a state-wide strategic plan. With participation and input from a group of more than 150 stakeholders, the Department developed the 2017 N.C. Strategic Plan to Reduce Prescription Drug Abuse. The Plan's focus areas include: creating a coordinated infrastructure; reducing the oversupply of prescription drugs; reducing diversion and flow of illicit drugs; increasing community awareness and prevention; increasing naloxone availability and links to care; expanding access to treatment and recovery; and, measuring impact.

DHHS has thus far conducted numerous activities in support of the Action Plan. In October 2017, DHHS purchased nearly 40,000 units of nasal naloxone to help reduce the number of unintentional opioid-related deaths and make the overdose reversal drug more widely available. The naloxone has been distributed to partners across the state that work with individuals at high-risk of opioid overdose including Opioid Treatment Programs and other treatment providers, EMS agencies, Oxford Houses, and other community partners. DHHS established a NC Payers Council to bring together health care payers across the state to partner on benefit design, member services, and pharmacy policies to reduce opioid overuse and overdose. The Department also made important changes to the Medicaid program to increase access to treatment by removing certain prior approval requirements.

Another major milestone in the fight to combat the opioid epidemic was adoption of S.L. 2017-74 or the Strengthen Opioid Misuse Prevention (STOP) Act. Some key provisions include: limiting the number of days opioids can be lawfully prescribed, requiring prescribers to check the NC Controlled Substance Reporting System, enabling broader access to community

distributed naloxone, and allowing the use of local funds to support syringe exchange programs, among many others.

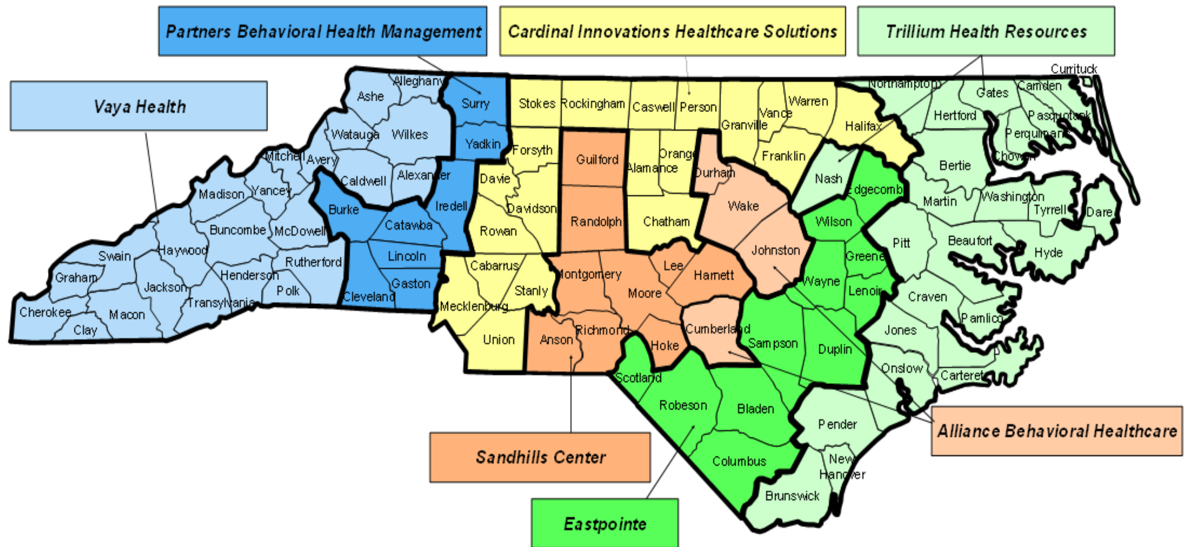
Despite important steps being made, we still see increased numbers of people dying from opioid overdoses each month. Many North Carolinians with opioid use disorders do not have affordable and timely access to the treatment they need. For many, this is driven by a lack of access to affordable health insurance. Having coverage helps get those with substance use disorders into the health system and working with a physician, giving them faster and more direct access to necessary treatments and support. For example, although there is strong evidence that Medication Assisted Treatment (MAT) is both clinically effective and generates savings, many individuals are unable to access care because the cost of medications is too high and they currently do not qualify for Medicaid or other insurance. Increasing access to coverage would provide these individuals with affordable access to potentially life-saving treatment. While there are other important components of increasing access, such as continuing to increase the capacity of opioid treatment programs (OTPs), including our ADATCs and elsewhere in the community, North Carolinians must be able to afford to access treatment.

DHHS is currently continuing to work on maximizing resources available in multiple areas, with combined efforts being made by DMA, DMHDDSAS, and DPH focusing on access to treatment and promoting prevention efforts. Ongoing efforts will be made to ensure appropriate services are available in both rural and urban areas, which will require a review and update of current policies, as well as utilizing all available resources such as recent CMS allowance of payment of substance use services in Institutes for Mental Disease such as our ADATCs . While progress is being made, such as thousands new patients accessing treatment, additional resources are needed to truly turn the tide on this devastating epidemic.

9. Appendices

Appendix A: LME-MCO Catchment Areas

LME-MCO Catchment Areas
As of 7/1/17



LME-MCOs Operate Under the 1915 (b)(c) Waiver

Appendix B: Bed Capacity

Type of Center	Name	Location	Number of Beds* (SFY 17)	People Served (SFY 17)
Alcohol and Drug Abuse Treatment Centers (ADATCs)	R.J. Blackley	Butner	40	3,496
	Walter B. Jones	Greenville	36	
	Julian F. Keith	Black Mountain	68	
Developmental Centers	Caswell Center	Kinston	358	1,156
	Murdoch Center	Butner	476	
	Riddle Center	Morganton	290	
Residential Schools	Wright School	Durham	24	85
	Whitaker School	Butner	18	
Neuro-Medical Treatment Centers (NMTC)	Black Mountain NMTC	Black Mountain	156	644
	Longleaf NMTC	Wilson	200	
	O'Berry NMTC	Goldsboro	96 SNF 125 ICF/IID	
State Psychiatric Hospitals (SPHs)	Broughton Hospital	Morganton	297	3,110
	Central Regional Hospital	Butner	398	
	Cherry Hospital	Goldsboro	230	
Total			**2,812**	**8,491**

*The number of beds at each facility supported by current staffing levels (operating capacity).

Type of Center	Name	Location	Certified Budget (BD-307) (SFY 18)		
			Requirements	**Receipts**	**Appropriations**
Alcohol and Drug Abuse Treatment Centers (ADATCs)	R.J. Blackley	Butner	$16,113,391	$16,113,391	$0
	Walter B. Jones	Greenville	$14,395,885	$14,395,885	$0
	Julian F. Keith	Black Mountain	$16,615,993	$16,615,407	$586
Developmental Centers	Caswell Center	Kinston	$92,174,277	$91,257,753	$916,524
	Murdoch Center	Butner	$105,782,256	$104,025,259	$1,756,997
	Riddle Center	Morganton	$63,774,986	$62,459,864	$1,315,122
Residential Schools	Wright School	Durham	$3,090,124	$510	$3,089,614
	Whitaker School	Butner	$5,320,140	$5,320,140	$0
Neuro-Medical Treatment Centers (NMTC)	Black Mountain NMTC	Black Mountain	$29,071,307	$27,678,051	$1,393,256
	Longleaf NMTC	Wilson	$35,899,787	$31,778,532	$4,121,255
	O'Berry NMTC	Goldsboro	$55,621,003	$55,134,138	$486,865
State Psychiatric Hospitals (SPHs)	Broughton Hospital	Morganton	$100,216,640	$27,902,857	$72,313,783
	Central Regional Hospital	Butner	$148,420,414	$37,037,541	$111,382,873
	Cherry Hospital	Goldsboro	$105,864,698	$24,743,820	$81,120,878
Total			**$792,360,901**	**$514,463,148**	**$277,897,753**

Appendix C: Murdoch Center

Specialty services by the Murdoch Center include:

Program	Program Description	Number of Beds* (SFY 17)	Program Length of Stay (SFY 17)	Admissions (SFY 17)
BART Behaviorally Advanced Residential Treatment	Statewide program for young adult males with developmental disabilities and extreme and dangerous behavioral challenges	16	1 year	2
PATH Partners in Autism for Treatment and Habilitation	Statewide program, including 2 therapeutic respite beds, for children ages 6-16, with autism and severe behavioral challenges	20	2 years	12
STARS Specialized Treatment for Adolescents in a Residential Setting	Statewide program for adolescents, ages 13-17, with I/DD and mental health disorders, and extreme behavioral challenges	16	1 year	13
TRACK Therapeutic Respite Addressing Crisis in Kids	Statewide, short-term crisis stabilization program for children ages 5-17, for psychiatric hospital and community emergency department diversion	6	3 to 45 days	56
Children's Assessment Clinic	Provides comprehensive clinical assessments by an interdisciplinary team to children with MH/I/DD and complex needs, who reside in the central region of the state, and are Medicaid recipients.	0	Outpatient Service	3
Total		**58**		**86**

*The number of beds at each facility are supported by current staffing levels (operating capacity).

Program	Program Description	Certified Budget (BD-307) (SFY 18)		
		Requirements	**Receipts**	**Appropriations**
BART Behaviorally Advanced Residential Treatment	Statewide program for young adult males with developmental disabilities and extreme and dangerous behavioral challenges	$1,357,889	$1,314,709	$43,181
PATH Partners in Autism for Treatment and Habilitation	Statewide program, including two therapeutic respite beds, for children ages 6-16, with autism and severe behavioral challenges	$3,934,554	$3,809,435	$125,119
STARS Specialized Treatment for Adolescents in a Residential Setting	Statewide program for adolescents, ages 13-17, with I/DD and mental health disorders, and extreme behavioral challenges	$2,332,337	$2,258,169	$74,168
TRACK Therapeutic Respite Addressing Crisis in Kids	Statewide, short-term crisis stabilization program for children ages 5-17, for psychiatric hospital and community emergency department diversion	$3,553,705	$3,440,697	$113,008
Children's Assessment Clinic	Provides comprehensive clinical assessments by an interdisciplinary team to children with MH/I/DD and complex needs, who reside in the central region of the state, and are Medicaid recipients.	$947,128	$0	$947,128
Total		**$12,125,613**	**$10,823,010**	**$1,302,604**

Appendix D: Caswell Center

Specialty services by the Caswell Center include:

Program	Program Description	Number of Beds* (SFY 17)	Length of Stay (SFY 17)	Admissions (SFY 17)
ID/MI	Regional program for adult males with mild/moderate I/DD and mental illness with severe behavioral challenges and a history of unsuccessful community placements	10	18 months	4

*The number of beds at each facility are supported by current staffing levels (operating capacity).

Program	Program Description	Certified Budget (BD-307) (SFY 18)		
		Requirements	Receipts	Appropriations
ID/MI	Regional program for adult males with mild/moderate I/DD and mental illness with severe behavioral challenges and a history of unsuccessful community placements	$2,332,337	$2,258,169	$74,168

Appendix E: Neuro-Medical Treatment Centers

Longleaf Neuro-Medical Treatment Center

- Provides skilled nursing services to adults with chronic, complex medical conditions and/or behavioral concerns that co-exist with neurological conditions related to a diagnosis of Alzheimer's disease and related dementias or neuropsychiatric disorders
- 162 of the facility's beds are designated as specialized skilled nursing care beds for adults with a primary diagnosis that is medical in nature and usually have a severe persistent mental illness that no longer require acute psychiatric care and who also have long-term medical conditions requiring medical and nursing care
- 38 specialized skilled nursing care beds for mobile adults with a primary diagnosis of Alzheimer's disease or related dementias with a primary need for management of problem behaviors that are potentially dangerous to self/others that may require a locked/secure unit
- Adults are referred solely from state psychiatric hospitals and their psychiatric illness is no longer the primary focus of care

O'Berry Neuro-Medical Treatment Center

- Provides skilled nursing services to adults with chronic, complex medical conditions and/or behavioral concerns that co-exist with neurocognitive disorders related to a diagnosis of Alzheimer's disease and related dementias or neurodevelopmental disorders related to I/DD
- 96 of the facility's beds are designated as skilled nursing care beds
- 125 beds are designated as intermediate care beds for acute medical fragile residents with I/DD
- Each resident requires 24-hour nursing care in a structured medical and behavioral model that focuses on quality end of life care supports

Black Mountain Neuro-Medical Treatment Center

- Provides skilled nursing services to adults with chronic and complex medical conditions and/or behavioral concerns that co-exist with neurodevelopmental disorders related to intellectual and developmental disabilities or neurological conditions related to a diagnosis of Alzheimer's disease and related dementias
- 46 specialized skilled nursing care beds for adults with Alzheimer's and other dementias
- 110 specialized skilled nursing care beds for acute medical fragile individuals with I/DD

Appendix F: PMPM Risk Reserve Analysis

PMPM Legislative Financial Impact

SFY 2017 Actual and SFY 2018 Projected

	LME/MCO's							
	Alliance	**Cardinal**	**Eastpointe**	**Partners**	**Sandhills**	**Trillium**	**Vaya Health**	**Total**
SFY'17 Member Months - Actual	2,905,757	6,053,819	2,435,995	1,880,873	2,352,821	2,356,481	2,091,697	**20,077,443**
SFY'18 Member Months - Projected	2,992,929	6,235,434	2,509,075	1,937,300	2,423,406	2,427,175	2,154,448	**20,679,766**
SFY'17 Risk Reserve PMPM	$ 2.87	$ 1.90	$ 2.30	$ 2.83	$ 2.33	$ 2.91	$ 3.09	
SFY'17 Calculated Member Months - Actual	**$ 2,905,757**	**$ 6,053,819**	**$ 2,435,995**	**$ 1,880,873**	**$ 2,352,821**	**$ 2,356,481**	**$ 2,091,697**	**$ 20,077,443**
SFY'17 Risk Reserve Deposits - Actual	**$ 8,339,522**	**$ 11,502,256**	**$ 5,602,788**	**$ 5,322,872**	**$ 5,482,073**	**$ 6,857,359**	**$ 6,463,345**	**$ 49,570,215**
SFY'18 Risk Reserve PMPM	$ 2.91	$ 2.08	$ 2.43	$ 2.94	$ 2.31	$ 2.94	$ 3.23	
SFY'18 Calculated Member Months - Projected	**$ 2,992,929**	**$ 6,235,434**	**$ 2,509,075**	**$ 1,937,300**	**$ 2,423,406**	**$ 2,427,175**	**$ 2,154,448**	**$ 20,679,766**
SFY'18 Calculated Risk Reserve - Projected	**$ 8,709,425**	**$ 12,969,702**	**$ 6,097,051**	**$ 5,695,661**	**$ 5,598,067**	**$ 7,135,895**	**$ 6,958,868**	**$ 53,164,669**
SFY'17 - $ Impact - Federal FMAP ~ *0.6672*	**$ 5,564,129**	**$ 7,674,305**	**$ 3,738,180**	**$ 3,551,420**	**$ 3,657,639**	**$ 4,575,230**	**$ 4,312,344**	**$ 33,073,247**
SFY'17 - $ Impact - State FMAP ~ *0.3328*	**$ 2,775,393**	**$ 3,827,951**	**$ 1,864,608**	**$ 1,771,452**	**$ 1,824,434**	**$ 2,282,129**	**$ 2,151,001**	**$ 16,496,967**
SFY'18 - $ Impact - Federal FMAP ~ *0.6743*	**$ 5,872,765**	**$ 8,745,470**	**$ 4,111,242**	**$ 3,840,584**	**$ 3,774,777**	**$ 4,811,734**	**$ 4,692,365**	**$ 35,848,936**
SFY'18 - $ Impact - State FMAP ~ *0.3257*	**$ 2,836,660**	**$ 4,224,232**	**$ 1,985,810**	**$ 1,855,077**	**$ 1,823,290**	**$ 2,324,161**	**$ 2,266,503**	**$ 17,315,733**

Notes:

1. All MCO's contribute the required Risk Reserve estimate of 2.0% except Cardinal Innovations, due to legacy counties reaching the required 15% their contribution is 1.6%.

