Early Findings from South Carolina's Behavioral Health Carve-In

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CONTENTS

KEY HIGHLIGHTS

- More states are integrating mental health and substance use disorder treatment into Medicaid managed care as a way to improve outcomes and provide more comprehensive care for beneficiaries.
- Elevance Health analyzed data from South Carolina's carve-in and found declines in emergency room spending for behavioral health-related reasons and improvements in certain quality measures.
- This analysis illustrates some of the benefits that can be achieved when states integrate mental health and substance use disorder services in their Medicaid managed care programs.

Overview

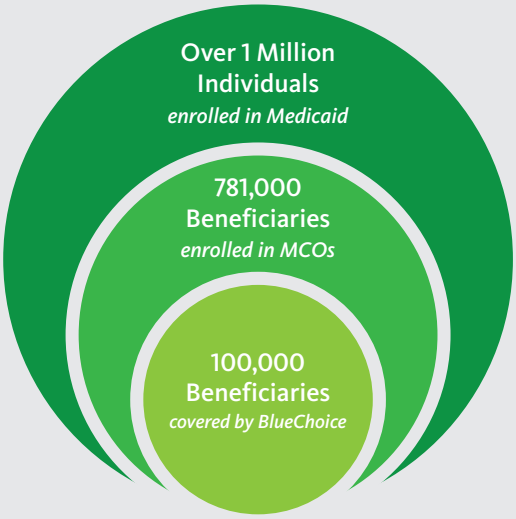
On average, states spend four times more on Medicaid benefits for beneficiaries with mental health conditions and/or substance use disorders (collectively referred to as behavioral health conditions in this paper) than they do for beneficiaries without these conditions.[1]

Individuals with behavioral health conditions comprise about **one in every five Medicaid beneficiaries.**

States are testing and implementing various solutions to improve outcomes while reducing costs for beneficiaries with behavioral health conditions, who comprise about one in every five Medicaid beneficiaries.[2]

South Carolina newly included outpatient mental health services and Rehabilitative Behavioral Health Services (RBHS) in its Medicaid managed care contracts beginning in 2016 ("the carve-in"). Previously, these benefits were carved out of such contracts and delivered via the fee-for-service (FFS) system. This paper analyzes data from BlueChoice HealthPlan of South Carolina (BlueChoice)—one of the state's five Medicaid managed care organizations (MCOs)—to better understand the impact of the carve-in.[3] (Figure 1) These early results demonstrate the progress BlueChoice and the South Carolina Department of Health and Human Services have made in enhancing outcomes for individuals with mental health conditions and substance use disorders.

Figure 1
Overview of the South Carolina Medicaid Program[4]



Integrating Behavioral Health in Medicaid Managed Care

Medicaid pays for over 25 percent of all mental health services and 21 percent of substance use disorder services nationally—making it one of the largest funding sources for behavioral healthcare in the United States.[5] Furthermore, Medicaid typically offers more comprehensive mental health and substance use disorder benefits than private health insurance plans.

States differ when it comes to how they provide Medicaid behavioral health services and supports to beneficiaries. As with other Medicaid benefits, states may use the FFS system or managed care.[6] In some cases, Medicaid beneficiaries may be enrolled in managed care for all other health benefits but receive mental health and substance use disorder services separately—which is known as a behavioral health carve-out. All, or only specified, benefits may be part of the carve-out. The carved out benefits may be provided through FFS or a separate managed behavioral health organization (MBHO).

Studies have shown the benefits states can achieve by **integrating mental health and substance use disorder services and supports** in comprehensive managed care plans.

Although state Medicaid programs have relied on MBHOs in the past, states are increasingly moving away from behavioral health carve-outs in favor of a more comprehensive and holistic approach via MCOs.[7] This is likely due, at least in part, to the positive outcomes that states and beneficiaries realize from their mental health and substance use disorder services being seamlessly integrated.

