State of North Carolina

Office of the State Auditor

Beth A. Wood, CPA

Department of Health and Human Services

Division of Medical Assistance

Medicaid Capitation Rate Setting

Performance Audit

January 2019

NC OSA

The Taxpayers' Watchdog

EXECUTIVE SUMMARY

PURPOSE

The objectives of this audit were to determine (1) whether Medicaid capitation rates[1] were actuarially sound,[2] and (2) whether the Department of Health and Human Services, Division of Medical Assistance (DMA),[3] ensured complete and accurate data was used to set the capitation rates.

BACKGROUND

North Carolina delivers mental health, developmental disability, and substance abuse services to Medicaid eligible recipients across the state by contracting with seven Local Management Entities/Managed Care Organizations (LME/MCO).[4] Medicaid eligible individuals are low-income parents, children, seniors, and people with disabilities.

From state fiscal year (SFY) 2015 through 2017, the State paid LME/MCOs an average of $2.6 billion per year to manage, coordinate, facilitate and monitor the contracted services within their assigned counties. The payment is based on per member per month (or capitation rates) that must be actuarially sound and approved by the Centers of Medicare and Medicaid Services (CMS).

KEY FINDINGS

- Medicaid capitation rates were actuarially sound,[5] which means the rates were established in accordance with actuarial standards
- Medicaid capitation rates resulted in $439.2 million[6] in excess savings[7] because DMA did not establish an explicit goal, compare the goal to results, and adjust the subsequent capitation rates to achieve the goal
- There is no assurance that the financial, encounter, and member month data used to establish Medicaid capitation rates was reliable

KEY RECOMMENDATIONS

- DMA should establish an explicit LME/MCO savings margin goal, compare actual performance to expected performance, investigate unusual trends as in savings or losses, and take appropriate corrective action to ensure appropriate capitation rates are established

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1 "A monthly fee paid for each member assigned or each event (for example, maternity delivery) regardless of the number or actual cost of services provided under a system of reimbursement for MCOs [managed care organizations]." Actuarial Standards Board.

2 Actuarially sound rates are defined as rates that are projected to provide for all reasonable, appropriate, and attainable costs that are required under the terms of the contract and for the operation of the LME/MCO for the time period and the population covered under the terms of the contract.

3 The Division of Medical Assistance was renamed the Division of Health Benefits effective August 1, 2018.

4 LME/MCOs are political subdivisions of the State that contract with DMA to operate the managed care behavioral health services under the Medicaid waiver through a network of licensed practitioners and provider agencies.

5 Actuarially sound rates are defined as rates that are projected to provide for all reasonable, appropriate, and attainable costs that are required under the terms of the contract and for the operation of the LME/MCO for the time period and the population covered under the terms of the contract.

6 The amount excludes net losses incurred by Partners and Trillium in SFY 2017, and LME/MCOs' other income/loss separate from capitation payments received from the State. The reasons and factors that led to the 2017 net losses of Partners and Trillium are not known and were outside the scope of this audit. Further analyses are warranted by appropriate, responsible parties.

7 Refers to unspent funds remaining from capitated payments received by the LME/MCOs.

EXECUTIVE SUMMARY (CONCLUDED)

- DMA should include language in its contracts that limit the savings that LME/MCOs can retain. The contracts should address the degree to which each party keeps any LME/MCO savings in excess of an agreed-upon amount. The savings limit should be negotiated to offer the State protection against financial risks while not deterring the efficient management of costs by LME/MCOs.
- For future contracts, DMA should include language in its contracts that limit the profit that a private MCO can retain. The contracts should address the degree to which each party keeps any MCO profit in excess of an agreed-upon amount. The profit limit should be negotiated to offer the State protection against financial risks while not deterring the efficient management of costs by MCOs.

  Alternatively, DMA should ask the Legislature to enact a state law that would limit excess MCO profits by requiring profit that exceeds a defined amount to be shared with the State.
- DMA should ensure reliable financial, encounter, and member month data is used for setting the capitation rates

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AUDITOR'S TRANSMITTAL

The Honorable Roy Cooper, Governor
Members of the North Carolina General Assembly
Dr. Mandy Cohen, Secretary, Department of Health and Human Services
Dave Richard, Deputy Secretary, Division of Health Benefits

Ladies and Gentlemen:

We are pleased to submit this performance audit report titled *Medicaid Capitation Rate Setting*. The objectives of this audit were to determine (1) whether Medicaid capitation rates were actuarially sound, and (2) whether the Department of Health and Human Services, Division of Medical Assistance (DMA), ensured complete and accurate data was used to set the capitation rates.

The Department of Health and Human Services' Secretary, Dr. Mandy Cohen, reviewed a draft copy of this report. Her written comments are included starting on page 123.

This audit was conducted in accordance with *Article 5A of Chapter 147 of the North Carolina General Statutes*.

We appreciate the courtesy and cooperation received from management and the employees of the Department of Health and Human Services during our audit.

Respectfully submitted,

Beth A. Wood

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State Auditor

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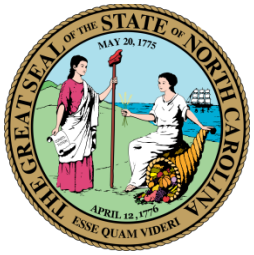
Article 5A, Chapter 147 of the North Carolina General Statutes, gives the Auditor broad powers to examine all books, records, files, papers, documents, and financial affairs of every state agency and any organization that receives public funding. The Auditor also has the power to summon people to produce records and to answer questions under oath.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BACKGROUND

North Carolina delivers mental health, developmental disability, and substance abuse services to Medicaid eligible recipients across the state by contracting with seven Local Management Entities/Managed Care Organizations (LME/MCO).[8] Medicaid eligible individuals include low-income parents, children, seniors, and people with disabilities.

From state fiscal year (SFY) 2015 through 2017, the State paid LME/MCOs an average of $2.6 billion of federal and state funds per year to manage, coordinate, facilitate and monitor the contracted services within their assigned counties. During SFY 2016, Medicaid capitation payments totaled $2.6 billion in North Carolina out of $10.9 billion (23.8%) of total Medicaid expenditures for the year.

The Medicaid capitation payment is based on per member per month (or capitation rates) that must be actuarially sound, and approved by the Centers of Medicare and Medicaid Services (CMS). Actuarially sound capitation rates should provide for all reasonable, appropriate, and attainable costs that are required under the contract with the LME/MCO for the time period and the population covered. This should include administrative expenses and an allowable margin for savings.

As the State's Medicaid agency, the Department of Health and Human Services, Division of Medical Assistance contracts with an actuary[9] to develop capitation rates using encounter data,[10] financial reports,[11] and member month[12] information submitted by the LME/MCOs and the State. Federal regulations[13] require the state to provide appropriate data that demonstrate experience for the population to be served by each LME/MCO to the actuary developing the capitation rates.

The following table provides an overview of the North Carolina Medicaid capitation rate setting process.

[8] LME/MCOs are political subdivisions of the State that contract with DMA to operate the managed care behavioral health services under the Medicaid waiver through a network of licensed practitioners and provider agencies.

[9] Mercer Health & Benefits LLC has provided actuarial services to DMA since SFY 2012.

[10] "**Encounter data** are records of the health care services for which MCOs pay and—in many states—the amounts MCOs pay to providers of those services. **Encounter data** are conceptually equivalent to the paid claims records that state Medicaid agencies create when they pay providers on a FFS [fee-for-service] basis." Mathematica Policy Research.

[11] Monthly financial reports submitted by LME/MCOs.

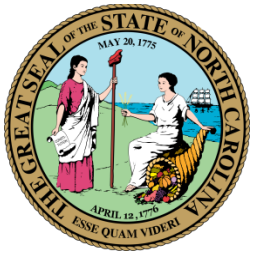
[12] Member month data is derived from an eligibility or payment file generated in the state Medicaid Management Information System. The data is based on eligibility determinations and is calculated by counting the number of eligibility months of a Medicaid recipient. For example, a member who is Medicaid eligible for 12 months will record 12 member months.

[13] 42 CFR 438.5 Rate development standards.

North Carolina Medicaid Behavioral Health
Overview of Steps to Calculate Capitation Rates
SFY 2017

1. Data Collection	Encounter cost and utilization data are submitted to the State for each Medicaid-eligible individual who utilized Medicaid covered behavioral health services. Data are submitted by each Local Management Entity/Managed Care Organization (LME/MCO) for the most recent two full fiscal years' experience. Fee-for-service claims data are used when full years of encounter data are not available. The State collects eligibility data from the global eligibility file (GEF) for the same experience periods. Member month information is derived from the Medicaid recipient eligibility data. All encounter and eligibility data are submitted by the State to the State's actuarial contractor, Mercer Government Human Services Consulting (Mercer). Each LME/MCO submits to Mercer any additional payments that occurred outside of the encounter system (e.g., capitated costs) for the same experience periods.
2. Summarization of experience data	Data are organized by fiscal year, category of aid (e.g., Aid to Families with Dependent Children, Foster Children or Blind and Disabled), by rate category (e.g., age and sex categories), and by detailed service category (e.g., Inpatient, Outpatient or Intensive In-Home Services). Utilization per 1,000,[14] cost per service and per-member-per-month (PMPM) costs are calculated for each "cell" (or combination of year, population, rate category and service category).
3. Adjustment from experience period to rating period	The utilization per 1,000, cost per service or PMPM amounts are adjusted for differences in the coverage period compared to the experience periods. These adjustments generally include (but are not necessarily limited to) the following: • changes in expected utilization; • changes in expected cost per service or change in the mix of services; • changes in benefits, including benefit carve-outs or benefits newly added in; • differences in the population due to enrollment or eligibility changes; • adjustments to encounter data submitted by LME/MCO's for quality and completeness as deemed necessary by Mercer for sufficient rate setting purposes; • other adjustments as applicable.
4. Summation of adjusted PMPMs	Adjusted PMPMs are summed into total claim rates for each combination of population and rate category. Claim rates set to produce a rate range with an upper and lower bound rate. The upper and lower bound rates are determined by using more conservative or aggressive assumption for some or all of the items in #3 above.
5. Addition of administrative costs	The PMPMs are adjusted upward for administrative costs, by adding a percentage load for general administrative and care coordination costs. Administration percentages are set separately for each LME/MCO based on financial reports submitted by the LME/MCOs.
6. Addition of a margin for savings	The industry standard for a savings margin is about 2%, which includes a margin for risk or contingency. However, the State does not include an explicit adjustment for a savings margin in the upper and lower bound rates.
7. Addition of risk margin	The State adjusts the PMPMs upward for a 2% risk reserve to cover risk margin and considerations for adverse deviation. The 2% rate is not an explicit goal, and the State does not manage rates to ensure that payments to LME/MCOs do not result in excess savings. If the State used an explicit savings margin adjustment, however, the risk margin would be included in the capitation rate as the savings margin described in step 6.

[14] Number of visits, days or services for each category of covered services during one year for a unit of population equivalent to 1,000 members.



OBJECTIVES, SCOPE, AND METHODOLOGY

The objectives of this audit were to determine (1) whether Medicaid capitation rates were actuarially sound, and (2) whether the Department of Health and Human Services, Division of Medical Assistance (DMA), ensured complete and accurate data was used to set the capitation rates.

The audit scope includes the Medicaid capitation rates during state fiscal years (SFY) 2015 through 2017.

To determine whether the Medicaid capitation rates were actuarially sound as defined by actuarial standards, OSA contracted with an actuary[15] (subject matter expert) to perform an independent review and assessment of the rate setting process.

The subject matter expert was selected based on their qualifications, experience, credentials, and proposed methodology. OSA vetted the subject matter expert and their methodology with officials at DMA.

To determine whether DMA ensured reliable data was used to set the capitation rates, auditors interviewed personnel, observed operations, reviewed policies, analyzed financial reports, and examined documentation supporting the rate setting process as considered necessary. Whenever sampling was used, auditors applied a non-statistical approach. Therefore, results could not be projected to the population. This approach was determined to adequately support audit conclusions.

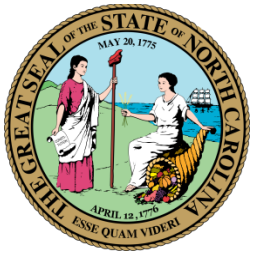
The subject matter expert's methodology, assessment, and results can be found in this report's Appendix starting on page 23.

Because of the test nature and other inherent limitations of an audit, together with limitations of any system of internal and management controls, this audit would not necessarily disclose all performance weaknesses or lack of compliance.

As a basis for evaluating internal control, auditors applied the internal control guidance contained in professional auditing standards. However, our audit does not provide a basis for rendering an opinion on internal control, and consequently, we have not issued such an opinion.

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

[15] Segal Consulting was the subject matter expert for this audit.

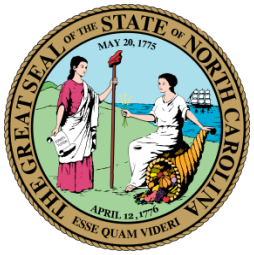


RESULTS AND CONCLUSIONS

Medicaid capitation rates[16] were actuarially sound.[17] However, the capitation rates resulted in excess savings because the Division of Medical Assistance (DMA) did not establish an explicit margin for savings. Also, DMA did not ensure complete and accurate financial, encounter, and member month information was used to set the capitation rates.

[16] "A monthly fee paid for each member assigned or each event (for example, maternity delivery) regardless of the number or actual cost of services provided under a system of reimbursement for MCOs [managed care organizations]." Actuarial Standards Board.

[17] Actuarially sound rates are defined as rates that are projected to provide for all reasonable, appropriate, and attainable costs that are required under the terms of the contract and for the operation of the LME/MCO for the time period and the population covered under the terms of the contract.



FINDINGS, RECOMMENDATIONS, AND RESPONSES

1. MEDICAID CAPITATION RATES ARE ACTUARIALLY SOUND BUT RESULTED IN $439.2 MILLION IN EXCESS SAVINGS

The Department of Health and Human Services, Division of Medical Assistance (DMA) established capitation rates[18] that, although actuarially sound,[19] led to excess savings[20] for Local Management Entities/Managed Care Organizations (LME/MCOs).[21]

As a result, $439.2 million[22] in Medicaid funds has been retained by LME/MCOs as Medicaid savings. The State may not be able to recoup the funds nor ensure that the funds are used to provide additional Medicaid services.

The excess savings occurred because DMA did not establish an explicit LME/MCO margin for savings and investigate unexpected results and trends. Additionally, the State lacks contract terms and laws that limit excess LME/MCO savings.

DMA's practice deviated from best practices that required DMA to ensure the efficient[23] expenditure of Medicaid funds.

Capitation Rates Led to Excess Savings for LME/MCOs

DMA's actuary[24] developed and certified capitation rates for North Carolina Medicaid Behavioral Health services for state fiscal years (SFYs) 2015-2017 that were actuarially sound.[25]

However, the Medicaid capitation rates that DMA established did not ensure the efficient[26] expenditure of Medicaid funds and allowed LME/MCOs to obtain excess savings.

[18] "A monthly fee paid for each member assigned or each event (for example, maternity delivery) regardless of the number or actual cost of services provided under a system of reimbursement for MCOs [managed care organizations]." Actuarial Standards Board.

[19] Actuarially sound rates are defined as rates that are projected to provide for all reasonable, appropriate, and attainable costs that are required under the terms of the contract and for the operation of the LME/MCO for the period and the population covered under the terms of the contract.

[20] Refers to unspent funds remaining from capitated payments received by the LME/MCOs.

[21] LME/MCOs are political subdivisions of the State that contract with DMA to operate the managed care behavioral health services under the Medicaid waiver through a network of licensed practitioners and provider agencies.

[22] The amount excludes net losses incurred by Partners and Trillium in SFY 2017, and LME/MCOs' other income/loss separate from capitation payments received from the State. The reasons and factors that led to the 2017 net losses of Partners and Trillium are not known and were outside the scope of this audit. Further analyses are warranted by appropriate, responsible parties. The subject matter expert, Segal Consulting, included these amounts in their calculation of excess savings. See their full report "Actuarial Review of Medicaid Behavioral Health Managed Care Rate Setting" located in the Appendix starting on page 23.

[23] Defined here as achieving the goals of the Medicaid program with minimum unnecessary expense.

[24] Mercer Health & Benefits LLC has provided actuarial services to DMA since SFY 2012.

[25] Based on Actuarial Standard of Practice No. 49, Medicaid Managed Care Capitation Rate Development and Certification, and guidelines established by Centers of Medicare and Medicaid Services (CMS). This was determined through an independent review and assessment performed by Segal Consulting. Segal Consulting was the subject matter expert for this audit. See their full report "Actuarial Review of Medicaid Behavioral Health Managed Care Rate Setting" located in the Appendix starting on page 23.

[26] Defined here as achieving the goals of the Medicaid program with minimum unnecessary expense.

The Government Accountability Office (GAO) explains that capitation rates are expected to cover the medical service costs, administrative expenses, and profit.[27]

> "Under contracts between states and MCOs, the state pays the MCO a set amount (or 'rate') per member (or beneficiary) per month to provide all covered services and, in turn, the MCO pays providers to deliver the services. In addition to covering medical services for beneficiaries**, the payment rates are expected to cover** an MCO's **administrative expenses and profit**." *[Emphasis Added]*

Actuarial standards[28] also require the actuary to include a provision for profit or savings,[29] which is "typically expressed as a percentage of the premium rate, to provide for the cost of capital and a margin for risk or contingency."

A 2% margin is a reasonable benchmark for LME/MCO capitation rates based on research conducted by the Society of Actuaries. The Society of Actuaries writes:[30]

> "Most states' capitation rates (payments to MCOs) include an explicit provision for margin, and in recent periods these range from 0.5% to 2.5%. Most for-profit MCOs target margin higher than 2.0%; **most nonprofit MCOs target margin of around 2.0%.** Actual performance over the past few years has varied widely among MCOs and states, but the average margin in 2015 was 1.8% for for-profits and 1.5% for nonprofits…" *[Emphasis Added]*

However, Table 1 below shows that North Carolina's LME/MCO savings margins ranged from 6.9% to 22% during the first year of the audit period. Savings margins generally declined in the second year but remained about three and a half times the 2% benchmark. During the third year, average savings margins moved closer to the benchmark.

It should be noted the declining average margins does not mean DMA and its actuary established capitation rates using a margin target and made a conscious effort to drive margins to that established rate.[31]

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[27] GAO-16-77, Medicaid Managed Care – Trends in Federal Spending and State Oversight of Costs and Enrollment. Profit by definition is equivalent to savings, which refers to unspent funds remaining from capitated payments received by the LME/MCOs.

[28] Actuarial Standard of Practice No. 49, Medicaid Managed Care Capitation Rate Development and Certification.

[29] DMA built a 2% risk contingency into the rates, but the rates do not include an explicit margin for savings. However, the industry standard for margin is about 2% which includes a margin for risk or contingency.

[30] Society of Actuaries, Medicaid Managed Care Organizations: Considerations in Calculating Margin in Rate Setting, 2017.

[31] LME/MCO savings margins were calculated using unaudited financial reports provided by the LME/MCOs. Further analysis is necessary to determine why LME/MCO savings margins decreased in SFY 2016 and 2017, which is outside the scope of this audit.

Table 1 – LME/MCO Savings

		in millions		
LME/MCO	Category	SFY 2015	SFY 2016	SFY 2017
Alliance	Total Revenue[32]	$393.94	$421.74	$414.51
	Savings	$50.75	$36.38	$32.26
	Savings Margin	12.9%	8.6%	7.8%
Cardinal	Total Revenue	$567.46	$587.31	$720.61
	Savings	$39.02	$48.60	$47.64
	Savings Margin	6.9%	8.3%	6.6%
Centerpoint[33]	Total Revenue	$143.12	$140.55	-
	Savings	$20.70	$7.52	-
	Savings Margin	14.5%	5.4%	-
Eastpointe	Total Revenue	$268.00	$278.78	$280.14
	Savings	$21.88	$25.67	$10.98
	Savings Margin	8.2%	9.2%	3.9%
Partner	Total Revenue	$276.59	$270.15	$265.56
	Savings	$43.38	$22.91	-$2.74[34]
	Savings Margin	15.7%	8.5%	-1.0%
Sandhill	Total Revenue	$290.67	$266.11	$260.65
	Savings	$64.53	$20.83	$8.42
	Savings Margin	22.2%	7.8%	3.2%
Smoky	Total Revenue	$305.33	$314.15	$326.82
	Savings	$21.62	$13.30	$9.39
	Savings Margin	7.1%	4.2%	2.9%
Trillium	Total Revenue	$334.05	$331.59	$342.23
	Savings	$29.35	$7.98	-$23.33[34]
	Savings Margin	8.8%	2.4%	-6.8%
Total	Total Revenue	$2,579.16	$2,610.38	$2,610.52
	Savings	$291.23	$183.19	$82.62
	Savings Margin	11.3%	7.0%	3.2%

Source: LME/MCO financial statements and auditor calculations

[32] Includes capitation payments for covered Medicaid services, LME/MCO administration, and risk reserve. The subject matter expert, Segal, presented the risk reserve revenue separately (instead of including it in the total revenue amounts) in their report located in the Appendix.

[33] Centerpoint was merged into Cardinal starting SFY 2017.

[34] The reasons and factors that led to the 2017 net losses of Partners and Trillium are not known and were outside the scope of this audit. Further analyses are warranted by appropriate, responsible parties.

And Table 2 below shows that LME/MCO savings exceeded the 2% margin benchmark by $439.2 million[35] for SFY 2015 through 2017.

Table 2 – LME/MCO Savings in Excess of 2% Margin Benchmark

	in millions		
LME/MCO	SFY 2015	SFY 2016	SFY 2017
Alliance	$42.9	$27.9	$24.0
Cardinal	$27.7	$36.9	$33.2
Centerpoint	$17.8	$4.7	
EastPointe	$16.5	$20.1	$5.4
Partners	$37.8	$17.5	
Sandhills	$58.7	$15.5	$3.2
Trillium	$22.7	$1.3	
Vaya	$15.5	$7.0	$2.9
Total:	$239.6	$130.9	$68.7

Source: LME/MCO financial statements and auditor calculations

As a Result, $439.2 Million in Medicaid Funds May Be Outside of the State's Control

Because DMA used capitation rates that resulted in excess savings, $439.2 million[35] may have been moved outside of the State's control.

The Department believes that it has the ability to oversee how these funds are utilized by the LME/MCOs.

The Department reasons that they have ultimate responsibility to administer the State's Medicaid program, including the responsibility to provide broad oversight of the LME/MCOs that manage the delivery of behavioral Medicaid services.[36]

Additionally, the LME/MCOs are not private entities. Instead, they are public entities or political subdivisions of the State whose authority and status were granted exclusively by the State's legislature.

However, the State's waiver[37] approved by the Centers for Medicare and Medicaid Services (CMS) states that the LME/MCOs "retain 100 percent of the monthly capitated payment".

[35] The amount excludes net losses incurred by Partners and Trillium in SFY 2017, and LME/MCOs' other income/loss separate from capitation payments received from the State. The reasons and factors that led to the 2017 net losses of Partners and Trillium are not known and were outside the scope of this audit. Further analyses are warranted by appropriate, responsible parties. The subject matter expert, Segal Consulting, included these amounts in their calculation of excess savings. See their full report "Actuarial Review of Medicaid Behavioral Health Managed Care Rate Setting" located in the Appendix starting on page 23.

[36] NC General Statute 122C.

[37] NC innovation (0423.R02.00) effective 08/01/2013 through 7/31/2018. The waiver program permits a state broad discretion to design and furnish an array of home and community-based services that assist Medicaid beneficiaries to live in the community and avoid institutionalization.

In addition, CMS has indicated through several memorandums and informal correspondences[38] that the State may not dictate what the LME/MCOs do with their savings from the monthly capitated payments.

Nevertheless, there is no guidance, law, or regulation that directly applies to the structure of the current managed care system in North Carolina. Therefore, it is unclear whether the State can recoup the funds or ensure that the funds are used to provide additional Medicaid services.

Consequently, $439.2 million may have been moved outside of the State's control.

Caused by Lack of Explicit Savings Margin Goals

LME/MCOs were able to accumulate excess savings because DMA did not establish an explicit savings margin goal[39] for their capitation rates and investigate unexpected results or trends.

In contrast to DMA's practice, the Society of Actuaries notes that "Most states' capitation rates (payments to MCOs) include an explicit provision for margin…"[40]

Additionally, the GAO recommends that management establish performance goals, compare actual performance to expected performance, and investigate unexpected results or unusual trends.[41]

These practices could have prevented some of the excess savings.

For example, if DMA had a 2% savings margin goal in the year prior to our audit period (SFY2014) and had compared its goal to its results, DMA would have noticed that the average LME/MCO savings margins (8.3%) were four times its goal. As a result, DMA would have performed additional analysis to identify the underlying causes of the excess savings and taken appropriate corrective action.

Analysis performed by the Office of the State Auditor's (OSA) subject matter expert[42] found that the underlying causes of and potential corrective actions for the excess savings included, but were not limited to:[43]

- **Inadequate Financial Adjustments** – DMA's actuary could have used much larger financial adjustments and put more credibility in emerging information
- **Timely Use of Managed Care Encounter Data** – DMA's actuary could have provided more weight to the emerging managed care data than to the older fee-for-service data

[38] Includes an email to DMA, several emails to OSA, and memorandums to DMA and the State Medicaid Director issued by CMS or the Health Care Financing Administration (predecessor to CMS) between 1998 and 2017.
[39] DMA built a 2% risk contingency into the rates, but the rates do not include an explicit margin for savings. However, the industry standard for margin is about 2% which includes a margin for risk or contingency.
[40] Society of Actuaries, Medicaid Managed Care Organizations: Considerations in Calculating Margin in Rate Setting, 2017.
[41] GAO, Internal Control Management and Evaluation Tool, August 2001.
[42] Segal Consulting was the subject matter expert for this audit.
[43] See Segal Consulting's report in Appendix for more details.

- **Conservative Trend Assumptions** – DMA's actuary could have given more credibility to the declining fee-for-service cost trend or possibly used more aggressive assumptions

Because DMA did not establish a savings margin goal and compare it to actual results, the capitation rates were not adjusted to prevent additional excess savings. Consequently, as shown in Table 3 below, LME/MCO average savings margins increased in SFY 2015 to 11.3% or almost six times the 2% savings margin benchmark.

Table 3 – LME/MCO Average Savings Margin Trend

	in millions			
All Financials	SFY 2014	SFY 2015	SFY 2016	SFY 2017
Total Revenue[44]	2,186	2,579	2,610	2,611
Total Expense	2,005	2,288	2,427	2,528
Savings	181	291	183	83
Savings Margin	8.3%	11.3%	7.0%	3.2%

Source: LME/MCO financial statements and auditor calculations

Also Caused by Lack of Contract Terms and Laws That Limits Excess Savings

LME/MCOs were also able to accumulate excess savings because the State does not use contract terms or state laws to prevent excess savings from potentially becoming the property of the LME/MCOs and, therefore, possibly placed outside of the State's control.

For example, North Carolina does not use the contract strategy suggested by the federal Department of Health and Human Services to limit savings. In its publication, *Contracting for Managed Substance Abuse and Mental Health Services: A Guide for Public Purchasers*, the department suggests:

> "The purchaser may contractually limit the profits and/or losses an MCO may experience. In the case of profit limits, the purchaser must determine early the amount of profit it is willing to allow the MCO to make and how this profit may be achieved. The contract documents between the parties should address the degree to which each party keeps any MCO profit in excess of the agreed-upon amount."[45]

To illustrate, Texas uses an "experience rebate" and includes the following language in its *Uniform Managed Care Contract*:

> "HHSC and the MCO will share the consolidated Net Income Before Taxes for its HHSC programs as follows:

[44] Includes capitation payments for covered Medicaid services, LME/MCO administration, and risk reserve. The subject matter expert, Segal, presented the risk reserve revenue separately (instead of including it in the total revenue amounts) in their report located in the Appendix.

[45] Profit by definition is equivalent to savings, which refers to the unspent funds remaining from capitated payments received by the LME/MCOs.