2. SFY'18 Projections based on SFY'17 actual and 3% inflationary factor.

Appendix G: Fund Balance and Risk Reserve

Fund Balance Survey

Fund Balance-by funding source (Committed, Assigned, Unassigned)

June 2017	Alliance	Cardinal	Trillium	Partners	Sandhills	Vaya	Eastpointe	June Totals
Medicaid	$ 116,167,730	$ 231,373,962	$ 70,188,076	$ 74,493,318	$ 140,979,528	$ 88,038,709	$ 75,370,833	$ 796,612,156
State/Federal	130,585	26,788,432	(9,099,419)	24,508,562	13,247,062	(17,127,886)	10,223,866	48,671,202
Local	2,860,545	3,582,310	28,880,796	6,302,344	6,360,152	18,641,224	40,061,929	106,689,300
Total	$ 119,158,860	$ 261,744,704	$ 89,969,453	$ 105,304,224	$ 160,586,742	$ 89,552,047	$ 125,656,628	$ 951,972,658

YTD Fund Balance

June 2017	Alliance	Cardinal	Trillium	Partners	Sandhills	Vaya	Eastpointe	June Totals
Committed	59,634,343	2,500,000	32,198,971	78,983,906	45,000,000	-	-	218,317,220
Assigned		5,028,466	-	-	-	27,768,860	58,368,092	91,165,418
Unassigned	17,116,602	140,378,714	1,940,031	(12,872,398)	72,274,359	14,217,189	32,847,559	265,902,056
Investment in fixed assets	3,233,622	24,716,468	11,147,402	6,220,114	11,289,055	2,927,893	3,468,318	63,002,872
Other - Non Spendable	-	67,552	66,657	1,035,290	476,011	1,877,057	-	3,522,567
Restricted - Statutes and Prepaids	4,665,222	22,143,133	12,784,335	8,352,195	7,080,126	11,415,538	6,362,023	72,802,572
Restricted - Risk Reserve	34,509,071	66,910,371	31,832,057	23,585,117	24,467,191	31,345,510	24,610,636	237,259,953
Total Fund balance	$ 119,158,860	$ 261,744,704	$ 89,969,453	$ 105,304,224	$ 160,586,742	$ 89,552,047	$ 125,656,628	$ 951,972,658

YTD Fund Balance (Spendable, Non-Spendable)

June 2017	Alliance	Cardinal	Trillium	Partners	Sandhills	Vaya	Eastpointe	June Totals
Spendable (1)	17,116,602	140,378,714	1,940,031	(12,872,398)	72,274,359	14,217,189	32,847,559	265,902,056
Non - Spendable (1)	102,042,258	121,365,990	88,029,422	118,176,622	88,312,383	75,334,858	92,809,069	686,070,602
Total Fund balance	$ 119,158,860	$ 261,744,704	$ 89,969,453	$ 105,304,224	$ 160,586,742	$ 89,552,047	$ 125,656,628	$ 951,972,658

Surplus Spendable Fund Balance

June 2017	Alliance	Cardinal	Trillium	Partners	Sandhills	Vaya	Eastpointe	June Totals
Spendable (1)	17,116,602	140,378,714	1,940,031	(12,872,398)	72,274,359	14,217,189	32,847,559	265,902,056
Operating Expenses (45 days as of June 20	67,509,363	104,991,870	59,617,614	40,881,344	42,489,500	58,189,770	42,230,306	415,909,766
Surplus	$ (50,392,761)	$ 35,386,844	$ (57,677,583)	$ (53,753,742)	$ 29,784,860	$ (43,972,581)	$ (9,382,747)	$ (150,007,710)

Risk Reserve - FMAP Rate

June 2017	Alliance	Cardinal	Trillium	Partners	Sandhills	Vaya	Eastpointe	June Totals
Federal (FMAP Rate - .6672)	23,024,452	44,642,600	21,238,348	15,735,990	16,324,510	20,913,724	16,420,216	158,299,841
State (FMAP Rate - .3328)	11,484,619	22,267,771	10,593,709	7,849,127	8,142,681	10,431,786	8,190,420	78,960,112
Total Risk Reserve	$ 34,509,071	$ 66,910,371	$ 31,832,057	$ 23,585,117	$ 24,467,191	$ 31,345,510	$ 24,610,636	$ 237,259,953

Fund Balance Definitions

Spendable

- Unassigned Fund balance that has not been reported in any other classification.

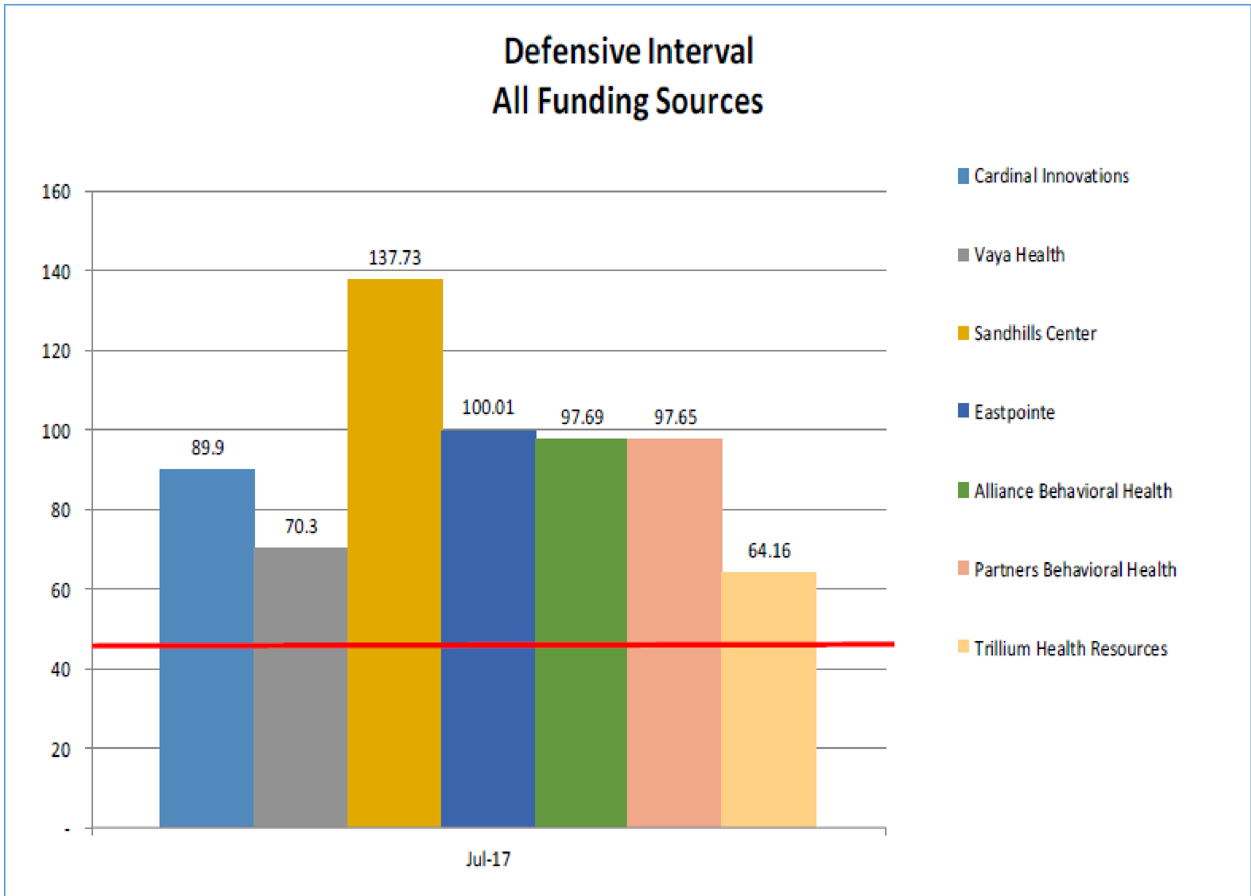
Non-spendable

- Committed: Amounts designated for use for specific purposes by government or the Board of Directors (must be designated by someone at the highest level of authority).
- Assigned: Amounts are also designated for specific purposes but authority to assign has been delegated to a person with lower level of authority.
- Investment in Fixed Assets: Fund balance set assist for investment in fixed assets.
- Non-spendable: Amounts that cannot be spent because they are either (a) not in spendable form or (b) legally or contractually required to be maintained intact.
- Restricted: Amounts that cannot be spent due to creditor obligations or due to state, federal, or local statutes.

(1) DHHS has not approved the items in the spendable and non-spendable categories.

Appendix H: Defensive Interval: All Funding Sources

All Funding Sources



Appendix I: Behavioral Health Needs Assessment

Methodology

Behavioral health service summaries were compiled for dates of service in FY17 from LME/MCO State/Block Grant (BG) claims, LME/MCO Medicaid (b)(c) claims, and Fee for Service (FFS) Medicaid claims for persons with a primary behavioral health diagnosis (ICD-10 Diagnosis codes starting with an F). Service claims from each data source were categorized by Disability:

- Adult Mental Health
- Adult Substance Use Disorder
- Child Mental Health/Substance Use Disorder
- Adult Intellectual/Developmental Disorder
- Child Intellectual/Developmental Disorder

For consistent reporting, child represents persons who were ages 3-17, and adults are ages 18+, for both State/BG funded and Medicaid funded services. Although many clients are dually diagnosed, each claim was assigned a disability based on specific criteria to ensure each claim counted only once in the analysis. For LME/MCO State/Block Grant claims, the disability is based on the claim's assigned Benefit Plan, which is determined in the claims adjudication process based on the reported Benefit Plans, the claim diagnoses and service data. For both sets of Medicaid claims, a cross-walk from first listed or primary diagnosis to disability was utilized; however, persons in the Innovations waiver were always categorized as I/DD. County was based on the reported County of Residence in NCTracks for LME/MCO State/Block Grant claims, and on the Medicaid County for Medicaid claims (both MCO and FFS) and the I/DD Waitlist. Individual procedure and revenue codes were grouped into service categories in order to summarize the claims information into useful aggregate data. Disability experts were consulted on the grouping of services into categories.

The determination of penetration and prevalence, and the estimates of unmet need, were tailored to each disability. For the MH and SUD disabilities, the population reflects not the total population, but those in the public purview, inclusive of the actual number of persons eligible for Medicaid under the Waivers, plus an estimate of the number of uninsured in each county. For I/DD, national prevalence rates for the general population were applied to the NC county population figures. For this group, having an intellectual/developmental disability often results in Medicaid eligibility, making the entire population within the public purview.

Penetration was determined based on actual numbers of consumers who received services. Medicaid penetration reflects the unduplicated persons served with either LME/MCO or FFS Medicaid. The total penetration reflects the unduplicated persons served from all three funding streams. State/BG penetration was not determined separately, as a significant proportion of consumers of State/BG funded services are also Medicaid Enrollees, and thus an appropriate population for a State/BG penetration alone could not be determined. As can be seen in Table 1, almost $85 million in State/BG service expenditures (36%), were provided to persons who are enrolled in Medicaid, for services not covered under Medicaid.

TABLE 1: FY17 LME/MCO State and Block Grant Fund Expenditures for Medicaid Enrollees, for Services Not Covered under Medicaid

	Expenditure Amounts		Expenditure Distribution	
Service Category	**Has Medicaid**	**Not Med Eligible**	**Has Medicaid**	**Not Med Eligible**
Crisis	$109,788	$4,192,193	3%	97%
Outpatient	$183,135	$22,277,865	1%	99%
Community Based Supports	$8,162,669	$2,892,701	74%	26%
Enhanced & Support Services	$3,298,971	$36,436,672	8%	92%
Supported Employment	$480,208	$651,983	42%	58%
Facility Based Day Supports	$21,526,145	$3,788,758	85%	15%
Residential	$49,778,414	$14,225,151	78%	22%
24 Hr. Crisis/Detox	$255,044	$16,792,968	1%	99%
Inpatient	$1,136,655	$46,554,151	2%	98%
Grand Total	**$84,931,029**	**$147,812,442**	**36%**	**64%**

TABLE 2: Disability Group Prevalence Estimates

Disability Group	Medicaid	State/Block Grant
Adult Mental Health	The Medicaid-specific prevalence rate of 28.2% for adults with any mental illness was utilized.	State/BG funds are targeted toward uninsured and underinsured, so the adult prevalence rate for uninsured with any mental illness of 19.9% was utilized.
Adult Substance Use Disorder	Prevalence rates specific to Medicaid were utilized: 12.6% for adults 18-25, and 9.9% for ages 26+.	Prevalence rates specific to uninsured were utilized: 14.3% for adults 18-25, and 11.2% for ages 26+.
Child Mental Health/Substance Use Disorder	Prevalence of 20%, the upper range for any mental illness in a year, plus the SUD prevalence of 4.9% of 12-17 year olds with Medicaid.	Prevalence of 20%, the upper range for any mental illness was utilized, plus the SUD prevalence of 5.3% of 12-17 year olds who are uninsured.
Adult Intellectual/ Developmental Disorder	The estimated prevalence for adult I/DD of .79% for adults was utilized.	
Child Intellectual/ Developmental Disorder	The estimated prevalence for child I/DD is 3.84% for 0-5 year olds, and 3.17% for 6-17 year olds. One weighted estimate was calculated for each county's population.	

For each county and disability, the total number in need was calculated based on the prevalence, and the penetration (persons who received at least one service) was used to determine the percent of prevalence who received services. This was calculated for Medicaid alone, and overall, which is the combination of Medicaid and State/Block Grant.

Once the Percent of Prevalence Receiving Services was determined, the counties were rank ordered, where the number 1 represents the county with the highest percentage of persons in need receiving services, and 100 reflects the lowest percentage in needs receiving services.

Data Limitations

The prevalence estimates resulting from this analysis should be interpreted in light of several data limitations and caveats.

1. The analysis is based on paid claims reported to the state. This data may be incomplete.
2. The LME-MCOs expend State/BG funds for services outside of the claims system, commonly referred to as "NonUCR," for non-unit-cost-reimbursement. There are no client numbers associated with these expenditures and they are not reflected in this analysis. Much of these funds are expended on prevention and other initiatives that fall outside of the defined service definitions.
3. Consumers were counted as having received services if they received <u>at least one service</u> during FY17. A subset of these consumers likely received only an assessment and did not engage in services. Future needs assessments should seek to establish a threshold to service level to count toward the penetration rate. Further, this assessment does not reflect if the services received were clinically appropriate.
4. National prevalence estimates were applied to numbers of Medicaid enrollees and estimated numbers of uninsured individuals, as these groups are treated with public funds. However, there are also individuals who are under-insured. These individuals are not reflected in this report, as there are not good estimates available that could be utilized.