Various studies have shown the benefits states can achieve by integrating mental health and substance use disorder services and supports in comprehensive managed care plans.[8,9] Additionally, Elevance Health's affiliated health plans have observed positive results following integration of behavioral health benefits such as more effective delivery of services in community settings, shorter lengths of stay in inpatient settings, and reductions in healthcare spending.[10] Integrated care enhances the engagement of individuals, which in turn is associated with improved beneficiary satisfaction, enhanced quality of life, increased treatment adherence, and better overall mental and physical health.[11]

South Carolina's Behavioral Health Carve-In

Historically, South Carolina did not include all behavioral health services in Medicaid managed care—instead it used the FFS system to deliver certain benefits.

Medicaid MCOs were responsible for only a limited set of behavioral health services—inpatient acute care, detox services, and outpatient core therapy services. All other behavioral health services were provided through the FFS system.

On July 1, 2016, South Carolina carved in RBHS and outpatient mental health services for adults to MCOs.[12,13] RBHS includes an array of therapeutic and rehabilitative services. Following the carve-in, the only behavioral health services remaining in FFS were methadone clinics and freestanding psychiatric hospitals (often referred to as IMDs). However, carve-ins for methadone clinics and IMDs began in July 2019.[14]

Examples of Rehabilitative Behavioral Health Services[15]

- Behavioral Health Screening
- Diagnostic Assessment Services
- Psychological Evaluation and Testing
- Individual Psychotherapy
- Group Psychotherapy
- Service Plan Development
- Crisis Management
- Medication Management
- Psychosocial Rehabilitation Services
- Behavior Modification
- Community Integration Services
- Peer Support Services
- Substance Use Treatment Services

Early Findings from South Carolina's Behavioral Health Carve-In

Elevance Health analyzed data from BlueChoice to better understand the effect of South Carolina's carve-in on spending, utilization, and quality.

The analysis included individuals with a diagnosed behavioral health condition enrolled in BlueChoice from July 1, 2014 through June 30, 2018. This time period represents two years of data before and after the July 2016 carve-in. Certain enrollees were excluded from the study including enrollees under age 18, individuals with less than one month of enrollment, and beneficiaries who were considered outliers with respect to total per member per month (PMPM) costs. An interrupted time series study design and segmented regression analysis were used to evaluate the effect of the carve-in to date. (See the Appendix for more detail on the study methods.) The study examined four main questions focused on understanding the impact of the carve-in on utilization, spending, and quality.

1. **What were the annual (year-over-year) trends in utilization and spending prior to the carve-in?**

The analysis first looked at annual trends in beneficiaries' service use and spending prior to the carve-in ("pre-period"). Before the carve-in, there were some year-over-year declines in utilization. In particular, total ER visits and total professional services visits declined each year by 7 percent and 9 percent, respectively. There were also notable increases. Total inpatient facility utilization grew by about 9 percent and prescription drug use for behavioral health-related reasons rose by more than 6 percent each year. (Table 1)

Table 1

Annual Trends in Utilization and Spending Before the Carve-In

	Utilization	Spending (PMPM)
Inpatient Facility		
Behavioral Health	—	—
Behavioral and Physical Health	↑ 8.9%	↓ $25
Professional Services		
Inpatient Behavioral Health	—	↑ <$1
Outpatient Behavioral Health	—	↑ $1
Behavioral and Physical Health	↓ 8.7%	↓ $10
Emergency Room		
Behavioral Health	—	↑ $4
Behavioral and Physical Health	↓ 6.8%	↓ $6
Prescription Drugs		
Behavioral Health	↑ 6.4%	—
Behavioral and Physical Health	↑ 2.8%	↑ $15
Total	**N/A**	**↓ $32**

— Signifies the year-over-year change is not statistically significant.

Note: Annual trends in outpatient facility use and spending prior to the carve-in are not included because this category includes services carved out in the pre-period, for which data were not available. Therefore, it is not accurate to compare pre-period and post-period outpatient trends.

Terms: Behavioral Health indicates utilization/spending for a behavioral health-related reason. Behavioral and Physical Health indicates utilization/spending for any reason. Utilization and spending for physical health-related reasons only are not presented in this table.

Source: Elevance Health analysis of BlueChoice data.