1) The MCO will retain all the Net Income Before Taxes that is equal to or less than 3% of the total Revenues received by the MCO;
2) HHSC and the MCO will share that portion of the Net Income Before Taxes that is over 3% and less than or equal to 5% of the total Revenues received, with 80% to the MCO and 20% to HHSC.
3) HHSC and the MCO will share that portion of the Net Income Before Taxes that is over 5% and less than or equal to 7% of the total Revenues received, with 60% to the MCO and 40% to HHSC.
4) HHSC and the MCO will share that portion of the Net Income Before Taxes that is over 7% and less than or equal to 9% of the total Revenues received, with 40% to the MCO and 60% to HHSC.
5) HHSC and the MCO will share that portion of the Net Income Before Taxes that is over 9% and less than or equal to 12% of the total Revenues received, with 20% to the MCO and 80% to HHSC.
6) HHSC will be paid the entire portion of the Net Income Before Taxes that exceeds 12% of the total Revenues."

Additionally, North Carolina does not use a state law like Florida's "achieved savings rebate" statute to limit LME/MCO savings. Florida's law requires MCOs to share savings greater than 5% with the state. Specifically, the law states:

"…the achieved savings rebate is established by determining pretax income as a percentage of revenues and applying the following income sharing ratios:

1. One hundred percent of income up to and including 5 percent of revenue shall be retained by the plan.
2. Fifty percent of income above 5 percent and up to 10 percent shall be retained by the plan, and the other 50 percent refunded to the state and transferred to the General Revenue Fund, unallocated.
3. One hundred percent of income above 10 percent of revenue shall be refunded to the state and transferred to the General Revenue Fund, unallocated."

Goals and Best Practices Required Efficient Expenditure of Medicaid Funds

CMS rate-setting goals and GAO best practices required DMA to ensure that the capitation rates were reasonable and did not result in excess savings for the LME/MCOs.

Specifically, CMS notes that the capitation rate-setting framework was established to:[46]

- Promote beneficiary access to quality care, **efficient expenditure of funds** and innovation in the delivery of care [*Emphasis Added*]
- Provide **appropriate compensation** to the managed care plans for **reasonable** non-benefit costs [*Emphasis Added*]

[46] Federal Register, Volume 81, No. 88, Friday, May 6, 2016, pg. 27564.

- Ensure that both the state and the federal government **act effectively as fiscal stewards** and in the interests of beneficiary access to care [*Emphasis Added*]

Additionally, GAO states:[47]

> "Management and officials entrusted with public resources are responsible for carrying out public functions and providing service to the public effectively, **efficiently**, **economically**, ethically, and equitably within the context of the statutory boundaries of the specific government program." [*Emphasis Added*]

RECOMMENDATION

DMA should establish an explicit LME/MCO savings margin goal, compare actual performance to expected performance, investigate unusual trends as in savings or losses, and take appropriate corrective action to ensure appropriate capitation rates are established.

DMA should include language in its contracts that limit the savings that LME/MCOs can retain. The contracts should address the degree to which each party keeps any LME/MCO savings in excess of an agreed-upon amount. The savings limit should be negotiated to offer the State protection against financial risks while not deterring the efficient management of costs by LME/MCOs.

For future contracts, DMA should include language in its contracts that limit the profit that a private MCO can retain. The contracts should address the degree to which each party keeps any MCO profit in excess of an agreed-upon amount. The profit limit should be negotiated to offer the State protection against financial risks while not deterring the efficient management of costs by MCOs.

Alternatively, DMA should ask the Legislature to enact a state law that would limit excess MCO profits by requiring profit that exceeds a defined amount to be shared with the State.

AGENCY RESPONSE

See page 124 for the agency's response to this finding.

2. NO ASSURANCE THAT FINANCIAL DATA USED TO ESTABLISH MEDICAID CAPITATION RATES WAS RELIABLE

The Division of Medical Assistance (DMA) did not ensure that the financial data[48] it provided to its actuary to set capitation rates[49] was reliable. Using unreliable data to calculate capitation rates can significantly impact the results. Although audited financial data was available, DMA decided not to use it. However, best practices required DMA to ensure that it used reliable financial data.

[47] GAO, Government Auditing Standards, 2011 Revision.
[48] Monthly financial reports submitted by LME/MCOs.
[49] "A monthly fee paid for each member assigned or each event (for example, maternity delivery) regardless of the number or actual cost of services provided under a system of reimbursement for MCOs [managed care organizations]." Actuarial Standards Board.

DMA Did Not Ensure Reliable Financial Data Was Used

DMA did not ensure its actuary was provided financial data that was audited or reconciled to audited financial statements for use in setting the Medicaid capitation rate for state fiscal years (SFY) 2016 and 2017.

Auditors reconciled financial data used by the actuary for rate setting to a select number of LME/MCO audited financial statements[50] and found several variances in Medicaid administrative expenses. For example:

- Eastpointe's SFY 2014 administrative expenses used for rate setting is $4.4 million *more* than audited financial statements
- Partner's SFY 2016 administrative expenses used for rate setting is $3.2 million *more* than audited financial statements
- Trillium's SFY 2016 administrative expenses used for rate setting is $3.8 million *less* than audited financial statements

Unreliable Financial Data Could Impact the Capitation Rates and Payments

Using unreliable data to calculate capitation rates can potentially result in rates that differ significantly from rates that would have been obtained with reliable information.

Even a $1.00 difference in the capitation rate for one LME/MCO can result in $2.1 to $2.4 million[51] over or under payment a year.

Based on the subject matter expert's[52] estimate,

- Eastpointe's $4.4 million variance could have made the SFY 2016 rate $2.10[53] (1.7% of the rate) *higher* than it should be
- Partner's $3.2 million variance could have made the SFY 2017 rate $1.20[54] (0.9% of the rate) *higher* than it should be
- Trillium's $3.8 million variance could have made the SFY 2017 rate $1.20[55] (0.8% of the rate) *lower* than it should be

[50] Auditors first compared the amount of total expenses between an LME/MCO's audited financial statement and the financial data used by the actuary in rate setting. If the initial comparison resulted in a difference of > $1 million, auditors then proceeded to identify the difference specific to Medicaid administrative expenses.

[51] Between FY 2014 and 2016, the State paid each LME/MCO between 2.1 to 2.4 million member months each year.

[52] Segal Consulting was the subject matter expert for this audit.

[53] $4.4 million variance / $1 million x 0.38% rate impact x SFY 2016 capitation rate of $124.68 assuming only SFY 2014 financial data is used in the rate calculation.

[54] $3.2 million variance / 12 months x 8 months x $1 million x 0.40% rate impact x SFY 2017 capitation rate of $141.81 assuming SFY 2016 variance spreads evenly throughout the year and only SFY 2016 financial data is used in the rate calculation.

[55] $3.8 million variance / 12 months x 8 months x $1 million x 0.32% rate impact x SFY 2017 capitation rate of $145.49 assuming SFY 2016 variance spreads evenly throughout the year and only SFY 2016 financial data is used in the rate calculation.

Caused by Management's Decision Not To Use Audited Financial Data

Although audited financial data was available and more reliable, DMA chose not to use it because federal regulations did not require it.

In response to auditor inquiry, DMA stated,

> "Regarding audited financials…they were not used nor are they required to be used for capitation rate development."[56]

Best Practices Required DMA to Ensure Use of Reliable Financial Data

Best practices identified by the Government Accountability Office (GAO) required DMA to ensure that the financial data was reliable.

The GAO states, "Management should use quality information to achieve the entity's objectives."[57] GAO best practices require management to obtain:

> "Relevant data **from reliable internal and external sources** in a timely manner based on the identified information requirements…Reliable internal and external sources provide data that are reasonably free from error and bias and faithfully represent what they purport to represent." [*Emphasis Added*]

Furthermore, the Centers for Medicare and Medicaid Services (CMS) has codified the use of reliable financial data. In May 2016, CMS published a requirement for states to provide audited financial reports to their actuaries for developing the capitation rates beginning in 2018.[58]

Additionally, DMA's actuary relies on DMA to ensure that the financial data is reliable. In the rate certification package submitted to CMS, the actuary stated that it:

> "Used and relied upon enrollment, eligibility, claim, reimbursement level, benefit design, and **financial data** and information supplied by the State and [LME/MCO]. **The State and the [LME/MCO] are solely responsible for the validity and completeness** of these supplied data and information…" *[Emphasis Added]*

RECOMMENDATION

DMA should use audited or reconciled financial data to establish the capitation rates.

AGENCY RESPONSE

See page 124 for the agency's response to this finding.

[56] The audited financial statements did not report expenses specific to Medicaid except Sandhills. The auditors obtained financial reports containing Medicaid expenses from the LME/MCOs and reconciled them to audited financial statements.

[57] GAO, Standards for Internal Control in the Federal Government, September 2014.

[58] 42 CFR 438.5(c)(1). CMS gave North Carolina until state fiscal year 2020 to fully implement this requirement.

3. NO ASSURANCE THAT ENCOUNTER DATA USED TO ESTABLISH MEDICAID CAPITATION RATES WAS RELIABLE

The Division of Medical Assistance (DMA) did not ensure that the encounter data[59] it provided to its actuary to set capitation rates was reliable. Using unreliable data to calculate capitation rates[60] can significantly impact the results. DMA relied on its actuary to ensure that the encounter data was reliable. However, best practices required DMA to ensure that the encounter data was reliable.

DMA Did Not Ensure Reliable Encounter Data Was Used

The Society of Actuaries says that encounter data is "the single most important analytical tool for health plans and health programs. Without accurate and timely data, it is not possible to analyze costs, utilization or trends; evaluate benefits; or determine the quality of services being provided to members."[61]

However, DMA did not ensure its actuary was provided reliable encounter data for use in setting the Medicaid capitation rate for SFYs 2016 and 2017.

Specifically,

- DMA did not ensure LME/MCO electronic encounter data used in rate setting was analyzed for completeness, validity, and reasonableness.
- DMA did not ensure that medical records were reviewed to validate and verify the encounter data.

Unreliable Encounter Data Could Impact the Capitation Rates[62]

Using unreliable encounter data to calculate capitation rates can potentially result in rates that differ significantly from the rates that would have been obtained with reliable information.

Encounter data is part of the base data that the State and its actuary collects and adjusts to develop an expectation of future prices and service use. Those expectations are then used to develop the capitation rates.

In *A Primer on Medicaid Managed Care Capitation Rates*, Health Management Associates provides a simplified explanation of the general steps that states use to develop Medicaid capitation rates:

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[59] "**Encounter data** are records of the health care services for which MCOs pay and—in many states—the amounts MCOs pay to providers of those services. **Encounter data** are conceptually equivalent to the paid claims records that state Medicaid agencies create when they pay providers on a FFS [fee-for-service] basis." Mathematica Policy Research.

[60] "A monthly fee paid for each member assigned or each event (for example, maternity delivery) regardless of the number or actual cost of services provided under a system of reimbursement for MCOs [managed care organizations]." Actuarial Standards Board.

[61] Society of Actuaries, Medicaid Encounter Data: The Next National Data Set, 2016.

[62] A separate and additional audit would be required to identify specific examples of encounter data errors. Due to the amount of time and effort required to do so, a definitive effect of using unreliable encounter data could not be formulated.

1. **Develop the base data** - The state draws from many sources including Medicaid eligibility files and enrollment files, medical claims files, and possibly data collected from participating MCOs (referred to as "**encounter data**" because it is intended to capture, for example, when an individual has had an "encounter" with a medical professional or medical services). Other sources of information are used in this process too, including the financial reports submitted by the contracted MCOs to the state.
2. **Adjust the base data** - During this process, important adjustments are made to the assembled data to account for important factors such as missing or incomplete data. During this step, often services that are not covered by the MCO are also excluded from the capitation rates. This step produces the "adjusted base data" upon which the projections are made for the contract rate year.
3. **Trend the base data** – The third step in the process involves trending the adjusted base data for any expected changes in utilization, costs, and mix of services between the base year period and the contract rate year (the year in which the capitation rates will take effect). This step produces the base data for the rate year.
4. **Calculate administrative and other cost** - The final step is to project additional costs including general administration, care coordination, a small margin for MCO risk and gain, and taxes and fees.

Because encounter data is part of the base data used to develop capitation rates, inaccurate encounter data could lead to insufficient capitation rates that do not allow the LME/MCOs to meet the needs of their service area. **Conversely**, inaccurate encounter data could also result in excess capitation rates that allow LME/MCOs to accumulate excess savings.

Caused by DMA's Reliance on the Actuary to Ensure the Data Was Reliable

DMA did not perform procedures to ensure that the encounter data was reliable because it relied on the review that its actuary performed during the rate setting process.

However, the procedures the actuary performed were not sufficient to ensure the encounter data was complete and accurate.

DMA's actuary reviewed the encounter data for reasonableness, but not for reliability. In the rate certification packages submitted to Centers for Medicare and Medicaid Services (CMS) for capitation rate approval, DMA's actuary stated,

> "We have reviewed the summarized data and information for internal consistency and reasonableness but we did not audit them…"

Furthermore, an actuarial review is not intended to ensure that the encounter data is reliable. According to actuarial standards,[63] an actuarial review is defined as:

> "An informal examination of the obvious characteristics of the selected data to determine if such data appear reasonable and consistent for purposes of the assignment. A review is not an audit of data."

[63] Actuarial Standards Board – Actuarial Standards of Practice No. 23 Data Quality effective December 2004.

Lastly, actuarial standards specifically reject responsibility for ensuring data reliability. Actuarial standards state,

> "In most situations, the data are provided to the actuary by others. **The accuracy and comprehensiveness of data supplied by others are the responsibility of those who supply the data**…" [*Emphasis Added*]

Best Practices Required DMA to Ensure Use of Reliable Encounter Data

Best practices identified by the Government Accountability Office (GAO) required DMA to ensure that the encounter data was reliable.

The GAO states, "Management should use quality information to achieve the entity's objectives."[64] GAO best practices require management to obtain:

> "Relevant data **from reliable internal and external sources** in a timely manner based on the identified information requirements…Reliable internal and external sources provide data that are reasonably free from error and bias and faithfully represent what they purport to represent." [*Emphasis Added*]

Furthermore, the Centers for Medicare and Medicaid Services (CMS) has codified the use of validated encounter data. In May 2016, CMS published a requirement for states to provide validated encounter data to their actuaries for developing the capitation rates beginning in 2018.[65]

Additionally, DMA's actuary relies on DMA to ensure that the encounter data is reliable. In the rate certification package submitted to CMS, the actuary stated that it:

> "Used and relied upon enrollment, eligibility, claim, reimbursement level, benefit design, and financial data and information supplied by the State and [LME/MCO]. **The State and the [LME/MCO] are solely responsible for the validity and completeness** of these supplied data and information…" *[Emphasis Added]*

RECOMMENDATION

DMA should ensure that validated encounter data is used for setting the capitation rates.

AGENCY RESPONSE

See page 125 for the agency's response to this finding.

[64] GAO, Standards for Internal Control in the Federal Government, September 2014.
[65] 42 CFR 438(c). CMS gave North Carolina until state fiscal year 2020 to fully implement this requirement.

4. NO ASSURANCE THAT MEMBER MONTH DATA USED TO ESTABLISH MEDICAID CAPITATION RATES WAS RELIABLE

The Division of Medical Assistance (DMA) did not ensure that the member month data[66] it provided to its actuary to set capitation rates[67] was reliable. Using unreliable data to calculate capitation rates can significantly impact the results. DMA did not believe that it was responsible for the accuracy of the Medicaid eligibility determinations that were the basis of the member month data. However, best practices required DMA to ensure that the member month data was reliable.

DMA Did Not Ensure That Reliable Member Month Data Was Used

DMA did not ensure its actuary was provided reliable member month data for use in setting the Medicaid capitation rates for state fiscal year (SFY) 2015, 2016, and 2017.

The member month data is based on the Medicaid recipient eligibility information from the State's Medicaid Management Information System (MMIS).[68]

Auditors reviewed past reports about Medicaid recipient eligibility determination and identified a pattern of eligibility error rates that would impact the overall number of member months used in capitation rate setting.

A SFY 2017 audit report[69] by the Office of the State Auditor (OSA) found accuracy error[70] rates in ten sample counties ranging from:

- 1.2% to 18.8% for new applications
- 1.2% to 23.2% for re-certifications

Eligibility reviews[71] commissioned by the Centers for Medicare and Medicaid Services (CMS) also found eligibility issues:

- 4.6% eligibility active[72] case error rate for eligibility cases determined in 2013
- 4.0% eligibility active case error rate for eligibility cases determined in 2010

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66 Member month data is calculated by counting the number of eligibility months of a Medicaid recipient. For example, a member who is Medicaid eligible for 12 months will record 12 member months. Member month data is derived from an eligibility or payment file generated in the state Medicaid Management Information System.

67 "A monthly fee paid for each member assigned or each event (for example, maternity delivery) regardless of the number or actual cost of services provided under a system of reimbursement for MCOs [managed care organizations]." Actuarial Standards Board.

68 The current MMIS used by the State is NC Tracks, maintained by CSRA.

69 FCA-2015-4440 North Carolina Medicaid Program Recipient Eligibility Determination audit, released January 2017.

70 Accuracy errors are defined as any determination that caused an ineligible recipient to be approved for Medicaid benefits or denied benefits to an applicant who should be eligible for benefits.

71 SFY 2013 – CMS Payment Error Rate Measurement report Cycle 2 Summary – North Carolina, released SFY 2014, and SFY 2010 – CMS Payment Error Rate Measurement report Cycle 2 Summary – North Carolina, released SFY 2011.

72 Eligibility active cases are Medicaid cases in which the applicant was determined eligible for Medicaid. Auditors are using active cases because negative cases would not be included in the eligibility file that is used to determine member months.

Although DMA was aware of the Medicaid eligibility error rates, DMA never informed its actuary about them.

Unreliable Member Month Data Could Significantly Impact Capitation Rates[73]

Using unreliable member month data to calculate capitation rates can potentially result in rates that differ significantly from the rates that would have been obtained with reliable information.

Member month data is based on Medicaid recipient eligibility information and is part of the base data that the State and its actuary collects and adjusts to develop an expectation of future prices and service use. Those expectations are then used to develop the capitation rates.

In *A Primer on Medicaid Managed Care Capitation Rates*, Health Management Associates provides a simplified explanation of the general steps that states use to develop Medicaid capitation rates:

1. **Develop the base data** - The state draws from many sources including **Medicaid eligibility files and enrollment files**, medical claims files, and possibly data collected from participating MCOs (referred to as "encounter data" because it is intended to capture, for example, when an individual has had an "encounter" with a medical professional or medical services). Other sources of information are used in this process too, including the financial reports submitted by the contracted MCOs to the state.
2. **Adjust the base data** - During this process, important adjustments are made to the assembled data to account for important factors such as missing or incomplete data. During this step, often services that are not covered by the MCO are also excluded from the capitation rates. This step produces the "adjusted base data" upon which the projections are made for the contract rate year.
3. **Trend the base data** – The third step in the process involves trending the adjusted base data for any expected changes in utilization, costs, and mix of services between the base year period and the contract rate year (the year in which the capitation rates will take effect). This step produces the base data for the rate year.
4. **Calculate administrative and other cost** - The final step is to project additional costs including general administration, care coordination, a small margin for MCO risk and gain, and taxes and fees.

Because member month data is part of the base data used to develop capitation rates, inaccurate member month data could lead to insufficient capitation rates that do not allow the LME/MCOs to meet the needs of their service area. **Conversely**, inaccurate member month data could also result in excess capitation rates that allow LME/MCOs to accumulate excess savings.

[73] A separate and additional audit would be required to identify specific examples of member-month data errors. Due to the amount of time and effort required to do so, a definitive effect of using unreliable member-month data could not be formulated.

Caused by DMA Belief That It Was Not Responsible for Eligibility Determinations

DMA could not ensure its actuary was provided reliable member month data without first ensuring that Medicaid eligibility determinations were accurate.

Prior to SFY 2017, DMA did not believe that it was responsible for ensuring that Medicaid eligibility determinations were accurate. As noted in the 2017 OSA audit report, DMA did not believe it had direct oversight responsibility of the Medicaid recipient eligibility process at the county departments of social services.

However, federal regulations[74] state that, "The Medicaid state agency[75] is responsible for determining eligibility for all individuals applying for or receiving benefits" even if the approved state plan delegates "authority to determine eligibility for all or a defined subset of individuals."

Best Practices Required DMA to Ensure Use of Reliable Member Month Data

Best practices identified by the Government Accountability Office (GAO) required DMA to ensure that the member month data was reliable.

The GAO states, "Management should use quality information to achieve the entity's objectives."[76] GAO best practices require management to obtain:

> "Relevant data **from reliable internal and external sources** in a timely manner based on the identified information requirements…Reliable internal and external sources provide data that are reasonably free from error and bias and faithfully represent what they purport to represent." [*Emphasis Added*]

Additionally, DMA's actuary relied on DMA to ensure that the member month data was reliable. In the rate certification package submitted to CMS, the actuary stated that it:

> "Used and relied upon **enrollment, eligibility**, claim, reimbursement level, benefit design, and financial data and information supplied by the State and [LME/MCO]. **The State and the [LME/MCO] are solely responsible for the validity and completeness** of these supplied data and information…" *[Emphasis Added]*

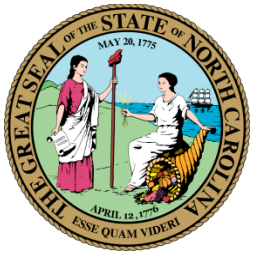
RECOMMENDATION

DMA should ensure that reliable member month information is used for capitation rate setting.

AGENCY RESPONSE

See page 125 for the agency's response to this finding.

[74] 42 CFR 431.10 Single State agency.
[75] The Medicaid state agency for North Carolina is the NC Department of Health and Human Services.
[76] GAO, Standards for Internal Control in the Federal Government, September 2014.



MATTERS FOR FURTHER CONSIDERATION

LME/MCOs' Spending of Medicaid Fund Should Be Monitored

The Department of Health and Human Services, Division of Medical Assistance (DMA) should consider conducting audits to determine if Local Management Entity/Managed Care Organization (LME/MCO) Medicaid spending is necessary and reasonable in accordance with federal cost principles.

DMA's contracts with the LME/MCOs stipulate that DMA can require the LME/MCOs to be "audited in accordance with the Office of Management and Budget (OMB) Circular A-133 and OMB Circular A-87."[77] Both OMB Circular A-133 and A-87 provide guidelines to evaluate whether certain costs are necessary and reasonable.

However, DMA has exempted LME/MCOs from the audit requirements and cost principles customarily applicable to the Medicaid expenditures.

As a result, DMA does not have an effective tool for monitoring LME/MCO spending, so unreasonable spending could occur without being detected.

For example, a recent OSA audit noted unreasonable spending of Medicaid funds that included:

- $113,540 on board retreats at luxury resorts
- $93,196 on board meetings at high-end venues
- $7,702 on chartered flights

Additionally, LME/MCOs have reported spending approximately $347,000 of Medicaid funds on lobbying contracts throughout FY 2015 and 2016. Lobbying costs are disallowed according to the federal cost principles.

According to state law,[78] LME/MCOs are local political subdivisions of the State. Therefore, LME/MCOs are subject to the State's oversight and should be held accountable for use of public funds.

In fact, state law says the primary functions of an LME/MCO include "Financial management and accountability for the use of State and local funds and information management for the delivery of publicly funded services."[79]

State law also states that the Secretary of DHHS shall "**monitor** the fiscal and administrative practices" of LME/MCOs to ensure they "are accountable to the State for the management and **use of federal and state funds** allocated for mental health, developmental disabilities, and substance abuse services…" The Secretary shall further ensure the LME/MCOs' practices "are consistent with professional accepted accounting and management principles." *[Emphasis Added]*

[77] Both OMB Circular A-133 and A-87 are superseded by 2 CFR part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.
[78] § 122C-3(20b), § 122C-3(20c), and § 122C-116.
[79] § 122C-115.4(b)(7).

Problems Identified During External Quality Reviews Should Be Communicated to Actuary

The Department of Health and Human Services, Division of Medical Assistance (DMA) should consider communicating problems identified in the annual External Quality Reviews (EQR) to its actuary for consideration while preparing the State's capitation rates.[80]

Currently, DMA pays a contractor to perform annual EQR for each Local Management Entity/Managed Care Organization (LME/MCO). As part of the EQR, each LME/MCO's claims processing system is assessed to help verify its capacity to produce complete and accurate encounter data.

However, DMA did not communicate issues from assessing the claims processing system during the EQRs to its actuary. As a result, the actuary was not able to consider the potential impact of the issues when developing the capitation rates.

When asked, DMA said that the EQR is not related to the capitation rate. Further, they stated EQR is not required by federal regulation for developing capitation rates. Consequently, issues from EQRs were not communicated to its actuary.

But encounter data from the claims processing system is part of the base data that is used to develop capitation rates. Consequently, if the actuary is not aware of problems with the completeness and accuracy of the encounter data, the actuary could develop capitation rates that are too low to allow the LME/MCO to meet the needs of its service area. **Conversely**, the actuary could develop capitation rates that allow the LME/MCO to accumulate excess savings.

Furthermore, the Centers of Medicare and Medicaid Services (CMS) stated that the use of an annual External Quality Review (EQR) can be an important component of the state's quality assurance protocols to ensure the encounter data submitted by the LME/MCOs is complete and accurate.[81]

The specific procedures CMS cited to validate encounter data are documented in "EQR Protocol 4 Validation of Encounter Data Reported by the MCO." The Protocol states,

> "**States use encounter data to** assess and improve quality, monitor program integrity, and **determine capitation payment rates**. This protocol specifies procedures for EQROs[82] to use in assessing the completeness and accuracy of encounter data submitted by MCOs to the State…." [*Emphasis Added*]

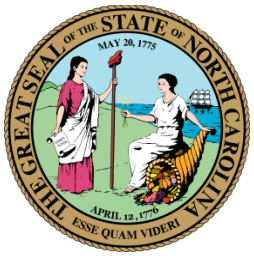
Specifically, the EQR procedures include:

- Review the MCO's capacity to produce accurate and complete encounter data
- Analysis of MCO electronic encounter data for accuracy and completeness
- Review of medical records for confirmation of findings of analysis of encounter data

[80] "A monthly fee paid for each member assigned or each event (for example, maternity delivery) regardless of the number or actual cost of services provided under a system of reimbursement for MCOs [managed care organizations]." Actuarial Standards Board.

[81] Federal Register Vol 81 No 88 Friday May 6, 2016 Rules and Regulations 27741.

[82] External Quality Review Organization.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APPENDIX

ACTUARIAL REVIEW OF MEDICAID BEHAVIORAL HEALTH MANAGED CARE RATE SETTING

North Carolina Division of Medical Assistance

September 18, 2018

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September 18, 2018

The Honorable Beth A. Wood, State Auditor
Office of the State Auditor
2 South Salisbury St.
20601 Mail Service Center
Raleigh, NC 27699-0601

RE: Actuarial Review of North Carolina Medicaid Behavioral Health Managed Care Rate Setting and Data Book Validation

Dear Ms. Wood:

The Segal Company ("Segal") was engaged by the North Carolina Office of the State Auditor ("OSA") to conduct a review and analysis of the processes and methodologies used by Mercer Consulting (Mercer), the Actuarial Consultant used by the Department of Health and Human Services (DHHS), to set Medicaid Behavioral Health managed care rates for State Fiscal Years 2015 through 2017 (July 1, 2014 through June 30, 2017). OSA also requested Segal perform a data validation of the Data Books developed for the two largest regions. The report attached to this letter contains the results of our analysis.

Project Scope

Our review and analysis include the following:

- An independent expert's review and opinion. A report that includes an assessment of the rate setting process, including rates set, or determined, by Mercer in determining rates for Medicare Behavioral Health Managed Care Program.
- Based upon all of the information reviewed, a determination of whether the public program rates set from SFY 2015 through SFY 2017 were "actuarially sound". A determination of whether certifications to the Centers for Medicare & Medicaid Services (CMS) were appropriate.
- An identification of any procedures, analysis, and/or conclusions by Mercer that were inadequate, deficient, incomplete or that may have inappropriately impacted rate determination. A determination of any procedures identified as either deficient or incomplete that may continue to be practiced in FY 2018. Recommendations for improving any deficient or incomplete practices in the setting of Behavioral Health rates, if applicable.