Adult Mental Health

Penetration and Prevalence by County

(Rank 1 is highest % in services, 100 is lowest)

County	LME-MCO	Medicaid: % of Prevalence Receiving Services	Medicaid Rank	Total: % of Prevalence Receiving Services	Total Rank	Estimated Persons in Need Without Services
ALAMANCE	Cardinal	65%	21	47%	37	4,054
ALEXANDER	Vaya	58%	49	44%	50	900
ALLEGHANY	Vaya	73%	11	53%	15	292
ANSON	Sandhills	58%	50	45%	46	860
ASHE	Vaya	63%	34	50%	25	734
AVERY	Vaya	50%	78	41%	60	540
BEAUFORT	Trillium	65%	23	53%	13	1,207
BERTIE	Trillium	42%	94	35%	85	837
BLADEN	Eastpointe	43%	91	33%	91	1,503
BRUNSWICK	Trillium	64%	30	44%	49	3,049
BUNCOMBE	Vaya	79%	2	55%	10	5,314
BURKE	Partners	73%	10	55%	9	2,192
CABARRUS	Cardinal	62%	36	42%	59	4,497
CALDWELL	Vaya	62%	39	47%	39	2,459
CAMDEN	Trillium	51%	75	39%	72	206
CARTERET	Trillium	70%	14	53%	18	1,388
CASWELL	Cardinal	52%	74	38%	74	790
CATAWBA	Partners	71%	13	54%	11	3,398
CHATHAM	Cardinal	53%	69	27%	99	1,874
CHEROKEE	Vaya	55%	62	46%	41	802
CHOWAN	Trillium	43%	90	34%	89	520
CLAY	Vaya	50%	79	42%	55	320
CLEVELAND	Partners	64%	28	55%	8	2,647
COLUMBUS	Eastpointe	44%	89	37%	79	2,483
CRAVEN	Trillium	57%	54	50%	27	2,194
CUMBERLAND	Alliance	59%	45	49%	29	8,424
CURRITUCK	Trillium	56%	58	42%	54	526
DARE	Trillium	58%	48	50%	23	676
DAVIDSON	Cardinal	57%	53	41%	61	4,583
DAVIE	Cardinal	65%	20	40%	66	1,006
DUPLIN	Eastpointe	55%	61	36%	82	2,367
DURHAM	Alliance	65%	22	46%	42	6,960
EDGECOMBE	Eastpointe	42%	92	40%	69	2,295
FORSYTH	Cardinal	64%	31	46%	44	9,113
FRANKLIN	Cardinal	56%	57	39%	70	1,900
GASTON	Partners	78%	4	67%	2	3,683
GATES	Trillium	35%	100	34%	88	320
GRAHAM	Vaya	50%	82	41%	62	319
GRANVILLE	Cardinal	57%	52	40%	68	1,465
GREENE	Eastpointe	50%	81	31%	95	853
GUILFORD	Sandhills	54%	67	42%	56	14,089
HALIFAX	Cardinal	57%	51	49%	30	1,864
HARNETT	Sandhills	50%	80	34%	86	4,011
HAYWOOD	Vaya	78%	3	74%	1	772
HENDERSON	Vaya	68%	18	40%	65	2,695
HERTFORD	Trillium	38%	97	35%	84	968
HOKE	Sandhills	47%	85	31%	96	2,137
HYDE	Trillium	46%	87	34%	87	212
IREDELL	Partners	62%	37	40%	67	4,067
JACKSON	Vaya	61%	41	42%	57	1,293
JOHNSTON	Alliance	62%	35	45%	48	5,046
JONES	Trillium	57%	55	47%	35	315
LEE	Sandhills	49%	83	36%	83	2,009
LENOIR	Eastpointe	55%	63	48%	32	1,949
LINCOLN	Partners	76%	5	53%	16	1,789
MACON	Vaya	63%	33	50%	26	895
MADISON	Vaya	55%	60	44%	53	656
MARTIN	Trillium	52%	73	44%	51	758
MCDOWELL	Vaya	59%	44	50%	22	1,193
MECKLENBURG	Cardinal	52%	70	33%	93	30,239
MITCHELL	Vaya	51%	76	36%	80	515
MONTGOMERY	Sandhills	51%	77	39%	73	991
MOORE	Sandhills	63%	32	45%	47	1,967
NASH	Eastpointe	42%	93	37%	77	3,280
NEW HANOVER	Trillium	73%	9	52%	19	4,374
NORTHAMPTON	Trillium	39%	96	34%	90	909
ONSLOW	Trillium	72%	12	53%	12	3,549
ORANGE	Cardinal	79%	1	46%	43	2,318
PAMLICO	Trillium	66%	19	51%	21	305
PASQUOTANK	Trillium	54%	64	47%	36	1,074
PENDER	Trillium	64%	25	45%	45	1,643
PERQUIMANS	Trillium	54%	66	46%	40	346
PERSON	Cardinal	69%	16	60%	3	782
PITT	Trillium	52%	72	40%	63	5,134
POLK	Vaya	61%	43	38%	75	522
RANDOLPH	Sandhills	62%	40	44%	52	4,203
RICHMOND	Sandhills	59%	46	47%	34	1,703
ROBESON	Eastpointe	45%	88	36%	81	6,929
ROCKINGHAM	Cardinal	64%	29	53%	14	2,307
ROWAN	Cardinal	69%	17	47%	33	3,769
RUTHERFORD	Vaya	74%	8	55%	7	1,673
SAMPSON	Eastpointe	37%	98	28%	98	2,884
SCOTLAND	Eastpointe	53%	68	47%	38	1,364
STANLY	Cardinal	74%	7	59%	5	1,155
STOKES	Cardinal	70%	15	49%	31	1,092
SURRY	Partners	65%	24	51%	20	1,822
SWAIN	Vaya	41%	95	37%	76	599
TRANSYLVANIA	Vaya	75%	6	53%	17	793
TYRRELL	Trillium	37%	99	29%	97	150
UNION	Cardinal	56%	56	25%	100	7,451
VANCE	Cardinal	64%	26	59%	4	1,243
WAKE	Alliance	54%	65	33%	94	25,850
WARREN	Cardinal	56%	59	50%	28	563
WASHINGTON	Trillium	46%	86	37%	78	539
WATAUGA	Vaya	61%	42	33%	92	1,312
WAYNE	Eastpointe	62%	38	56%	6	2,813
WILKES	Vaya	64%	27	50%	24	1,771
WILSON	Eastpointe	52%	71	42%	58	2,907
YADKIN	Partners	58%	47	39%	71	1,105
YANCEY	Vaya	48%	84	40%	64	564
Grand Total		**59%**		**43%**		**270,780**

Notes: Totals are inclusive of Medicaid.

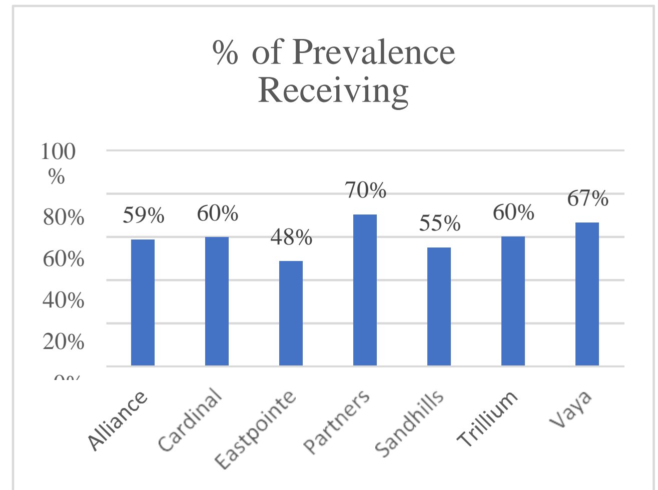
"Medicaid: % of Prevalence Receiving Services" = Unduplicated Persons with at least one BH Medicaid service / (Prevalence Rate X Medicaid Enrollees) "Total: % of Prevalence Receiving Services" = Unduplicated Persons with at least one BH Medicaid or State service / (Prevalence Rate X Population*) "Estimated Persons in Need Without Services" = (Prevalence Rate X Population*) - Unduplicated Persons with at least one Behavioral Health service

* "Population" includes Medicaid Enrollees and an estimate of Uninsured

Penetration Relative to Prevalence by LME-MCO

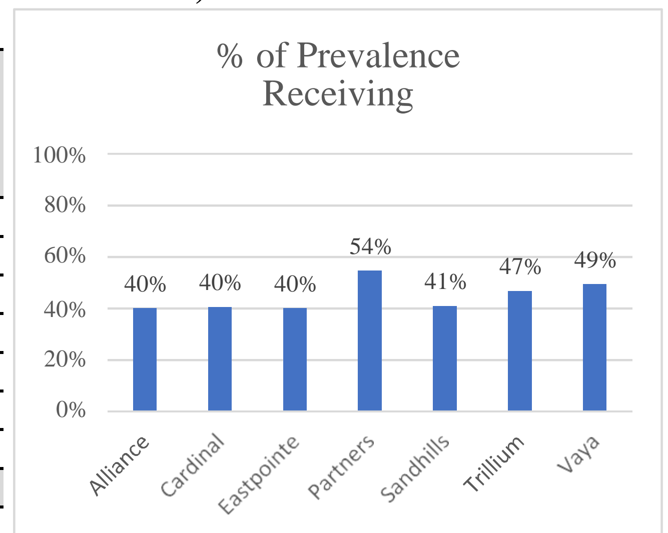
Adult Mental Health - Medicaid (MCO and FFS)

LME-MCO County Region	Medicaid Unduplicated Persons Served	Estimated Prevalence Medicaid	% of Prevalence Receiving Services
Alliance	21,626	36,915	59%
Cardinal	43,627	73,175	60%
Eastpointe	16,068	33,151	48%
Partners	18,722	26,711	70%
Sandhills	16,686	30,360	55%
Trillium	20,663	34,438	60%
Vaya	20,242	30,393	67%
Grand Total	**157,634**	**265,142**	**59%**



Adult Mental Health - Total (Medicaid and State/BG Funded)

LME-MCO	Unduplicated Persons Served Across Funding Streams	Total Estimated Prevalence	% of Prevalence Receiving Services
Alliance	30,811	77,091	40%
Cardinal	55,308	137,372	40%
Eastpointe	21,103	52,732	40%
Partners	24,777	45,480	54%
Sandhills	22,090	54,061	41%
Trillium	27,271	58,471	47%
Vaya	26,217	53,150	49%
Grand Total	**207,577**	**478,357**	**43%**



Adult Substance Use Disorders **Penetration and Prevalence by County** (Rank 1 is highest % in services, 100 is lowest)

County	LME-MCO	Medicaid: % of Prevalence Receiving Services	Medicaid Rank	Total: % of Prevalence Receiving Services	Total Rank	Estimated Persons in Need Without Services
ALAMANCE	Cardinal	40%	54	27%	65	2,664
ALEXANDER	Vaya	55%	14	36%	33	481
ALLEGHANY	Vaya	52%	22	41%	22	171
ANSON	Sandhills	39%	59	34%	40	468
ASHE	Vaya	41%	49	31%	56	476
AVERY	Vaya	41%	50	35%	34	285
BEAUFORT	Trillium	49%	26	47%	6	612
BERTIE	Trillium	18%	97	17%	95	465
BLADEN	Eastpointe	29%	81	19%	90	840
BRUNSWICK	Trillium	47%	33	37%	30	1,618
BUNCOMBE	Vaya	51%	23	41%	21	3,228
BURKE	Partners	58%	7	47%	8	1,225
CABARRUS	Cardinal	36%	66	32%	51	2,512
CALDWELL	Vaya	49%	24	35%	36	1,408
CAMDEN	Trillium	33%	74	23%	79	124
CARTERET	Trillium	55%	15	47%	7	731
CASWELL	Cardinal	40%	52	25%	70	429
CATAWBA	Partners	49%	27	37%	32	2,226
CHATHAM	Cardinal	44%	40	23%	81	983
CHEROKEE	Vaya	47%	32	43%	16	386
CHOWAN	Trillium	44%	39	32%	49	241
CLAY	Vaya	54%	18	46%	10	135
CLEVELAND	Partners	41%	51	38%	29	1,656
COLUMBUS	Eastpointe	35%	70	28%	64	1,268
CRAVEN	Trillium	39%	57	46%	9	1,098
CUMBERLAND	Alliance	23%	91	26%	67	5,593
CURRITUCK	Trillium	25%	87	21%	86	357
DARE	Trillium	43%	46	41%	24	399
DAVIDSON	Cardinal	43%	43	33%	44	2,435
DAVIE	Cardinal	40%	53	24%	73	610
DUPLIN	Eastpointe	18%	96	12%	100	1,604
DURHAM	Alliance	48%	29	29%	61	4,509
EDGECOMBE	Eastpointe	38%	62	35%	37	1,088
FORSYTH	Cardinal	35%	68	30%	60	5,668
FRANKLIN	Cardinal	35%	71	22%	82	1,160
GASTON	Partners	56%	13	50%	3	2,608
GATES	Trillium	12%	100	17%	97	187
GRAHAM	Vaya	39%	60	31%	57	170
GRANVILLE	Cardinal	48%	31	32%	50	779
GREENE	Eastpointe	33%	75	21%	85	471
GUILFORD	Sandhills	39%	56	30%	59	8,131
HALIFAX	Cardinal	30%	78	29%	63	1,142
HARNETT	Sandhills	30%	79	18%	91	2,377
HAYWOOD	Vaya	63%	4	58%	1	572
HENDERSON	Vaya	34%	72	25%	71	1,623
HERTFORD	Trillium	22%	92	21%	87	531
HOKE	Sandhills	43%	44	24%	75	1,133
HYDE	Trillium	28%	83	21%	83	118
IREDELL	Partners	44%	38	33%	47	2,198
JACKSON	Vaya	43%	41	26%	68	824
JOHNSTON	Alliance	35%	69	23%	78	3,353
JONES	Trillium	20%	94	24%	74	205
LEE	Sandhills	43%	42	29%	62	1,055
LENOIR	Eastpointe	55%	16	45%	13	938
LINCOLN	Partners	56%	11	37%	31	1,137
MACON	Vaya	37%	63	33%	46	569
MADISON	Vaya	37%	64	34%	42	345
MARTIN	Trillium	31%	77	31%	54	412
MCDOWELL	Vaya	59%	5	49%	4	558
MECKLENBURG	Cardinal	26%	86	23%	77	16,872
MITCHELL	Vaya	52%	21	31%	55	253
MONTGOMERY	Sandhills	49%	25	31%	52	522
MOORE	Sandhills	59%	6	43%	15	962
NASH	Eastpointe	27%	84	23%	76	1,802
NEW HANOVER	Trillium	46%	36	45%	14	2,451
NORTHAMPTON	Trillium	13%	99	13%	99	521
ONSLOW	Trillium	20%	93	21%	88	2,891
ORANGE	Cardinal	66%	3	41%	20	1,269
PAMLICO	Trillium	58%	8	53%	2	132
PASQUOTANK	Trillium	24%	89	19%	89	752
PENDER	Trillium	29%	80	26%	69	1,049
PERQUIMANS	Trillium	18%	95	17%	94	241
PERSON	Cardinal	49%	28	41%	23	515
PITT	Trillium	36%	67	34%	41	2,709
POLK	Vaya	23%	90	18%	93	320
RANDOLPH	Sandhills	53%	19	35%	35	2,338
RICHMOND	Sandhills	57%	9	46%	12	791
ROBESON	Eastpointe	66%	2	39%	26	3,092
ROCKINGHAM	Cardinal	38%	61	32%	48	1,511
ROWAN	Cardinal	57%	10	42%	19	1,968
RUTHERFORD	Vaya	39%	55	34%	39	1,111
SAMPSON	Eastpointe	16%	98	16%	98	1,596
SCOTLAND	Eastpointe	54%	17	39%	27	701
STANLY	Cardinal	43%	45	46%	11	719
STOKES	Cardinal	42%	48	31%	53	692
SURRY	Partners	45%	37	38%	28	1,047
SWAIN	Vaya	34%	73	30%	58	301
TRANSYLVANIA	Vaya	52%	20	33%	43	536
TYRRELL	Trillium	28%	82	23%	80	74
UNION	Cardinal	32%	76	18%	92	4,223
VANCE	Cardinal	46%	35	42%	18	769
WAKE	Alliance	27%	85	17%	96	16,391
WARREN	Cardinal	24%	88	26%	66	356
WASHINGTON	Trillium	42%	47	33%	45	256
WATAUGA	Vaya	46%	34	21%	84	858
WAYNE	Eastpointe	39%	58	40%	25	1,760
WILKES	Vaya	72%	1	48%	5	862
WILSON	Eastpointe	56%	12	42%	17	1,326
YADKIN	Partners	48%	30	34%	38	569
YANCEY	Vaya	37%	65	24%	72	327
Grand Total		**40%**		**31%**		**158,024**

Notes: Totals are inclusive of Medicaid.