Over the same period, annual spending grew notably for total prescription drug use ($15 PMPM) and more modestly for emergency room (ER) visits for behavioral health-related reasons ($4 PMPM). Spending on total inpatient facility services and total professional services declined by $25 PMPM and $10 PMPM, respectively, prior to the carve-in. There was also a small decline in total ER spending ($6 PMPM).

Overall, total costs declined by $32 PMPM, year-over-year.

2. **What were the annual (year-over-year) trends in utilization and spending following the carve-in?**

After the carve-in took effect, annual utilization increased substantially for outpatient facility visits for behavioral health-related reasons (26.5%) and total inpatient facility visits (21.2%). An increase in outpatient facility visits for behavioral health services was expected, given the types of services newly carved into Medicaid MCO benefits. There were also modest increases in total professional services and in outpatient professional visits for behavioral health-related reasons. (Table 2)

Table 2
Annual Trends in Utilization and Spending After the Carve-In

	Utilization	Spending (PMPM)
Inpatient Facility		
Behavioral Health	—	↑ $3
Behavioral and Physical Health	↑ 21.2%	—
Outpatient Facility		
Behavioral Health*	↑ 26.5%	↓ $2
Behavioral and Physical Health*	↓ 4.3%	—
Professional Services		
Inpatient Behavioral Health	—	—
Outpatient Behavioral Health	↑ 1.7%	—
Behavioral and Physical Health	↑ 8.4%	—
Emergency Room		
Behavioral Health	—	↓ $2
Behavioral and Physical Health	—	—
Prescription Drugs		
Behavioral Health	—	↑ $14
Behavioral and Physical Health	—	—
Total	**N/A**	**↓ $3**

— Signifies the year-over-year change is not statistically significant.

* This category includes services carved out during the pre-period and newly carved in during the post-period. Post-period trends include all services, including those previously carved out during the pre-period.

Terms: Behavioral Health indicates utilization/spending for a behavioral health-related reason. Behavioral and Physical Health indicates utilization/spending for any reason. Utilization and spending for physical health-related reasons only are not presented in this table.

Source: Elevance Health analysis of BlueChoice data.

There were notable changes in year-over-year spending as well. Post carve-in, spending for outpatient facility visits for behavioral health-related reasons decreased by approximately $2 PMPM. A decline in spending was also observed for ER visits for behavioral health-related reasons (less than $2 PMPM each year). Annual spending on prescription drugs commonly used to treat behavioral health conditions rose by $14 PMPM.

3. What was the overall annual (year-over-year) effect of the carve-in on utilization and spending relative to what would have otherwise been expected?

The study examined how the behavioral health carve-in changed spending and utilization compared to what would have been expected had the carve-in not occurred. The analysis found that the carve-in led to modest annual growth in total inpatient facility visits (3.4%) and a larger increase in total professional services visits (9.4%). (Table 3)

Table 3
Annual Effect of Carve-In Relative to Absence of Carve-In

	Utilization	Spending (PMPM)
Inpatient Facility		
Behavioral Health	—	↑ 9.9%
Behavioral and Physical Health	↑ 3.4%	—
Professional Services		
Inpatient Behavioral Health	—	—
Outpatient Behavioral Health	↑ 0.2%	—
Behavioral and Physical Health	↑ 9.4%	—
Emergency Room		
Behavioral Health	—	↓ 45.8%
Behavioral and Physical Health	—	—
Prescription Drugs		
Behavioral Health	—	↑ 24.6%
Behavioral and Physical Health	—	—
Total	**N/A**	**↑ 19.3%**

— Signifies the year-over-year change is not statistically significant.

Note: The impact of the carve-in on outpatient facility use and spending is not included because we cannot present an accurate impact of the carve-in relative to the absence of the carve-in. This is because services in this category were carved out during the pre-period and newly carved in during the post-period, and we do not have data on pre-period utilization and/or spending.

Terms: Behavioral Health indicates utilization/spending for a behavioral health-related reason. Behavioral and Physical Health indicates utilization/spending for any reason. Utilization and spending for physical health-related reasons only are not presented in this table.

Source: Elevance Health analysis of BlueChoice data.