- A data validation of the Behavioral Health Data Books for Alliance and Cardinal LME/MCOs. Data validation will consist of a re-creation of the Data Book encounter and member eligibility groupings by category of aid and category of service. Results will then be compared to the data books provided by Mercer for the same two LME/MCOs,

Restrictions/Limitations

This report has been prepared for the State of North Carolina, Office of the State Auditor. To the extent that the information contained in this report is provided to third parties, this letter, the report and all appendices should be distributed in their entirety. Due to the technical nature of the subject matter, it is assumed that any user of the data possesses a certain level of expertise in actuarial science and is familiar with North Carolina's Medicaid Behavioral Health programs and managed care rating principles in general. Parties receiving this report should consult with qualified professionals in drawing conclusions about the results contained herein.

Data Reliance

Segal received information provided by OSA, DHHS and Mercer in the development of this report. Our results rely on the information provided. If any significant errors and/or omissions are found, the report and findings would need to be updated.

Please do not hesitate to contact us if you have any questions or need additional information.

Sincerely,

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Executive Summary

Segal was engaged by the North Carolina Office of the State Auditor ("OSA") to provide expert services to aid OSA in auditing the rate setting process for the North Carolina Medicaid Behavioral Health Services program. This is in support of a performance audit of the North Carolina Department of Health and Human Services ("DHHS"). Below is a list of services Segal was asked to perform:

- An independent review and assessment of the SFY 2015 – SFY 2017 Behavioral Health Medicaid managed care capitation rate development;
- Determination of whether the assumptions utilized by Mercer in their rate development produced "actuarially sound" rates;
- An assessment of procedures or assumptions by Mercer which may have adversely impacted the rate development and determination if any of these procedures or assumptions continue to be practiced;
- Data validation of the Alliance Behavioral Healthcare (Alliance) and Cardinal Innovations HealthCare Solutions (Cardinal) Local Managed Entity/Managed Care Organization (LME/MCO) data books used in developing the SFY 2017 Behavioral Health Medicaid capitation rates.

What follows is a brief summary of our conclusions. Further analysis can be found in the Data Book Validation, Rate Development Components and Analysis of Financial Performance sections of this report.

Actuarial Soundness

The Centers for Medicare and Medicaid Services ("CMS") requires that rates be actuarially sound for the Medicaid Behavioral Health Services program. In reviewing the information and data provided, it is our opinion that, in any given year, the rates developed and certified by Mercer, the State's actuary, met the definition of actuarial soundness as defined by Actuarial Standard of Practice No. 49, Medicaid Managed Care Capitation Rate Development and Certification, and complied with the guidelines established by CMS.

The projection of expected claims at the start of a managed care program, using existing Fee-For-Service (FFS) data, is a difficult and challenging assignment for an actuary. It involves a number of very large adjustments to convert the experience and project to the contract year.

However, during our review of information and data provided, we believe there was emerging financial and encounter data that could have been given greater credibility by Mercer. The emerging financial and encounter data would have been available to Mercer at the time. By not adjusting more aggressively to the emerging information, sizable financial gains emerged, as much as 9.7% in total in SFY 2015. Actuarial soundness guidance, at that time, provided latitude by the actuary in making these adjustments.

LME/MCO Profitability

Segal has reviewed the blending methods, rating adjustments, trends and administration loads that Mercer utilized or estimated in the rate setting process. Segal found each of the components individually to be reasonable and sound. However, in aggregate, the components resulted in rates that produced excessive profits for the LME/MCOs in the early years of managed care and continue to produce profits in current years. In our opinion, these financial results are reflective of Mercer continuing to use dated data and not adequately incorporating emerging financial experience. We also believe that if the individually sound components had produced excessive losses versus gains, financial pressures would have likely resulted in more substantive financial experience adjustments.

Based on the individual LME/MCO financial statements, the total profitability as a percent of total revenue overall for SFYs 2014, 2015, 2016 and 2017 was 6.8%, 9.7%, 5.1% and 1.5%, or $563 Million over the 4-year period. The average profit margin over the four-year period was 5.7%. Typically, industry standards for profit margin is about 2% which includes a margin for risk or contingency. In this case, the State has built a 2% risk contingency into the rates, and there is no explicit assumption for profit by Mercer. Noting this, the 5.7% is a deviation from the expected rates and results in excess profits for the LME/MCOs. As a general statement, LME/MCOs had excessive profits in the early years of managed care, which have moderated in the most recent year reviewed. We believe several factors contributed to higher profits, including:

- Inadequate financial adjustments: Mercer recognized that the financial experience was producing excessive profits and added a financial adjustment to rate tracks that utilized the FFS data. We believe this was appropriate but recognize that Mercer could have used much larger adjustments and put more credibility in the emerging information.

- Timely use of managed care encounter data: Prior to SFY 2017 Mercer blended managed care experience with FFS experience. Mercer only utilized managed care experience once there were full years of experience. Mercer could have provided more weight to the emerging managed care data. Given the potentially large differences between FFS and manage care utilization, it would have been beneficial for Mercer to utilize as much available managed care experience as possible.

- Conservative Trend Assumptions. Segal observed that FFS costs were declining in the years leading up to managed care. There are likely a number of reason for this, some of which not trend related, such as program changes or fee schedule changes. Without having all the appropriate data it is hard for Segal to make more than a high level observation. Mercer projected modest, but increasing overall cost trends for FFS experience in the early years of managed care rate setting. More credibility could have been given to the experience trends or possibly using more aggressive assumptions.

- Managed care adjustments. When FFS was utilized for some or all of the historical claims experience, Mercer applied a managed care adjustment to bring the FFS data equivalent to managed care levels of care. In combination with the trends utilized, it appears that the managed care adjustments were likely also a conservative estimate applied by Mercer.

- 1915(b)(3) rates development. Mercer based the early years of 1915(b)(3) rates on actual experience from the Piedmont Region. Mercer accounted for a "ramp-up" period in the rate setting, but assumed rates consistent with the mature Piedmont Regions would be

achieved early on in the managed care process. However, Mercer notes in subsequent rate developments that the actual "ramp-up" period took much longer than expected, which implies the earlier 1915(b)(3) rates were overstated.

- Administration costs as a percent of final rates have been fairly consistent in the three years reviewed. Overall, the administration expenses have been within 1% of the administration revenue collected. However, by individual year, the administration revenue was substantially higher than expenses in the early years and has been substantially lower in more recent years.

- Potentially unreliable FFS data: Segal was not provided any information to determine whether the FFS data utilized was appropriate and/or valid. Given Mercer's experience with DHHS, we would expect the data to be appropriate but have nothing from which to confirm the original data books. This is significant given the large overstatement of the rate in the first three years of managed care, where FFS data was utilized.

In addition, Segal was provided a letter from CMS to DHHS, dated March 24, 2016, noting that in SFY 2015, the year with the largest profits, there were numerous documentation deficiencies noted in the rate amendments for six LME/MCOs for the rating period January 1, 2015 to June 30, 2015. While the rates were approved by CMS, the letter noted the certification lacked support in multiple areas. Also, the letter states that the rate amendments were submitted to CMS on September 21, 2015, which is after the rate amendment period. Again we question why additional information was not utilized when additional information was available at that time. This letter is included in our appendix as Exhibit S.

While difficult to estimate the impact of a managed care environment when moving from a FFS environment, the combination of the various assumptions utilized resulted in overly conservative contract rates. While Mercer made adjustments as more managed care data became available, it could have been applied earlier and with more credibility. Furthermore, the State chose to contract with the LME/MCOs at or near the low end of the rate range provided by Mercer. If the State would have been more conservative in contracting, using a different point within the rate range, profits would have increased by as much as 4% and 9% depending on the LME/MCO and year.

Mercer's actuarial assumptions were especially conservative considering the LME/MCOs are defined in North Carolina General Statute as political subdivisions of the State. Their risk reserve is funded and guaranteed by the State in the event of dissolution. Any profit the LME/MCOs accumulate is theirs to keep and can be spent at their discretion, with nothing contractual in place allowing the State to recover the overage.

A review of the individual LME/MCOs indicates a need for additional financial analysis. Some LME/MCOs have continually had higher profit margins than other LME/MCOs. This is detailed later in the report.

Assessment of the Rate Setting Process

The following is the general rate setting methodology used by Mercer in all three rating years reviewed by Segal:

- Collect baseline data – either LME/MCO managed care data or FFS regionally mapped data

- Build data books – making data adjustments, bucketing and mapping the data into categories of aid and service types, developing utilization and costs, etc.
- Obtain eligibility data information from State eligibility files
- Develop a base experience cost by blending at least two historical experience years, using various credibility weightings. All years were normalized to the current period with trend and program adjustments.
- Develop a contract period cost projection by adjusting the base costs by trend, managed care utilization impacts, program changes and, in some years, adjustments for emerging financial data.
- Add a load for administration costs. This would include general administration, care coordination costs and risk reserve.
- Develop a rate range with lower and upper bounds by adjusting some of the assumptions, primarily trend and/or managed care adjustments.

Throughout the process outlined above Mercer stated that they reviewed the data for quality and completeness in order to deem the data sufficient to support rate setting. While Mercer's data review was limited and they could not identify all data issues, where deficiencies were found Mercer attempted to make adjustments to the data. Mercer also compared encounter data to financial statements to check for reasonableness and completeness.

The rate setting process described above and various data checks performed by Mercer are considered reasonable and appear to follow the actuarial soundness guidance.

Data Book Validation

OSA requested Segal perform a data validation of the data books utilized and developed by Mercer as the base data in the rate setting process. An analysis and data validation of all LME/MCOs for all SFYs would be a very time and effort intensive process. OSA and Segal agreed to validate only the Alliance and Cardinal data books, the two largest LME/MCOs, for SFY 2017. We agreed that this would be a reasonable check on Mercer's overall processes.

The intent of the data book is to summarize historical data on the cost and utilization patterns of Medicaid eligibles for the various LME/MCOs. The managed care data, summarized in the data books, include eligibility data, encounter data submitted by the individual LME/MCOs, and reported financial information. From the information provided, Mercer develops baseline data (demographic, utilization and cost) as the starting point for their rate certification. Any deviations, higher or lower, would flow directly into the actuarial rates.

Segal obtained the raw data originally utilized by Mercer for the Alliance and Cardinal LME/MCOs and attempted to re-create the data books. In re-creating the data books, Segal followed the methodology and adjustments outlined in Mercer's data book reports. Segal's attempt at re-creating the data books resulted in member months matching exactly and claims data slightly lower than reported in the data book. The claims variance was worth an average of $460,000, or 0.15%, each year for Alliance and an average of $2,190,000, or 0.5%, each year for Cardinal. We found similarly low variances by Category of Aid and Category of Service. Given the scope of the review,

Segal finds that the data books developed by Mercer adequately reflect the encounter and financial data of the Alliance and Cardinal LME/MCOs for SFY 2017.

As noted, Segal validated the data books used for SFY 2017 rate setting for Alliance and Cardinal only. Determining the validity of the remaining LME/MCOs and SFYs was outside the scope of our review. However, Segal did confirm with Mercer that they used the same grouping methodology for all LME/MCOs when grouping encounter and eligibility data into categories of service and categories of aid. Mercer also confirmed that they "generally used" the same methodologies to determine the categories of service and categories of aid in SFYs 2015 and 2016.

Background

The North Carolina Office of the State Auditor (OSA) engaged Segal to provide professional and expert services to review the capitation rate setting process for the North Carolina Medicaid Behavioral Health Program as part of their comprehensive audit.

Our review officially began on September 11, 2017 with a meeting amongst the North Carolina Department of Health and Human Services (DHHS), OSA, Mercer and Segal Consulting (Segal) in Raleigh, North Carolina. The meeting was attended by the various parties both in person and as part of a conference call. At this meeting, it was agreed that the services performed would include:

- An independent review and assessment of the SFY 2015 – SFY 2017 Behavioral Health Medicaid managed care capitation rate development;
- Determination of whether the assumptions utilized by Mercer in their rate development produced "actuarially sound" rates;
- An assessment of procedures or assumptions by Mercer which may have adversely impacted the rate development and determination if any of these procedures or assumptions continue to be practiced;
- Data validation of the Alliance Behavioral Healthcare (Alliance) and Cardinal Innovations HealthCare Solutions (Cardinal) Local Managed Entity/Managed Care Entity (LME/MCO) data books used in developing the SFY 2017 Behavioral Health Medicaid capitation rates.

In SFY 2017, there were eight LME/MCOs covering different regions of the state's Behavioral Health Program. Segal reviewed SFY 2015, SFY 2016 and SFY 2017 Behavioral Health capitation rates for the following LME/MCOs:

- Alliance Behavioral Healthcare (Alliance)
- Cardinal Innovations HealthCare Solutions (Cardinal)
  - Includes former MeckLink
- CenterPoint Human Services (CenterPoint)
  - Merged with Cardinal effective 7/1//2016
- Eastpointe
- Partners Behavioral Health Management (Partners)
- Sandhills Center (Sandhills)
- Smoky Mountain Center (Smoky)
  - Currently VAYA
- Trillium Health Resources (Trillium)
  - Formerly Coastal Care and East Carolina Behavioral Health (ECBH)

Each LME/MCOs and is responsible for a separate North Carolina rating region which consists of a grouping of individual counties. These LME/MCOs are defined in North Carolina General Statute as political subdivisions of the state. Their risk reserve is funded and guaranteed by the State in the event of dissolution. Any profit the LME/MCOs accumulate is theirs to keep and can be spent at their discretion. All individual counties have been in the same rating region for all reviewed contract periods. However, different LME/MCOs may have merged, changed

names or been responsible for different regions throughout the review periods. A summary of LME/MCOs, effective dates, counties covered and mergers is included in Exhibit A of the Appendix.

Regional capitation rates were developed for the following rate category groupings. The different rating groups were determined based on characteristics that cause costs to differ materially, such as age and Medicaid eligibility group and represent varying levels of risk. The rating groups are:

- Aid to Families with Dependent Children (AFDC), Ages 3+
- Foster Children, Ages 3+
- Aged, Ages 65+
- Blind and Disabled, Ages 3-20
- Blind and Disabled, Ages 21+
- Innovations, All Ages

Over the course of the next several months after our initial meeting, Segal received hundreds of files from OSA, DHHS and Mercer. These files included, but were not limited to, the following in our evaluation of the rate development and data validation:

- Data extracts submitted by Alliance and Cardinal to Mercer for the data book
- Global Eligibility Files, both detailed and summarized
- Behavioral Health data books for all LME/MCOs for all SFYs
- Financial Statements as of June and December for the time period reviewed
- Mercer Actuarial Certifications
- CMS approval of Behavioral Health capitation rates
- Revenue capitation payment files
- LME/MCO managed care effective date timeline
- Geographical map of North Carolina counties with respective LME/MCOs

A more detailed listing of the relevant files received can be found in Exhibit B of the Appendix.

In addition to our review of the information, we had ongoing weekly communication with OSA as well as additional conference calls and e-mails with DHHS and Mercer to clarify the data and documents received and to discuss questions encountered during the review. The complex nature of the data validation files required several iterations before they were determined to be sufficient for our review. In total, the data files and documents received for both the rate development review and data validation provided sufficient information for our review.

Guidance from the Actuarial Standards Board and CMS

In conducting our review, we relied upon two main sources for guidance. The first source was Actuarial Standard of Practice (ASOP) No. 49 - Medicaid Managed Care Capitation Rate Development and Certification - released March 2015 and effective August 2015. This was the first official ASOP pertaining to Medicaid capitation rate setting and established guidance for actuaries who may be developing, certifying, or reviewing Medicaid Managed Care capitation rates to determine whether the rates meet the actuarial soundness requirements in 42 CFR 438.6(c).

Prior to the release of ASOP 49, actuaries relied upon non-binding guidance such as the American Academy of Actuaries' August 2005 practice note entitled Actuarial Certification of Rates for Medicaid Managed Care Programs. ASOP 49 incorporates the appropriate aspects of methods already part of ongoing actuarial work in states. Therefore, we were able to rely on this ASOP as guidance for review of all certifications including those filed prior to the final release in 2015.

For the purpose of certifying rates to CMS, ASOP 49 defines "actuarial soundness" as follows:

> ***Actuarially Sound/Actuarial Soundness:*** *Medicaid capitation rates are "actuarially sound" if, for business for which the certification is being prepared and for the period covered by the certification, projected capitation rates and other revenue sources provide for all reasonable, appropriate, and attainable costs. For purposes of this definition, other sources include, but are not limited to, expected reinsurance and governmental stop-loss cash flows, governmental risk adjustment cash flows, and investment income. For purposes of this definition, costs include, but are not limited to, expected health benefits, health benefit settlement expenses, administrative expenses, the cost of capital, and government-mandated assessments, fees, and taxes.*

The second source of guidance was provided by the Centers for Medicare and Medicaid Services (CMS) and has been updated each of the past few years to be more detailed with regard to documentation included in the rate certifications when setting rates for any managed care program subject to the actuarial soundness requirements in 42 CFR 438.6. The annual updates include information regarding new populations covered and emerging managed care programs as well as details on documentation required with certifications. While the form of required documentation may be different over the years reviewed, it does not materially change the ongoing actuarial work that we reviewed in this case.

The CMS documents included in our review are the PAHP, PIHP[1] and MCO Contracts Financial Review Documentation for At-risk Capitated Contracts Rate-setting, known as the CMS Checklist, 2015 Managed Care Rate Setting Consultation Guide and 2016 Medicaid Managed Care Rate Development Guide. These documents define the criteria to which the actuarial certification of the capitation rates must adhere. Rates must be actuarially sound, meaning that the rates were developed in accordance with generally accepted actuarial principles and practices and are appropriate for the population to be covered as well as the services to be furnished under the contract.

In addition, the actuary providing the certification must meet the qualification standards established by the American Academy of Actuaries and follow all Actuarial Standards of Practice with ASOP 49 being especially relevant because it focuses on the development of Medicaid managed care rates and the requirements under 42 CFR 438.6.

We have relied upon these documents and our experience with Medicaid Managed Care Rate Setting to provide our best assessment of the North Carolina Medicaid Behavioral Health Managed Care Rate Setting process. Our review will focus on the following components included in the rate development:

[1] Each Local Management Entity/Managed Care Organization (LME/MCO) in North Carolina contract with the state to operate as a Prepaid Inpatient Health Plan (PIHP). 42 CFR 438 defines PIHP as "an entity that provides services to enrollees under contract with the State, and on the basis of capitation payment…"

1. Base Data
2. Adjustments to Base Data
3. Program Adjustments
4. Claim Cost Trends
5. Managed Care Adjustments
6. Administrative Cost Allowance
7. Rate Ranges
8. Plan Profitability

The following sections provide additional details from our review.

Data Book Validation

This section covers the process that Segal undertook to validate the membership (member months), finances (paid claims), and utilization (units) presented in the data books as a starting point for rate development. Segal confirmed with Mercer that they used the same grouping methodology for all LME/MCOs when grouping encounter and eligibility data into categories of service and categories of aid in all rate developments. Given the consistency of data book methodology over all LME/MCOs and SFY rating periods, and the volume of data supporting the rate developments under review, OSA requested Segal validate the data in the SFY 2017 data books for the two largest LME/MCOs, Alliance and Cardinal.

Segal performed a validation analysis for both SFY 2017 LME/MCO data books, which included SFY 2014 and SFY 2015 data. The goal of the data validation exercise was to compare the reports in the data books to the raw data received and used by Mercer, focusing on the percentage differences for "Member Months," "Paid Claims," and "Units." Segal followed Mercer's methodology in adjusting the raw claims encounter data, as described in each data book.

Segal evaluated all combinations exhibited in the data books, varying by Managed Care Organization ("MCO"), State Fiscal Year ("SFY"), Category of Aid ("COA"), and Category of Service ("COS").

Details of the data definition, claims data mapping and exclusions followed by Segal in performing the data validation are located in Exhibit C of the Appendix.

Segal Observations – Member Months

When comparing the data book information to the values from the raw data feed, the member months match perfectly. Results are shown below for each LME/MCO by SFY and COA.

Alliance				
		Member Months		
Time Period	Category of Aid	Data book	Data Feed	% difference
SFY 2014	**All**	**2,411,999**	**2,411,999**	**0.0%**
	AFDC, Ages 3+	1,737,838	1,737,838	0.0%
	Foster Children, Ages 3+	31,861	31,861	0.0%
	Aged, Ages 65+	167,745	167,745	0.0%
	Blind and Disabled, Ages 3–20	103,800	103,800	0.0%
	Blind and Disabled, Ages 21+	351,232	351,232	0.0%
	Innovations, All Ages	19,523	19,523	0.0%
SFY 2015	**All**	**2,670,092**	**2,670,092**	**0.0%**
	AFDC, Ages 3+	1,984,193	1,984,193	0.0%
	Foster Children, Ages 3+	35,733	35,733	0.0%
	Aged, Ages 65+	171,665	171,665	0.0%
	Blind and Disabled, Ages 3–20	105,744	105,744	0.0%
	Blind and Disabled, Ages 21+	352,561	352,561	0.0%
	Innovations, All Ages	20,196	20,196	0.0%

Cardinal				
		Member Months		
Time Period	Category of Aid	Data book	Data Feed	% difference
SFY 2014	**All**	**3,898,527**	**3,898,527**	**0.0%**
	AFDC, Ages 3+	2,814,024	2,814,024	0.0%
	Foster Children, Ages 3+	43,129	43,129	0.0%
	Aged, Ages 65+	312,729	312,729	0.0%
	Blind and Disabled, Ages 3–20	128,798	128,798	0.0%
	Blind and Disabled, Ages 21+	569,611	569,611	0.0%
	Innovations, All Ages	30,236	30,236	0.0%
SFY 2015	**All**	**4,354,367**	**4,354,367**	**0.0%**
	AFDC, Ages 3+	3,248,091	3,248,091	0.0%
	Foster Children, Ages 3+	45,742	45,742	0.0%
	Aged, Ages 65+	320,485	320,485	0.0%
	Blind and Disabled, Ages 3–20	131,793	131,793	0.0%
	Blind and Disabled, Ages 21+	576,475	576,475	0.0%
	Innovations, All Ages	31,781	31,781	0.0%

Segal Observations – Claims

When comparing the data book information to the values from the data feed, including the adjustment amounts described in the data books, the claims data varies slightly. Results are shown below for each LME/MCO by SFY and COA, with adjustments outlined in the data books for completion factors, payments outside the claims system and patient liability offsets. Refer to the Appendix Exhibit D for a detailed comparison by category of service. Overall, Segal finds that the data books developed by Mercer are within reason.

Alliance					
		Paid Claims		Variance	
Time Period	Category of Aid	Data book (Encounter)	Data Feed (Adjusted)	$	%
SFY 2014	**All**	**$305,542,967**	**$305,026,497**	**$516,470**	**0.2%**
	AFDC, Ages 3+	$76,302,456	$76,162,495	$139,961	0.2%
	Foster Children, Ages 3+	$23,873,207	$23,856,278	$16,929	0.1%
	Aged, Ages 65+	$6,633,322	$6,630,759	$2,563	0.0%
	Blind and Disabled, Ages 3–20	$36,471,035	$36,434,381	$36,654	0.1%
	Blind and Disabled, Ages 21+	$88,635,683	$88,526,917	$108,766	0.1%
	Innovations, All Ages	$73,627,267	$73,415,667	$211,600	0.3%
SFY 2015	**All**	**$321,468,078**	**$321,065,757**	**$402,321**	**0.1%**
	AFDC, Ages 3+	$81,755,069	$81,646,708	$108,361	0.1%
	Foster Children, Ages 3+	$25,109,990	$25,085,960	$24,030	0.1%
	Aged, Ages 65+	$8,312,274	$8,308,337	$3,937	0.0%
	Blind and Disabled, Ages 3–20	$33,262,569	$33,258,059	$4,510	0.0%
	Blind and Disabled, Ages 21+	$95,001,497	$94,940,486	$61,011	0.1%
	Innovations, All Ages	$78,026,681	$77,826,207	$200,474	0.3%

Alliance				
			Paid Claims	
Time Period	Category of Aid	Data Feed (Unadjusted)	Adjustment Amount ($)	Data Feed (Adjusted)
SFY 2014	**All**	**$305,008,742**	**$17,755**	**$305,026,497**
	AFDC, Ages 3+	$76,143,798	$18,697	$76,162,495
	Foster Children, Ages 3+	$23,841,292	$14,986	$23,856,278
	Aged, Ages 65+	$6,633,356	$(2,596)	$6,630,759
	Blind and Disabled, Ages 3–20	$36,431,041	$3,340	$36,434,381
	Blind and Disabled, Ages 21+	$88,550,775	$(23,858)	$88,526,917
	Innovations, All Ages	$73,408,481	$7,186	$73,415,667
SFY 2015	**All**	**$318,358,904**	**$2,706,853**	**$321,065,757**
	AFDC, Ages 3+	$80,560,119	$1,086,589	$81,646,708
	Foster Children, Ages 3+	$24,779,809	$306,151	$25,085,960
	Aged, Ages 65+	$8,262,750	$45,587	$8,308,337
	Blind and Disabled, Ages 3–20	$32,846,511	$411,548	$33,258,059
	Blind and Disabled, Ages 21+	$94,210,532	$729,955	$94,940,486
	Innovations, All Ages	$77,699,183	$127,024	$77,826,207

Cardinal					
		Paid Claims		Variance	
Time Period	Category of Aid	Data book (Encounter)	Data Feed (Adjusted)	$	%
SFY 2014	**All**	**$434,618,999**	**$432,946,144**	**$1,672,855**	**0.4%**
	AFDC, Ages 3+	$83,509,627	$83,285,757	$223,870	0.3%
	Foster Children, Ages 3+	$21,670,358	$21,660,723	$9,635	0.0%
	Aged, Ages 65+	$14,649,117	$14,649,514	$(397)	0.0%
	Blind and Disabled, Ages 3–20	$35,072,560	$35,083,070	$(10,510)	0.0%
	Blind and Disabled, Ages 21+	$134,608,766	$134,525,438	$83,328	0.1%
	Innovations, All Ages	$145,108,574	$143,741,642	$1,366,932	1.0%
SFY 2015	**All**	**$462,003,015**	**$459,294,991**	**$2,708,024**	**0.6%**
	AFDC, Ages 3+	$85,387,137	$85,277,421	$109,716	0.1%
	Foster Children, Ages 3+	$22,018,876	$22,008,396	$10,480	0.0%
	Aged, Ages 65+	$17,573,633	$17,577,598	$(3,965)	0.0%
	Blind and Disabled, Ages 3–20	$33,862,262	$33,827,879	$34,383	0.1%
	Blind and Disabled, Ages 21+	$150,208,378	$150,130,609	$77,769	0.1%
	Innovations, All Ages	$152,952,726	$150,473,088	$2,479,638	1.6%

Cardinal				
			Paid Claims	
Time Period	Category of Aid	Data Feed (Unadjusted)	Adjustment Amount ($)	Data Feed (Adjusted)
SFY 2014	**All**	**$431,378,103**	**$1,568,041**	**$432,946,144**
	AFDC, Ages 3+	$82,771,133	$514,624	$83,285,757
	Foster Children, Ages 3+	$21,597,075	$63,648	$21,660,723
	Aged, Ages 65+	$14,652,539	$(3,025)	$14,649,514
	Blind and Disabled, Ages 3–20	$34,959,658	$123,412	$35,083,070
	Blind and Disabled, Ages 21+	$134,321,487	$203,950	$134,525,438
	Innovations, All Ages	$143,076,211	$665,432	$143,741,642
SFY 2015	**All**	**$455,488,122**	**$3,806,869**	**$459,294,991**
	AFDC, Ages 3+	$83,559,127	$1,718,294	$85,277,421
	Foster Children, Ages 3+	$21,754,425	$253,971	$22,008,396
	Aged, Ages 65+	$17,528,854	$48,744	$17,577,598
	Blind and Disabled, Ages 3–20	$33,418,360	$409,520	$33,827,879
	Blind and Disabled, Ages 21+	$148,964,145	$1,166,465	$150,130,609
	Innovations, All Ages	$150,263,212	$209,877	$150,473,088

Rate Development Components

The rate development methodology varied by LME/MCO by year depending on the length of time since implementation of managed care. However, a similar methodology was followed depending on the managed care "year" of each LME/MCO. Mercer defined a managed care "year" to be the number of full fiscal years since the region was converted to managed care. In year one and year two, the rate development was based entirely on Fee-For-Service (FFS) historical claims. In year three, the rate development used a blend of FFS and managed care data. In years four or more, the rate development used two years of managed care data.