"Medicaid: % of Prevalence Receiving Services" = Unduplicated Persons with at least one BH Medicaid service / (Prevalence Rate X Medicaid Enrollees) "Total: % of Prevalence Receiving Services" = Unduplicated Persons with at least one BH Medicaid or State service / (Prevalence Rate X Population*)

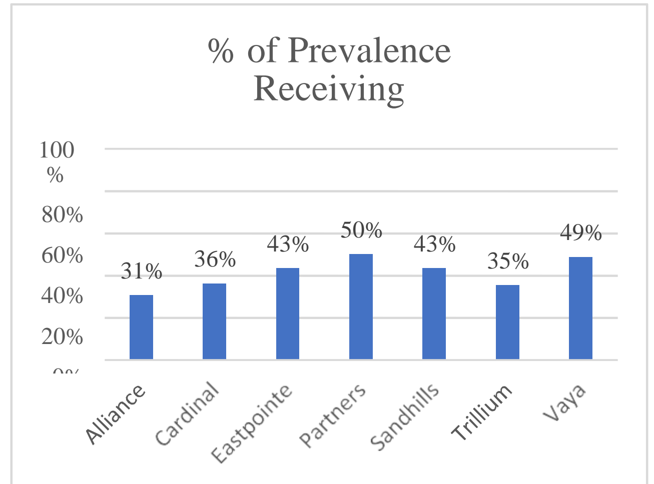
"Estimated Persons in Need Without Services" = (Prevalence Rate X Population*) - Unduplicated Persons with at least one Behavioral Health service

* "Population" includes Medicaid Enrollees and an estimate of Uninsured

Penetration Relative to Prevalence by LME-MCO

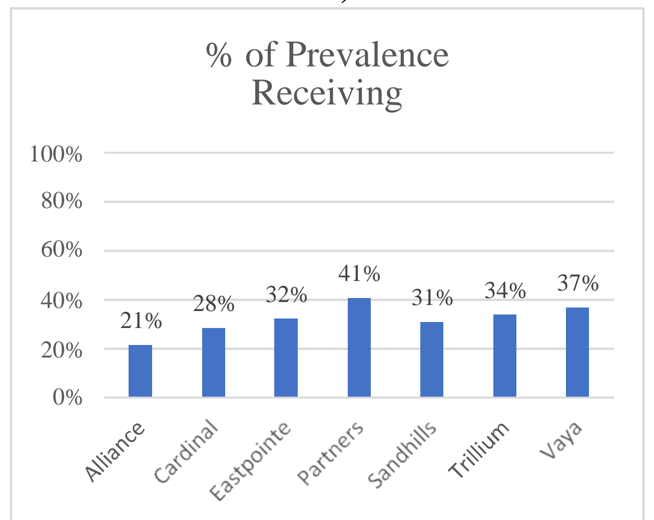
Adult Substance Use Disorders - Medicaid (MCO and FFS)

LME-MCO	Medicaid Unduplicated Persons Served	Estimated Prevalence Medicaid	% of Prevalence Receiving Services
Alliance	4,346	14,220	31%
Cardinal	10,166	28,076	36%
Eastpointe	5,493	12,705	43%
Partners	5,109	10,225	50%
Sandhills	5,050	11,661	43%
Trillium	4,637	13,130	35%
Vaya	5,609	11,517	49%
Grand Total	**40,410**	**101,535**	**40%**



Adult Substance Use Disorders - Total (Medicaid and State/BG Funded)

LME-MCO	Unduplicated Persons Served Across Funding Streams	Total Estimated Prevalence	% of Prevalence Receiving Services
Alliance	8,093	37,939	21%
Cardinal	18,605	65,881	28%
Eastpointe	7,796	24,282	32%
Partners	8,630	21,296	41%
Sandhills	7,929	25,706	31%
Trillium	9,277	27,452	34%
Vaya	9,160	24,958	37%
Grand Total	**69,490**	**227,514**	**31%**



Child Mental Health & SUD **Penetration and Prevalence by County** (Rank 1 is highest % in services, 100 is lowest)

County	LME-MCO	Medicaid: % of Prevalence Receiving Services	Medicaid Rank	Total: % of Prevalence Receiving Services	Total Rank	Estimated Persons in Need Without Services
ALAMANCE	Cardinal	59%	85	55%	81	1,869
ALEXANDER	Vaya	80%	30	75%	30	216
ALLEGHANY	Vaya	75%	44	67%	49	95
ANSON	Sandhills	100%	6	95%	6	37
ASHE	Vaya	77%	38	70%	41	179
AVERY	Vaya	67%	64	61%	65	149
BEAUFORT	Trillium	78%	36	73%	35	370
BERTIE	Trillium	58%	86	55%	78	256
BLADEN	Eastpointe	51%	94	48%	95	548
BRUNSWICK	Trillium	87%	18	81%	18	514
BUNCOMBE	Vaya	94%	8	88%	8	616
BURKE	Partners	82%	26	77%	23	526
CABARRUS	Cardinal	60%	79	55%	79	2,213
CALDWELL	Vaya	93%	11	87%	11	284
CAMDEN	Trillium	85%	21	76%	28	37
CARTERET	Trillium	105%	5	97%	4	45
CASWELL	Cardinal	60%	78	56%	75	268
CATAWBA	Partners	77%	40	72%	39	1,139
CHATHAM	Cardinal	62%	71	52%	90	667
CHEROKEE	Vaya	93%	9	87%	10	88
CHOWAN	Trillium	74%	46	69%	45	121
CLAY	Vaya	82%	25	74%	32	66
CLEVELAND	Partners	87%	17	83%	13	519
COLUMBUS	Eastpointe	80%	32	75%	31	489
CRAVEN	Trillium	82%	27	76%	25	548
CUMBERLAND	Alliance	75%	43	71%	40	2,712
CURRITUCK	Trillium	72%	50	68%	48	135
DARE	Trillium	67%	65	61%	64	274
DAVIDSON	Cardinal	70%	54	65%	56	1,478
DAVIE	Cardinal	77%	39	69%	44	285
DUPLIN	Eastpointe	49%	97	46%	98	1,095
DURHAM	Alliance	61%	73	59%	68	2,930
EDGECOMBE	Eastpointe	56%	91	54%	83	967
FORSYTH	Cardinal	55%	93	52%	92	4,727
FRANKLIN	Cardinal	61%	74	56%	76	751
GASTON	Partners	88%	16	82%	16	1,028
GATES	Trillium	50%	95	48%	94	127
GRAHAM	Vaya	64%	67	60%	67	112
GRANVILLE	Cardinal	64%	68	59%	69	541
GREENE	Eastpointe	50%	96	46%	99	376
GUILFORD	Sandhills	57%	88	53%	88	6,338
HALIFAX	Cardinal	62%	72	58%	70	671
HARNETT	Sandhills	67%	62	63%	61	1,252
HAYWOOD	Vaya	106%	4	100%	3	(5)
HENDERSON	Vaya	73%	48	66%	52	793
HERTFORD	Trillium	49%	99	47%	96	372
HOKE	Sandhills	59%	80	55%	82	826
HYDE	Trillium	55%	92	50%	93	67
IREDELL	Partners	69%	58	63%	60	1,324
JACKSON	Vaya	82%	28	76%	26	224

County	LME-MCO	Medicaid: % of Prevalence Receiving Services	Medicaid Rank	Total: % of Prevalence Receiving Services	Total Rank	Estimated Persons in Need Without Services
JOHNSTON	Alliance	67%	61	63%	62	1,956
JONES	Trillium	91%	12	82%	15	48
LEE	Sandhills	57%	87	53%	89	912
LENOIR	Eastpointe	80%	31	76%	27	469
LINCOLN	Partners	88%	15	81%	17	325
MACON	Vaya	90%	14	83%	14	155
MADISON	Vaya	72%	52	67%	51	162
MARTIN	Trillium	79%	33	74%	33	174
MCDOWELL	Vaya	76%	42	72%	38	342
MECKLENBURG	Cardinal	49%	98	46%	97	13,693
MITCHELL	Vaya	63%	70	58%	71	147
MONTGOMERY	Sandhills	61%	75	57%	73	377
MOORE	Sandhills	78%	35	70%	42	551
NASH	Eastpointe	56%	89	53%	87	1,290
NEW HANOVER	Trillium	95%	7	89%	7	441
NORTHAMPTON	Trillium	69%	59	66%	53	207
ONSLOW	Trillium	78%	37	72%	37	1,111
ORANGE	Cardinal	72%	51	63%	59	714
PAMLICO	Trillium	116%	2	106%	2	(18)
PASQUOTANK	Trillium	72%	53	67%	50	351
PENDER	Trillium	73%	47	68%	47	464
PERQUIMANS	Trillium	70%	55	65%	55	110
PERSON	Cardinal	83%	23	79%	22	203
PITT	Trillium	77%	41	72%	36	1,210
POLK	Vaya	120%	1	107%	1	(27)
RANDOLPH	Sandhills	68%	60	63%	58	1,526
RICHMOND	Sandhills	90%	13	86%	12	232
ROBESON	Eastpointe	64%	69	61%	66	2,194
ROCKINGHAM	Cardinal	78%	34	73%	34	654
ROWAN	Cardinal	75%	45	70%	43	1,180
RUTHERFORD	Vaya	93%	10	88%	9	219
SAMPSON	Eastpointe	59%	84	54%	86	1,072
SCOTLAND	Eastpointe	83%	22	79%	21	278
STANLY	Cardinal	86%	20	80%	20	292
STOKES	Cardinal	87%	19	80%	19	194
SURRY	Partners	70%	56	66%	54	670
SWAIN	Vaya	66%	66	62%	63	191
TRANSYLVANIA	Vaya	107%	3	96%	5	26
TYRRELL	Trillium	61%	76	57%	74	43
UNION	Cardinal	67%	63	54%	85	2,265
VANCE	Cardinal	59%	81	56%	77	793
WAKE	Alliance	59%	82	54%	84	8,196
WARREN	Cardinal	61%	77	58%	72	233
WASHINGTON	Trillium	43%	100	39%	100	248
WATAUGA	Vaya	82%	24	77%	24	130
WAYNE	Eastpointe	73%	49	68%	46	1,244
WILKES	Vaya	80%	29	75%	29	441
WILSON	Eastpointe	59%	83	55%	80	1,188
YADKIN	Partners	69%	57	64%	57	350
YANCEY	Vaya	56%	90	52%	91	213
Grand Total		**68%**		**64%**		**90,693**

Notes: Totals are inclusive of Medicaid.

"Medicaid: % of Prevalence Receiving Services" = Unduplicated Persons with at least one BH Medicaid service / (Prevalence Rate X Medicaid Enrollees) "Total: % of Prevalence Receiving Services" = Unduplicated Persons with at least one BH Medicaid or State service / (Prevalence Rate X Population*)

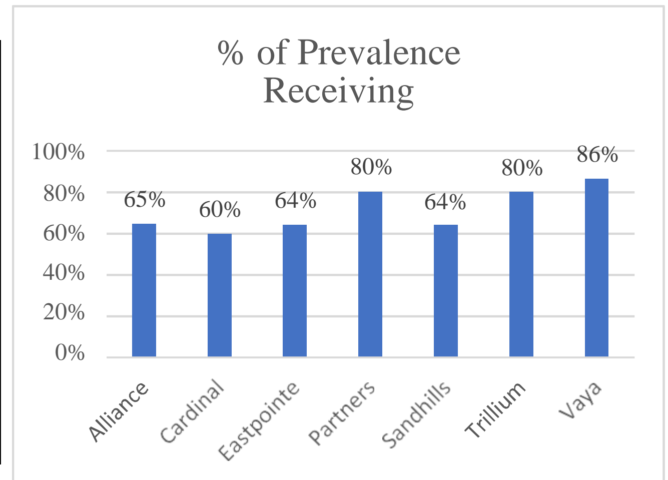
"Estimated Persons in Need Without Services" = (Prevalence Rate X Population*) - Unduplicated Persons with at least one Behavioral Health service

* "Population" includes Medicaid Enrollees and an estimate of Uninsured

Penetration Relative to Prevalence by LME-MCO

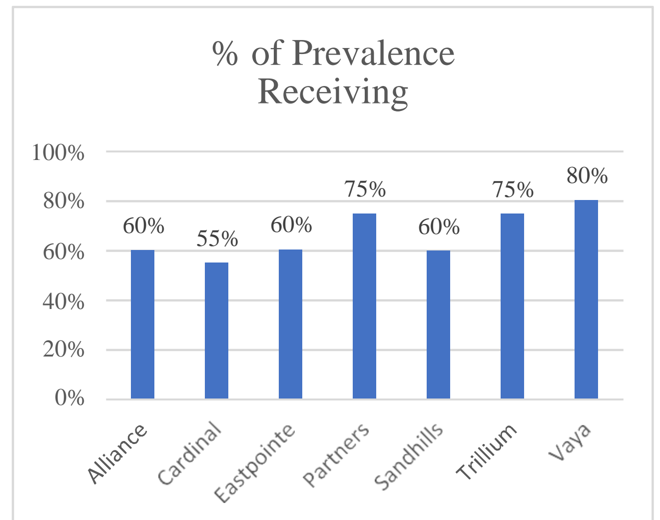
Child Mental Health and Substance Use Disorders - Medicaid (MCO and FFS)

LME-MCO	Medicaid Unduplicated Persons Served	Estimated Medicaid Prevalence	% of Prevalence Receiving Services
Alliance	23,183	35,910	65%
Cardinal	40,793	68,341	60%
Eastpointe	16,912	26,382	64%
Partners	17,385	21,687	80%
Sandhills	17,684	27,612	64%
Trillium	21,133	26,443	80%
Vaya	19,504	22,553	86%
Grand Total	**156,594**	**228,929**	**68%**



Child Mental Health and Substance Use Disorders - Total (Medicaid and State/BG Funded)

LME-MCO	Unduplicated Persons Served Across Funding Streams	Total Estimated Prevalence	% of Prevalence Receiving Services
Alliance	23,771	39,564	60%
Cardinal	41,223	74,913	55%
Eastpointe	17,086	28,294	60%
Partners	17,533	23,414	75%
Sandhills	17,894	29,944	60%
Trillium	21,460	28,714	75%
Vaya	19,738	24,554	80%
Grand Total	**158,705**	**249,398**	**64%**



Adult I/DD

Penetration and Prevalence by County

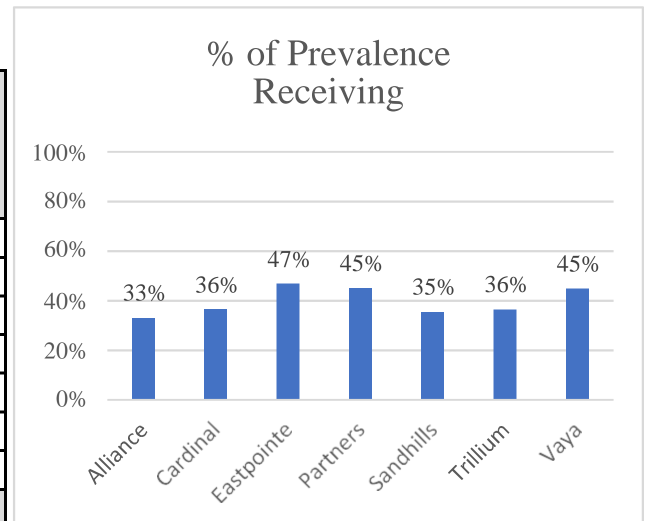
(Rank 1 is highest % in services, 100 is lowest)