With respect to spending, the carve-in resulted in a substantial decline in spending on emergency room visits for behavioral health-related reasons, reducing PMPM costs by almost 46 percent each year—or about $6 PMPM in each year. The carve-in also led to significantly greater spending on prescription drugs for behavioral health-related conditions. Costs increased by approximately 25 percent, or $12 PMPM annually. Despite these favorable results, spending on inpatient facility visits for behavioral health-related reasons also increased by almost 10 percent, or about $1.50 PMPM.

Following the integration of new services into managed care, total costs increased by 19 percent compared to what would have been expected without the carve-in. This equates to an overall increase in spending of about $49 PMPM each year.

4. What was the impact of the carve-in on quality?

The early findings from South Carolina's carve-in indicate that quality is improving alongside the aforementioned changes in service use and spending.

The analysis examined four quality measures addressing gaps in care for individuals with behavioral health conditions. Following the carve-in, more beneficiaries saw an outpatient physician for a follow-up visit after an inpatient admission for a behavioral health diagnosis. Compared to the pre carve-in period, this measure improved by nearly 4 percentage points. In addition, more beneficiaries consistently filled prescriptions for their antidepressant medications in the post carve-in period as compared to the pre carve-in period (a nearly 5 percentage point increase)—a proxy for improved medication adherence. (Table 4)

Table 4

Quality Outcomes in the Post Carve-In Period Compared to Pre Carve-In Period

Measure	Result
30-day readmissions	—
Outpatient physician follow-up after inpatient admit for behavioral health diagnosis	↑ 3.7 percentage points
Filled antidepressant prescription at least 80% of time over past 6 months	↑ 4.8 percentage points
Filled antipsychotic prescription at least 80% of time over past 6 months	—

— Signifies the year-over-year change is not statistically significant.

Source: Elevance Health analysis of BlueChoice data.

The study also measured 30-day readmission rates and adherence to antipsychotic medication regimens but did not find a statistically significant change in these areas.

These improvements are consistent with the enhanced care coordination and person-centered services and supports that individuals have access to through Medicaid MCOs. For example, BlueChoice emphasizes follow-up care after hospitalizations—making sure each beneficiary sees a mental health provider within seven days after discharge.[16] The health plan's efforts to enhance quality for all enrollees is illustrated by its rating from the National Committee for Quality Assurance.[17] BlueChoice is rated 4 out of 5 stars on measures related to helping individuals access the services they need, customer service, and beneficiary satisfaction with care and services.

Conclusion

This analysis highlights opportunities to improve outcomes for Medicaid beneficiaries and state Medicaid programs by taking a holistic approach to mental health and substance use disorder services through integration with all other Medicaid benefits.

For instance, one of the positive effects of the carve-in in South Carolina was that spending on ER visits for behavioral health-related reasons decreased by about 46 percent, relative to what it would have been without the carve-in.

The carve-in also improved quality of care for beneficiaries. Individuals were more likely to have a follow-up visit with a physician after an inpatient admission for a behavioral health reason and adherence to antidepressant medications increased. Improved medication adherence is also suggested by the 25 percent increase in spending on prescription drugs for behavioral health-related reasons relative to what would have been expected absent the carve-in.

After the carve-in, use of all professional services—inpatient and outpatient, for physical and behavioral health—**increased by more than 9 percent.**

In terms of overall healthcare utilization, after the carve-in, use of all professional services—inpatient and outpatient, for physical and behavioral health—increased by more than 9 percent, though little of this was driven by growth in behavioral health services. Although no firm conclusions can be drawn from these findings, they may suggest greater use of primary care services.

Finally and perhaps not surprisingly, following the carve-in, the analysis suggests a growing trend in the use of outpatient facility services for behavioral health-related reasons. Unfortunately, without FFS data for the pre carve-in period, the analysis could not measure how individuals' utilization of and spending on outpatient facility behavioral health services in MCOs compares to that under the FFS carve-out. This is an area for further exploration, if and when the data become available.