During the review period, there were several mergers of LME/MCOs. In SFY 2016, ECBH and CoastalCare merged and changed their name to Trillium. Cardinal has been servicing the Piedmont region and in SFY 2015 expanded into additional counties around that area. The Expansion and Piedmont regions were combined in SFY 2015 to create the Cardinal LME/MCO. Then in SFY 2016, Cardinal and Mecklenburg merged, and the name Cardinal was kept for the new entity. Centerpoint merged with Cardinal as well in SFY 2017. The name of the new LME/MCO remained Cardinal.

Base Data

Each region consists of a group of counties that are serviced by one Local Management Entity/Managed Care Organization (LME/MCO). Most regions transitioned from Fee-for-Service to managed care on or about January 1, 2013. For those LME/MCOs, the first full year of managed care was SFY 2014. The exceptions were Smoky, ECBH, and parts of Cardinal. Below is a complete table of the LME/MCOs, their effective dates, and the number of years under managed care for each of the fiscal years discussed in this audit report.

LME/MCOs	Start of MC Servicing	Managed Care Development Overview			
		SFY 2014	SFY 2015	SFY 2016	SFY 2017
Alliance	2/1/2013	1	2	3	4
Cardinal - Expansion	4/1/2012	2	3	4	5
Cardinal - Piedmont	unknown	5	6	7	8
Cardinal - Mecklenburg	2/1/2013	1	2	3	4
Cardinal - Centerpoint	2/1/2013	1	2	3	4
Eastpointe	1/1/2013	1	2	3	4
Partners	2/1/2013	1	2	3	4
Sandhills*	12/1/2012	1	2	3	4
Smoky	7/1/2012	2	3	4	5
Trillium - CoastalCare	2/1/2013	1	2	3	4
Trillium - ECBH	4/1/2012	2	3	4	5

*Guilford County was included in the Sandhill coverage area starting 4/1/2013

Method 1 - Rate Development using FFS Data

Mercer utilized only FFS data for the development of rates until there was one full fiscal year of managed care experience available. For most LME/MCOs one full year of experience was available starting with the 3rd year of rate development. Therefore, only FFS data was utilized in the first two years of managed care rate development.

Three years of FFS data were trended to the same time period, adjusted for data and program changes and blended 10%/20%/70% to calculate the base period data.

Many of the LME/MCOs do not have a rate development for FY 2015. There is a rate development for CY 2014 rates for 6 of the LME/MCOs. Then, the CY 2014 rates were trended forward for half a year to the end of June 2015 so that the LME/MCOs could be synchronized on a fiscal year basis.

Segal Observations

Mercer chose to use 3 years of FFS data to provide better credibility to the base data. We understand the logic behind Mercer's decision, but believe the dated FFS data does not provide much actuarial value. It seems apparent that Mercer had a similar thought since the earliest year is only weighted 10% and the subsequent year is only weighted 20%. Given the decreasing experience PMPMs over those 3 years, rudimentary calculations, given the limited information in the certifications, would indicate the FFS weighted rate could be overstated as a starting point by 1-2%.

Segal did not receive the certification letters for the half-year rate developments, only the final CMS approval letter. Other than the total trends assumptions for the additional half year, Segal was not provided any of the underlying trend detail. It is unknown what financial experience adjustments were made for the half year. However, it is possible that at least a full year of managed care experience would have been available if the 1/1/2015 – 6/30/2015 rates were developed following the methodology for the other rating periods.

Method 2 - Rate Development using a Blend of FFS and Managed Care Data

In the third year of managed care rate development, the 1st complete year of managed care claims experience was available. For most LME/MCOs, this was SFY 2016. For rate setting, Mercer utilized the one full year of managed care experience (SFY 2014) and blended with the prior year's contracted rate, which was based on all FFS data (CY 2010 – 2012). After applying additional assumptions to the two separate base rates, Mercer blended the managed care and FFS base rates by 60/40 respectively.

Segal Observations

Once again, given the high volume of member months for each LME/MCO, Segal notes that giving full credibility to one year of data would have been reasonable. Because of the addition of the managed care experience year, the 3rd managed care contract rates were created based on composition of 4 years of claims (CY 2010-2012 and SFY 2014) which spans over 5 years. This is a large number of years given the size of the LME/MCOs. Even for small entities, basing current rates on information over 5 years old is rare.

Method 3 - Rate Development using Managed Care Data

All regions were at least entering their fourth year of managed care in SFY 2017. In years four or more of managed care rate development, two complete years of managed care claim experience was available. For rate setting, Mercer utilized the two latest full years of managed care experience to calculate a base claims rate.

Mercer applied trend and program change factors to the first experience year to bring it equivalent to the second experience year. There was insufficient information in order to reproduce the Base PMPM which was designed by category of service, but the aggregate change due to these assumptions were given for each LME/MCO. Mercer used an 80/20 SFY 2015 to 2014 blend for the Base PMPM.

Segal Observations

Although Segal was unable to reproduce the Base PMPMs due to insufficient information in the rate certification, Segal was able to approximate the Base PMPMs from the given information. Segal's approximated Base PMPMs, while not exactly the same as Mercer's PMPMs, were sufficiently close such that we were comfortable with the Mercer calculations.

Mercer used 80% credibility for the most recent year. Segal is perplexed on why this was not employed earlier when the blending was done where only 60% of the managed care data was used. Also, unlike with the FFS experience, Mercer did not utilize three years of managed care data to set the base PMPM where available. This would have been possible for the Smoky and Cardinal LME/MCOs in SFY 2017. We believe these arguments support our earlier comments of utilizing more recent data vs. dated information (blended development), as well as our comments on credibility of the information used (FFS-based development).

Mercer's base rate development for each of the different methodologies is within the CMS guidelines. In the 2016 CMS Managed Care Rate Development Guide, it does say that Mercer "must thoroughly describe any significant adjustments" that are made to the data. These guidelines are applicable to the 2017 rate certification. Mercer does not provide complete details in the 2017 rate certification on how the base data was modified. Segal would recommend the State ask for a fully auditable rate certification letter in the future.

Claim Cost Trend

Mercer determined and applied the change due to the claim cost trend, or annual trend, separately by category of service and by LME/MCOs. Mercer stated that a variety of sources were reviewed in order to obtain the annual trend rates each year. These sources included, but were not limited to:

- Past experience, both claim data and financial statement data
- Health Care economic indices
- Other national information for state Medicaid programs

Trend for SFY 2015 Rate Certification and Prior

For the SFY 2015 and prior contract years, Mercer notes they developed and applied annual trend by category of service. However, only the aggregate annual trend change from the base CY PMPM were provided in the rate certifications. The aggregate LME/MCO trend factors given by Mercer ranged from 1.8% to 2.6% annually from the base rate PMPM to the rating period for each LME/MCO.

Segal Observations

Segal was unable to determine the appropriateness of the individual utilization and cost trends

since only aggregated trends were provided. However, the aggregate LME/MCO trend factors given by Mercer were all within reason. Segal does note that North Carolina's FFS Medicaid Behavioral Health claims experience was decreasing in the years prior to managed care implementation. In the historical experience periods of CY 2010, CY 2011, and CY 2012, it was observed that utilization and unit cost trend decreased overall, but fluctuated highly across many service categories. It's difficult to distinguish effects of annual trend versus the managed care impact in the managed care implementation. Mercer selected to use trends which were slightly positive and consistent with the marketplace as opposed to using negative trends which were the recent observed trends for this program. This assumption is reasonable, however, this more than likely contributed to the larger profits seen in the first years of managed care.

Trend in SFY 2016 Rate Certification

In the 2016 SFY rate certifications, the annual trend was developed by category of service for each LME/MCO. Most regions were entering their 3rd year of managed care and two separate annual trends were utilized for the different blending tracks. The category of service annual trends were the same for both tracks for every LME/MCO except Trillium which had two slightly different category of service annual trends. Though the trends for category of service were the same, the aggregate totals were sometimes different because of the different distribution of claims in the two tracks. The range of aggregate annual trends applied to the 2015 FFS-based contract rates were 1.9% to 2.7%. The range of aggregate annual trends applied to the managed care data was 1.9% to 2.8%. A table with the aggregate annual trend changes for each LME/MCO track is given below. The LME/MCOs with blank contract trend cells were the regions entering their 4th year of managed care in SFY 2016. As such, only encounter data was used to determine the rate. Exhibit E in the Appendix contains more detailed information by category of service.

SFY 2016 Claim Cost Trends by Region		
LME/MCOs	Contract Trend	Encounter Trend
Alliance	2.40%	2.50%
Cardinal - 15 County		2.40%
Cardinal- Mecklenburg	2.70%	2.80%
CenterPoint	1.90%	1.90%
CoastalCare	2.10%	2.10%
Eastpointe	2.40%	2.60%
ECBH		2.60%
Partners	2.10%	2.20%
Sandhills	2.10%	2.50%
Smoky		2.60%
Average	**2.24%**	**2.42%**

Segal Observations

The annual trends applied to both FFS and managed care experience were within reason. For the regions entering year 3 of managed care, Segal could recreate the aggregate encounter trends using the base category of service percentages provided. However, Segal could not do the same with the FFS-contract rate since the category of service changes weren't disclosed in the SFY 2015 rate certification.

Trend in SFY 2017 Rate Certification

In the SFY 2017 rate certification, the annual trend was broken down by utilization and unit cost. Mercer changed their methodology in SFY 2017 with respect to annual trends and rate ranges. In previous certification letters the annual trends were provided that would be used to calculate the target rate. As a follow-up step, these trends would be adjusted to produce the lower and upper bounds of the rate ranges. In 2017, the annual trend assumptions for utilization and unit costs were given in terms the lower and upper bounds of the rate range instead of the targeted rate for each LME/MCO. The table below shows the aggregate lower and upper bounds for utilization and unit cost.

SFY 2017 Prospective Trend Assumptions		
LME/MCO	Lower Bound Unit Cost / Utilization	Upper Bound Unit Cost / Utilization
Alliance	1.6% / -0.5%	2.1% / 1.7%
Cardinal	0.5% / 1.0%	0.5% / 3.8%
CenterPoint	0.6% / 0.4%	0.6% / 3.2%
Eastpointe	0.5% / 0.7%	0.5% / 3.6%
Partners	1.1% / 0.2%	1.1% / 2.7%
Sandhills	1.6% / 0.4%	1.6% / 3.3%
Smoky	0.7% / 1.6%	0.7% / 3.9%
Trillium	0.9% / 1.1%	0.9% / 3.4%

1) Numbers above are aggregate. Category trends are different for each region.
2) Trend applied to Base SFY 2015, which is the combined 2014 and 2015 data.

Segal Observations

The lower and upper bound range for utilization varied between -0.5% and 3.9% respectively, with an average spread of 2.6%. The lower and upper bound range for unit cost varied between 0.5% and 2.1% respectively, with an average spread of 0.1%. Assuming the mid-point is the target trend, on average the calculated utilization trend is 1.9% and the cost trend is 1.0%, or about 2.9% in total. Though these trend projections appear reasonable, the information in the financials continued to show a trend that was less than the assumed trends. Segal believes there may be lingering effects of managed care implementation that are slowing down the annual trend. There was no application of a lingering managed care impact for SFY 2014 in the SFY 2017 rate development, but the SFY 2014 data was adjusted for a lingering managed care impact in the SFY 2016 rate development.

Program Changes

Modifications to rates due to historical program changes were factored into the experience data in all of the reviewed rate developments. Details of the program changes were explicitly given in each of the SFY rate certification letters. For the most part, the same historical program changes were factored in across all LME/MCOs in each rate certification year. The exceptions to this were seen for the Smoky, Sandhills, and Cardinal regions, which started their managed care implementation earlier. Though the program changes were the same in name and ultimate design, different percentages were applied for each region. The range of aggregate percentage change for program changes between all years and LME/MCOs was -1.8% to 4.3%. Exhibits F through I in the Appendix contain tables with all program factor changes for all LME/MCOs.

A list of program changes is given below for each year. Unless otherwise specified, program changes applied to all regions.

2015: Cardinal, Smoky, and Sandhills were only included when specified

- Enhanced Services Fee Schedule Change
- ICF-MR Per Diem Change
- Addition of Community Guide as an Innovations Service
- CM/C2 Innovations Impact
- Physician Cost Reimbursement Policy Change – Include Cardinal, Smoky
- Addition of FFS Copayments
- State Facility Per Diem Change – Include Cardinal , Sandhills, Smoky
- Shared Savings Plan
- Outpatient Hospital Share
- Impact of Supplemental Payments – Include Cardinal, Sandhills, Smoky
- US DOJ Civil Rights Division Settlement – Include Cardinal, Sandhills, Smoky
- Affordable Care Act – Include Cardinal, Smoky
- 1915(b)(3) Service Array Enhancements – ONLY Cardinal no other region

2016: All regions unless specified

- State Facility Per Diem Change
- Medical Detoxification Codes
- Miscellaneous / Testing Codes
- Physician Cost Reimbursement Policy Change
- Prior FFS Hospital Supplemental Payments
- US DOJ Civil Rights Division Settlement
- Affordable Care Act
- 1915(b)(3) Service Array Expansion – ONLY Cardinal no other region
- Shared Savings Plan – ONLY Sandhills no other region

2017: All Regions

- State Facility Per Diem Change
- Medical Detoxification Codes
- Testing Codes
- TCLI
- Coverage Expansion for Children with ASD

Segal Observations

It was beyond the scope of this report to judge the appropriateness of each program change. Segal also did not have sufficient data to determine if the adjustment calculated by Mercer were accurate. Adjustments for program changes are appropriate to normalize historical experience to the level of benefits or fee structure as of the contract period. It is reasonable to have different program changes based on the level of FFS or managed care data in the experience. Using different factors for the same program change in different LME/MCOs would be considered appropriate as the same benefit may be more or less utilized in different regions. Most of the program changes had minimal impact on the experience (0.1% or less), although some did have larger impacts (over 1%).

Overall the program changes appear to be reasonable.

Managed Care Assumption

Since in the early years of managed care rate development there was only FFS historical experience available, Mercer applied a managed care factor adjustment to the FFS experience. The adjustment reflects the changes in utilization and cost due to the switch to managed care. Mercer developed these percentages by estimating the impact of managed care implementation by category of service. Categories of service are utilized differently across categories of aid, and as such, there are different percentages of impact for categories of aid.

Most LME/MCOs were in the second year of managed care in SFY 2015. Mercer elected to use all FFS experience in order to develop the rates and excluded all managed care experience. Exhibit J1 of the Appendix shows the managed care assumptions Mercer applied to the FFS data by LME/MCO and by category of service. The aggregate impact of the managed care assumption ranged from -7.3% to -12.9%.

For the LME/MCOs in their third year of managed care, the rates were a blend of FFS and managed care experience. Mercer applied a small managed care adjustment to the 1st year managed care experience to account for the lag in managed care implementation. The aggregate impact of the managed care adjustments in the third year of managed care ranged from 0.5% to -5.3%. The positive adjustment came from the 1915(b)(3) service ramp-up discussed in another section. Exhibit J2 of the Appendix details these changes by category of service.

Segal Observations

When using FFS data to develop managed care claim costs, it is both appropriate and necessary to adjust FFS claim costs to reflect managed care levels of care. Overall, the year 2 managed care adjustments reduced FFS costs by about 10%. However, given the profits realized by the LME/MCOs in the early years of managed care it appears that this assumption may have been conservative and partially responsible for the high profits seen by the LME/MCOs.

For the third year of managed care rates it was still reasonable to apply some managed care adjustment to the managed care claims experience. Since this was the first year of managed care claims, there was likely a build-up period before the full impact of managed care utilization patterns were realized. Although Mercer applied a managed care adjustment to SFY 2014 experience in the 3rd year rate development, it did not apply that same adjustment in the 4th year rate certification to SFY 2014. Segal does not understand why an adjustment that was applied to a year of experience in a preceding year, would not be reapplied in the subsequent year.

Financial Experience Assumption

3rd Managed Care Development Year

In the 3rd year of managed care rate development, Mercer factored in a financial experience assumption into the 2nd year FFS-based contract rate. This assumption was created to rectify the material differences in revenue and expenses seen in emerging financial statements and claims

experience. Mercer did not always specify what recent financial statements were available at the time of the rate development. Most of the LME/MCOs entered into their 3rd year of managed care in SFY 2016. Given that financial statements are produced monthly, we would expect Mercer to have data at least up to the end of the second quarter of SFY 2015 (12/31/2014) during rate development.

There were three LME/MCOs whose 3rd year under managed care was SFY 2015. Although financial experience adjustments were made/discussed for that period, Segal was unable to accumulate enough vetted information from the financial statements to analyze those regions.

For LME/MCOs whose 3rd year under managed care was SFY 2016, we compared the service (claims) profit for the 6 most recent quarters capable of being used by Mercer at the time of rate development to the financial experience adjustment given in the rate certification letters. A summary is in the table below and a more detailed table is located in Exhibit K of the Appendix. A description of the columns follows:

- The "Financial Experience Average" is the average profit in the 6 quarters of financials weighted on member months.
- The "Financial Experience Adjustment" is the adjustment that Mercer applied to the FFS-contract rate.
- The "Profit Remainder" is the addition of those two. It shows how much of the profit in the recent financial experience was unaccounted for by the financial experience adjustment.
- The "SFY 2016 Profit" is the actual 2016 service (claims) profit from the financial statement.

Financial Experience Adjustment vs Actuals				
LME/MCOs	Financial Exp Avg	Financial Exp Adj	Profit Remainder	SFY 2016 Profit
Alliance	0.0%	0.0%	0.0%	5.8%
CoastalCare*	5.8%	-0.9%	4.9%	*
Centerpoint	12.1%	-7.2%	4.9%	6.2%
Eastpointe	4.9%	1.4%	6.3%	7.6%
Partners	11.1%	-3.3%	7.8%	7.9%
Sandhills	13.4%	-6.4%	7.0%	10.5%

* Could not separate CoastalCare from Trillium in SFY 2016 financials

Segal Observations

For all of the LME/MCOs except Alliance, the financial experience adjustments by Mercer were less than the profit margin in the financial experience average. For these LME/MCOs, the adjustment left an average of 6% of the profit in SFY 2016 unaccounted for on the FFS-based contract rate. Segal believes the financial experience adjustments were conservative for these reasons:

- Annual trend has already been accounted for in another assumption
- There is often a managed care lag in implementation to build-up to full managed care levels
- The risk reserves set aside in the contract were rarely touched in any region. Each LME/MCO would have had about 6% of reserve level cushion in the SFY 2016 period.

- Sufficient financial statement data was available to determine LME/MCO high profits in SFY 2014 and first half of SFY 2015.

Below is a table showing the potential adjustment savings if Mercer would have made the adjustment based on the 6 quarter average for the 6 LME/MCOs with sufficient information to draw conclusion. The FFS-contract blending percentage of 40% was used to arrive at the computed savings estimates. The total estimated savings was about $22 million. There are other experience formulations Segal could have used to derive an adjustment estimate: the latest 4 quarters could have been averaged, the quarters could have been weighted giving preference to later periods, or only SFY 2015 experience could have been used for information. All of these methodologies lean more heavily on the recent experience and resulted in a total profit remainder even higher than the 6 quarter average. Thus, the displayed savings estimates in the table below are the lower bound of potential savings. For comparison, the savings if Mercer would have only used the two quarters of SFY 2015 experience is about $31 million.

Potential Adjustment Savings		
LME/MCOs	Profit Remainder	Dollar Equivalent
Alliance	0.0%	$69,997
Centerpoint	4.9%	$2,341,417
Eastpointe	6.3%	$6,102,025
Partners	7.8%	$7,260,807
Sandhills	7.0%	$6,558,267
Total	4.7%	$22,332,513

1) Total includes above LME/MCOs only

2nd Managed Care Development Year

Most of the regions whose first full year of managed care was SFY 2014 went through periods of half year and calendar year rate developments until SFY 2016 when all of the LME/MCOs developed rates on a fiscal year basis. Sandhills was unique because it had a fiscal year rate development in SFY 2015. Mercer updated the first year FFS-based contract rates for the second year of Sandhills managed care implementation instead of recreating rates based on FFS data as with other regions. In this second year update, Mercer factored in a financial experience adjustment assumption based on the financial experience into the rates. The adjustment was -3.4%. Segal did not receive the 2013 calendar year first and second quarter financial statements. So, we were unable to do a full analysis of all the information that would have been available to Mercer. However, the third and fourth quarters of the calendar year (first two fiscal year quarters) were available. A financial experience comparison was developed like in the previous section for Sandhills. Results are below.

Sandhills SFY 2015 Financial Experience Comparison					
SFY 2014		Financial Exp Avg	Financial Exp Adj	Profit Remainder	SFY 2015 Profit
Q1	Q2				
0.1%	21.7%	10.9%	-3.4%	7.5%	19.7%

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Segal Observations

Looking at Sandhills' profit for the 2 quarters, you can see that there is a large variance. Large variances such as this make estimating future results difficult.

There were 6 LME/MCOs who went through a half-year rate renewal process for the second half of SFY 2015, their second year under managed care. Segal was not provided the rate certification letters for these dates, but since the profits for all of the LME/MCOs were high, it is presumed that prior rates were trended forward without sufficient financial experience adjustments. These LME/MCOs would have had more information than Sandhill in its SFY 2015 fiscal year development so financial experience adjustments could have been utilized. Similar analyses can be created for these LME/MCOs with the rate certification details.

1915(b)(3) Services Rate Development

Introduction

North Carolina DHHS has elected to offer additional benefits in the Behavioral Health managed care program under the 1915(b)(3) waiver. This allows the State to offer non-Medicaid services to beneficiaries. These additional services include the following for all LME/MCOs:

- Respite
- Psychosocial Rehabilitation/Peer Supports
- Community Guide
- Supported Employment/Employment Specialist
- Personal Care/Individual Support
- One-time Transitional Costs
- North Carolina Innovations waiver services
- Physician Consultation.

Mercer developed separate claim costs and rates for 1915(b)(3) services in each of the rating periods. These rates are added to the State Plan services rates to arrive at the final total services rates. 1915(b)(3) PMPMs vary by category of aid, but overall for most LME/MCOs they represent about 2% of the total rate. The only exception is Cardinal's 1915(b)(3) PMPM, which represented 4% to 8% of the total rate. This is due to Cardinal offering the following additional 1915(b)(3) services:

- In-Home Skill building
- Transitional Living Skills
- Intensive Recovery Support

Rate Development

For SFY 2015, Mercer analyzed historical spending specific to the Piedmont Region (part of the Cardinal service area) for 1915(b)(3) services. These costs, with Regional adjustments, were used as the base for all other LME/MCO 1915(b)(3) rates. In addition, for non-Piedmont Regions, Mercer assumed costs more consistent with earlier years of Piedmont experience due to an expected "ramp-up" effect for establishing new services. While the overall methodology used to determine the rates was given, insufficient data was provided in the data books and rate

certification to perform a recalculation of the 1915(b)(3) rates.

For SFY 2016 there continued to be insufficient data provided in the data book and rate certification to recalculate the final 1915(b)(3) rates. Again, the methodology and formulas were described. Factors that Mercer sited as contributing to the calculated rates included Piedmont Region experience, actual LME/MCO experience, information from LME/MCOs on expectations of future utilization and spend, and a general sense by Mercer that utilization of services was taking longer to ramp-up than initially assumed.

SFY 2017 was the first year at least two full years of experience was available for 1915(b)(3) services in all LME/MCOs. Sufficient information and justification was given regarding the development of the contract rate range in the 2017 rate certification letter. However, there was still a significant amount of actuarial judgment used in developing the rates. Factors such as ramp-up time, member demand and provider access influenced different LME/MCOs to different degrees. Please refer to Exhibit L in the Appendix, 1915(b)(3) Claim "Ramp-Up", for a graph provided by Mercer in the rate certification letter (recreated by Segal) that shows that the 1915(b)(3) PMPM trend by LME/MCO since the start of managed care. Because of the large variances, Mercer relied only on the SFY 2015 claims experience to project the SFY 2017 rates. Trends were applied separately by LME/MCO, but they did vary significantly from 10% to 55%.

Segal Observations

While unable to recalculate the rate development due to lack of documentation for SFY 2015 and 2016, the rating methodology as described by Mercer was reasonable. However, one theme that Mercer repeats in all SFY rate developments was that the utilization ramp-up period had taken longer than expected in the prior years' rate development. While the lower utilization pattern is described as being factored into subsequent rate developments, it continued to be an issue every year. This likely has resulted in the 1915(b)(3) rates being overstated every year. Please refer to the table below for a comparison of SFY 2015 contract rate vs. actual PMPMs.

SFY 2015 1915(b)(3) Services Comparison					
LME/MCO	Contract Rate*	Actuals	Diff	% Diff	Dollars
Alliance	$2.79	$1.43	($1.36)	-49%	($3,631,000)
Cardinal	$4.91	$5.21	$0.30	6%	$1,306,000
CenterPoint	$2.60	$0.47	($2.13)	-82%	($2,187,000)
Eastpointe	$2.87	$0.65	($2.22)	-77%	($5,077,000)
Partners	$2.44	$1.34	($1.10)	-45%	($1,988,000)
Sandhills	$3.39	$1.06	($2.33)	-69%	($4,991,000)
Smoky	$3.16	$1.21	($1.95)	-62%	($3,941,000)
Trillium	$2.87	$1.86	($1.01)	-35%	($2,269,000)
Total	$3.37	$2.14	($1.23)	-43%	($22,778,000)

* Less administration costs

In subsequent rating years the final rates did decrease and the actual experience costs did increase. As a percentage of the total rate, 1915(b)(3) services were averaging about 2.0% to 2.5% in SFY 2015 and reduced to about 1.5% to 2.0% for SFYs 2016 and 2017. So while differences in later years may not have been as high as the $22.8 million for SFY 2015, they were still likely overestimated each year. The overestimation in SFY 2015 would have contributed to the higher overall profits for LME/MCOs in that time period.

Administrative Allowances

Administrative Loads

The administration assumption is composed of the projected future expenses for items such as salaries, professional services and supplies. Projections are derived through looking at the current administrative allowances in the rates, reported administrative costs in financial statements and LME/MCO projections for future expenses. The care coordination assumption is composed of the required LME/MCO care coordination efforts. These include consideration for managed care treatment planning and also specific transition coordination and in-reach responsibilities that have been added to the LME/MCO contracts for transitions of Medicaid eligibles from institutional to community settings. A risk reserve, as defined in LME/MCO contracts with the State, is included and is intended to cover risk margin and consideration for adverse deviation. The risk reserve is a temporary administration cost until LME/MCOs have built up a sufficient risk reserve as required per the State contract, currently set at 15%.

The table below shows the LME/MCO administrative loads for each of the rate development years.

LME/MCO Total Administrative Allowances - Rate Development			
LME/MCO	SFY 2015	SFY 2016	SFY 2017
Alliance	11.30%	11.46%	11.67%
Cardinal	12.19%	12.64%	12.33%
CenterPoint	13.60%	14.77%	15.23%
Eastpointe	12.80%	12.99%	12.90%
Partners	12.30%	12.99%	13.71%
Sandhills	11.91%	11.92%	11.22%
Smoky	12.80%	12.74%	13.22%
Trillium	12.80%	12.19%	12.44%

Segal Observations

The administrative loadings for all rating periods are reasonable in total. While the load for the specific LME/MCO's may vary slightly, for the most part the loads have not changed significantly by individual LME/MCOs through the reviewed years. On average, the total administrative load is about 13%. The approximate breakdown of the 13% in administrative costs is 7% administrative assumption, 4% care coordination assumption, and 2% risk reserve.

The expenses for risk reserve are straightforward. It is a temporary 2% administrative expense until the individual LME/MCO's build up the reserve levels set by the State. Currently this target reserve level is 15% of the total annualized cost of the Medicaid Behavioral Health Contract.

The administrative profit subsection under the "Analysis of Financial Performance" section talks about the relationship between the total administrative revenue and expense for each year. The administration expenses were lower than revenue in the early years of managed care, but have exceeded revenue in more recent years. Administrative expenses in total appear to have normalized as a percentage of total expenses at around 12.5% to 13.0%, while the administrative load net of risk margin in the rate development has been around 11%. While either of these percentages would be reasonable, Segal has not done a detailed analysis of the administration costs to determine what an appropriate administration percentage would be for the Medicaid Behavioral Health program. Segal would recommend that the State monitor the administration expenses and apply appropriate administration percentages in the rates.