County	LME-MCO	# of Persons on Waiting List for Innovations Medicaid	% of Prevalence Receiving Services	Rank	Estimated Persons in Need Without Services
ALAMANCE	Cardinal	70	40%	52	591
ALEXANDER	Vaya	13	27%	94	176
ALLEGHANY	Vaya	3	71%	3	22
ANSON	Sandhills	12	45%	33	90
ASHE	Vaya	20	58%	15	74
AVERY	Vaya	4	42%	45	69
BEAUFORT	Trillium	14	48%	28	155
BERTIE	Trillium	2	46%	30	70
BLADEN	Eastpointe	8	43%	41	123
BRUNSWICK	Trillium	58	30%	89	593
BUNCOMBE	Vaya	201	44%	38	940
BURKE	Partners	76	54%	19	262
CABARRUS	Cardinal	64	34%	78	806
CALDWELL	Vaya	42	42%	43	302
CAMDEN	Trillium	5	25%	98	48
CARTERET	Trillium	19	31%	86	317
CASWELL	Cardinal	5	46%	31	82
CATAWBA	Partners	70	38%	68	599
CHATHAM	Cardinal	36	32%	84	326
CHEROKEE	Vaya	31	59%	14	75
CHOWAN	Trillium	7	64%	7	32
CLAY	Vaya	14	36%	75	47
CLEVELAND	Partners	95	72%	2	169
COLUMBUS	Eastpointe	52	54%	18	163
CRAVEN	Trillium	44	44%	40	341
CUMBERLAND	Alliance	198	39%	59	1,154
CURRITUCK	Trillium	4	31%	88	116
DARE	Trillium	7	21%	100	186
DAVIDSON	Cardinal	65	33%	80	688
DAVIE	Cardinal	46	40%	55	160
DUPLIN	Eastpointe	3	40%	58	217
DURHAM	Alliance	224	41%	47	1,088
EDGECOMBE	Eastpointe	30	56%	17	145
FORSYTH	Cardinal	533	41%	50	1,333
FRANKLIN	Cardinal	8	27%	95	296
GASTON	Partners	152	50%	24	660
GATES	Trillium	0	46%	32	40
GRAHAM	Vaya	8	53%	20	25
GRANVILLE	Cardinal	18	36%	74	240
GREENE	Eastpointe	7	40%	57	79
GUILFORD	Sandhills	496	38%	64	1,996
HALIFAX	Cardinal	37	61%	12	123
HARNETT	Sandhills	28	26%	96	553
HAYWOOD	Vaya	65	50%	25	199
HENDERSON	Vaya	89	37%	70	460
HERTFORD	Trillium	3	38%	69	97
HOKE	Sandhills	23	32%	82	200
HYDE	Trillium	0	40%	51	22
IREDELL	Partners	111	29%	90	763
JACKSON	Vaya	26	31%	85	189
JOHNSTON	Alliance	103	31%	87	791
JONES	Trillium	4	61%	13	26
LEE	Sandhills	29	39%	60	213
LENOIR	Eastpointe	65	69%	5	110
LINCOLN	Partners	43	39%	62	321
MACON	Vaya	23	36%	73	146
MADISON	Vaya	28	63%	9	52
MARTIN	Trillium	13	40%	54	89
MCDOWELL	Vaya	46	67%	6	95
MECKLENBURG	Cardinal	616	32%	83	4,414
MITCHELL	Vaya	23	64%	8	36
MONTGOMERY	Sandhills	4	34%	77	114
MOORE	Sandhills	81	33%	81	409
NASH	Eastpointe	28	38%	67	364
NEW HANOVER	Trillium	169	40%	56	872
NORTHAMPTON	Trillium	1	42%	44	78
ONSLOW	Trillium	43	25%	99	835
ORANGE	Cardinal	121	40%	53	549
PAMLICO	Trillium	1	36%	71	56
PASQUOTANK	Trillium	15	45%	34	134
PENDER	Trillium	34	34%	76	249
PERQUIMANS	Trillium	3	49%	27	45
PERSON	Cardinal	44	71%	4	73
PITT	Trillium	76	36%	72	698
POLK	Vaya	17	52%	22	67
RANDOLPH	Sandhills	54	29%	91	622
RICHMOND	Sandhills	32	42%	42	159
ROBESON	Eastpointe	91	41%	49	465
ROCKINGHAM	Cardinal	86	39%	61	352
ROWAN	Cardinal	50	38%	65	539
RUTHERFORD	Vaya	68	52%	21	202
SAMPSON	Eastpointe	5	41%	48	224
SCOTLAND	Eastpointe	7	45%	35	118
STANLY	Cardinal	31	44%	36	213
STOKES	Cardinal	51	38%	63	185
SURRY	Partners	33	44%	39	258
SWAIN	Vaya	8	34%	79	61
TRANSYLVANIA	Vaya	27	38%	66	141
TYRRELL	Trillium	0	44%	37	15
UNION	Cardinal	82	29%	92	948
VANCE	Cardinal	38	63%	10	100
WAKE	Alliance	817	29%	93	4,468
WARREN	Cardinal	8	57%	16	57
WASHINGTON	Trillium	1	81%	1	15
WATAUGA	Vaya	10	26%	97	280
WAYNE	Eastpointe	64	50%	26	376
WILKES	Vaya	29	51%	23	213
WILSON	Eastpointe	54	48%	29	263
YADKIN	Partners	20	42%	46	136
YANCEY	Vaya	26	62%	11	44
Grand Total		**6,468**	**38%**		**38,791**

"% of Prevalence Receiving Services" = Unduplicated Persons with at least one Medicaid or State service for I/DD / (Prevalence Rate X Population)
"# in Need Without Svcs" = (Prevalence Rate X Population) - Unduplicated Persons with at least one service

Adult Intellectual/Developmental Disorders - Total (Medicaid and State/BG Funded)

LME-MCO	Unduplicated Persons Served Across Funding Streams	Estimated Prevalence in Population	% of Prevalence Receiving Services
Alliance	3,701	11,202	33%
Cardinal	6,929	19,005	36%
Eastpointe	2,323	4,970	47%
Partners	2,583	5,750	45%
Sandhills	2,374	6,730	35%
Trillium	2,928	8,058	36%
Vaya	3,172	7,086	45%
Grand Total	**24,010**	**62,801**	**38%**



Child I/DD

Penetration and Prevalence by County

(Rank 1 is highest % in services, 100 is lowest)

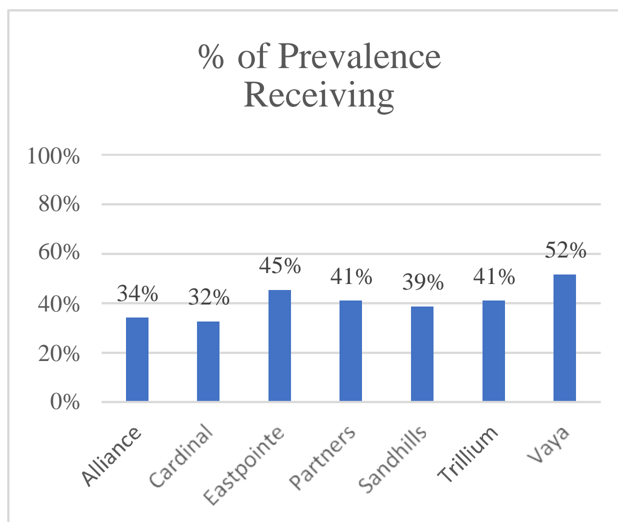
County	LME-MCO	# of Persons on Waiting List for Innovations Medicaid	% of Prevalence Receiving Services	Rank	Estimated Persons in Need Without Services
ALAMANCE	Cardinal	49	43%	43	561
ALEXANDER	Vaya	5	37%	75	137
ALLEGHANY	Vaya	2	97%	1	2
ANSON	Sandhills	9	44%	42	84
ASHE	Vaya	13	39%	63	85
AVERY	Vaya	8	48%	31	40
BEAUFORT	Trillium	10	56%	13	122
BERTIE	Trillium	0	31%	89	75
BLADEN	Eastpointe	23	40%	56	122
BRUNSWICK	Trillium	30	36%	79	396
BUNCOMBE	Vaya	181	52%	19	664
BURKE	Partners	42	45%	36	280
CABARRUS	Cardinal	68	39%	65	881
CALDWELL	Vaya	33	55%	14	209
CAMDEN	Trillium	3	47%	32	31
CARTERET	Trillium	18	62%	6	132
CASWELL	Cardinal	3	35%	81	79
CATAWBA	Partners	43	39%	62	587
CHATHAM	Cardinal	17	36%	78	256
CHEROKEE	Vaya	11	61%	7	53
CHOWAN	Trillium	2	48%	29	43
CLAY	Vaya	4	63%	4	20
CLEVELAND	Partners	48	49%	27	301
COLUMBUS	Eastpointe	30	42%	48	198
CRAVEN	Trillium	32	37%	74	457
CUMBERLAND	Alliance	194	41%	51	1,377
CURRITUCK	Trillium	4	26%	97	115
DARE	Trillium	4	42%	46	112
DAVIDSON	Cardinal	26	36%	77	647
DAVIE	Cardinal	26	40%	57	144
DUPLIN	Eastpointe	5	38%	68	249
DURHAM	Alliance	194	38%	67	1,210
EDGECOMBE	Eastpointe	30	45%	37	194
FORSYTH	Cardinal	309	33%	85	1,633
FRANKLIN	Cardinal	8	40%	60	245
GASTON	Partners	137	46%	35	744
GATES	Trillium	2	21%	100	50
GRAHAM	Vaya	4	51%	24	25
GRANVILLE	Cardinal	6	33%	84	221
GREENE	Eastpointe	4	24%	99	96
GUILFORD	Sandhills	425	34%	82	2,123
HALIFAX	Cardinal	11	44%	40	174
HARNETT	Sandhills	32	36%	76	624
HAYWOOD	Vaya	35	68%	2	98
HENDERSON	Vaya	45	39%	64	375
HERTFORD	Trillium	0	41%	55	80
HOKE	Sandhills	28	41%	53	269
HYDE	Trillium	0	29%	91	20
IREDELL	Partners	57	35%	80	717
JACKSON	Vaya	17	54%	17	93

County	LME-MCO	# of Persons on Waiting List for Innovations Medicaid	% of Prevalence Receiving Services	Rank	Estimated Persons in Need Without Services
JOHNSTON	Alliance	136	44%	41	768
JONES	Trillium	1	49%	28	29
LEE	Sandhills	20	54%	18	190
LENOIR	Eastpointe	40	57%	11	154
LINCOLN	Partners	41	38%	70	304
MACON	Vaya	14	52%	21	87
MADISON	Vaya	13	61%	8	43
MARTIN	Trillium	7	55%	15	61
MCDOWELL	Vaya	22	51%	25	126
MECKLENBURG	Cardinal	453	25%	98	5,305
MITCHELL	Vaya	7	62%	5	29
MONTGOMERY	Sandhills	7	37%	73	109
MOORE	Sandhills	55	47%	33	294
NASH	Eastpointe	44	42%	47	325
NEW HANOVER	Trillium	108	40%	58	707
NORTHAMPTON	Trillium	3	31%	88	76
ONSLOW	Trillium	44	34%	83	1,035
ORANGE	Cardinal	97	29%	90	534
PAMLICO	Trillium	2	38%	69	36
PASQUOTANK	Trillium	6	41%	54	150
PENDER	Trillium	18	29%	92	248
PERQUIMANS	Trillium	2	43%	45	42
PERSON	Cardinal	15	42%	50	137
PITT	Trillium	76	55%	16	489
POLK	Vaya	5	48%	30	50
RANDOLPH	Sandhills	50	38%	71	557
RICHMOND	Sandhills	30	61%	9	113
ROBESON	Eastpointe	46	52%	20	431
ROCKINGHAM	Cardinal	40	40%	59	315
ROWAN	Cardinal	25	46%	34	483
RUTHERFORD	Vaya	36	63%	3	143
SAMPSON	Eastpointe	3	32%	86	296
SCOTLAND	Eastpointe	4	52%	23	111
STANLY	Cardinal	19	40%	61	218
STOKES	Cardinal	28	43%	44	139
SURRY	Partners	34	37%	72	270
SWAIN	Vaya	11	41%	52	57
TRANSYLVANIA	Vaya	11	50%	26	79
TYRRELL	Trillium	0	28%	95	16
UNION	Cardinal	74	27%	96	1,200
VANCE	Cardinal	15	44%	39	166
WAKE	Alliance	1100	29%	93	5,046
WARREN	Cardinal	7	61%	10	42
WASHINGTON	Trillium	1	38%	66	46
WATAUGA	Vaya	4	29%	94	140
WAYNE	Eastpointe	52	42%	49	495
WILKES	Vaya	23	52%	22	191
WILSON	Eastpointe	73	57%	12	226
YADKIN	Partners	11	32%	87	148
YANCEY	Vaya	10	44%	38	51
Grand Total		**5,230**	**38%**		**39,752**

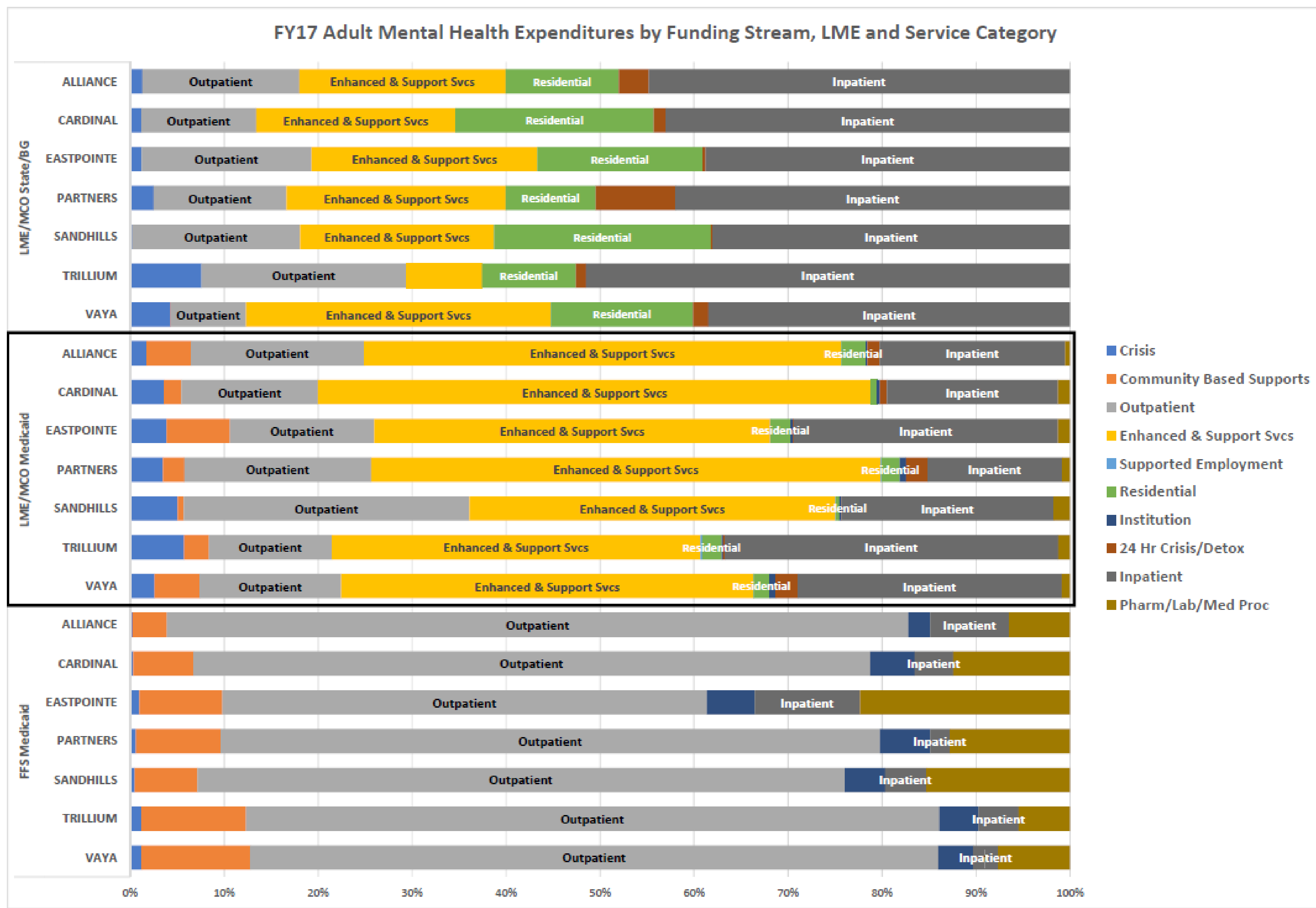
"% of Prevalence Receiving Services" = Unduplicated Persons with at least one Medicaid or State service for I/DD / (Prevalence Rate X Population)
"Persons in Need Without Svcs" = (Prevalence Rate X Population) - Unduplicated Persons with at least one service