In South Carolina, BlueChoice has engaged in a number of activities that may have contributed to these findings.[18] For instance, High Intensity Integration Teams (HIITs) engage directly with individuals who have significant behavioral health needs. First, the MCO uses predictive analytics

to identify beneficiaries in need of outreach and support. Then, the HIIT case manager connects beneficiaries to a primary care physician and the consulting team psychiatrist, with the goal of increasing primary care visits, reducing reliance on the ER, and sustaining recovery.

The MCO also implemented a Peer Support Specialists program. Peer Support Specialists work directly with beneficiaries—improving overall wellness and recovery for individuals with a behavioral health condition and increasing the member's self-management skills and resiliency by building a supportive relationship, sharing resources, and demonstrating strength in their personal recovery process.[19]

As the carve-in matures and more data become available, additional analyses could offer a more complete picture of the impact of the carve-in on utilization, spending, and quality of care. This study considers only the two years immediately following the carve-in, but it may take longer for all of the benefits of the carve-in to be fully realized. In the meantime, these early results demonstrate the progress BlueChoice and South Carolina have made in enhancing outcomes for Medicaid beneficiaries with mental health conditions and substance use disorders.

Appendix: Methodology

This evaluation was designed to analyze the impact of South Carolina's behavioral health carve-in on healthcare spending, utilization, and quality of care.

Specifically, the study compared measures of spending, utilization, and quality pre and post carve-in of RBHS and outpatient mental health services in July 2016. The analysis used two years of data from the pre carve-in period, which spanned July 1, 2014 through June 30, 2016, and two years of data from the post carve-in period, which included July 1, 2016 through June 30, 2018.

The study included data on any Medicaid beneficiaries with a diagnosed behavioral health condition who were enrolled in the BlueChoice health plan at any point during the period of July 2014 to June 2018. To refine the analysis, certain enrollees were excluded from the analysis including: enrollees with less than one month of medical eligibility during the study period, beneficiaries determined to be outliers with respect to total per member per month costs, and enrollees under the age of 18. Children were excluded because the carve-in of psychiatric residential treatment facility and autism services did not occur until July 2017, and there was not sufficient data to conduct a meaningful analysis for children at the time this study was conducted.

Figure 2
Interupted Time Series Slope and Level Change Analysis

The spending and utilization analysis used claims data from each month of the study period. An Interrupted Time Series (ITS) study design and segmented regression model were used to evaluate the longitudinal effects of the carve-in.[20] (Figure 2) The regression model analyzed the data assuming both a level and slope change following the effective date of the carve-in. The *level change* represents the immediate effect observed one month after the carve-in (these data are not presented in this paper). The *slope change* represents the change observed each year in the pre and post periods for spending and utilization. Retrospective risk scores were also included in the model to isolate the effect of the carve-in on each measure of spending and utilization.

Readmission rates and several quality metrics were also examined. For these, analysis of covariance was used to evaluate whether the means of the readmission rates and quality measures were equal for the pre carve-in and post carve-in periods, while statistically controlling for enrollees' risk scores.

For each measure included in the analysis, Elevance Health conducted tests of statistical significance at a 95 percent confidence interval. All findings reported in this paper were found to be statistically significant. Results not meeting this significance test were excluded from the paper.

Endnotes

[1] Musumeci, M., Garfield, R. (2017, June). Medicaid's Role in Financing Behavioral Health Services for Low-Income Individuals. The Henry J. Kaiser Family Foundation. Retrieved October 3, 2018 from: http://files.kff.org/attachment/Issue-Brief-Medicaids-Role-in-Financing-Behavioral-Health-Services-for-Low-Income-Individuals.

[2] Medicaid and CHIP Payment and Access Commission. (2015, June). Behavioral Health in the Medicaid Program—People, Use, and Expenditures. Chapter 4 Report to Congress on Medicaid and CHIP. Retrieved October 3, 2018 from: https://www.macpac.gov/wp-content/uploads/2015/06/Behavioral-Health-in-the-Medicaid-Program%E2%80%94People-Use-and-Expenditures.pdf.