Rate Range (lower and upper bounds)

In the rate development process, Mercer calculates rate ranges to assist the State in rate discussions with the LME/MCOs. Rate ranges were developed by increasing or decreasing certain assumptions to determine a lower bound and upper bound for each LME/MCO. The assumptions that Mercer adjusted were trend, managed care adjustment and programmatic changes. The table below shows the lower and upper bound ranges for SFY 2015 – 2017. Where a specific target rate was either not provided or not calculated, the midpoint was used as the estimated target rate.

Average Percent from Target Rate						
	SFY 2015		SFY 2016		SFY 2017	
LME/MCO	Lower	Upper	Lower	Upper	Lower	Upper
Alliance	-4.5%	4.5%	-2.1%	2.1%	-2.9%	2.9%
Cardinal *	-2.5%	2.5%	-2.7%	2.8%	-3.0%	3.0%
CenterPoint	-4.1%	4.1%	-2.8%	2.9%	-3.0%	3.0%
CoastalCare	-4.4%	4.4%				
Eastpointe	-4.1%	4.1%	-2.7%	2.9%	-3.1%	3.1%
ECBH	-3.8%	3.8%				
Mecklink	-4.4%	4.4%				
Partners	-4.0%	4.0%	-2.1%	2.8%	-2.6%	2.6%
Sandhills	-3.7%	3.7%	-3.0%	3.0%	-3.1%	3.1%
Smoky	-2.8%	2.8%	-2.0%	2.0%	-2.5%	2.5%
Trillium			-2.2%	2.2%	-2.6%	2.6%

* SFY 2015 Cardinal doesn't include the Mecklink region

Segal Observations

The rate ranges were greater in SFY 2015 which would be expected given the higher levels of uncertainty going from FFS claims experience to managed care rates. As more managed care experience became available in SFYs 2016 and 2017 the ranges contracted.

Mercer did not provide detailed calculation of the rate ranges for SFYs 2015 or 2016. The rate certifications included a review of the methodology and end result of the lower and upper bound rates. This does not follow the CMS 2015 Managed Care Rate Setting Consultation Guide which would have been applicable to SFY 2016. In the guidelines for rate range development, it states that for the rate ranges, Mercer should have provided "*a description of and identify the location of the following information in its rate certification submission:*

Any assumptions for which values vary in order to develop rate ranges

The values of each of the assumptions used to develop the minimum, the mid-point, and the maximum of the rate ranges."

For every year and LME/MCO, a rate at or near the lower bound was chosen as the contract rate. However, as detailed in other sections, the contract rates were still shown to be conservative.

Final Contract Rates

The table below shows the average rate change over all categories of aid for each LME/MCO for SFY 2015 – 2017.

Overall Contract Rate Change			
LME/MCO	CY 2014 / SFY 2015	SFY 2016	SFY 2017
Alliance	-2.3%	-0.5%	-3.9%
CenterPoint	-1.6%	-6.8%	-1.2%
Cardinal	1.9%	2.2%	-2.9%
CoastalCare	-1.8%		
EastPointe	-1.2%	-0.6%	-4.4%
ECBH	-5.7%		
MeckLink *	-1.9%	0.2%	
Partners	-2.1%	-4.7%	-2.5%
Sandhills	-4.9%	-8.6%	-4.7%
Smoky	-0.8%	0.9%	2.0%
Trillium		-0.8%	0.1%

* MeckLink became part of Cardinal effective SFY 2016, however, a separate rate development was performed by Mercer for Mecklenburg County in SFY 2016.

Segal Observations

Most LME/MCOs have experienced rate decreases every year. As detailed in other sections, the combination of assumptions in the rate development have been conservative both individually by LME/MCO and in aggregate. This may help explain why rate decreases continued to be necessary.

Cardinal is the one outlier in the table above. Cardinal was the only LME/MCO to receive an increase in SFY 2015 and one of two to receive an increase in SFY 2016 (MeckLink was part of Cardinal). Since Cardinal was the only LME/MCO to have managed care experience prior to SFY 2015, it is reasonable to assume that more of their rates were based on mature managed care data and less on assumptions. However, Cardinal also benefited from high profits during these years, so there were still conservative assumptions being applied in Cardinal's rate development.

Analysis of Financial Performance

Individual LME/MCO financial statements were obtained by Segal in order to compare the actual results to the projections estimated in the rate development. Financial statement categories are reported taking runout into consideration. There are three major components of the financial statement: revenue, expenses, and risk reserve. Profit is defined as the revenue minus the expenses for a given period. Segal reviewed profit from both a services perspective (claims revenue less claims expense) and an administrative perspective (administrative revenue less administrative expense). This is similar to the rate development where first claims are projected and then an administration load is applied.

Service Profit

The claims profit in the financial statement is equal to the claims revenue minus the claims expenses. Since many claims are reported after the incurred period, the financial statements used an estimate of the Incurred But Not Reported (IBNR) reserves and added this amount into the claims expenses to estimate the total incurred claims for each period. Segal developed yearly tables for SFYs 2014 – 2017 containing the claims revenue and claims expense in the financial statements and have included in Exhibit M of the Appendix. As seen below, in total the LME/MCOs made a 6.3% profit in the four fiscal years. This amounts to $546 million dollars profit.

All LME/ MCOs	SFY 2014	SFY 2015	SFY 2016	SFY 2017	Total
Service Revenue	$1,910,685,041	$2,250,390,990	$2,270,675,191	$2,269,797,427	$8,701,548,650
Service Expenses	$1,796,583,987	$2,045,345,386	$2,116,925,707	$2,197,028,402	$8,155,883,483
Profit	$114,101,054	$205,045,604	$153,749,484	$72,769,025	$545,665,167
% Profit	6.0%	9.1%	6.8%	3.2%	6.3%

The table below shows the summarized service profit percentage for each LME/MCO by SFY. A graph of the table below is included in Exhibit N of the Appendix. SFY 2014 and 2015 data for Trillium was derived by adding the ECBH and CoastalCare regions together.

% Service Profit by Fiscal Year				
LME/MCOs	SFY 2014	SFY 2015	SFY 2016	SFY 2017
Alliance	-1.2%	7.6%	5.8%	6.4%
Cardinal	1.2%	5.7%	7.8%	7.0%
Centerpoint	7.0%	11.9%	6.2%	
Eastpointe	5.4%	5.6%	7.6%	1.5%
Partners	10.6%	14.5%	7.9%	-0.4%
Sandhills	12.6%	19.7%	10.5%	2.9%
Smoky	5.4%	4.7%	3.8%	3.0%
Trillium	10.2%	8.4%	4.7%	-3.9%
Total	6.0%	9.1%	6.8%	3.2%

Segal Observations

No managed care data was used for most of the regions in SFY 2014 and 2015 (exceptions were Smoky and parts of Cardinal and ECBH, currently Trillium, in SFY 2015). As detailed in the rate development component sections, overall the conservative estimates used in the rate development resulted in excessive profits in the early years of managed care. The excessive profits in the first year of managed care increased for most of the LME/MCOs in the second year of managed care. We believe this is due to the fact that conservative assumptions used in the first year were reapplied in the second year along with a trend increase.

The decrease in the service profit levels in SFY 2016 and 2017 coincide with the use of more managed care claims data to develop the rates. However, given the high profits and the existence of the risk margin reserve, more aggressive assumptions could have been made in these years.

Sandhills saw the largest increase in service profit between 2014 and 2015 going from a State high of 12.6% in SFY 2014 to a State high of 19.7% in SFY 2015. Sandhills was one of the few LME/MCOs that was in the third year of managed care and where actual SFY 2015 rates were developed, as opposed to having CY 2014 rates trended forward for six months. As such, the majority of Sandhills had a full year of managed care experience to use when developing rates for SFY 2015.[1] However, this data was not utilized and prior rates were trended forward. A possible explanation of the large profits for Sandhills was the continued use of only FFS experience trended forward for twelve months to develop the SFY 2015 rates even though they were entering the third year of managed care and manage care experience was available. While most LME/MCOs had prior rates trended forward for six months, Sandhills had prior rates trended rates forward for twelve months.

Administrative Profit and Risk Reserve

Segal compared the administration revenue and administration expenses for all LME/MCOs to determine the appropriateness of the administrative loading percentages used in the rate development. The administrative categories refer to the combination of the administration and care coordination assumptions. The financial statements data was aggregated into fiscal years and summarized in the table below. A detailed list of all LME/MCOs can be found in Exhibit O in the Appendix.

Over a four year period, the cumulative statewide expenses for administration and care coordination was less than the total revenue by 0.3%. This amounts to a $3 million dollar profit from administrative services. However, when looking at individual years, the differences vary significantly. Expense for SFYs 2014 and 2015 were about 12.3% lower than revenue on average and expenses for SFYs 2016 and 2017 were about 10.3% higher than revenue on average.

All LME/ MCOs	SFY 2014	SFY 2015	SFY 2016	SFY 2017	Total
Admin Revenue	$234,271,614	$279,871,615	$290,289,905	$291,163,420	$1,095,596,554
Admin Expense	$208,472,165	$242,579,277	$310,261,447	$330,873,228	$1,092,186,116

[1] According to DHHS, Guilford County was included in the Sandhill's coverage area starting 4/1/2013.

Profit	$25,799,450	$37,292,338	-$19,971,543	-$39,709,807	$3,410,438
% Profit	11.0%	13.3%	-6.9%	-13.6%	0.3%

*Admin includes the administrative and care coordination assumption

The table below shows the summarized administration profit percentage for each LME/MCO by SFY. A more detailed calculation is included in Exhibit O of the Appendix. SFY 2014 and 2015 data for Trillium was derived by adding the ECBH and CoastalCare regions together.

% Administration Profit by Fiscal Year				
LME/MCOs	SFY 2014	SFY 2015	SFY 2016	SFY 2017
Alliance	22.4%	37.2%	14.5%	2.1%
Cardinal	-14.5%	3.1%	-0.3%	-9.7%
Centerpoint	7.5%	19.1%	-15.4%	
Eastpointe	-1.1%	12.1%	5.7%	6.0%
Partners	11.8%	9.0%	-2.6%	-20.5%
Sandhills	38.1%	29.1%	-33.6%	-14.5%
Smoky	16.9%	8.3%	-9.6%	-14.7%
Trillium	11.2%	-5.3%	-35.9%	-52.9%
Total	11.0%	13.3%	-6.9%	-13.6%

The risk reserve is contained in its own category in the financial statement and was analyzed separately. The risk reserve was barely used by any of the LME/MCOs in any period so most of the reserve has remained as a reserve build up. The table below is a summary of the State wide risk reserve revenue and build up. Separate tables for each LME/MCO can be found in Exhibit P of the Appendix.

All LME/MCOs	SFY 2014	SFY 2015	SFY 2016	SFY 2017
Risk Reserve Revenue	$41,166,216	$48,883,783	$49,413,496	$49,562,175
Risk Reserve Build Up	$41,152,349	$48,799,274	$49,307,082	$49,574,742
% Revenue Used	0.03%	0.17%	0.22%	-0.03%

The financial statements also contain information on the risk reserve build-up for each LME/MCO. The State has set the risk reserve threshold at 15% of the service claims. Exhibit Q of the Appendix contains a summary table of the current and estimated remaining risk reserve by LME/MCO.

Segal Observations

Overall, the administration load has been right on target with a 0.3% difference in revenue and expenses over a four year period. Individually, the LME/MCOs have also been reasonably close over the four years. The two exceptions are Alliance and Trillium. Alliance has been over funded by about $30 million over four years and Trillium has been underfunded by about $30 million.

The administration load in the rate development averages about 11%. In SFY 2014 and 2015 the financial statement administration expenses were growing year to year, but averaged about 7.5% for general administration and 2.5% for care coordination, or 10% in total. By SFY 2017 the administration expenses appear to have stabilized and are about 9.0% for general administration and about 4.0% for care coordination, or 13% in total. If the administration load assumptions in the SFY 2017 rate development were increased to the actual expense levels realized in the SFY 2017 financial statements, then the profits for the LME/MCOs would have been about $40 million, or about 2%, higher.

In Exhibit Q of the Appendix, Segal has estimated the remaining risk reserve revenue to be accumulated by LME/MCOs. We estimate that most of the LME/MCOs will reach the threshold level in SFY 2019 or SFY 2020.

Total Profit

We define total profit as total revenue less total expenses. Total revenue is the addition of the service and administration revenue detailed above along with the net risk reserve and miscellaneous other income lines in the financial statements. The addition of miscellaneous income lines adds about $14 Million to the revenue. These line items were very erratic with most of the income attributed to Alliance, CenterPoint, and Trillium.

Total expenses is the sum of the service and administration expenses detailed above. The table below shows the total aggregate statewide profit by fiscal year. The first four years of managed care resulted in a total profit of $563 million for the LME/MCOs. That averages to about $140 million per year. Exhibit R of the Appendix includes detailed information by LME/MCO.

All Financials	SFY 2014	SFY 2015	SFY 2016	SFY 2017	Total
Total Revenue	$2,152,218,145	$2,532,620,575	$2,558,903,105	$2,567,389,109	$9,811,130,933
Total Expense	$2,005,056,152	$2,287,924,663	$2,427,187,155	$2,527,901,630	$9,248,069,599
Profit	$147,161,993	$244,695,912	$131,715,950	$39,487,479	$563,061,334
% Profit	6.8%	9.7%	5.1%	1.5%	5.7%

Segal Observations

The service portion of the financial statement is the largest section, and as such, the total profit percentages follow closely with the service profit percentages. Only the percent profit for SFY 2017 appears to be reasonable. The other SFYs have excessive profits. An additional factor that could have further increased the profits margins for the LME/MCOs is the contract rate agreed to by the State and LME/MCOs. The final rates have been at or near the bottom of the rate range for all LME/MCOs for SFYs 2015 – 2017. Profits could have been 2% - 4.5% higher if the mid-points of the rate range had been selected, or 4% - 9% higher if the rates were set at or near the top of the rate range.

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Exhibit A: Effective Dates of Managed Care LME/MCOs

Local Management Entities/Managed Care Organization (LME/MCO)	Respective Counties	Effective Date	Merger
Sandhills Center*	Anson, Guilford, Harnett, Hoke, Lee, Montgomery, Moore, Randolph, Richmond	December 1, 2012 to present	n/a
EastPointe*	Bladen, Columbus, Duplin, Edgebombe, Greene, Lenoir, Nash, Robeson, Sampson, Scotland, Wayne, Wilson	January 1, 2013 to present	Nash County disengagement effective 7/1/2017 to Trillium
Partners Behavioral Health Management*	Burke, Catawba, Cleveland, Gaston, Iredell, Lincoln, Surry, Yadkin	February 1, 2013 to present	n/a
CenterPoint Human Services	Forsyth, Stokes, Davie, Rockingham	February 1, 2013 to June 30, 2016	CenterPoint merged with CIHS effective 7/1/16
Alliance Behavioral HealthCare*	Durham, Wake, Cumberland, Johnston	February 1, 2013 to present	n/a
Trillium Health Resources*	Combines Counties of Coastal Care and ECBH Added Nash County effective 7/1/2017	July 1, 2015 to present	CoastalCare and ECBH merged effective 7/1/15 to form Trillium
Coastal Care	Brunswick, New Hanover, Pender, Onslow, Carteret	February 1, 2013-June 30, 2015	Now Trillium Resources
East Carolina Behavioral Health (ECBH)	Beaufort, Bertie, Camden, Chowan, Craven, Currituck, Dare, Gates, Herford, Hyde, Jones, Martin, Northampton, Pamlico, Pasquotank, Perquimans, Pitt, Tyrell, Washington	April 1, 2012-June 30, 2015	Now Trillium Resources
Western Highlands Network	Buncombe, Henderson, Madison, Mitchell, Polk, Rutherford, Transylvania, Yancey	January 1, 2012-September 30, 2013	Merged with Smoky Mountain Center effective 10/1/13
VAYA - Formally Smoky Mountain Center*	Alexander, Allegheny, Ashe, Avery, Caldwell, Cherokee, Clay, Graham, Haywood, Jackson, Macon, McDowell, Swain, Watauga, Wilkes	July 1, 2012 to present	n/a

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Cardinal Innovations Health Care Solutions (CIHS)*	Cabarrus, Davidson, Rowan, Stanly, Union, A-C: Alamance, Caswell, 5-County: Franklin, Granville, Halifax, Vance, Warren OPC: Orange, Person, Chatham	July 1, 2005 to present (A-C added October 2011, 5-county - January 2012, OPC - April 2012)	Yes - Merged with MeckLink
MeckLink	Mecklenburg	February 1, 2013-March 31, 2014	Merged with CIHS effective 4/1/14

*Indicates 7 active LMEs as of 10/1/17

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Exhibit B: List of Files Received from OSA, DHHS and Mercer

File Name	LME/ MCO	Sent By	Date Received	Author	Description	Time Period
CMS Checklist Crosswalk (July 1 2015 – June 30 2016) "MCO"	All – separate file for each MCO	NC Auditors	8/25/2017	NC Auditors	Financial review documentation for at-risk capitated contracts. Lists CMS item number, Subject and Where located (ex: Mercer rate certification letter -pages ##)	SFY 2016
CMS Consultation Guide Checklist (July 1 2015 – June 30 2016) "MCO"	All – separate file for each MCO	NC Auditors	8/25/2017	NC Auditors	Crosswalk of 2015 managed care rate setting consultation guide. Lists Subsection, Subject, Where located (ex: Data section a., data used to develop capitation rates, Mercer rate certification letter - pages ##)	SFY 2016
NC Data book "MCO" or SFY16 NC Data book "MCO"	All – separate file for each MCO	NC Auditors DHHS	8/25/2017 10/16/2017	Mercer	Summarizes Behavioral Health historical data on the cost and utilization patterns of Medicaid eligible in North Carolina.	SFY 2016 – Experience Period for SFY 2014, Paid through 10/30/2014 SFY 2015 and SFY 2017
Rate Cert letter_SFY 2016 "MCO"	All – separate file for each MCO	NC Auditors DHHS	8/25/2017 10/17/2017	Mercer	Rate development and Actuarial Certification for Behavioral Health Medicaid services.	SFY 2016 SFY 2015 & 2017

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20160401 NC PIHP Contracts and rate 7-1-15_6-30-16 Approval Letter	All	NC Auditors DHHS	8/25/2017 10/16/2017	CMS	CMS approval of regional rates and contracts	SFY 2016 SFY 2015 & SFY 2017
"MCO" Data Request_SFY 2016 rates	All – separate file for each MCO	NC Auditors Mercer	8/25/2017 10/20/2017	Mercer	Person level encounter data request: 2/1/2013 – 9/30/2014 paid through 9/30/2014	SFY 2016 – Experience Period for 2/1/2013 – 9/30/2014, Paid through 9/30/2014 SFY 2015 – Experience Period 7/1/2010 – 9/30/2013, Paid through 9/30/2013 SFY 2017 – Experience Period 7/1/2013 – 9/30/2015, Paid through 9/30/2015
Data Concerns Grid "MCO"	All – separate file for each MCO	NC Auditors	8/25/2017	Mercer	List of Mercer's concern and proposed MCO action	SFY 2016
Data Concerns Grid "MCO" Response	All – separate file for each MCO	NC Auditors Mercer	8/25/2017 10/20/2017	Mercer	List of Mercer's concern, proposed MCO action and MCO response	SFY 2016 SFY 2017
Eligibility Comparison	All	NC Auditors	8/25/2017	Mercer	Count by month by MCO for membership and capitation payments	SFY 2016 – Member Months for SFY 2014

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NC Member month Options_To NC_010615	N/A	NC Auditors	8/25/2017	Mercer	Considerations and pros/cons for different options to count member months: capitation counts, counts from financial submissions or global eligibility file	SFY 2016
NC MM Options_To NC_010615	N/A	NC Auditors	8/25/2017	Mercer	Considerations and pros/cons for different options to count member months: capitation counts, counts from financial submissions or global eligibility file – with data	SFY 2016
Member Month Data Sources_to NC_010516	All	Mercer	10/20/2016	Mercer	Member month counts from GEF and capitation files.	SFY 2017
NC PIHP Capitation rates Eff 20150701thru20160360	All	NC Auditors	8/25/2017	DHHS	Capitation rates for Behavioral Health program	SFY 2016
ISCA Reviews per AQR and EQR	Alliance, Cardinal & Eastpointe	NC Auditors	9/1/2017	NC Auditors	EQR criteria. Review findings, impact on data and correction	2014 - 2016
MA Cap Rate Narrative 083017	N/A	NC Auditors	9/1/2017	NC Auditors	Summary of process between DMA and Mercer, from data collection to CMS approval	Process as of 8-30-2017

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Semiannual Financial Solvency and Claims Audit Reviews	All	NC Auditors	9/1/2017	NC Auditors	Audit of DHHS solvency review of MCOs. Compare financial reports submitted to DHHS to those obtained from MCO. Audit claims to validate processed claims, overpayments, underpayments and processing errors.	11/1/2017 – 3/31/2014
Contract "number" "MCO"	Alliance and Cardinal	NC Auditors DHHS	9/8/2017 10/17/2017	DHHS	Contract between NC DHHS and MCO	SFY 2016 SFY 2017
"MCO" Amend 2 Contract "number"	Alliance and Cardinal	NC Auditors DHHS	9/8/2017 10/17/2017	DHHS	Amendment to contract between NC DHHS and MCO	SFY 2016 SFY 2017
Executed "MCO" Amendment 3 Contract "number"	Alliance and Cardinal	NC Auditors DHHS	9/8/2017 10/16/2017	DHHS	Amendment #2 to contract between NC DHHS and MCO. Final with signatures	SFY 2016 SFY 2017
"MCO" Financial Reporting Template "month" "year"	All	NC Auditors	9/8/2017	DMA	Monthly financial statements. Includes tabs for PMPMs by care categories (IP, OP, etc.), balance sheet, reserve, income statement, profitability statement (Medicaid and non-Medicaid), lag table, cash summary, statistics (avg	Monthly reports for June 2013 – May 2015

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		DHHS Mercer	10/16/2017 10/20/2017		cost, util, PMPM), claim aging, claim processing, service counts, COB & TPL, Fraud & Abuse Financial Statements used by Mercer in the SFY rate setting	June 2015, 2016 & 2017 December 2015 & 2016 June 2015, 2016 & 2017 December 2015 & 2016
20160317 proposed-regional-lme-mcos	All	NC Auditors DHHS	9/8/2017 10/16/2017	DHHS	Map of NC counties broken out by region (North, East, South, West) and by MCO	As of 3/17/2016 Effective for SFY 2016
CMG 40_MentalHealthServices_1	All	NC Auditors	9/8/2017	State	Mental Health Services section of 'County and Municipal Government in North Carolina' document. Details roles of State, Counties and Individuals.	
NC contract merger spreadsheet 10022017	All	DHHS	10/16/2017	DHHS	List of when MCOs/counties started	Various
Various	All	Mercer	10/20/2017	Mercer	List of all costs paid outside of claims system used in rate development	SFY 2015 – SFY 2017
#9 Financials Crosswalk	All	Mercer	10/20/2017	Mercer	Financial used in developing the SFY 2017 rates	SFY 2017
Claims Extracts Zip File	Alliance and Cardinal	Mercer	11/3/2017	Mercer	Data extracts submitted by MCO to Mercer for the Data Book used in calculating the SFY 2017 rate ranges (as outlined in "Content of the Data Book" section)	SFY 2017

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GEF Zip file	Alliance and Cardinal	Mercer	11/3/2017	Mercer	Global Eligibility Files provided by the State for the Data Book used in calculating the SFY 2017 rate ranges (as outlined in "Content of the Data Book" section)	SFY 2017
Cap_Claims Zip File	Alliance and Cardinal	Mercer	11/3/2017	Mercer	Capitation payment files specific to the applicable MCOs used in developing the Data Books	SFY 2017
Summarized claims with additional fields.accdb	Alliance and Cardinal	Mercer	11/3/2017	Mercer	Detail file for the claims extracts	SFY 2017
SFY 2016 and SFY 2017 Rate Setting GEF Data.xlsx	Alliance and Cardinal	Mercer	1/8/2018	Mercer	Summarized version of the Global Eligibility Files provided by the State for the Data Book used in calculating the SFY 2017 rate ranges (as outlined in "Content of the Data Book" section)	SFY 2017
NC capitation COA crosswalk.pdf	All	Mercer	1/4/2018	Mercer	Crosswalk of capitation files to obtain a unique mapping to the Category of Aid field	SFY 2017
GEF Fields and Descriptions 10-2017.xlsx	All	DHHS	10/23/2017	DHHS	Text field layout for the GEF file and the GEF fields and descriptions	SFY 2017

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Exhibit C: Claims Data Mapping and Exclusion

As a summary of claims data, Mercer provided a Microsoft Access database, filename *"Summarized claims with additional fields.accdb"*. After a conversation with Mercer, Segal used the following data elements in the validation exercise:

Source Data Element	Data Type	Data book Element	Aggregation Type
Pihp_eligibility	Dimension	MCO	Group By
COA	Dimension	COA	Group By
Cos	Dimension	COS	Group By
mos/mop_clean	Dimension	SFY	Group By
paid_amt	Measure	Paid Claims	Sum
units	Measure	Units	Sum

Data Mapping

With the data elements above, Segal followed the mapping/conversion logic below to calculate "Paid Claims" and "Units" on the claims file.

MCO

Alliance: *Pihp_eligibility* = "Alliance"

Cardinal: *Pihp_eligibility* = "Cardinal_15 Cty" or "Cardinal_Mecklenburg"

COA

Segal used the following COA code mapping logic based on the crosswalk file provided by Mercer.

COA Code	COA Description
01	AFDC, Ages 3+
02	Foster Children, Ages 3+
03	Aged, Ages 65+
04	Blind and Disabled, Ages 3–20
05	Blind and Disabled, Ages 21+
06	Innovations, All Ages

COS

Segal used the following COS code mapping logic based on the crosswalk file provided by Mercer.