Child Intellectual/Developmental Disorders - Total (Medicaid and State/BG Funded)

LME-MCO	Unduplicated Persons Served Across Funding Streams	Estimated Prevalence in Population	% of Prevalence Receiving Services
Alliance	4,346	12,747	34%
Cardinal	6,424	19,802	32%
Eastpointe	2,395	5,291	45%
Partners	2,315	5,667	41%
Sandhills	2,747	7,110	39%
Trillium	3,166	7,733	41%
Vaya	2,971	5,767	52%
Grand Total	**24,364**	**64,116**	**38%**



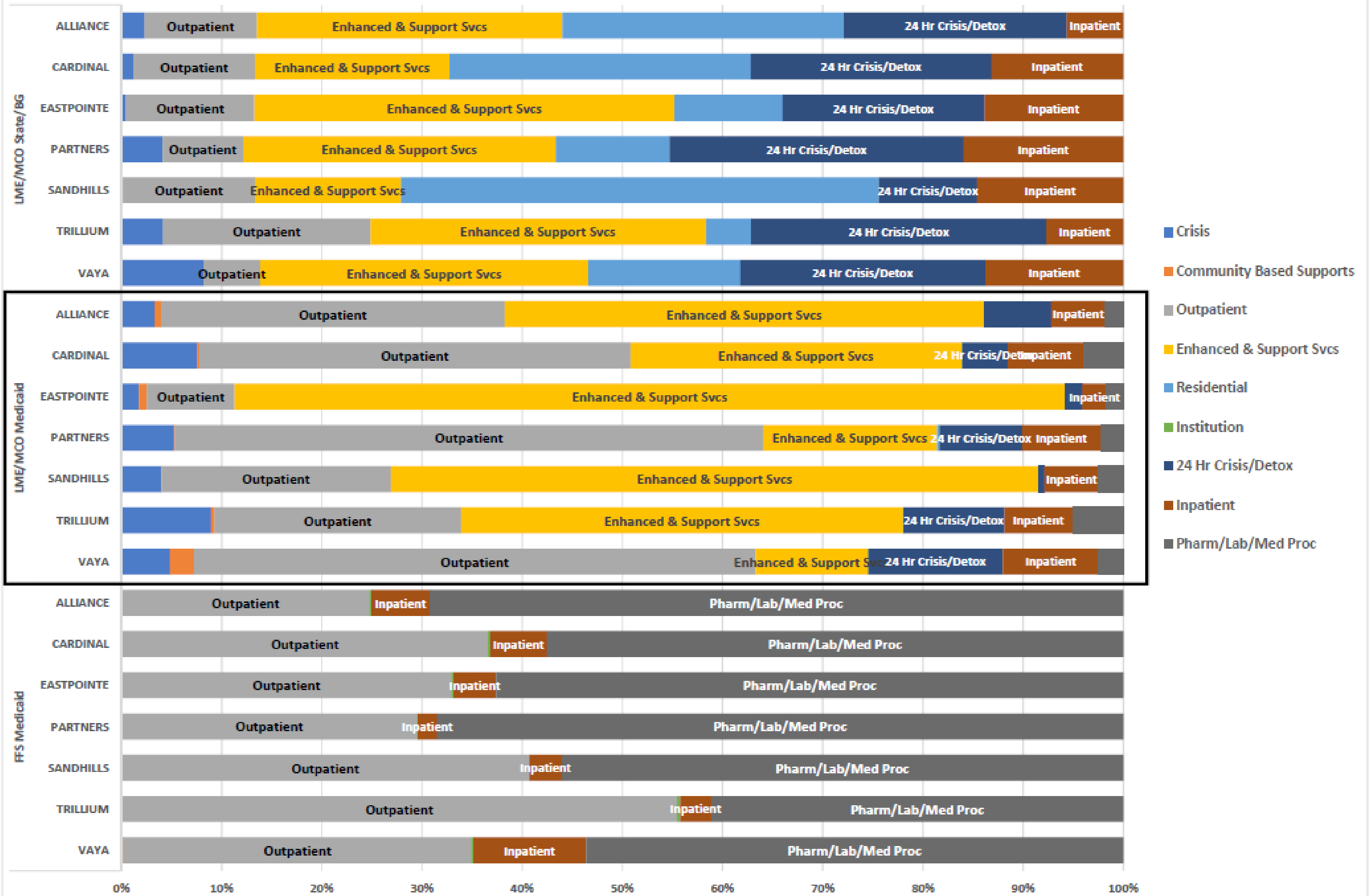
Expenditures by Service Categories



Adult Mental Health Expenditures by Funding Stream, LME/MCO, and Service Category

Svc Value Service Category

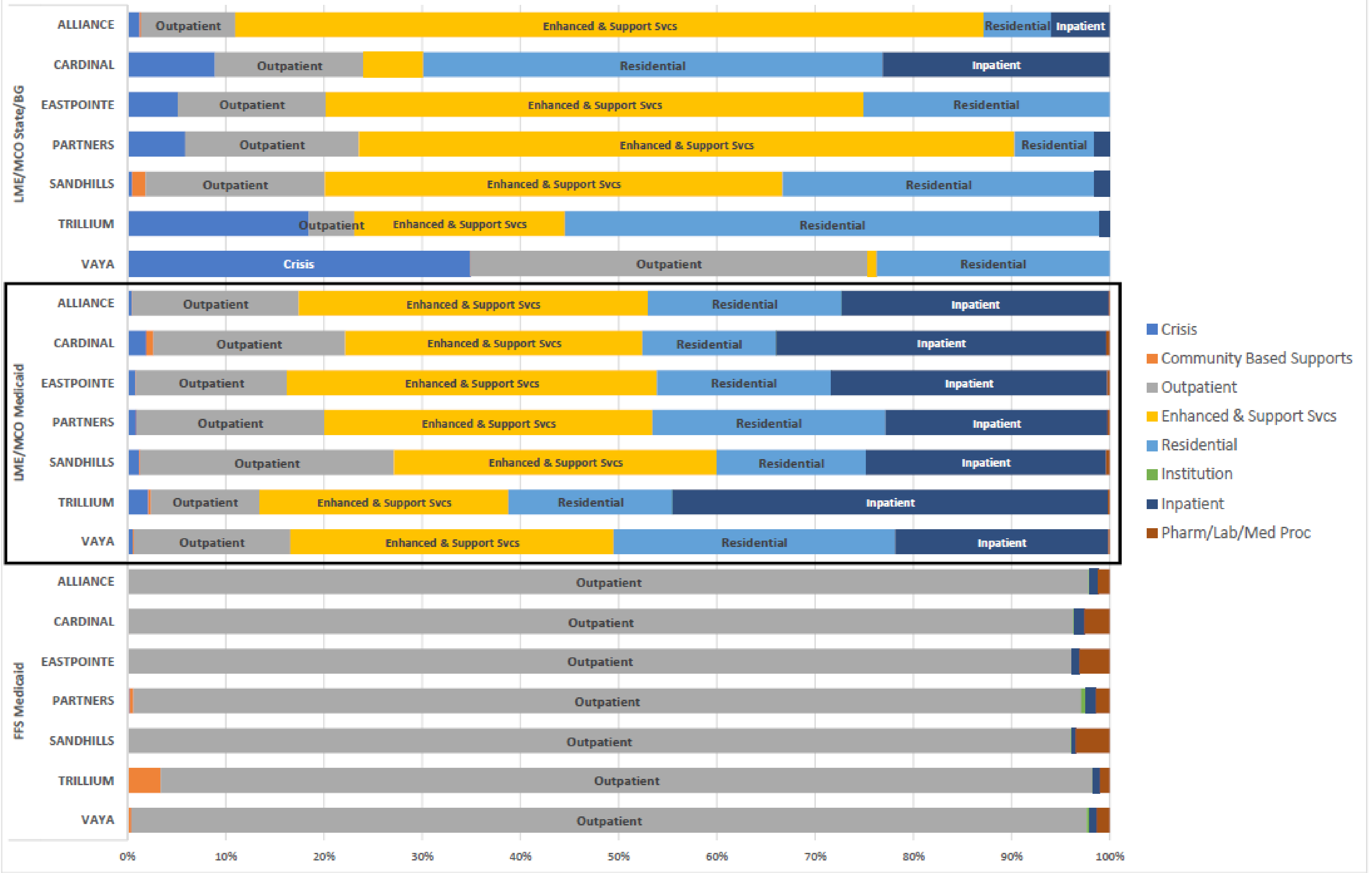
Funding Stream	LME/MCO	Crisis	Community Based Supports	Outpatient	Enhanced and Support Services	Supported Employment	Residential	Institution	24 Hour Crisis/Detox	Inpatient	Pharm/Lab/Med Proc	Grand Total
FFS Medicaid	VAYA	$11,526	$107,858	$683,804				$34,560		$24,639	$71,559	$933,946
	TRILLIUM	$11,381	$101,640	$676,814				$38,542		$39,151	$50,027	$917,554
	SANDHILLS	$4,388	$60,489	$621,727				$38,892		$39,694	$138,227	$903,417
	PARTNERS	$6,647	$98,808	$768,403				$58,649		$22,874	$140,115	$1,095,495
	EASTPOINTE	$6,916	$62,170	$362,379				$35,954		$78,490	$157,448	$703,357
	CARDINAL	$8,673	$169,066	$1,905,476				$125,260		$107,324	$329,905	$2,645,704
	ALLIANCE	$3,424	$42,483	$924,277				$27,398		$98,273	$75,831	$1,171,687
FFS Medicaid Total		**$52,955**	**$642,514**	**$5,942,879**				**$359,254**		**$410,444**	**$963,113**	**$8,371,159**
LME/MCO Medicaid	VAYA	$1,008,103	$1,834,054	$5,797,863	$16,890,369	$4,292	$649,385	$243,187	$907,666	$10,828,070	$330,110	$38,493,098
	TRILLIUM	$2,304,150	$1,046,937	$5,228,697	$15,687,985	$70,770	$827,223	$68,770	$69,738	$14,198,511	$495,407	$39,998,187
	SANDHILLS	$1,121,963	$147,275	$6,717,026	$8,623,863	$12,979	$82,596	$46,664	$5,671	$4,998,905	$381,858	$22,138,800
	PARTNERS	$970,266	$643,209	$5,505,198	$15,069,577	$19,012	$537,287	$185,559	$637,844	$3,983,528	$230,633	$27,782,113
	EASTPOINTE	$951,816	$1,663,298	$3,787,244	$10,377,782	$12,129	$516,381	$64,449	$30,763	$6,923,240	$318,714	$24,645,816
	CARDINAL	$3,124,111	$1,652,690	$12,679,695	$51,416,605	$971	$490,382	$274,727	$680,461	$15,876,893	$1,123,068	$87,319,602
	ALLIANCE	$835,660	$2,294,292	$8,877,758	$24,501,623	$24,981	$1,255,555	$78,700	$636,897	$9,524,298	$254,532	$48,284,297
LME/MCO Medicaid Total		**$10,316,068**	**$9,281,756**	**$48,593,481**	**$142,567,802**	**$145,134**	**$4,358,810**	**$962,055**	**$2,969,040**	**$66,333,444**	**$3,134,323**	**$288,661,913**
LME/MCO State/BG	VAYA	$485,629	$4,699	$897,877	$3,657,871	$168	$1,700,629		$185,140	$4,336,492		$11,268,505
	TRILLIUM	$757,638		$2,184,907	$801,219		$999,248		$110,253	$5,150,277		$10,003,543
	SANDHILLS	$20,862		$1,658,784	$1,919,214		$2,144,270		$14,975	$3,537,306		$9,295,410
	PARTNERS	$331,674		$1,872,623	$3,092,052		$1,266,897		$1,119,513	$5,564,828		$13,247,586
	EASTPOINTE	$103,418		$1,498,051	$1,996,517		$1,459,577		$28,778	$3,219,392		$8,305,734
	CARDINAL	$260,539		$2,608,015	$4,537,044		$4,522,255		$264,710	$9,212,143		$21,404,707
	ALLIANCE	$271,789		$3,426,673	$4,512,934		$2,473,477		$654,374	$9,214,328		$20,553,575
LME/MCO State/BG Total		**$2,231,547**	**$4,699**	**$14,146,930**	**$20,516,851**	**$168**	**$14,566,354**		**$2,377,744**	**$40,234,766**		**$94,079,059**
Grand Total		$12,600,570	$9,928,969	$68,683,290	$163,084,654	$145,302	$18,925,164	$1,321,309	$5,346,784	$106,978,654	$4,097,436	$391,112,132


FY17 Adult SUD Expenditures by Funding Stream, LME/MCO, and Service Category
LME/MCO State/BG
LME/MCO Medicaid
FFS Medicaid
ALLIANCE
CARDINAL
EASTPOINTE
PARTNERS
SANDHILLS
TRILLIUM
VAYA
Outpatient
Enhanced & Support Svcs
24 Hr Crisis/Detox
Inpatient
Pharm/Lab/Med Proc
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Crisis
Community Based Supports
Outpatient
Enhanced & Support Svcs
Residential
Institution
24 Hr Crisis/Detox
Inpatient
Pharm/Lab/Med Proc

Adult Substance Use Disorder Expenditures by Funding Stream, LME/MCO, and Service Category