[3] As one of South Carolina's Medicaid MCOs, BlueChoice covers all services and populations included in these carve-ins. Elevance Health, through its Alliance business arm—Amerigroup Partnership Plan, LLC—partners with BlueChoice to manage the operations of its Medicaid managed care plan.

[4] Data on total Medicaid enrollment from: Henry J. Kaiser Family Foundation. (2019). Total Monthly Medicaid and CHIP Enrollment: December 2018. Retrieved April 11, 2019 from: https://www.kff.org/health-reform/state-indicator/total-monthly-medicaid-and-chip-enrollment/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D. Data on total beneficiaries enrolled in managed care from: Henry J. Kaiser Family Foundation. (2019). Total Medicaid MCO Enrollment: September 2018 (South Carolina data noted as December 2018). Retrieved April 11, 2019 from: https://www.kff.org/other/state-indicator/total-medicaid-mco-enrollment/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D. Data on beneficiaries covered by BlueChoice from Amerigroup Partnership Plan, LLC and reflects enrollment as of December 2018.

[5] Musumeci, M., Garfield, R. (2017, June).

[6] Ibid.

[7] Open Minds. (2018, January). State Medicaid Behavioral Health Carve-Outs: The Open Minds 2018 Annual Update. (Report available to subscribers only.) See press release, retrieved October 3, 2018 from: https://www.openminds.com/press/50-states-will-integrated-behavioral-physical-health-medicaid-financing-models-2020-open-minds-releases-2018-state-medicaid-behavioral-health-carve-report/.

[8] Sellers Dorsey and Milliman. (2015, February). Medicaid Managed Care in Texas: A Review of Access to Services, Quality of Care, and Cost Effectiveness. Prepared for the Texas Association of Health Plans.

[9] Sellers Dorsey. (2017, January). The Impact of Private Industry on Public Health Care: How Managed Care is Reshaping Medicaid in Ohio. Prepared for the Ohio Association of Health Plans.

[10] Input from Elevance Health subject matter experts.

[11] U.S. Department of Health and Human Services. (No date). Physical and Mental Health Integration. Retrieved October 3, 2018 from: https://www.medicaid.gov/state-resource-center/innovation-accelerator-program/program-areas/physical-and-mental-health-integration/index.html.

[12] Tapley, J. (2016, March). Outpatient Mental Health Services and Managed Care. Presentation by the South Carolina Department of Health and Human Services. Retrieved October 1, 2018 from: https://msp.scdhhs.gov/rbhs/sites/default/files/RBHS%20Billing%20Training%20022616.pdf.

[13] South Carolina also carved in additional behavioral health services for children beginning in July 2017. Specifically, the state carved in autism spectrum disorder (ASD) services and psychiatric residential treatment facility (PRTF) services into Medicaid managed care from FFS. However, these services were excluded from this evaluation, since sufficient data was not yet available.

[14] Input from Amerigroup Partnership Plan, LLC subject matter experts, December 3, 2018.

[15] South Carolina Department of Health and Human Services. (2018, October 1). Health Connections Provider Manual: Rehabilitative Behavioral Health Services. Retrieved October 4, 2018 from: https://www.scdhhs.gov/internet/pdf/manuals/RBHS/Manual.pdf.

[16] Input from Amerigroup Partnership Plan, LLC subject matter experts.

[17] NCQA scorecard ratings from BlueChoice HealthPlan of South Carolina. Ratings are based on all beneficiaries served and are not specific to beneficiaries with behavioral health conditions. Retrieved December 13, 2018 from: https://reportcards.ncqa.org/#/health-plan/Hp_2_1_001G000001uws0GIAQ.

[18] Input from Amerigroup Partnership Plan, LLC subject matter experts.

[19] Ibid.

[20] For more information about ITS and segmented regression analysis, please refer to the manuscript below by Wagner et al., which HCA used to develop the models and interpret the results of this analysis: Wagner AK, Soumerai SB, Zhang F, Ross-Degnan D. (2002). Segmented Regression Analysis of Interrupted Time Series Studies in Medication Use Research. J Clinical Pharmacy and Therapeutics 27:299-309.

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Elevance Health Public Policy Institute

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