COS Code	COS Description (Provided in Crosswalk File)	COS Description (Matching Data book COS)
01	ICF-MR Services	ICF-MR
02	Inpatient	Inpatient
03	Community Support	Community Support
04	BH Long-term Residential	BH Long-term Residential
05	Case Management	Case Management
06	Outpatient	Outpatient
07	ACT	ACT
08	MST	MST
09	Part Hosp/Day TX	Partial Hosp/Day Tx
10	Psych Rehab	Psych Rehab
11	CAP-MR - Day Support	Innovations
12	CAP-MR - Home Sup	Innovations
13	CAP-MR - Pers Care	Innovations
14	CAP-MR - Res Sup	Innovations
15	CAP-MR - Respite	Innovations
16	CAP-MR - Sup Emp	Innovations
17	CAP-MR -Other	Innovations
18	Crisis Services	Crisis Services
19	PRTF	PRTF
20	IIHS	IIHS
B3	B3	1915(b)(3) Services

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Data Exclusions

Based on feedback from Mercer, Segal made the following exclusions when aggregating the data:

All mos dates that fall outside SFY 2014 and SFY 2015 period; and blank or mop_clean greater than "201509"

Duplicates_Flag values of 2 and 4

COA values of "00", "07", "08", "09", and "11"

COS values of "98" and "99"

Any DB_Exclusion value that is not equal to "0"

Exhibit D: Detailed Data Validation

Data book	Cardinal
Time Period	SFY 2014
Category of Aid	All
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$24,892,622	$24,853,200	0.2%	48,669	48,569	0.2%
Community Support	$2,154,599	$2,152,791	0.1%	135,289	135,063	0.2%
BH Long-term Residential	$14,934,475	$14,851,616	0.6%	118,296	117,985	0.3%
PRTF	$16,401,872	$16,396,707	0.0%	37,032	37,020	0.0%
Case Management	$6,075	$6,075	0.0%	34	34	0.0%
Outpatient	$47,474,186	$47,385,181	0.2%	1,057,040	1,055,557	0.1%
ACT	$12,034,969	$12,030,259	0.0%	38,053	38,037	0.0%
MST	$2,691,930	$2,678,619	0.5%	72,768	72,404	0.5%
IIHS	$36,917,865	$37,017,361	-0.3%	142,995	143,257	-0.2%
Partial Hosp/Day Tx	$3,982,754	$3,976,315	0.2%	114,115	113,910	0.2%
Psych Rehab	$7,644,273	$7,640,060	0.1%	2,755,984	2,754,406	0.1%
Crisis Services	$2,762,983	$2,759,463	0.1%	114,383	114,231	0.1%
Innovations	$143,874,376	$142,509,478	1.0%	21,311,582	21,296,478	0.1%
ICF-MR	$107,527,562	$107,510,244	0.0%	306,275	306,215	0.0%
1915(b)(3) Services	$11,318,459	$11,178,775	1.2%	1,491,768	1,491,760	0.0%
Total	**$434,618,999**	**$432,946,144**	**0.4%**			

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Data book	Cardinal
Time Period	SFY 2015
Category of Aid	All
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$26,612,288	$26,587,053	0.1%	51,249	51,213	0.1%
Community Support	$2,977,414	$2,976,519	0.0%	188,393	188,319	0.0%
BH Long-term Residential	$12,078,071	$12,062,735	0.1%	92,220	92,131	0.1%
PRTF	$16,488,433	$16,487,395	0.0%	35,227	35,225	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$53,960,214	$53,905,584	0.1%	1,190,773	1,189,256	0.1%
ACT	$12,905,346	$12,904,683	0.0%	39,979	39,977	0.0%
MST	$3,545,074	$3,526,600	0.5%	88,688	88,219	0.5%
IIHS	$30,000,951	$30,713,064	-2.3%	116,285	118,415	-1.8%
Partial Hosp/Day Tx	$4,923,058	$4,919,391	0.1%	128,610	128,500	0.1%
Psych Rehab	$8,353,229	$8,356,006	0.0%	3,073,603	3,074,643	0.0%
Crisis Services	$3,040,564	$3,047,332	-0.2%	125,901	126,109	-0.2%
Innovations	$151,271,199	$148,801,736	1.7%	22,339,317	22,322,541	0.1%
ICF-MR	$113,155,717	$113,120,314	0.0%	308,070	307,944	0.0%
1915(b)(3) Services	$22,691,457	$21,886,579	3.7%	2,460,258	2,457,137	0.1%
Total	**$462,003,015**	**$459,294,991**	**0.6%**			

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Data book	Cardinal
Time Period	SFY 2014
Category of Aid	AFDC, Ages 3+
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$8,578,701	$8,557,732	0.2%	14,454	14,424	0.2%
Community Support	$554,729	$554,627	0.0%	32,562	32,555	0.0%
BH Long-term Residential	$5,422,811	$5,343,213	1.5%	39,573	39,276	0.8%
PRTF	$5,501,946	$5,496,781	0.1%	12,568	12,556	0.1%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$28,391,887	$28,346,503	0.2%	618,944	618,107	0.1%
ACT	$228,013	$228,013	0.0%	729	729	0.0%
MST	$1,908,538	$1,895,227	0.7%	51,611	51,247	0.7%
IIHS	$27,200,104	$27,224,132	-0.1%	105,354	105,388	0.0%
Partial Hosp/Day Tx	$1,997,351	$1,990,878	0.3%	56,918	56,713	0.4%
Psych Rehab	$252,341	$252,337	0.0%	91,555	91,553	0.0%
Crisis Services	$938,867	$938,516	0.0%	37,778	37,768	0.0%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$269,200	$263,165	2.3%	1,381	1,360	1.5%
1915(b)(3) Services	$2,265,139	$2,194,633	3.2%	420,291	420,077	0.1%
Total	**$83,509,627**	**$83,285,757**	**0.3%**			

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Data book	Cardinal
Time Period	SFY 2015
Category of Aid	AFDC, Ages 3+
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$9,776,051	$9,766,716	0.1%	16,511	16,482	0.2%
Community Support	$903,689	$902,901	0.1%	45,405	45,354	0.1%
BH Long-term Residential	$4,529,286	$4,519,393	0.2%	33,053	32,983	0.2%
PRTF	$4,466,490	$4,466,099	0.0%	9,469	9,468	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$32,196,859	$32,152,147	0.1%	695,669	694,414	0.2%
ACT	$262,491	$262,519	0.0%	817	817	0.0%
MST	$2,558,564	$2,540,550	0.7%	64,141	63,681	0.7%
IIHS	$21,862,234	$22,187,928	-1.5%	84,741	85,706	-1.1%
Partial Hosp/Day Tx	$2,571,849	$2,567,313	0.2%	65,726	65,608	0.2%
Psych Rehab	$361,866	$363,054	-0.3%	134,601	135,043	-0.3%
Crisis Services	$1,278,828	$1,281,667	-0.2%	51,677	51,754	-0.1%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$356,288	$355,569	0.2%	1,616	1,613	0.2%
1915(b)(3) Services	$4,262,642	$3,911,565	9.0%	513,621	512,361	0.2%
Total	**$85,387,137**	**$85,277,421**	**0.1%**			

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Data book	Cardinal
Time Period	SFY 2014
Category of Aid	Foster Children, Ages 3+
Sex	M & F

	Paid Claims			Units		
Category of Service	Data book (Encounter)	Data Feed (Adjusted)	% difference	Data book (Encounter)	Data Feed (Adjusted)	% difference
Inpatient	$2,026,938	$2,022,025	0.2%	3,034	3,034	0.0%
Community Support	$14,123	$14,123	0.0%	17	17	0.0%
BH Long-term Residential	$6,759,632	$6,756,372	0.0%	58,725	58,711	0.0%
PRTF	$6,207,493	$6,207,493	0.0%	13,824	13,824	0.0%
Case Management	$6,075	$6,075	0.0%	34	34	0.0%
Outpatient	$2,331,730	$2,330,236	0.1%	42,091	42,088	0.0%
ACT	$12,614	$12,614	0.0%	41	41	0.0%
MST	$209,147	$209,147	0.0%	5,668	5,668	0.0%
IIHS	$2,848,779	$2,890,154	-1.4%	11,036	11,161	-1.1%
Partial Hosp/Day Tx	$791,366	$791,397	0.0%	23,601	23,602	0.0%
Psych Rehab	$1,299	$1,299	0.0%	448	448	0.0%
Crisis Services	$22,806	$22,806	0.0%	666	666	0.0%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$241,864	$241,864	0.0%	958	958	0.0%
1915(b)(3) Services	$196,492	$155,117	26.7%	35,061	34,936	0.4%
Total	**$21,670,358**	**$21,660,723**	**0.0%**			

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Data book	Cardinal
Time Period	SFY 2015
Category of Aid	Foster Children, Ages 3+
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$2,372,425	$2,362,794	0.4%	3,494	3,479	0.4%
Community Support	$141,114	$141,072	0.0%	197	197	-0.1%
BH Long-term Residential	$5,206,493	$5,207,217	0.0%	43,034	43,041	0.0%
PRTF	$7,613,899	$7,613,327	0.0%	16,195	16,194	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$2,688,600	$2,686,216	0.1%	47,684	47,614	0.1%
ACT	$3,890	$3,897	-0.2%	12	12	-0.2%
MST	$258,778	$258,626	0.1%	6,274	6,270	0.1%
IIHS	$2,427,119	$2,643,770	-8.2%	9,405	10,060	-6.5%
Partial Hosp/Day Tx	$608,213	$609,314	-0.2%	18,543	18,569	-0.1%
Psych Rehab	$-	$-	0.0%	-	-	0.0%
Crisis Services	$18,404	$18,465	-0.3%	539	541	-0.4%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$282,318	$282,372	0.0%	1,206	1,206	0.0%
1915(b)(3) Services	$397,623	$181,328	119.3%	37,136	36,486	1.8%
Total	**$22,018,876**	**$22,008,396**	**0.0%**			

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Data book	Cardinal
Time Period	SFY 2014
Category of Aid	Aged, Ages 65+
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$352,437	$352,437	0.0%	2,532	2,532	0.0%
Community Support	$31,826	$31,826	0.0%	2,269	2,269	0.0%
BH Long-term Residential	$-	$-	0.0%	-	-	0.0%
PRTF	$-	$-	0.0%	-	-	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$376,184	$376,579	-0.1%	19,670	19,669	0.0%
ACT	$598,439	$598,439	0.0%	1,871	1,871	0.0%
MST	$-	$-	0.0%	-	-	0.0%
IIHS	$-	$-	0.0%	-	-	0.0%
Partial Hosp/Day Tx	$-	$-	0.0%	-	-	0.0%
Psych Rehab	$452,828	$452,830	0.0%	162,787	162,787	0.0%
Crisis Services	$117,416	$117,417	0.0%	4,130	4,130	0.0%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$12,547,256	$12,547,256	0.0%	28,383	28,383	0.0%
1915(b)(3) Services	$172,731	$172,731	0.0%	21,278	21,278	0.0%
Total	**$14,649,117**	**$14,649,514**	**0.0%**			

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Data book	Cardinal
Time Period	SFY 2015
Category of Aid	Aged, Ages 65+
Sex	M & F

	Paid Claims			Units		
Category of Service	Data book (Encounter)	Data Feed (Adjusted)	% difference	Data book (Encounter)	Data Feed (Adjusted)	% difference
Inpatient	$450,217	$454,251	-0.9%	2,330	2,343	-0.6%
Community Support	$64,707	$64,697	0.0%	6,235	6,231	0.1%
BH Long-term Residential	$-	$-	0.0%	-	-	0.0%
PRTF	$-	$-	0.0%	-	-	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$323,435	$323,852	-0.1%	19,766	19,778	-0.1%
ACT	$562,169	$562,330	0.0%	1,742	1,742	0.0%
MST	$-	$-	0.0%	-	-	0.0%
IIHS	$-	$-	0.0%	-	-	0.0%
Partial Hosp/Day Tx	$-	$-	0.0%	-	-	0.0%
Psych Rehab	$527,736	$527,866	0.0%	193,128	193,176	0.0%
Crisis Services	$115,929	$116,403	-0.4%	3,571	3,585	-0.4%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$14,913,560	$14,912,822	0.0%	32,336	32,334	0.0%
1915(b)(3) Services	$615,880	$615,376	0.1%	52,630	52,624	0.0%
Total	**$17,573,633**	**$17,577,598**	**0.0%**			

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Data book	Cardinal
Time Period	SFY 2014
Category of Aid	Blind and Disabled, Ages 3–20
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$5,208,596	$5,220,399	-0.2%	6,988	6,983	0.1%
Community Support	$106,244	$106,244	0.0%	4,133	4,133	0.0%
BH Long-term Residential	$2,726,854	$2,726,854	0.0%	19,719	19,719	0.0%
PRTF	$4,662,927	$4,662,927	0.0%	10,571	10,571	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$3,522,029	$3,520,724	0.0%	66,621	66,595	0.0%
ACT	$187,908	$187,908	0.0%	605	605	0.0%
MST	$574,245	$574,245	0.0%	15,489	15,489	0.0%
IIHS	$6,844,195	$6,878,288	-0.5%	26,509	26,612	-0.4%
Partial Hosp/Day Tx	$1,103,913	$1,103,924	0.0%	33,167	33,167	0.0%
Psych Rehab	$171,532	$171,531	0.0%	63,854	63,853	0.0%
Crisis Services	$109,887	$109,889	0.0%	3,870	3,870	0.0%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$7,744,528	$7,744,528	0.0%	24,721	24,721	0.0%
1915(b)(3) Services	$2,109,702	$2,075,609	1.6%	339,447	339,344	0.0%
Total	**$35,072,560**	**$35,083,070**	**0.0%**			

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Data book	Cardinal
Time Period	SFY 2015
Category of Aid	Blind and Disabled, Ages 3–20
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$4,161,578	$4,160,233	0.0%	5,875	5,873	0.0%
Community Support	$182,098	$182,123	0.0%	6,792	6,796	-0.1%
BH Long-term Residential	$2,331,365	$2,331,014	0.0%	16,052	16,050	0.0%
PRTF	$4,322,220	$4,322,042	0.0%	9,337	9,337	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$3,926,325	$3,925,961	0.0%	74,312	74,258	0.1%
ACT	$159,685	$159,716	0.0%	496	496	0.0%
MST	$727,732	$727,424	0.0%	18,274	18,267	0.0%
IIHS	$5,694,765	$5,855,939	-2.8%	22,073	22,558	-2.1%
Partial Hosp/Day Tx	$1,453,634	$1,452,448	0.1%	43,135	43,110	0.1%
Psych Rehab	$156,251	$156,456	-0.1%	57,879	57,955	-0.1%
Crisis Services	$80,322	$80,732	-0.5%	2,760	2,773	-0.5%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$7,819,889	$7,819,564	0.0%	24,185	24,185	0.0%
1915(b)(3) Services	$2,846,398	$2,654,228	7.2%	439,624	439,171	0.1%
Total	**$33,862,262**	**$33,827,879**	**0.1%**			

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Data book	Cardinal
Time Period	SFY 2014
Category of Aid	Blind and Disabled, Ages 21+
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$8,280,113	$8,256,558	0.3%	21,096	21,031	0.3%
Community Support	$1,447,677	$1,445,971	0.1%	96,308	96,089	0.2%
BH Long-term Residential	$-	$-	0.0%	-	-	0.0%
PRTF	$4,873	$4,873	0.0%	1	1	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$12,406,474	$12,365,501	0.3%	299,312	298,698	0.2%
ACT	$11,006,700	$11,001,990	0.0%	34,803	34,787	0.0%
MST	$-	$-	0.0%	-	-	0.0%
IIHS	$-	$-	0.0%	-	-	0.0%
Partial Hosp/Day Tx	$89,499	$89,491	0.0%	408	408	0.0%
Psych Rehab	$6,735,396	$6,731,185	0.1%	2,426,713	2,425,136	0.1%
Crisis Services	$1,572,635	$1,569,463	0.2%	67,865	67,724	0.2%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$86,491,004	$86,479,721	0.0%	250,294	250,255	0.0%
1915(b)(3) Services	$6,574,395	$6,580,685	-0.1%	675,691	676,125	-0.1%
Total	**$134,608,766**	**$134,525,438**	**0.1%**			

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Data book	Cardinal
Time Period	SFY 2015
Category of Aid	Blind and Disabled, Ages 21+
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$9,410,778	$9,404,830	0.1%	22,308	22,309	0.0%
Community Support	$1,685,806	$1,685,726	0.0%	129,764	129,740	0.0%
BH Long-term Residential	$-	$-	0.0%	-	-	0.0%
PRTF	$-	$-	0.0%	-	-	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$14,199,769	$14,193,583	0.0%	341,475	341,350	0.0%
ACT	$11,917,111	$11,916,221	0.0%	36,913	36,910	0.0%
MST	$-	$-	0.0%	-	-	0.0%
IIHS	$-	$8,619	-100.0%	-	26	-100.0%
Partial Hosp/Day Tx	$275,746	$276,559	-0.3%	773	775	-0.2%
Psych Rehab	$7,265,389	$7,266,624	0.0%	2,674,004	2,674,472	0.0%
Crisis Services	$1,545,144	$1,548,109	-0.2%	67,250	67,352	-0.2%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$89,339,721	$89,306,255	0.0%	247,403	247,283	0.0%
1915(b)(3) Services	$14,568,914	$14,524,083	0.3%	1,417,247	1,416,496	0.1%
Total	**$150,208,378**	**$150,130,609**	**0.1%**			

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Data book	Cardinal
Time Period	SFY 2014
Category of Aid	Innovations, All Ages
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$445,837	$444,049	0.4%	565	565	0.0%
Community Support	$-	$-	0.0%	-	-	0.0%
BH Long-term Residential	$25,178	$25,178	0.0%	279	279	0.0%
PRTF	$24,633	$24,633	0.0%	68	68	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$445,883	$445,638	0.1%	10,402	10,400	0.0%
ACT	$1,296	$1,296	0.0%	4	4	0.0%
MST	$-	$-	0.0%	-	-	0.0%
IIHS	$24,787	$24,787	0.0%	96	96	0.0%
Partial Hosp/Day Tx	$625	$625	0.0%	20	20	0.0%
Psych Rehab	$30,877	$30,878	0.0%	10,628	10,628	0.0%
Crisis Services	$1,371	$1,371	0.0%	73	73	0.0%
Innovations	$143,874,376	$142,509,478	1.0%	21,311,582	21,296,478	0.1%
ICF-MR	$233,711	$233,711	0.0%	538	538	0.0%
1915(b)(3) Services	$-	$-	0.0%	-	-	0.0%
Total	**$145,108,574**	**$143,741,642**	**1.0%**			

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Data book	Cardinal
Time Period	SFY 2015
Category of Aid	Innovations, All Ages
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$441,238	$438,229	0.7%	730	727	0.5%
Community Support	$-	$-	0.0%	-	-	0.0%
BH Long-term Residential	$10,926	$5,111	113.8%	81	56	44.4%
PRTF	$85,824	$85,927	-0.1%	225	225	-0.1%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$625,226	$623,825	0.2%	11,867	11,842	0.2%
ACT	$-	$-	0.0%	-	-	0.0%
MST	$-	$-	0.0%	-	-	0.0%
IIHS	$16,834	$16,808	0.2%	65	65	-0.1%
Partial Hosp/Day Tx	$13,616	$13,757	-1.0%	433	438	-1.1%
Psych Rehab	$41,987	$42,006	0.0%	13,990	13,997	-0.1%
Crisis Services	$1,937	$1,957	-1.0%	103	104	-1.1%
Innovations	$151,271,199	$148,801,736	1.7%	22,339,317	22,322,541	0.1%
ICF-MR	$443,940	$443,732	0.0%	1,323	1,323	0.0%
1915(b)(3) Services	$-	$-	0.0%	-	-	0.0%
Total	**$152,952,726**	**$150,473,088**	**1.6%**			

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Data book	Alliance
Time Period	SFY 2014
Category of Aid	All
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$13,347,184	$13,321,921	0.2%	23,704	23,523	0.8%
Community Support	$1,536,015	$1,533,640	0.2%	105,999	105,835	0.2%
BH Long-term Residential	$19,737,192	$19,714,110	0.1%	166,544	166,364	0.1%
PRTF	$20,757,937	$20,757,677	0.0%	44,593	44,592	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$29,670,090	$29,520,682	0.5%	680,116	677,305	0.4%
ACT	$10,078,607	$10,071,482	0.1%	33,270	33,247	0.1%
MST	$4,049,790	$4,049,704	0.0%	110,812	110,810	0.0%
IIHS	$43,943,909	$43,918,116	0.1%	170,218	170,118	0.1%
Partial Hosp/Day Tx	$5,226,961	$5,210,682	0.3%	166,702	166,184	0.3%
Psych Rehab	$6,121,273	$6,115,157	0.1%	2,277,459	2,275,184	0.1%
Crisis Services	$1,526,463	$1,510,107	1.1%	62,781	62,197	0.9%
Innovations	$72,669,556	$72,459,791	0.3%	10,649,817	10,633,506	0.2%
ICF-MR	$75,853,623	$75,828,680	0.0%	210,310	210,220	0.0%
1915(b)(3) Services	$1,024,367	$1,014,750	0.9%	147,487	147,425	0.0%
Total	**$305,542,967**	**$305,026,497**	**0.2%**			

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Data book	Alliance
Time Period	SFY 2015
Category of Aid	All
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$17,119,646	$17,108,966	0.1%	28,530	28,493	0.1%
Community Support	$2,152,293	$2,150,825	0.1%	149,322	149,219	0.1%
BH Long-term Residential	$22,866,572	$22,867,090	0.0%	186,277	186,263	0.0%
PRTF	$12,836,474	$12,804,800	0.2%	27,671	27,601	0.3%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$34,942,496	$34,872,608	0.2%	893,883	893,063	0.1%
ACT	$10,478,594	$10,472,274	0.1%	34,365	34,344	0.1%
MST	$4,985,985	$4,978,825	0.1%	100,681	100,588	0.1%
IIHS	$43,358,516	$43,317,673	0.1%	167,928	167,769	0.1%
Partial Hosp/Day Tx	$4,369,662	$4,371,911	-0.1%	139,146	139,218	-0.1%
Psych Rehab	$6,550,531	$6,548,362	0.0%	2,437,729	2,436,928	0.0%
Crisis Services	$2,149,957	$2,148,474	0.1%	94,908	94,875	0.0%
Innovations	$76,655,212	$76,456,541	0.3%	11,224,768	11,216,777	0.1%
ICF-MR	$79,172,484	$79,171,508	0.0%	209,199	209,196	0.0%
1915(b)(3) Services	$3,829,656	$3,795,901	0.9%	400,972	400,603	0.1%
Total	**$321,468,078**	**$321,065,757**	**0.1%**			

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Data book	Alliance
Time Period	SFY 2014
Category of Aid	AFDC, Ages 3+
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$4,931,508	$4,921,636	0.2%	7,775	7,756	0.2%
Community Support	$405,006	$404,363	0.2%	27,946	27,902	0.2%
BH Long-term Residential	$6,703,887	$6,688,677	0.2%	52,809	52,722	0.2%
PRTF	$7,894,984	$7,894,887	0.0%	17,266	17,266	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$17,403,438	$17,312,758	0.5%	395,990	394,326	0.4%
ACT	$300,892	$300,886	0.0%	996	996	0.0%
MST	$2,737,475	$2,737,421	0.0%	74,894	74,893	0.0%
IIHS	$31,722,103	$31,710,709	0.0%	122,879	122,835	0.0%
Partial Hosp/Day Tx	$3,121,282	$3,110,993	0.3%	99,573	99,246	0.3%
Psych Rehab	$103,760	$103,766	0.0%	38,601	38,604	0.0%
Crisis Services	$454,586	$452,864	0.4%	16,217	16,166	0.3%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$478,716	$478,716	0.0%	2,045	2,045	0.0%
1915(b)(3) Services	$44,819	$44,818	0.0%	11,542	11,542	0.0%
Total	**$76,302,456**	**$76,162,495**	**0.2%**			

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Data book	Alliance
Time Period	SFY 2015
Category of Aid	AFDC, Ages 3+
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$6,778,613	$6,769,083	0.1%	10,181	10,160	0.2%
Community Support	$572,949	$572,545	0.1%	39,525	39,497	0.1%
BH Long-term Residential	$6,924,750	$6,924,939	0.0%	53,750	53,750	0.0%
PRTF	$5,193,216	$5,177,294	0.3%	11,294	11,264	0.3%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$21,172,130	$21,139,733	0.2%	489,662	489,142	0.1%
ACT	$296,348	$290,060	2.2%	971	951	2.1%
MST	$3,367,001	$3,366,379	0.0%	66,983	67,008	0.0%
IIHS	$33,163,584	$33,122,273	0.1%	128,441	128,281	0.1%
Partial Hosp/Day Tx	$2,298,872	$2,300,772	-0.1%	73,215	73,276	-0.1%
Psych Rehab	$131,795	$131,755	0.0%	49,097	49,082	0.0%
Crisis Services	$744,649	$743,439	0.2%	27,524	27,483	0.1%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$547,920	$545,624	0.4%	2,487	2,482	0.2%
1915(b)(3) Services	$563,242	$562,811	0.1%	55,580	55,549	0.1%
Total	**$81,755,069**	**$81,646,708**	**0.1%**			

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Data book	Alliance
Time Period	SFY 2014
Category of Aid	Foster Children, Ages 3+
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$1,267,253	$1,267,017	0.0%	1,881	1,881	0.0%
Community Support	$9,440	$9,440	0.0%	651	651	0.0%
BH Long-term Residential	$9,323,431	$9,323,584	0.0%	86,080	86,078	0.0%
PRTF	$7,147,544	$7,147,452	0.0%	15,412	15,412	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$1,764,281	$1,756,164	0.5%	38,413	38,285	0.3%
ACT	$5,500	$5,494	0.1%	18	18	-0.1%
MST	$303,207	$303,202	0.0%	8,301	8,301	0.0%
IIHS	$3,120,786	$3,120,732	0.0%	12,087	12,087	0.0%
Partial Hosp/Day Tx	$440,579	$434,499	1.4%	14,027	13,833	1.4%
Psych Rehab	$-	$-	0.0%	-	-	0.0%
Crisis Services	$22,170	$19,678	12.7%	783	709	10.4%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$463,740	$463,740	0.0%	1,564	1,564	0.0%
1915(b)(3) Services	$5,276	$5,276	0.0%	1,322	1,322	0.0%
Total	**$23,873,207**	**$23,856,278**	**0.1%**			

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Data book	Alliance
Time Period	SFY 2015
Category of Aid	Foster Children, Ages 3+
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$2,328,704	$2,323,738	0.2%	3,588	3,580	0.2%
Community Support	$5,840	$5,839	0.0%	403	403	0.1%
BH Long-term Residential	$12,090,132	$12,089,405	0.0%	105,455	105,435	0.0%
PRTF	$3,790,743	$3,775,386	0.4%	8,428	8,389	0.5%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$2,387,287	$2,383,985	0.1%	49,068	49,005	0.1%
ACT	$10,754	$10,766	-0.1%	35	35	-0.8%
MST	$400,385	$400,407	0.0%	8,775	8,780	-0.1%
IIHS	$3,193,316	$3,193,288	0.0%	12,368	12,368	0.0%
Partial Hosp/Day Tx	$527,354	$527,225	0.0%	16,792	16,788	0.0%
Psych Rehab	$-	$-	0.0%	-	-	0.0%
Crisis Services	$31,289	$31,082	0.7%	982	975	0.7%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$322,255	$322,886	-0.2%	1,504	1,506	-0.1%
1915(b)(3) Services	$21,931	$21,951	-0.1%	4,372	4,376	-0.1%
Total	**$25,109,990**	**$25,085,960**	**0.1%**			

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Data book	Alliance
Time Period	SFY 2014
Category of Aid	Aged, Ages 65+
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$260,823	$259,680	0.4%	936	907	3.1%
Community Support	$13,558	$13,558	0.0%	935	935	0.0%
BH Long-term Residential	$-	$-	0.0%	-	-	0.0%
PRTF	$-	$-	0.0%	-	-	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$170,108	$168,801	0.8%	6,985	6,960	0.4%
ACT	$390,604	$390,592	0.0%	1,288	1,288	0.0%
MST	$-	$-	0.0%	-	-	0.0%
IIHS	$-	$-	0.0%	-	-	0.0%
Partial Hosp/Day Tx	$-	$-	0.0%	-	-	0.0%
Psych Rehab	$416,648	$416,666	0.0%	155,006	155,012	0.0%
Crisis Services	$61,775	$61,657	0.2%	2,134	2,131	0.2%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$5,318,888	$5,318,888	0.0%	11,771	11,771	0.0%
1915(b)(3) Services	$918	$918	0.0%	159	159	0.0%
Total	**$6,633,322**	**$6,630,759**	**0.0%**			

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Data book	Alliance
Time Period	SFY 2015
Category of Aid	Aged, Ages 65+
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$282,286	$280,206	0.7%	832	828	0.4%
Community Support	$19,423	$19,421	0.0%	1,340	1,339	0.0%
BH Long-term Residential	$-	$-	0.0%	-	-	0.0%
PRTF	$-	$-	0.0%	-	-	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$126,879	$127,004	-0.1%	6,756	6,755	0.0%
ACT	$447,240	$447,239	0.0%	1,466	1,466	0.0%
MST	$-	$-	0.0%	-	-	0.0%
IIHS	$-	$-	0.0%	-	-	0.0%
Partial Hosp/Day Tx	$-	$-	0.0%	-	-	0.0%
Psych Rehab	$480,194	$480,140	0.0%	178,675	178,655	0.0%
Crisis Services	$67,674	$67,868	-0.3%	2,770	2,778	-0.3%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$6,864,430	$6,862,347	0.0%	13,667	13,662	0.0%
1915(b)(3) Services	$24,148	$24,112	0.2%	1,962	1,959	0.1%
Total	**$8,312,274**	**$8,308,337**	**0.0%**			