Svc Value | Service Category

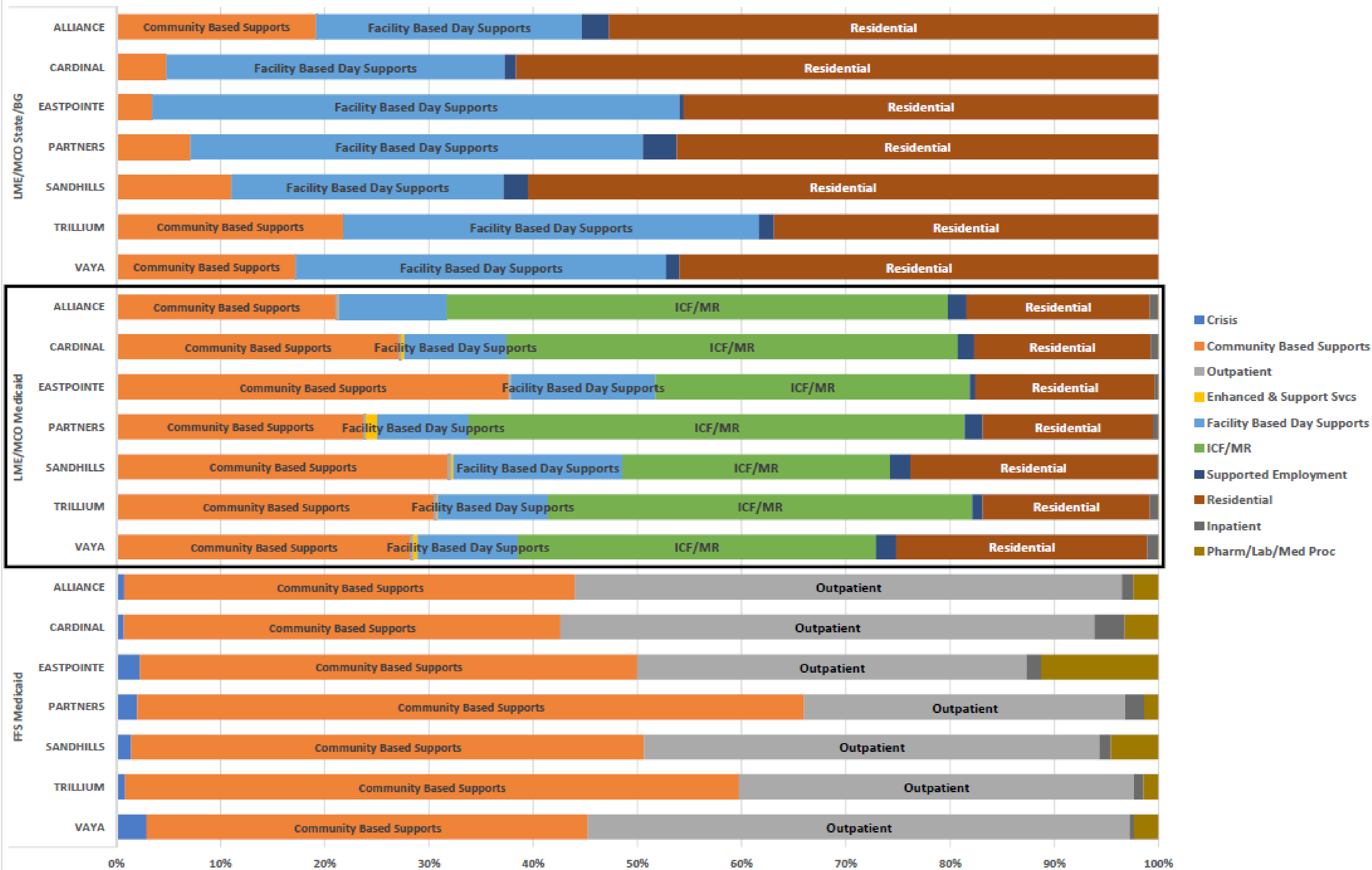
Funding Stream	LME/MCO	Crisis	Community Based Supports	Outpatient	Enhanced And Support Services	Residential	Institution	24 Hour Crisis/Detox	Inpatient	Pharm/Lab/ Med Proc	Grand Total
FFS Medicaid	VAYA	$1,010	$283	$214,077			$949		$69,477	$330,186	$615,981
	TRILLIUM	$236		$812,135			$4,101		$45,968	$601,885	$1,464,325
	SANDHILLS	$545	$150	$557,181			$556		$44,969	$768,244	$1,371,645
	PARTNERS		$184	$603,128			$732		$39,676	$1,398,655	$2,042,375
	EASTPOINTE	$100		$435,014			$2,384		$56,460	$825,792	$1,319,751
	CARDINAL	$93	$2,407	$892,064			$5,333		$139,998	$1,405,778	$2,445,673
	ALLIANCE	$416		$365,519			$2,595		$85,482	$1,021,116	$1,475,128
FFS Medicaid Total		**$2,400**	**$3,023**	**$3,879,118**			**$16,650**		**$482,031**	**$6,351,656**	**$10,734,877**
LME/MCO Medicaid	VAYA	$485,632	$240,723	$5,579,775	$1,121,904		$62	$1,340,160	$954,677	$241,532	$9,964,466
	TRILLIUM	$788,635	$30,131	$2,165,009	$3,878,862		$693	$889,432	$601,993	$442,702	$8,797,457
	SANDHILLS	$485,917	$4,320	$2,794,090	$7,890,013		$742	$73,974	$661,627	$297,700	$12,208,382
	PARTNERS	$457,981	$9,565	$5,109,953	$1,511,420	$23,939	$15	$718,196	$681,867	$196,154	$8,709,091
	EASTPOINTE	$302,213	$143,956	$1,503,420	$14,302,784		$326	$301,794	$421,175	$283,398	$17,259,066
	CARDINAL	$1,284,679	$30,988	$7,247,170	$5,576,065		$1,144	$770,319	$1,286,710	$657,946	$16,855,021
	ALLIANCE	$315,238	$60,395	$3,258,879	$4,543,907		$1,717	$638,928	$511,875	$168,894	$9,499,834
LME/MCO Medicaid Total		**$4,120,296**	**$520,078**	**$27,658,295**	**$38,824,956**	**$23,939**	**$4,699**	**$4,732,803**	**$5,119,924**	**$2,288,326**	**$83,293,317**
LME/MCO State/BG	VAYA	$462,182		$321,229	$1,851,866	$856,389		$1,382,117	$779,297		$5,653,082
	TRILLIUM	$495,096		$2,453,556	$3,968,931	$538,627		$3,491,488	$913,589		$11,861,287
	SANDHILLS	$12,723		$904,883	$1,001,834	$3,283,189		$674,771	$1,004,319		$6,881,720
	PARTNERS	$359,209		$698,002	$2,711,947	$987,634		$2,557,623	$1,382,639		$8,697,055
	EASTPOINTE	$19,277		$512,269	$1,677,375	$430,445		$806,216	$554,413		$3,999,996
	CARDINAL	$193,636		$1,921,208	$3,073,282	$4,759,712		$3,810,125	$2,081,570		$15,839,532
	ALLIANCE	$201,298		$983,489	$2,666,088	$2,456,703		$1,947,927	$493,159		$8,748,664
LME/MCO State/BG Total		**$1,743,422**		**$7,794,637**	**$16,951,324**	**$13,312,699**		**$14,670,267**	**$7,208,985**		**$61,681,335**
Grand Total		$5,866,117	$523,101	$39,332,050	$55,776,281	$13,336,638	$21,348	$19,403,071	$12,810,940	$8,639,982	$155,709,529


Child Mental Health and Substance Use Disorder Expenditures by Funding Stream, LME/MCO, and Service Category
LME/MCO State/BG
LME/MCO Medicaid
FFS Medicaid
ALLIANCE
CARDINAL
EASTPOINTE
PARTNERS
SANDHILLS
TRILLIUM
VAYA
Crisis
Outpatient
Enhanced & Support Svcs
Residential
Inpatient
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Crisis
Community Based Supports
Outpatient
Enhanced & Support Svcs
Residential
Institution
Inpatient
Pharm/Lab/Med Proc

Child MH & Substance Use Disorder Expenditures by Funding Stream, LME/MCO, and Service Category

Svc Value — Service Category

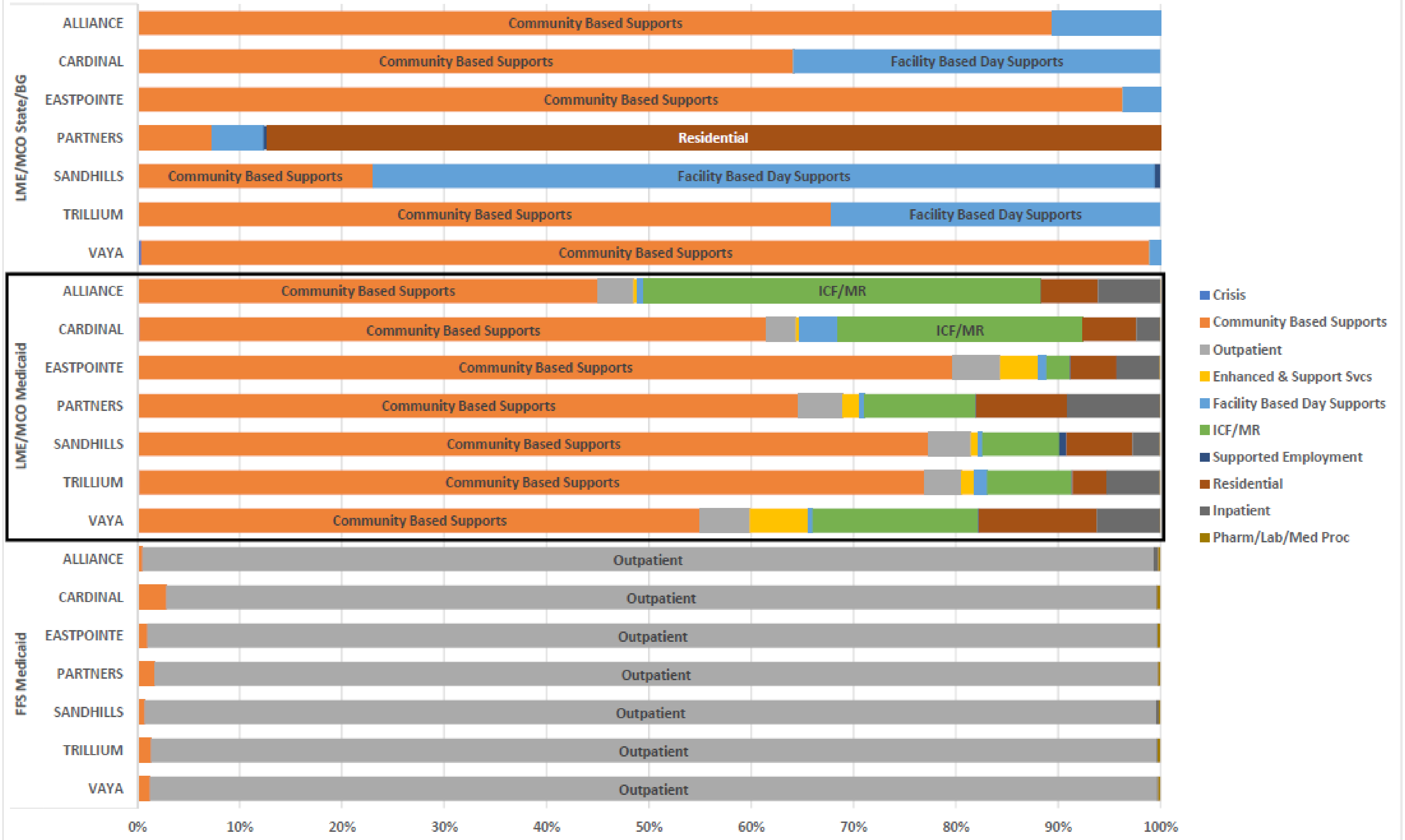
Funding Stream	LME/MCO	Crisis	Community Based Supports	Outpatient	Enhanced and Support Services	Residential	Institution	Inpatient	Pharm/Lab/ Med Proc	Grand Total
FFS Medicaid	VAYA	$800	$5,691	$1,557,258			$2,960	$12,815	$21,103	$1,600,626
	TRILLIUM	$648	$62,176	$1,755,397			$266	$14,071	$17,955	$1,850,512
	SANDHILLS	$967	$300	$1,783,071			$1,792	$7,236	$64,648	$1,858,014
	PARTNERS	$3,218	$5,071	$1,299,015			$6,008	$14,288	$18,657	$1,346,257
	EASTPOINTE	$475	$707	$1,424,021			$574	$10,487	$45,965	$1,482,228
	CARDINAL	$2,978	$2,992	$3,392,080			$6,273	$33,672	$91,369	$3,529,364
	ALLIANCE	$1,187	$2,116	$2,086,739			$447	$19,570	$25,726	$2,135,786
FFS Medicaid Total		**$10,272**	**$79,052**	**$13,297,580**			**$18,321**	**$112,141**	**$285,422**	**$13,802,787**
LME/MCO Medicaid	VAYA	$429,449	$37,597	$11,896,602	$24,526,762	$21,336,468		$16,163,610	$99,064	$74,489,551
	TRILLIUM	$1,695,694	$186,236	$8,715,766	$20,004,323	$13,160,749	$509	$34,920,133	$143,652	$78,827,062
	SANDHILLS	$536,644	$34,294	$11,160,111	$14,222,691	$6,562,702		$10,570,587	$156,069	$43,243,098
	PARTNERS	$442,320	$12,416	$9,402,043	$16,408,970	$11,645,128		$11,104,343	$103,254	$49,118,475
	EASTPOINTE	$402,587	$4,664	$7,261,556	$17,742,781	$8,352,110	$102	$13,248,359	$120,627	$47,132,784
	CARDINAL	$2,032,383	$753,759	$20,583,294	$31,925,355	$14,319,082	$205	$35,432,329	$357,777	$105,404,184
	ALLIANCE	$425,874	$40,049	$15,681,075	$32,904,595	$18,300,305	$414	$25,146,265	$92,843	$92,591,420
LME/MCO Medicaid Total		**$5,964,951**	**$1,069,015**	**$84,700,447**	**$157,735,477**	**$93,676,543**	**$1,229**	**$146,585,627**	**$1,073,285**	**$490,806,575**
LME/MCO State/BG	VAYA	$41,326	$60	$47,991	$1,052	$28,124				$118,553
	TRILLIUM	$180,128		$45,475	$209,262	$531,971		$9,614		$976,450
	SANDHILLS	$1,583	$4,380	$58,289	$148,709	$101,501		$4,778		$319,240
	PARTNERS	$16,676		$50,275	$189,664	$23,107		$4,422		$284,145
	EASTPOINTE	$13,708		$39,979	$145,283	$66,554				$265,525
	CARDINAL	$40,613		$69,126	$27,257	$212,862		$105,043		$454,902
	ALLIANCE	$25,630	$3,350	$193,622	$1,546,240	$138,788		$120,949		$2,028,579
LME/MCO State/BG Total		**$319,664**	**$7,790**	**$504,758**	**$2,267,467**	**$1,102,908**		**$244,806**		**$4,447,394**
Grand Total		$6,294,887	$1,155,857	$98,502,786	$160,002,945	$94,779,451	$19,550	$146,942,573	$1,358,707	$509,056,755


Adult I/DD Expenditures by Funding Stream, LME/MCO and Service Category
LME/MCO State/BG
LME/MCO Medicaid
FFS Medicaid
ALLIANCE
CARDINAL
EASTPOINTE
PARTNERS
SANDHILLS
TRILLIUM
VAYA
Community Based Supports
Facility Based Day Supports
Residential
ICF/MR
Outpatient
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Crisis
Community Based Supports
Outpatient
Enhanced & Support Svcs
Facility Based Day Supports
ICF/MR
Supported Employment
Residential
Inpatient
Pharm/Lab/Med Proc

Adult I/DD Expenditures by Funding Stream, LME/MCO, and Service Category

Svc Value — Service Category

Funding Stream	LME/MCO	Crisis	Community Based Supports	Outpatient	Enhanced and Support Services	Facility Based Day Supports	ICF/MR	Supported Employment	Residential	Inpatient	Pharm/Lab/ Med Proc	Grand Total
FFS Medicaid	VAYA	$1,871	$27,131	$33,347						$250	$1,482	$64,082
	TRILLIUM	$594	$42,426	$27,318						$616	$1,052	$72,005
	SANDHILLS	$945	$32,346	$28,742						$695	$3,006	$65,734
	PARTNERS	$1,812	$57,593	$27,721						$1,640	$1,210	$89,976
	EASTPOINTE	$1,247	$26,329	$20,633						$763	$6,197	$55,169
	CARDINAL	$1,356	$79,901	$97,781						$5,528	$6,148	$190,714
	ALLIANCE	$743	$42,684	$51,702						$1,095	$2,373	$98,597
FFS Medicaid Total		**$8,568**	**$308,409**	**$287,245**						**$10,587**	**$21,468**	**$636,278**
LME/MCO Medicaid	VAYA	$49,859	$38,267,100	$376,668	$600,138	$13,043,210	$46,723,516	$2,630,798	$32,723,880	$1,378,840	$51,081	$135,845,089
	TRILLIUM	$38,446	$34,077,318	$269,750	$88,526	$11,783,296	$45,525,479	$1,123,004	$17,930,901	$878,659	$8,285	$111,723,663
	SANDHILLS	$51,913	$30,440,680	$246,644	$202,739	$15,542,575	$24,585,240	$1,852,517	$22,634,131	$123,045	$9,807	$95,689,290
	PARTNERS	$30,826	$29,730,492	$259,329	$1,351,651	$11,038,946	$59,625,973	$2,133,711	$20,484,698	$632,871	$6,433	$125,294,930
	EASTPOINTE	$17,388	$34,210,318	$161,412	$56,711	$12,642,783	$27,445,815	$480,967	$15,680,019	$291,301	$9,708	$90,996,423
	CARDINAL	$147,874	$82,533,980	$675,846	$962,717	$29,834,909	$132,007,800	$4,812,303	$51,718,465	$2,142,197	$30,200	$304,866,291
	ALLIANCE	$30,161	$30,448,293	$399,229	$181,044	$14,745,394	$69,490,548	$2,572,257	$25,402,735	$1,112,438	$70,777	$144,452,877
LME/MCO Medicaid Total		**$366,467**	**$279,708,180**	**$2,388,878**	**$3,443,526**	**$108,631,113**	**$405,404,371**	**$15,605,557**	**$186,574,829**	**$6,559,352**	**$186,291**	**$1,008,868,563**
LME/MCO State/BG	VAYA		$1,588,095	$608		$3,266,605		$116,368	$4,229,394			$9,201,071
	TRILLIUM		$1,779,367	$1,144		$3,258,768		$115,658	$3,013,696			$8,168,633
	SANDHILLS		$668,255	$2,106		$1,571,393		$141,976	$3,647,732	$2,250		$6,033,712
	PARTNERS		$716,676	$1,368		$4,369,576		$330,828	$4,652,614			$10,071,062
	EASTPOINTE		$238,364	$1,255		$3,482,712		$25,761	$3,137,189			$6,885,281
	CARDINAL	$2,337	$821,728	$1,507		$5,523,589		$183,737	$10,499,516			$17,032,414
	ALLIANCE	$575	$1,529,427	$4,985		$2,036,359		$205,681	$4,210,002			$7,987,029
LME/MCO State/BG Total		**$2,912**	**$7,341,914**	**$12,972**		**$23,509,002**		**$1,120,008**	**$33,390,142**	**$2,250**		**$65,379,200**
Grand Total		$377,947	$287,358,503	$2,689,095	$3,443,526	$132,140,114	$405,404,371	$16,725,565	$219,964,971	$6,572,189	$207,759	$1,074,884,042