Data book	Alliance
Time Period	SFY 2014
Category of Aid	Blind and Disabled, Ages 3–20
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$3,270,762	$3,270,636	0.0%	4,406	4,347	1.4%
Community Support	$84,920	$84,919	0.0%	5,857	5,857	0.0%
BH Long-term Residential	$3,706,325	$3,698,301	0.2%	27,615	27,524	0.3%
PRTF	$5,506,258	$5,506,191	0.0%	11,523	11,523	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$2,548,443	$2,544,388	0.2%	51,614	51,543	0.1%
ACT	$185,731	$185,749	0.0%	615	615	-0.1%
MST	$1,009,108	$1,009,080	0.0%	27,617	27,616	0.0%
IIHS	$9,067,453	$9,053,109	0.2%	35,122	35,066	0.2%
Partial Hosp/Day Tx	$1,665,101	$1,665,189	0.0%	53,102	53,105	0.0%
Psych Rehab	$133,639	$133,652	0.0%	49,691	49,696	0.0%
Crisis Services	$57,122	$56,576	1.0%	2,148	2,132	0.8%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$8,861,378	$8,861,378	0.0%	26,061	26,061	0.0%
1915(b)(3) Services	$374,795	$365,212	2.6%	63,179	63,120	0.1%
Total	**$36,471,035**	**$36,434,381**	**0.1%**			

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Data book	Alliance
Time Period	SFY 2015
Category of Aid	Blind and Disabled, Ages 3–20
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$3,611,939	$3,614,964	-0.1%	4,720	4,721	0.0%
Community Support	$73,222	$73,212	0.0%	5,050	5,049	0.0%
BH Long-term Residential	$3,841,143	$3,842,242	0.0%	26,953	26,959	0.0%
PRTF	$3,546,833	$3,545,988	0.0%	7,312	7,310	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$2,940,413	$2,937,543	0.1%	57,416	57,368	0.1%
ACT	$139,874	$139,935	0.0%	459	459	0.0%
MST	$1,218,600	$1,212,039	0.5%	24,923	24,800	0.5%
IIHS	$6,977,817	$6,978,314	0.0%	27,026	27,028	0.0%
Partial Hosp/Day Tx	$1,532,782	$1,533,279	0.0%	48,799	48,815	0.0%
Psych Rehab	$116,730	$116,748	0.0%	43,420	43,427	0.0%
Crisis Services	$90,141	$90,314	-0.2%	3,719	3,728	-0.3%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$8,696,084	$8,696,111	0.0%	24,912	24,912	0.0%
1915(b)(3) Services	$476,991	$477,370	-0.1%	77,271	77,328	-0.1%
Total	**$33,262,569**	**$33,258,059**	**0.0%**			

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Data book	Alliance
Time Period	SFY 2014
Category of Aid	Blind and Disabled, Ages 21+
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$3,539,367	$3,525,488	0.4%	8,528	8,453	0.9%
Community Support	$1,023,091	$1,021,361	0.2%	70,609	70,490	0.2%
BH Long-term Residential	$3,549	$3,549	0.0%	40	40	0.0%
PRTF	$-	$-	0.0%	-	-	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$7,503,225	$7,459,796	0.6%	181,127	180,238	0.5%
ACT	$9,195,880	$9,188,762	0.1%	30,353	30,330	0.1%
MST	$-	$-	0.0%	-	-	0.0%
IIHS	$-	$-	0.0%	-	-	0.0%
Partial Hosp/Day Tx	$-	$-	0.0%	-	-	0.0%
Psych Rehab	$5,435,586	$5,429,432	0.1%	2,022,398	2,020,110	0.1%
Crisis Services	$926,348	$914,869	1.3%	41,219	40,779	1.1%
Innovations	$-	$-	0.0%	-	-	0.0%
ICF-MR	$60,410,078	$60,385,134	0.0%	168,106	168,016	0.1%
1915(b)(3) Services	$598,559	$598,525	0.0%	71,285	71,281	0.0%
Total	**$88,635,683**	**$88,526,917**	**0.1%**			

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Data book	Alliance
Time Period	SFY 2015
Category of Aid	Blind and Disabled, Ages 21+
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$3,964,039	$3,967,586	-0.1%	8,919	8,911	0.1%
Community Support	$1,480,859	$1,479,808	0.1%	103,005	102,931	0.1%
BH Long-term Residential	$5,067	$5,073	-0.1%	57	57	-0.3%
PRTF	$-	$-	0.0%	-	-	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$8,027,245	$7,996,569	0.4%	283,029	282,850	0.1%
ACT	$9,568,952	$9,568,894	0.0%	31,383	31,383	0.0%
MST	$-	$-	0.0%	-	-	0.0%
IIHS	$-	$-	0.0%	-	-	0.0%
Partial Hosp/Day Tx	$-	$-	0.0%	-	-	0.0%
Psych Rehab	$5,786,123	$5,784,019	0.0%	2,153,270	2,152,493	0.0%
Crisis Services	$1,202,627	$1,202,158	0.0%	59,059	59,054	0.0%
Innovations	$-	$79	-100.0%	-	144	-100.0%
ICF-MR	$62,223,241	$62,226,643	0.0%	165,408	165,414	0.0%
1915(b)(3) Services	$2,743,344	$2,709,657	1.2%	261,786	261,390	0.2%
Total	**$95,001,497**	**$94,940,486**	**0.1%**			

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Data book	Alliance
Time Period	SFY 2014
Category of Aid	Innovations, All Ages
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$77,472	$77,463	0.0%	178	178	0.0%
Community Support	$-	$-	0.0%	-	-	0.0%
BH Long-term Residential	$-	$-	0.0%	-	-	0.0%
PRTF	$209,151	$209,146	0.0%	391	391	0.0%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$280,596	$278,774	0.7%	5,987	5,952	0.6%
ACT	$-	$-	0.0%	-	-	0.0%
MST	$-	$-	0.0%	-	-	0.0%
IIHS	$33,567	$33,566	0.0%	130	130	0.0%
Partial Hosp/Day Tx	$-	$-	0.0%	-	-	0.0%
Psych Rehab	$31,641	$31,641	0.0%	11,762	11,763	0.0%
Crisis Services	$4,461	$4,462	0.0%	280	280	0.0%
Innovations	$72,669,556	$72,459,791	0.3%	10,649,817	10,633,506	0.2%
ICF-MR	$320,823	$320,823	0.0%	763	763	0.0%
1915(b)(3) Services	$-	$-	0.0%	-	-	0.0%
Total	**$73,627,267**	**$73,415,667**	**0.3%**			

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Data book	Alliance
Time Period	SFY 2015
Category of Aid	Innovations, All Ages
Sex	M & F

	Paid Claims			Units		
Category of Service	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**	**Data book (Encounter)**	**Data Feed (Adjusted)**	**% difference**
Inpatient	$154,065	$153,388	0.4%	292	292	-0.2%
Community Support	$-	$-	0.0%	-	-	0.0%
BH Long-term Residential	$5,480	$5,429	0.9%	62	61	1.3%
PRTF	$305,682	$306,133	-0.1%	637	638	-0.2%
Case Management	$-	$-	0.0%	-	-	0.0%
Outpatient	$288,542	$287,774	0.3%	7,953	7,943	0.1%
ACT	$15,427	$15,380	0.3%	51	50	1.1%
MST	$-	$-	0.0%	-	-	0.0%
IIHS	$23,799	$23,797	0.0%	92	92	-0.2%
Partial Hosp/Day Tx	$10,655	$10,635	0.2%	339	339	0.1%
Psych Rehab	$35,689	$35,700	0.0%	13,267	13,271	0.0%
Crisis Services	$13,577	$13,612	-0.3%	853	856	-0.3%
Innovations	$76,655,212	$76,456,462	0.3%	11,224,768	11,216,632	0.1%
ICF-MR	$518,553	$517,897	0.1%	1,221	1,220	0.1%
1915(b)(3) Services	$-	$-	0.0%	-	-	0.0%
Total	**$78,026,681**	**$77,826,207**	**0.3%**			

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Exhibit E: SFY 2016 Annual Trend Assumption

FY 2016 Service Category Percent MC Data Trends by Region											
Category of Service	**Alliance**	**Cardinal - 15 County**	**Cardinal - Mecklenburg**	**CenterPoint**	**Coastal Care**	**Eastpointe**	**ECBH**	**Partners**	**Sandhills**	**Smoky**	**Average**
Inpatient	4.0%	3.5%	4.0%	2.5%	3.0%	2.0%	3.0%	2.0%	1.0%	2.5%	**2.75%**
Community Support	3.0%	5.0%	2.5%	0.5%	1.0%	4.5%	1.0%	0.5%	1.0%	2.0%	**2.10%**
BH Long-term Residential	5.0%	2.5%	2.0%	1.5%	2.0%	4.0%	3.5%	1.5%	1.0%	4.5%	**2.75%**
PRTF	1.0%	2.5%	2.0%	1.0%	4.0%	5.0%	3.5%	1.5%	1.0%	3.5%	**2.50%**
Case Management											
Outpatient	5.0%	3.5%	2.0%	4.5%	3.0%	5.5%	4.0%	4.0%	6.1%	5.0%	**4.26%**
ACT	3.0%	3.0%	2.5%	1.0%	3.0%	1.0%	4.0%	4.0%	2.0%	1.5%	**2.50%**
MST	5.1%	5.0%	5.0%	20.0%	2.0%	1.0%	6.1%	3.0%	2.0%	2.0%	**5.12%**
IIHS	2.0%	1.5%	2.5%	0.0%	2.0%	1.0%	3.0%	3.0%	0.0%	2.0%	**1.70%**
Partial Hosp/Day Tx	2.0%	10.0%	5.0%	5.0%	2.0%	1.0%	6.1%	1.5%	2.0%	2.0%	**3.66%**
Psych Rehab	3.0%	5.0%	20.0%	10.0%	2.0%	2.5%	2.0%	4.0%	10.0%	5.0%	**6.35%**
Crisis Services	26.5%	10.0%	20.0%	31.3%	4.0%	10.0%	5.1%	16.2%	30.0%	11.1%	**16.42%**
Innovations	1.5%	2.3%	2.8%	2.5%	1.5%	2.5%	2.0%	2.0%	3.0%	2.0%	**2.21%**
ICF-MR	1.5%	1.0%	1.0%	0.5%	1.5%	1.5%	1.5%	1.5%	0.5%	2.0%	**1.25%**
1915(b)(3) Services	3.0%	5.0%	5.0%	0.0%	1.5%	0.0%	20.8%	0.0%	0.0%	0.0%	**3.53%**
Contract Total	**2.4%**		**2.7%**	**1.9%**	**2.1%**	**2.4%**		**2.1%**	**2.1%**		2.24%
Encounter Total	**2.5%**	**2.4%**	**2.8%**	**1.9%**	**2.1%**	**2.6%**	**2.6%**	**2.2%**	**2.5%**	**2.6%**	2.42%

Exhibit F: Program Changes

Program Changes in Rate Cert Letter			
LME/MCO	**SFY 2015 ****	**SFY 2016 ****	**SFY 2017**
Alliance	2.6%	0.2%, 2.9%	1.8%
Cardinal*	exp: -0.1%, 2.9% pied:2.7%	4.3%	1.9%
Cardinal / MeckLink	3.7%	0.7%, 3.1%	1.9%
CenterPoint	4.1%	-1.8%, 3.3%	2.1%
Eastpointe	3.2%	-0.4%, 1.7%	1.9%
Partners	3.9%	-0.7%, 1.6%	2.2%
Sandhills	0.4%	1.8%, 3.3%	1.9%
Smoky / Vaya	0.9%, 2.7%	2.3%	1.6%
Trillium / ECBH	1.7%, 1.2%	1.6%	1.5%
Trillium / CoastalCare	2.8%	-0.5%, 1.4%	1.5%

* Exp = Expansion region. Pied = Piedmont region. They were combined into Cardinal in 2015.
** Where two numbers are given, they represent the two different tracks in the blended year method of rate certification (3rd year under managed care)

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Exhibit G: 2017 Program Changes in Rate Certification

2017 Rate Certification Program Changes									
Program Changes	**Alliance**	**Cardinal**	**CenterPoint**	**Eastpointe**	**Partners**	**Sandhills**	**Smoky**	**Trillium**	**Average**
State Facility Per Diem Change	0.7%	0.8%	1.0%	0.8%	1.2%	0.7%	0.7%	0.6%	**0.8%**
Medical Detoxification Codes	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**
Testing Codes	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**
TCLI	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	**0.3%**
Coverage Expansion for Children with ASD	0.7%	0.8%	0.8%	0.8%	0.7%	0.8%	0.6%	0.6%	**0.7%**
Total	**1.8%**	**1.9%**	**2.1%**	**1.9%**	**2.2%**	**1.9%**	**1.6%**	**1.5%**	**1.9%**

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Exhibit H: 2016 Program Changes in Rate Certification

2016 Rate Certification Program Changes - Track 1 / FFS-Contract										
Program Changes	**Alliance**	**Cardinal**	**CenterPoint**	**CoastalCare**	**Eastpointe**	**ECBH**	**Partners**	**Sandhills**	**Smoky**	**Average**
State Facility Per Diem Change	0.2%	0.0%	0.3%	-0.3%	-0.2%		0.0%	1.8%		0.3%
Medical Detoxification Codes	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%		0.0%
Miscellaneous / Testing Codes	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%		0.0%
Physician Cost Reimbursement Policy Change	-0.1%	0.0%	0.0%	-0.1%	-0.1%		0.0%	-0.1%		0.0%
Prior FFS Hospital Supplemental Payments	0.0%	-0.2%	-2.5%	-0.4%	-0.4%		-1.0%	-0.3%		-0.7%
US DOJ Civil Rights Division Settlement	0.2%	0.3%	0.3%	0.2%	0.3%		0.3%	0.3%		0.3%
1915(b)(3) Service Array Expansion	0.0%	0.6%	0.0%	0.0%	0.0%		0.0%	0.0%		0.1%
Shared Savings Plan	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.1%		0.0%
Total	**0.2%**	**0.7%**	**-1.8%**	**-0.5%**	**-0.4%**		**-0.7%**	**1.8%**		**-0.1%**

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2016 Rate Certification Program Changes - Track 2 / MC Experience										
Program Changes	**Alliance**	**Cardinal**	**CenterPoint**	**CoastalCare**	**Eastpointe**	**ECBII**	**Partners**	**Sandhills**	**Smoky**	**Average**
State Facility Per Diem Change	1.7%	0.5%	2.7%	0.9%	1.0%	1.1%	1.3%	1.8%	0.7%	1.3%
Medical Detoxification Codes	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Miscellaneous / Testing Codes	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%	0.0%
Physician Cost Reimbursement Policy Change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prior FFS Hospital Supplemental Payments	0.5%	1.3%	0.0%	0.0%	0.0%	0.0%	-0.2%	0.8%	1.1%	0.4%
US DOJ Civil Rights Division Settlement	0.5%	0.6%	0.6%	0.5%	0.7%	0.6%	0.6%	0.7%	0.5%	0.6%
1915(b)(3) Service Array Expansion	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Shared Savings Plan	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
Total	**2.9%**	**3.1%**	**3.3%**	**1.4%**	**1.7%**	**1.6%**	**1.6%**	**3.3%**	**2.3%**	**2.4%**

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Exhibit I: 2015 Program Changes in Rate Certification

2015 Rate Certification Program Changes											
Program Changes	**Alliance**	**Cardinal****	**Center Point**	**Coastal Care**	**Eastpointe**	**ECBH**	**Meck**	**Partners**	**Sandhills**	**Smoky**	**Average**
Enhanced Services Fee Schedule Change	0.2%	0.0%	0.2%	0.2%	0.2%	0.0%	0.2%	0.2%	0.0%	0.0%	0.2%
ICF-MR Per Diem Change	0.9%	0.0%	0.5%	1.1%	1.3%	0.2%	0.5%	1.0%	0.0%	0.0%	0.8%
Addition of Community Guide as an Innovations Service	0.4%	0.0%	0.4%	0.4%	0.3%	0.0%	0.4%	0.4%	0.0%	0.0%	0.4%
CM/C2 Innovations Impact	0.8%	0.0%	0.7%	0.7%	0.3%	0.0%	1.2%	0.6%	0.0%	0.0%	0.7%
Physician Cost Reimbursement Policy Change	0.1%	0.1% / 0%	0.0%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%
Addition of FFS Copayments	0.1%	0.0%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%
State Facility Per Diem Change	-0.2%	0.1% / 0.6%	-0.1%	0.1%	0.2%	0.8%	0.1%	0.0%	0.1%	0.6%	0.2%
Shared Savings Plan	-0.1%	0.0%	-0.1%	-0.1%	-0.1%	0.0%	-0.1%	-0.1%	0.0%	0.0%	-0.1%
Outpatient Hospital Share	-0.1%	0.0%	-0.1%	-0.1%	-0.1%	0.0%	-0.2%	-0.1%	0.0%	0.0%	-0.1%
Impact of Supplemental Payments	0.6%	0.6% / 0%	2.3%	0.4%	0.8%	0.2%	1.7%	1.8%	0.0%	1.1%	1.1%
US DOJ Civil Rights Division Settlement	0.5%	0.6% / 0.7%	0.6%	0.6%	0.7%	0.4%	0.5%	0.6%	0.2%	0.5%	0.5%
1915(b)(3) Service Array Enhancements	0.0%	0.2% / 2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%
Total	**2.6%**	**1.4% / 2.7%**	**4.1%**	**2.8%**	**3.2%**	**1.5%**	**3.7%**	**3.9%**	**0.4%**	**1.8%**	**2.7%**

*Different representation was given for ACA program changes. They were not included in this table

*If two tracks were used for a LME/MCO, then the average of the two tracks was taken

**Cardinal is a blend of the Expansion and Piedmont regions. Each region had its own program changes separated by the "/" in the table. [Exp / Pied]

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Exhibit J1: Managed Care Assumption Applied to FFS Experience

Managed Care Assumption for FFS							
Category of Service	**Alliance**	**CenterPoint**	**CoastalCare**	**Eastpointe**	**Mecklenburg**	**Partners**	**Average**
Inpatient	-10%	-15%	-15%	-10%	-15%	-15%	**-13%**
Community Support	-10%	-10%	-10%	-10%	-10%	-10%	**-10%**
BH Long-term Residential	-20%	-10%	-20%	-5%	-5%	-18%	**-13%**
PRTF	-20%	-10%	-30%	-5%	-25%	-30%	**-20%**
Case Management							
Outpatient	-15%	-5%	-10%	-5%	-15%	-5%	**-9%**
ACT						2.5%	
MST							
IIHS	-30%	-30%	-25%	-30%	-35%	-20%	**-28%**
Partial Hosp/Day Tx	-10%	-15%	-25%	-25%	-10%	-20%	**-18%**
Psych Rehab	-15%	-5%	-10%	-20%	-10%	-10%	**-12%**
Crisis Services	10%	30%	20%	20%	20%	0%	**17%**
Innovations							
ICF-MR							
Aggregate Total	**-11.0%**	**-7.3%**	**-10.9%**	**-7.9%**	**-12.9%**	**-8.7%**	**-10%**

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Exhibit J2: Managed Care Assumption Applied to Managed Care Experience

Managed Care Assumption for Managed Care									
Category of Service	Alliance	Cardinal - Exp	CenterPoint	Coastal Care	Eastpointe	ECBH	Mecklenburg	Sandhill	Smoky
Inpatient		-15%							-10%
Community Support				-5%					
BH Long-tern Residential								-20%	
PRTF	-15%		-25%					-20%	-5%
Case Management									
Outpatient								5%	
ACT									
MST					-15.5%				10%
IIHS		-15%	-10% to FC and B&D 3-20 -35% to other COA		-15.5%	-50.0%		-25%	-5%
Partial Hosp/Day Tx									
Psych Rehab						-10%			
Crisis Services						50%			
Innovations								3%	
ICF-MR									
1915(b)(3) Services							75%		
Total	-1.0%	-2.6%	-3.6%	-0.1%	-1.2%	-5.3%	0.5%	-2.8%	-1.2%

1) No modifications needed for Partner LME/MCO according to Mercer

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Exhibit K: Financial Experience Analysis

LME/MCOs	Financial Experience Adjustment vs Actuals									
	SFY 2014				SFY 2015		Financial Exp Avg	Financial Exp Adj	Profit Remainder	2016 Profit
	Q1	Q2	Q3	Q4	Q1	Q2				
Alliance	9.1%	-14.2%	7.6%	-6.5%	0.2%	3.3%	0.0%	0.0%	0.0%	5.8%
CoastalCare*	-0.1%	34.0%	6.7%	4.2%	4.4%	4.2%	5.8%	-0.9%	4.9%	*
Centerpoint	5.0%	5.3%	10.8%	7.2%	18.3%	25.0%	12.1%	-7.2%	4.9%	6.2%
Eastpointe	3.5%	2.0%	4.0%	11.3%	2.6%	5.9%	4.9%	1.4%	6.3%	7.6%
Partners	7.9%	12.8%	16.6%	5.0%	12.8%	11.2%	11.1%	-3.3%	7.8%	7.9%
Sandhills	0.1%	21.7%	14.7%	14.3%	14.1%	15.3%	13.4%	-6.4%	7.0%	10.5%

Note: Cardinal and Smoky (Vaya) financial adjustments occurred in different time periods, so they have been excluded above.

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Exhibit L: 1915(b)(3) Claim "Ramp-Up"

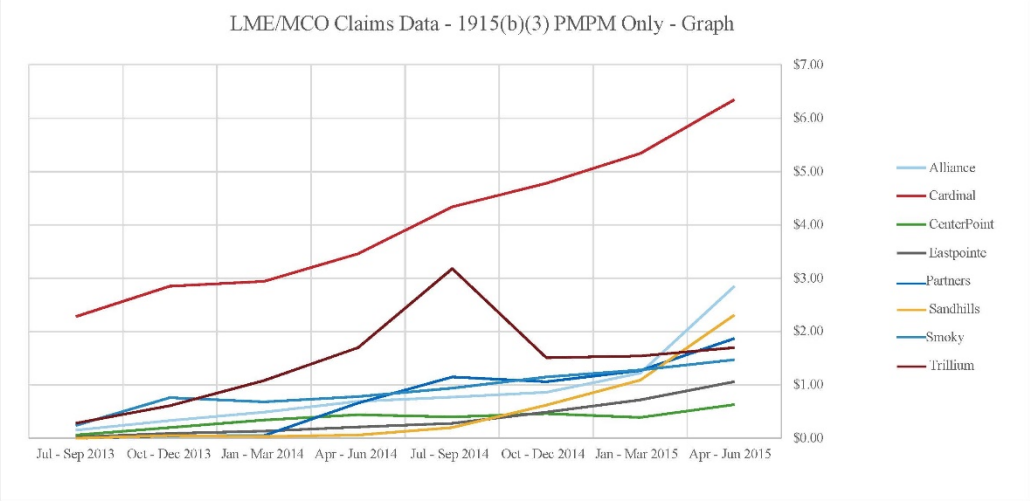

Exhibit M: Yearly Service Financial Table

LME/MCOs	Service Financials	SFY 2014	SFY 2015	SFY 2016	SFY 2017	Total
Alliance	Revenue	$311,143,408	$340,769,651	$364,947,378	$358,471,598	$1,375,332,035
	Expenses	$314,819,286	$314,756,398	$343,924,356	$335,539,891	$1,309,039,931
	Profit	-$3,675,878	$26,013,253	$21,023,022	$22,931,707	$66,292,104
	% Profit	-1.2%	7.6%	5.8%	6.4%	4.8%
Cardinal	Revenue	$301,027,768	$496,643,635	$514,416,281	$627,785,686	$1,939,873,370
	Expenses	$297,508,228	$468,116,741	$474,494,860	$583,755,302	$1,823,875,131
	Profit	$3,519,540	$28,526,894	$39,921,421	$44,030,384	$115,998,239
	% Profit	1.2%	5.7%	7.8%	7.0%	6.0%
Centerpoint	Revenue	$117,065,505	$124,877,718	$119,667,166		$361,610,389
	Expenses	$108,821,014	$109,989,982	$112,205,945		$331,016,941
	Profit	$8,244,491	$14,887,736	$7,461,221		$30,593,448
	% Profit	7.0%	11.9%	6.2%		8.5%
Eastpointe	Revenue	$237,262,054	$233,728,446	$242,952,708	$244,141,557	$958,084,765
	Expenses	$224,534,832	$220,709,166	$224,573,082	$240,581,580	$910,398,660
	Profit	$12,727,222	$13,019,280	$18,379,626	$3,559,977	$47,686,105
	% Profit	5.4%	5.6%	7.6%	1.5%	5.0%
Partners	Revenue	$228,589,093	$242,405,732	$231,954,147	$225,547,970	$928,496,942
	Expenses	$204,262,458	$207,144,215	$213,551,338	$226,512,425	$851,470,437
	Profit	$24,326,635	$35,261,517	$18,402,808	-$964,455	$77,026,505
	% Profit	10.6%	14.5%	7.9%	-0.4%	8.3%
Sandhills	Revenue	$247,493,139	$256,019,012	$233,856,771	$230,104,017	$967,472,939
	Expenses	$216,197,188	$205,708,801	$209,329,636	$223,535,889	$854,771,515
	Profit	$31,295,951	$50,310,211	$24,527,135	$6,568,128	$112,701,424
	% Profit	12.6%	19.7%	10.5%	2.9%	11.6%
Smoky	Revenue	$212,080,015	$263,651,206	$272,710,882	$283,191,776	$1,031,633,879
	Expenses	$200,600,100	$251,134,329	$262,293,356	$274,812,938	$988,840,724
	Profit	$11,479,915	$12,516,877	$10,417,526	$8,378,838	$42,793,155
	% Profit	5.4%	4.7%	3.8%	3.0%	4.1%
Trillium	Revenue	$256,024,059	$292,295,590	$290,169,858	$300,554,823	$1,139,044,331
	Expenses	$229,840,880	$267,785,753	$276,553,134	$312,290,377	$1,086,470,144
	Profit	$26,183,179	$24,509,837	$13,616,725	-$11,735,554	$52,574,187
	% Profit	10.2%	8.4%	4.7%	-3.9%	4.6%
ALL	Revenue	$1,910,685,041	$2,250,390,990	$2,270,675,191	$2,269,797,427	$8,701,548,650
	Expenses	$1,796,583,987	$2,045,345,386	$2,116,925,707	$2,197,028,402	$8,155,883,483
	Profit	$114,101,054	$205,045,604	$153,749,484	$72,769,025	$545,665,167
	% Profit	6.0%	9.1%	6.8%	3.2%	6.3%

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Exhibit N: Service Profit Percentages Graph

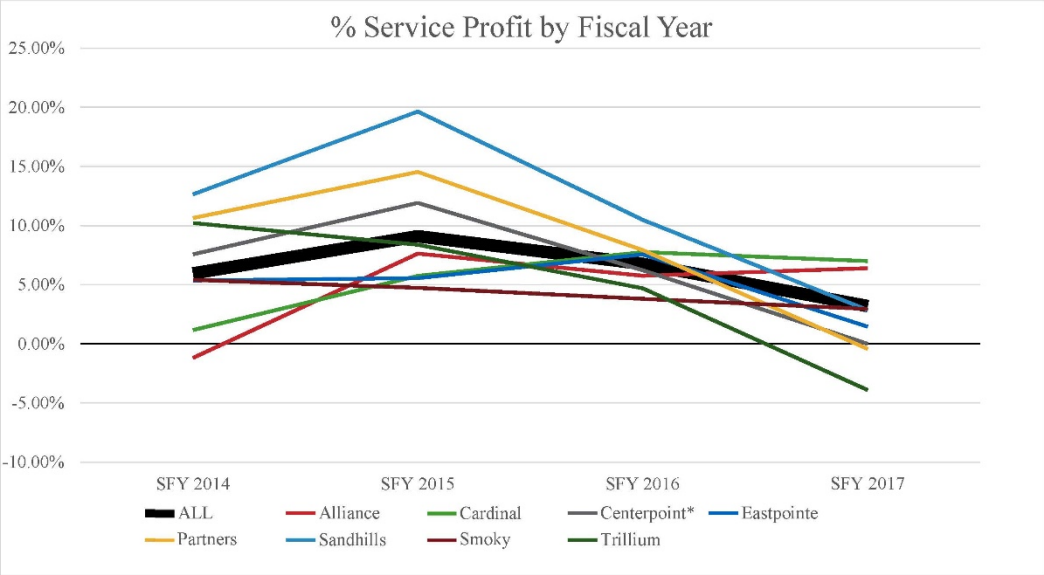

Exhibit O: Analysis of Admin and Care Coordination Assumptions

Total Admin includes the administrative and care coordination assumption

LME/MCOs	Admin Financials	SFY 2014	SFY 2015	SFY 2016	SFY 2017	Total
Alliance	Revenue	$32,933,302	$45,289,366	$48,460,028	$47,695,434	$174,378,130
	Expense	$25,571,072	$28,431,930	$41,435,941	$46,712,030	$142,150,973
	Profit	$7,362,230	$16,857,436	$7,024,087	$983,404	$32,227,157
	% Profit	22.4%	37.2%	14.5%	2.1%	18.5%
Cardinal	Revenue	$38,704,755	$62,226,384	$64,002,640	$81,316,903	$246,250,682
	Expense	$44,303,622	$60,323,935	$64,217,121	$89,214,514	$258,059,192
	Profit	-$5,598,867	$1,902,449	-$214,481	-$7,897,611	-$11,808,510
	% Profit	-14.5%	3.1%	-0.3%	-9.7%	-4.8%
Centerpoint	Revenue	$15,877,893	$15,359,660	$18,046,383		$49,283,936
	Expense	$14,680,017	$12,427,275	$20,822,772		$47,930,064
	Profit	$1,197,876	$2,932,385	-$2,776,389		$1,353,872
	% Profit	7.5%	19.1%	-15.4%		2.7%
EastPointe	Revenue	$28,645,620	$28,911,199	$30,247,376	$30,395,124	$118,199,319
	Expense	$28,947,050	$25,409,817	$28,537,085	$28,575,176	$111,469,128
	Profit	-$301,430	$3,501,382	$1,710,291	$1,819,948	$6,730,191
	% Profit	-1.1%	12.1%	5.7%	6.0%	5.7%
Partners	Revenue	$26,320,909	$28,654,704	$32,832,554	$34,686,988	$122,495,155
	Expense	$23,212,763	$26,061,469	$33,685,844	$41,787,705	$124,747,781
	Profit	$3,108,146	$2,593,235	-$853,290	-$7,100,717	-$2,252,626
	% Profit	11.8%	9.0%	-2.6%	-20.5%	-1.8%
Sandhills	Revenue	$29,730,856	$28,834,109	$26,897,266	$25,069,995	$110,532,225
	Expense	$18,400,454	$20,433,864	$35,947,206	$28,697,740	$103,479,264
	Profit	$11,330,402	$8,400,245	-$9,049,940	-$3,627,745	$7,052,961
	% Profit	38.1%	29.1%	-33.6%	-14.5%	6.4%

Segal Consulting

Smoky-Vaya	Revenue	$31,035,761	$35,529,219	$35,180,004	$37,158,984	$138,903,969
	Expense	$25,803,968	$32,574,321	$38,558,663	$42,618,763	$139,555,715
	Profit	$5,231,794	$2,954,898	-$3,378,659	-$5,459,779	-$651,746
	% Profit	16.9%	8.3%	-9.6%	-14.7%	-0.5%
Trillium	Revenue	$31,022,519	$35,066,973	$34,623,654	$34,839,992	$135,553,138
	Expense	$27,553,219	$36,916,666	$47,056,815	$53,267,300	$164,793,999
	Profit	$3,469,300	-$1,849,692	-$12,433,161	-$18,427,308	-$29,240,861
	% Profit	11.2%	-5.3%	-35.9%	-52.9%	-21.6%
Total	Admin Revenue	$234,271,614	$279,871,615	$290,289,905	$291,163,420	$1,095,596,554
	Admin Expense	$208,472,165	$242,579,277	$310,261,447	$330,873,228	$1,092,186,116
	Profit	$25,799,450	$37,292,338	-$19,971,543	-$39,709,807	$3,410,438
	% Profit	11.0%	13.3%	-6.9%	-13.6%	0.3%

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Exhibit P: Risk Reserve Analysis

LME/MCOs	Risk Reserve Financials	SFY 2014	SFY 2015	SFY 2016	SFY 2017
Alliance	Risk Revenue	$7,067,429	$7,876,834	$8,332,037	$8,339,522
	Reserve Set-A-Side/Unused	$7,067,429	$7,876,834	$8,332,037	$8,339,522
	% Revenue Used	0.00%	0.00%	0.00%	0.00%
Cardinal	Risk Revenue	$4,378,767	$8,591,471	$8,892,602	$11,502,256
	Reserve Set-A-Side/Unused	$4,378,767	$8,591,471	$8,892,602	$11,502,256
	% Revenue Used	0.00%	0.00%	0.00%	0.00%
Centerpoint	Risk Revenue	$2,713,129	$2,877,118	$2,826,372	-
	Reserve Set-A-Side/Unused	$2,713,129	$2,877,119	$2,826,372	-
	% Revenue Used	0.00%	0.00%	0.00%	-
EastPointe	Risk Revenue	$5,426,684	$5,355,496	$5,577,670	$5,602,788
	Reserve Set-A-Side/Unused	$5,428,180	$5,386,297	$5,583,005	$5,602,788
	% Revenue Used	-0.03%	-0.58%	-0.10%	0.00%
Partners	Risk Revenue	$5,137,467	$5,529,556	$5,369,416	$5,322,872
	Reserve Set-A-Side/Unused	$5,135,164	$5,529,556	$5,369,416	$5,322,872
	% Revenue Used	0.04%	0.00%	0.00%	0.00%
Sandhills	Risk Revenue	$5,659,264	$5,821,407	$5,354,419	$5,482,073
	Reserve Set-A-Side/Unused	$5,659,264	$5,821,407	$5,354,419	$5,482,073
	% Revenue Used	0.00%	0.00%	0.00%	0.00%
Smoky-Vaya	Risk Revenue	$4,923,693	$6,151,032	$6,258,689	$6,467,872
	Reserve Set-A-Side/Unused	$4,923,693	$6,151,032	$6,258,689	$6,467,872
	% Revenue Used	0.00%	0.00%	0.00%	0.00%
Trillium	Risk Revenue	$5,859,783	$6,680,870	$6,802,291	$6,844,792
	Reserve Set-A-Side/Unused	$5,846,723	$6,565,558	$6,690,542	$6,857,359
	% Revenue Used	0.22%	1.73%	1.64%	-0.18%

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Exhibit Q: Current Reserve Level Analysis

LME/MCOs	Additional Reserve in SFY 2017	Cumulative Reserve Level as of SFY 2017	Reserve Level at 15%	Amount Remaining to 15% Threshold
Alliance	$8,339,522	$34,509,072	$ 57,337,788	$22,828,716
Cardinal	$21,017,356	$66,910,371	$100,945,472	$34,035,101
EastPointe	$5,602,788	$24,610,636	$ 40,373,513	$15,762,877
Partners	$462,918	$23,585,117	$ 40,245,019	$16,659,903
Sandhills	$5,482,073	$24,467,191	$ 37,835,044	$13,367,853
Smoky-Vaya	$6,463,345	$31,345,510	$ 47,614,755	$16,269,245
Trillium	$6,857,359	$31,832,057	$ 54,833,652	$23,001,595
Total	**$54,225,361**	**$237,259,954**	**$379,185,243**	**$141,925,290**

1) Centerpoint merged with Cardinal in SFY 2017.

Exhibit R: LME/MCO Total Profit by Fiscal Year

LME/MCOs	All Financials	SFY 2014	SFY 2015	SFY 2016	SFY 2017	Total
Alliance	Revenue	$346,431,871	$386,059,017	$413,407,406	$406,167,032	$1,552,065,326
	Expense	$340,390,358	$343,188,328	$385,360,297	$382,251,921	$1,451,190,904
	Profit	$6,041,513	$42,870,689	$28,047,109	$23,915,111	$100,874,422
	% Profit	1.7%	11.1%	6.8%	5.9%	6.5%
Cardinal	Revenue	$339,732,523	$558,870,019	$578,418,921	$709,102,589	$2,186,124,052
	Expense	$341,811,850	$528,440,676	$538,711,981	$672,969,816	$2,081,934,323
	Profit	-$2,079,327	$30,429,343	$39,706,940	$36,132,773	$104,189,729
	% Profit	-0.6%	5.4%	6.9%	5.1%	4.8%
Centerpoint	Revenue	$132,943,398	$140,186,709	$136,572,345		$409,702,452
	Expense	$123,501,031	$122,417,257	$133,028,718		$378,947,006
	Profit	$9,442,367	$17,769,452	$3,543,628		$30,755,447
	% Profit	7.1%	12.7%	2.6%		7.5%
EastPointe	Revenue	$265,942,674	$262,638,353	$273,222,922	$274,624,692	$1,076,428,641
	Expense	$253,481,882	$246,118,983	$253,110,167	$269,156,756	$1,021,867,788
	Profit	$12,460,792	$16,519,371	$20,112,755	$5,467,936	$54,560,853
	% Profit	4.7%	6.3%	7.4%	2.0%	5.1%
Partners	Revenue	$254,953,128	$271,794,371	$264,806,893	$260,317,070	$1,051,871,462
	Expense	$227,475,221	$233,205,684	$247,237,182	$268,300,130	$976,218,218
	Profit	$27,477,907	$38,588,687	$17,569,710	-$7,983,060	$75,653,244
	% Profit	10.8%	14.2%	6.6%	-3.1%	7.2%
Sandhills	Revenue	$277,223,995	$286,379,259	$259,676,982	$261,431,096	$1,084,711,332
	Expense	$234,597,642	$226,142,665	$245,276,842	$252,233,629	$958,250,779
	Profit	$42,626,352	$60,236,594	$14,400,140	$9,197,468	$126,460,553
	% Profit	15.4%	21.0%	5.5%	3.5%	11.7%
Smoky-Vaya	Revenue	$243,119,871	$299,207,884	$307,892,375	$320,364,381	$1,170,584,512
	Expense	$226,404,068	$283,708,651	$300,852,018	$317,431,701	$1,128,396,438
	Profit	$16,715,803	$15,499,233	$7,040,357	$2,932,680	$42,188,073
	% Profit	6.9%	5.2%	2.3%	0.9%	3.6%
Trillium	Revenue	$291,870,685	$327,484,962	$324,905,261	$335,382,248	$1,279,643,155
	Expense	$257,394,099	$304,702,419	$323,609,949	$365,557,677	$1,251,264,143
	Profit	$34,476,586	$22,782,543	$1,295,312	-$30,175,429	$28,379,012
	% Profit	11.8%	7.0%	0.4%	-9.0%	2.2%
Total	Revenue	$2,152,218,145	$2,532,620,575	$2,558,903,105	$2,567,389,109	$9,811,130,933
	Expense	$2,005,056,152	$2,287,924,663	$2,427,187,155	$2,527,901,630	$9,248,069,599
	Profit	$147,161,993	$244,695,912	$131,715,950	$39,487,479	$563,061,334
	% Profit	6.8%	9.7%	5.1%	1.5%	5.7%

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Exhibit S: CMS Approval Letter March 24, 2016

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
Atlanta Regional Office
61 Forsyth Street, Suite 4T20
Atlanta, Georgia 30303

CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES

DIVISION OF MEDICAID & CHILDREN'S HEALTH OPERATIONS

March 24, 2016

Dave Richard, Director
Division of Medical Assistance
North Carolina Department of Health and Human Services
2501 Mail Service Center
Raleigh, NC 27699-2501

Re: Approval of North Carolina Behavioral Health Management PrePaid Inpatient Health Plan (PIHP) Rate Adjustments - January 1, 2015 through June 30, 2015

Dear Mr. Richard:

The Centers for Medicare & Medicaid Services (CMS) has completed our review and is approving rate amendments between the North Carolina Department of Health and Human Services, Division of Medical Assistance (DMA) and Alliance, Cardinal, Centerpoint, CoastalCare, Eastpointe, and Partners Behavioral Health PIHPs. The rate amendments effective period is January 1, 2015 through June 30, 2015.

These rate amendments were submitted to CMS September 21, 2015. The state decided to use a rate update approach for this period for these six PIHPs in order to transition to a state fiscal year contract period statewide. The rate increases for January 1, 2015 to June 30, 2015 range from 1.4 percent to 2.7 percent and is attributed to service utilization and unit cost trend adjustments, programmatic changes that occurred in the state, financial experience adjustments and administrative loading.

While the rates have been approved, the review noted that updated fee-for-service and encounter data was not updated for the development of this six month period. CMS recommends the state utilize the most recent encounter data to set rate ranges in the future. It was also noted that there was little quantitative support and analysis for the development of benefit trends. CMS recommends that more quantitative support and analysis be utilized for the development of benefit trends in the future. Lastly, the review noted that the certification lacked support in several areas, including programmatic changes, projected benefit cost trends, administrative assumptions, and managed care assumptions. CMS recommends in the future that more detail and support be provided in the rate certification in these areas.

Based on our review, the actuarial certification from *Mercer,* and in accordance with 42 CFR 438.6, CMS is approving the rate amendments with an effective period of January 1, 2015 through June 30, 2015.

Dave Richard
Page 2

Should you have any questions regarding this matter, please contact Michelle White at (404) 562-7328 or Donald Graves at (919) 828-2999.

Sincerely,

Jackie Glaze

Jackie Glaze
Associate Regional Administrator
Division of Medicaid & Children's Health Operations

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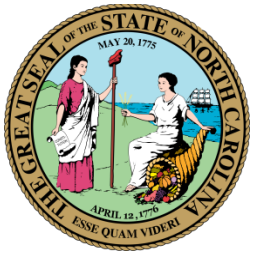


STATE AUDITOR'S RESPONSE

The Office of the State Auditor (OSA) is required to provide additional explanation when an agency's response could potentially cloud an issue, mislead the reader, or inappropriately minimize the importance of auditor findings.

Generally Accepted Government Auditing Standards state,

> "When the audited entity's comments are inconsistent or in conflict with the findings, conclusions, or recommendations in the draft report, or when planned corrective actions do not adequately address the auditor's recommendations, the auditors should evaluate the validity of the audited entity's comments. If the auditors disagree with the comments, they should explain in the report their reasons for disagreement."

In its response to this audit, the Department of Health and Human Services (Department) made potentially misleading statements. To ensure the availability of complete and accurate information, and in accordance with Generally Accepted Government Auditing Standards, OSA offers the following clarifications.

Medicaid Capitation Rates Are Actuarially Sound but Resulted in $439.2 Million in Excess Savings

In its response, the Department made five potentially misleading statements about the excess savings accumulated by Local Management Entities/Managed Care Organizations (LME/MCOs).

First, the Department's emphasis of the term "actuarially sound" could mislead the reader about the term's meaning and relevance. The Department states:

> "The Department agrees with the State Auditor's assessment that **the capitation rates are actuarially sound**. NC Medicaid has a responsibility to set actuarially sound rates for LME/MCOs…" [*Emphasis Added]*

However, "actuarially sound" does not mean "**most cost-efficient**." Actuarially sound means that the actuary used **methods**, **trends**, **assumptions**, and **adjustments** that fell within the **parameters**[83] established by the Actuarial Standards Board and that the capitation rates are "projected to provide for all reasonable, appropriate, and attainable costs."

Second, the Department's response could mislead the reader to believe that the excess savings were necessary to incentivize the LME/MCOs to manage costs. The Department states:

> "By design, capitation rates encourage plans to manage expenditures so that they are under the set rate. **Limiting the amount of retained savings can serve as a deterrent to efficient management of costs**." [*Emphasis Added*]

However, the Department did not provide any evidence to show that savings margins ranging up to 22% (11 times the industry norm of 2%) were necessary to motivate the LME/MCOs (which are State political subdivisions) to efficiently manage costs.

[83] Refers to the broad range that the methods, assumptions, or adjustments used by an actuary may fall within and still meet actuarial standards. Our SME found that the State's actuary used overly conservative methods and assumptions which resulted in excess savings. This emphasizes the need to set an explicit savings margin goal, and manage and monitor towards that goal.

Additionally, the Department failed to provide protection to the State in the event that the assumptions and adjustments made and used by the State's actuary contributed to savings that were far above the industry norm. Protection to the State for excess savings realized by the LME/MCOs is critical because the State has no direct control[84] over how the savings are used by the LME/MCOs.

More importantly, this audit and its recommendations are about protecting the State's interests as the Department moves forward with Medicaid Managed Care and begins contracting with private companies.

Consequently, this audit argues that the Department should ensure policies and procedures are in place to protect the State's interest if the Department's capitation rates result in excessive savings for LME/MCOs or excessive profits for private companies.

Third, the Department's response could mislead the reader to believe that the excess savings are the result of better-than-expected cost-savings rather than higher-than-necessary capitation rates. The Department states:

> "**When LME/MCOs manage expenditures more efficiently than anticipated**, those savings translate into lower costs to the State over time as future capitation rates are developed based on past experience." [*Emphasis Added*]

To "**manage expenditures more efficiently than anticipated**" would mean the Department established some expectations of what the savings would look like for each LME/MCO. However, the Department did not provide any evidence that it established a savings expectation, identified the areas where savings occurred, audited the savings, compared the savings to expectations, and found that savings had exceeded expectations.

But there is evidence that the capitation rates may not have been as accurate as possible. For example:

- Although the Department attempted to set appropriate capitation rates for each LME/MCO, the LME/MCO savings margins varied significantly from -6.8% to 22% over the three-year audit period.
- Although accurate data is critical for setting the capitation rates, the Department did not perform procedures to ensure that the financial data, encounter data, and member month data it used in the rate-setting process was reliable.

Fourth, the Department's response could mislead the reader to believe that the amount of LME/MCO accumulated savings is not an issue because the savings will be reinvested in the community. The Department states:

> "When North Carolina LME/MCOs generate savings, **the savings goes into a fund balance which is reinvested in the community over time to provide additional services and activities** to improve overall community health." [*Emphasis Added*]

[84] LME/MCOs are political subdivisions of the State. The Department can terminate LME/MCO CEOs, their Boards, and dissolve a LME/MCO entirely if they are not operating in accordance with their LME/MCO plan or the North Carolina General Statutes. However, the Centers of Medicare and Medicaid Services (CMS) has stated that the State **cannot** direct the spending of the LME/MCO accumulated savings.

However, the Department did not provide evidence it monitored LME/MCO reinvestment of their savings and did not have reports to do so until state fiscal year (SFY) 2017 even though the majority of excess savings ($371 million) occurred in SFY 2015 and 2016. A review of Department reports showed:

- No evidence of LME/MCO reinvestment for SFY 2015 and 2016.
- Documentation of $101.5 million in LME/MCO reinvestment for SFY 2017.

The LME/MCOs accumulated nearly $440 million excess savings from SFY 2015-2017. As of June 30, 2017, the total LME/MCO accumulated savings from Medicaid funds was nearly **$800 million**.[85]

Consequently, there is a significant amount of funds that could be used to provide additional behavioral health services to North Carolina citizens.

Fifth, the Department's response could mislead the reader to believe that the savings margins the LME/MCOs experienced are typical. The Department states:

> "Over the three-year period reviewed, total LME/MCOs savings averaged 5.12% of capitation payments. **That level of savings is not atypical in the industry**." [*Emphasis Added*]

However, even the 5.12% three-year average that the Department cites is more than 2.5 times the 2% industry average that the Society of Actuaries identified for nonprofit MCOs.

More importantly, the Department's use of the three-year average masks the large fluctuations in individual LME/MCO savings margins. As documented in this report, LME/MCO savings margins ranged from:

- 6.9% to 22.2% in SFY 2015
- 2.4% to 9.2% in SFY 2016
- -6.8% to 7.8% in SFY 2017

LME/MCOs' Spending of Medicaid Fund Should Be Monitored

In its response, the Department made a potentially misleading statement about how it monitors LME/MCOs. The Department stated:

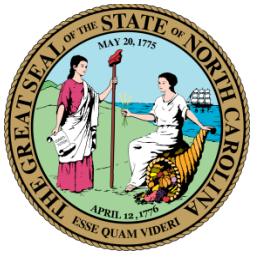
> "The Department currently receives audited financial statements for LME/MCOs as required by our contracts with the LME/MCOs... **The reports are reviewed** for noted compliance issues and **to determine Medicaid spending in accordance with federal cost principles**." [*Emphasis Added*]

[85] Department of Health and Human Services' LME/MCO Solvency Standards Report, October 1, 2017. The amount includes the $440 million excess savings accumulated during SFY 2015 – 2017 and total savings accumulated prior to SFY 2015. Most regions transitioned from fee-for-service to managed care on or about January 1, 2013.

The reader should keep in mind that:

- In accordance with an agreement between the State and the Centers for Medicare and Medicaid Services, the LME/MCOs are regulated as private contracting entities and are not subject to the federal cost principles.

- Compliance with the federal cost principles cannot be determined from a review of financial statements as was stated above.



RESPONSE FROM DEPARTMENT OF HEALTH AND HUMAN SERVICES

STATE OF NORTH CAROLINA
DEPARTMENT OF HEALTH AND HUMAN SERVICES

ROY COOPER
GOVERNOR

MANDY COHEN, MD, MPH
SECRETARY

December 21, 2018

The Honorable Beth A. Wood, State Auditor
Office of the State Auditor
2 South Salisbury Street
20601 Mail Service Center
Raleigh, North Carolina 27699-0601

Dear Auditor Wood:

We have reviewed the draft performance report titled Medicaid Capitation Rate Setting, covering the period July 2015 to June 2017. The following represents our response and corrective action plan to the Audit Findings and Recommendations including our comments regarding the Matters for Further Consideration.

AUDIT FINDINGS, RECOMMENDATIONS, AND RESPONSES

1. MEDICAID CAPITATION RATES ARE ACTUARIALLY SOUND BUT RESULTED IN $439.2 MILLION IN EXCESS SAVINGS

Recommendations:

DMA should establish an explicit LME/MCO savings margin goal, compare actual performance to expected performance, investigate unexpected results or unusual trends, and take appropriate corrective action to ensure appropriate capitation rates are established.

DMA should include language in its contracts that limit the savings that LME/MCOs can retain. Contract language should be added to require LME/MCOs to share savings in excess of an agreed-upon amount with the State.

For future contracts, DMA should include language in its contracts that limit the profit that a private MCO can retain. The contracts should require MCOs to share profit in excess of an agreed-upon amount with the State. Alternatively, DMA should ask the Legislature to enact a state law that would limit excessive MCO profits by requiring profit that exceeds a defined amount to be shared with the State.

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Agency Response:

The Department agrees with the State Auditor's assessment that the capitation rates are actuarially sound. NC Medicaid has a responsibility to set actuarially sound rates for LME/MCOs as well as an obligation to operate the LME/MCO model consistent with the design legislated by the NC General Assembly.

By design, capitation rates encourage plans to manage expenditures so that they are under the set rate. Limiting the amount of retained savings can serve as a deterrent to efficient management of costs. When LME/MCOs manage expenditures more efficiently than anticipated, those savings translate into lower costs to the State over time as future capitation rates are developed based on past experience. Over the three-year period reviewed, total LME/MCO savings averaged 5.12% of capitation payments. That level of savings is not atypical in the industry.

When North Carolina LME/MCOs generate savings, the savings go into a fund balance which is reinvested in the community over time to provide additional services and activities to improve overall community health. In accordance with NC G.S. 122C, LME/MCOs annually submit to the State their business plan detailing how savings will be reinvested in direct services. The Department believes that the current policy of allowing the LME/MCOs to accumulate and reinvest savings into their communities, in accordance with state law, is appropriate.

For-profit Prepaid Health Plans (PHPs) in Medicaid Managed Care should not be viewed the same as North Carolina's LME-MCOs, designed and created by the NC Legislature. Under the new managed care program, the Department, as directed by the NC Legislature, has established a minimum Medical Loss Ratio (MLR) which will include a remittance requirement for PHPs that do not meet the MLR. The Department will continue to use other tools that enhance its ability to drive PHP performance while effectively managing costs to the State. The Department is open to limiting profits of PHPs above a reasonable threshold so long as it is supported by legislation and allows the Department to retain the levers necessary to incentivize plans to manage costs and meet or exceed our health outcomes goals.

2. NO ASSURANCE THAT FINANCIAL DATA USED TO ESTABLISH MEDICAID CAPITATION RATES WAS RELIABLE

Recommendations:

DMA should use audited or reconciled financial data to establish the capitation rates.

Agency Response:

The Department agrees that additional efforts in reconciling the financial data could identify financial adjustments to be considered in the development of capitation rates. The Department will begin reconciling the LME/MCOs' monthly financial reports to audited financial statements and take appropriate action if variances are identified.

3. NO ASSURANCE THAT ENCOUNTER DATA USED TO ESTABLISH MEDICAID CAPITATION RATES WAS RELIABLE

Recommendations:

DMA should ensure that validated encounter data is used for setting the capitation rates.

Agency Response:

While the Department believes the encounter data validation approach utilized for capitation rate setting was appropriate and reasonable, we agree that additional efforts to confirm the delivery of services represented by encounter data would enhance the data's reliability. The Department's actuary works under contract with the Department and develops NC Medicaid behavioral health capitation rates utilizing person-level encounter data delivered directly to the actuary by the LME/MCOs. The Department's actuary performed numerous validation and reasonableness tests (designed in conjunction with State staff) on the submitted data to ensure data quality. The addition of the reconciliation of audited financial statements will further enhance the Department's confidence in the reliability of the encounter data currently used in the LME/MCO capitation rate setting process.

The Department has been and continues to work on measures to improve the encounter data available through the State's IT systems with the end goal of having the Department's actuary rely on that data for capitation rate setting purposes.

4. NO ASSURANCE THAT MEMBER MONTH DATA USED TO ESTABLISH MEDICAID CAPITATION RATES WAS RELIABLE

Recommendations:

DMA should ensure that reliable member month information is used for capitation rate setting.

Agency Response:

The Department fully accepts its responsibility to ensure the accuracy of Medicaid eligibility determinations and agrees that opportunities exist to strengthen eligibility determinations that ultimately contribute to member month data calculations. Beginning in 2017 the Department has taken several steps to strengthen the accuracy of eligibility determinations.

- In April 2017, the Department issued updated procedures and tools to County DSS' to improve their self-monitoring activities through second-party reviews.
- Additionally, the Department implemented enhanced training and certifications for County DSS workers while making technical improvements in the NCFAST eligibility system.
- The Department further implemented an MMIS enhancement that provides an additional systematic opportunity to identify potentially ineligible beneficiaries prior to paying submitted claims.
- Beginning January 2019 as directed by the NC Legislature, the Department will initiate focused eligibility determination audits of the County DSS' aimed at improving County eligibility determination accuracy rates.

The Department believes that our calculation techniques for generating member month data is appropriate and reasonable for the purpose of setting capitation rates. Member months are calculated based on the number of beneficiaries enrolled in the program matched against their claims experience.

MATTERS FOR FURTHER CONSIDERATION

LME/MCOs' Spending of Medicaid Fund Should Be Monitored

The Department of Health and Human Services, Division of Medical Assistance (DMA) should consider conducting audits to determine if Local Management Entity/Managed Care Organization (LME/MCO) Medicaid spending is necessary and reasonable in accordance with federal cost principles.

Agency Comment:
The Department currently receives audited financial statements for LME/MCOs as required by our contracts with the LME/MCOs. The receipt of the audit reports is managed by the Local Government Commission of the State Treasurer's office. The reports are reviewed for noted compliance issues and to determine Medicaid spending is in accordance with federal cost principles. The Department will consider performing independent financial audits of the LME/MCOs as needed based upon our review of their audited financial statements.

Problems Identified During External Quality Reviews Should Be Communicated to Actuary

The Department of Health and Human Services, Division of Medical Assistance (DMA) should consider communicating problems identified in the annual External Quality Reviews (EQR) to its actuary for consideration while preparing the State's capitation rates.

Agency Comment:
The Department agrees with this recommendation and will begin sharing EQR results with the actuary.

We appreciate the assistance and professionalism provided by your staff in the performance of this audit. If you need any additional information, please contact John Thompson at (919) 814-0123.

Sincerely,

MK Cohen

Mandy Cohen, MD, MPH
Secretary

MC:jet

cc: Susan Perry-Manning, Principal Deputy Secretary
Rod Davis, Chief Financial Officer
Mark Benton, Deputy Secretary for Health Services
Dave Richard, Deputy Secretary, NC Medicaid, Division of Health Benefits
Roger Barnes, Chief Financial Officer, NC Medicaid, Division of Health Benefits
Mona Moon, Chief Operating Officer, NC Medicaid, Divison of Health Benefits
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This audit required 4,683 hours of auditor effort at an approximate cost of $482,298. The cost of the specialist's effort was $215,000. As a result, the total cost of this audit was $697,298.