Child I/DD Expenditures by Funding Stream, LME/MCO, and Service Category
LME/MCO State/BG
LME/MCO Medicaid
FFS Medicaid
ALLIANCE
CARDINAL
EASTPOINTE
PARTNERS
SANDHILLS
TRILLIUM
VAYA
Community Based Supports
Facility Based Day Supports
Residential
ICF/MR
Outpatient
Crisis
Outpatient
Enhanced & Support Svcs
Supported Employment
Inpatient
Pharm/Lab/Med Proc
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

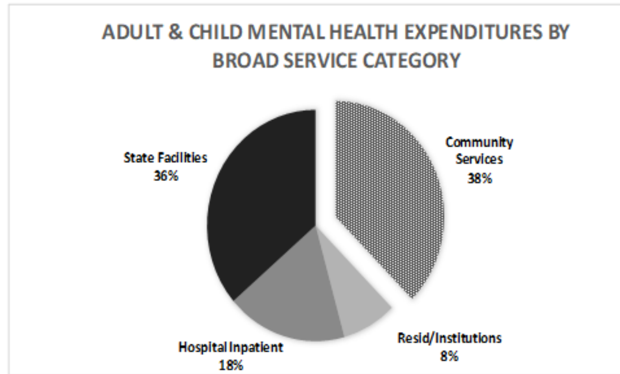
Child I/DD Expenditures by Funding Stream, LME/MCO, and Service Category

Svc Value — Service Category

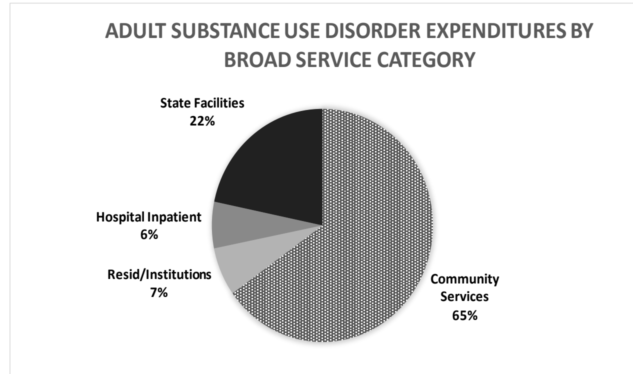
Funding Stream	LME/MCO	Crisis	Community Based Supports	Outpatient	Enhanced and Support Services	Facility Based Day Supports	ICF/MR	Supported Employment	Residential	Inpatient	Pharm/Lab/ Med Proc	Grand Total
FFS Medicaid	VAYA		$11,835	$933,649						$705	$1,987	$948,176
	TRILLIUM	$139	$11,291	$835,292						$777	$2,246	$849,745
	SANDHILLS	$139	$8,207	$1,162,367						$2,679	$1,854	$1,175,245
	PARTNERS		$14,776	$865,352						$213	$1,979	$882,320
	EASTPOINTE	$93	$7,664	$760,118						$232	$1,933	$770,040
	CARDINAL	$327	$57,171	$1,966,487						$1,725	$6,053	$2,031,763
	ALLIANCE	$139	$8,258	$1,665,157						$7,140	$3,498	$1,684,191
FFS Medicaid Total		**$836**	**$119,201**	**$8,188,422**						**$13,470**	**$19,550**	**$8,341,480**
LME/MCO Medicaid	VAYA	$11,954	$6,268,169	$546,103	$658,744	$44,885	$1,846,290	$9,232	$1,313,661	$705,304	$2,380	$11,406,722
	TRILLIUM	$25,693	$9,356,952	$438,657	$146,630	$157,379	$1,010,470	$12,478	$405,594	$631,363	$6,755	$12,191,971
	SANDHILLS	$14,477	$6,156,193	$335,688	$55,878	$34,498	$599,674	$57,044	$517,581	$210,404	$4,562	$7,985,999
	PARTNERS	$12,502	$6,844,700	$458,499	$179,061	$47,854	$1,153,267	$7,095	$944,653	$965,225	$2,110	$10,614,966
	EASTPOINTE	$10,480	$5,854,107	$344,382	$270,731	$62,384	$169,820	$6,448	$328,876	$308,021	$6,781	$7,362,030
	CARDINAL	$75,847	$18,113,556	$854,399	$115,681	$1,076,979	$7,088,767	$532	$1,555,313	$682,405	$12,355	$29,575,836
	ALLIANCE	$19,083	$8,297,668	$646,830	$80,099	$103,989	$7,174,824	$5,735	$1,030,500	$1,122,422	$2,364	$18,483,513
LME/MCO Medicaid Total		**$170,036**	**$60,891,347**	**$3,624,559**	**$1,506,824**	**$1,527,968**	**$19,043,113**	**$98,563**	**$6,096,176**	**$4,625,144**	**$37,306**	**$97,621,036**
LME/MCO State/BG	VAYA	$2,476	$615,448	$961		$6,010						$624,895
	TRILLIUM	$1,112	$1,436,547			$682,762						$2,120,421
	SANDHILLS		$233,266			$774,405		$5,434				$1,013,106
	PARTNERS		$136,455	$294		$93,651		$6,580	$1,631,462			$1,868,441
	EASTPOINTE	$202	$215,276	$188		$7,987						$223,652
	CARDINAL	$309	$262,239	$54		$146,669						$409,272
	ALLIANCE	$337	$801,737	$205		$94,418						$896,696
LME/MCO State/BG Total		**$4,436**	**$3,700,968**	**$1,703**		**$1,805,901**		**$12,015**	**$1,631,462**			**$7,156,483**
Grand Total		$175,308	$64,711,516	$11,814,684	$1,506,824	$3,333,869	$19,043,113	$110,577	$7,727,638	$4,638,614	$56,857	$113,119,000

Expenditures by Service Category

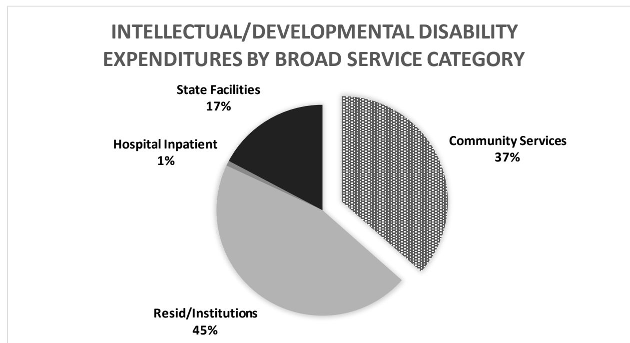
The graphs below show the expenditure of funds[1] for broad categories of service, including the state facilities (hospitals, ADATCs, developmental centers, and schools).



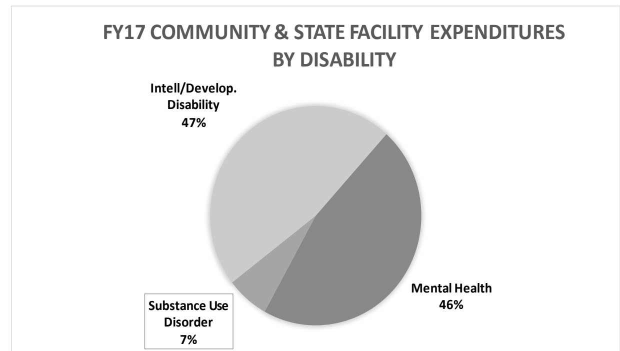
Community Services	$531,202,186
Resid/Institutions	$115,045,474
Hospital Inpatient	$253,921,227
State Facilities	$513,458,982
Total	$1,413,627,869



Community Services	$129,540,602
Resid/Institutions	$13,357,987
Hospital Inpatient	$12,810,940
State Facilities	$43,214,769
Total	$198,924,298



Community Services	$524,652,145
Resid/Institutions	$652,140,093
Hospital Inpatient	$11,210,803
State Facilities	$247,695,842
Total	$1,435,698,884



Mental Health	$1,413,627,869
Substance Use Disorder	$198,924,298
Intell/Develop. Disability	$1,435,698,884
Total	$3,048,251,050

This data shows that community services are not funded to the extent of institutional, residential, and inpatient services, for mental health and I/DD. Although a higher proportion of adult SUD service expenditures are for community services, SUD only receives a fraction of the funding available for the other disabilities. The ideal ratio of community services to more restrictive, facility-based services is not established, but there is agreement that the current system is too heavily dependent on the most restrictive, facility-based, inpatient and institutional treatment.

[1] Expenditures for State Facilities include total expenditures for the fiscal year; all other expenditures (Medicaid and State/BG) reflect the value of services provided during the fiscal year, and do not include administrative overhead, State Non-UCR expenditures, and some indigent inpatient. *(NOTE: the pies could be updated to add some of those expenses.)*

Additional Findings by Population

A) Adult Mental Health

i) Incomplete usage of Enhanced and Support Services

Assertive Community Treatment (ACT) has been shown to reduce the frequency of hospitalization and the length of inpatient days.[20] Yet funding and access remains inconsistent across NC. There are other evidence-based practices (e.g., Cognitive Enhancement Therapy, Trauma Recovery) that could also produce positive outcomes. Currently, the Inpatient service category is a significant portion of each LME-MCO's State/BG fund expenditures. Shifting funds to focus on Enhanced and Support Services would help avoid inpatient treatment, and keep them in the community.

ii) Lack of sufficient community based crisis services

Enhancing, expanding, and monitoring community based crisis services would reduce the dependency on inpatient treatment for mental health crisis, and allow additional State/BG funds to shift from Inpatient to Crisis services. SAMHSA's report, *Crisis Services: Effectiveness, Cost-Effectiveness, and Funding Strategies* [21] reviewed and endorsed several specific crisis services, including:

- 23-hour crisis stabilization/observation beds (Behavioral Health Urgent Care Tier 4)- demonstrated a reduction in inpatient admissions
- Short-Term Crisis Residential Stabilization Services (Facility Based Crisis)- demonstrated to be as effective as inpatient care at improving symptoms and functioning, have a high level of satisfaction and overall costs are less than traditional inpatient care
- Mobile Crisis Services- effective at diverting people in crisis from psychiatric hospitalization, and linking individuals to outpatient services
- Psychiatric Advanced Directives- when a facilitator and mental health team is involved, can help prevent compulsory hospital admissions
- Peer Crisis Services

Most of these services are included in the State/BG and Medicaid service arrays, but the data above reflect that they are inconsistently available across the state a.

B) Adult Substance Use Disorders

i) Lack of access to care

Based on available data, 69% of individuals needing services have not accessed services. A major barrier to accessing services, even when available, is the ability to pay for the service. Many of the individuals that are unable to access substance use disorder services are uninsured, underinsured or do not meet the current eligibility criteria for Medicaid. Additionally, services must be available when an individual is seeking care. Research has shown that when wait times are reduced, people are more likely to keep appointments and become engaged in care.

[20] McGrew, J. H., Bond, G. R., Dietzen, L., McKasson, M., & Miller, L. D. (1995). A multisite study of client outcomes in assertive community treatment. *Psychiatric Services, 46*(7), 696-701

[21] Substance Abuse and Mental Health Services Administration. Crisis Services: Effectiveness, Cost-Effectiveness, and Funding Strategies. HHS Publication No. (SMA)-14-4848. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2014.

ii) Lack of access to a full continuum of services

Currently, access to a full continuum of care and recovery supports is limited and varies across the state. For example, some LME-MCO's spend a much greater proportion of their funding for Detox, Inpatient and Crisis services (as much as 50% for State/BG funds), while others provide a broader array of outpatient, enhanced and residential treatment. LME/MCO Medicaid services also vary considerably, in that some provide primarily enhanced services while others provide primarily outpatient. A full continuum of treatment services includes screening, assessment, withdrawal management services (detoxification), medication assisted treatment, outpatient services, intensive outpatient, partial hospitalization, clinically managed high and low intensity residential, and medically managed intensive inpatient services. Most of these services are covered under the current State/BG service array, and some are also covered under Medicaid; however, State/BG funds are very limited, and most adults with substance use disorders are not eligible for Medicaid.

iii) Lack of funding for Medication Assisted Treatment (MAT)

Medication assisted treatment (MAT) is the use of FDA-approved medications in combination with evidence-based behavioral therapies to provide a whole-patient approach to treating substance use disorders (SUDs). There is strong evidence that the use of MAT in managing SUDs provides substantial cost savings. Behavioral therapies help clients engage in the treatment process, modify their attitudes and behaviors related to drug use and increase healthy life skills. These treatments can also enhance the effectiveness of medications and help people stay in treatment longer. Treatment programs that combine pharmacological and behavioral therapy services increase the likelihood of cessation relative to programs without these services.

Although there are more than 65 licensed opioid treatment programs in North Carolina, many individuals are unable to access care because the cost of medications is too high. Clinical assessments and protocol determine the type of medication each client is best suited for; cost of medications should not be the factor that determines which medication an individual receives.

C) Child Mental Health and Substance Use Disorder

i) Need for care coordination at the provider level

There is inconsistency in utilization of enhanced services across the LME/MCO regions, as several LME/MCOs provide proportionately more residential, crisis and inpatient services relative to enhanced, community based services. Intensive care coordination is required to keep children with complex behavioral health needs in the community and reduce the use of costly residential and inpatient settings. Shifting the responsibility for intensive care coordination from the LME/MCOs to provider organizations promotes a system where consumer needs drive treatment provision instead of managed care benefit plan limitations.

ii) Increase us of evidenced based and evidence informed community based practices

This analysis suggests that too many children and youth are served in costly and largely ineffective restrictive settings. DHHS must continue to develop tools to support the use of evidenced based practices.

Increased use of evidenced based practices is also a workforce development priority.

D) Individuals with Intellectual/Developmental Disorders

i) Lack of access to a full continuum of community based services

This analysis reflects that too little of our spending is in community-based settings. Enhancing and expanding access to community-based services for individuals that will promote access to their communities and skill building to learn how to be as independent as possible in a community of their choosing.

ii) Need for access to competitive integrated employment support services

Sixteen million dollars of State expenditures for Facility Based Day Supports for adults with I/DD is for sheltered workshops rather than on competitive integrated (supported) employment. This far exceeds the State expenditure of $1.1m for supported employment. Unfortunately, center-based employment in sheltered workshops has been shown to rarely result in integrated employment. Shifting to supported employment in integrated settings would have an estimated return on investment of $1.21 in benefit to taxpayers for every dollar spent.