

Emergency Medical Transportation (EMT)

Service Description

The Emergency Medical Transportation (EMT) service grouping is comprised of 10 procedure codes. EMT services provide emergency transportation to a facility and is available to all Colorado Medicaid members. EMT services were previously reviewed in the [2016 Medicaid Provider Rate Review Analysis Report](#).

EMT Statistics	
Total Adjusted Expenditures CY 2019	\$27,486,917
Total Members Utilizing Services in CY 2019	64,808
CY 2019 Over FY 2018 Change in Members Utilizing Services	(2.70%)
Total Active Providers CY 2019	499
CY 2019 Over CY 2018 Change in Active Providers	(10.25%)

Table 2. EMT expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payment for EMT services are estimated at 40.92% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.²⁶

EMT Rate Benchmark Comparison		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$27,486,917	\$67,171,134	40.92%

Table 3. Comparison of Colorado Medicaid EMT service payments to those of other payers, expressed as a percentage (CY 2019).

The estimated fiscal impact to Colorado Medicaid would be \$39,684,217 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2019. Of the 10 procedure codes analyzed in this service grouping, nine were compared to Medicare, and one was compared to an average of six other states' Medicaid rates.²⁷ Individual rate ratios for EMT services were 29.44%-99.51%.

²⁶ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

²⁷ States used in the EMT rate comparison analysis were Alabama, Arkansas, California, Montana, Oklahoma, and Wisconsin. For more details on EMT rate comparisons, see Appendix B.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for EMT services increased by 8.68% from an average of 20.41 utilizers per provider in CY 2018 to 22.19 utilizers per provider in CY 2019.²⁸ Additionally:

- In urban counties, average panel size increased from 35.57 in CY 2018 to 41.93 in CY 2019.
- In rural counties, average panel size increased from 5.44 in CY 2018 to 5.90 in CY 2019.
- In frontier counties, average panel size decreased from 2.61 in CY 2018 to 2.60 in CY 2019.

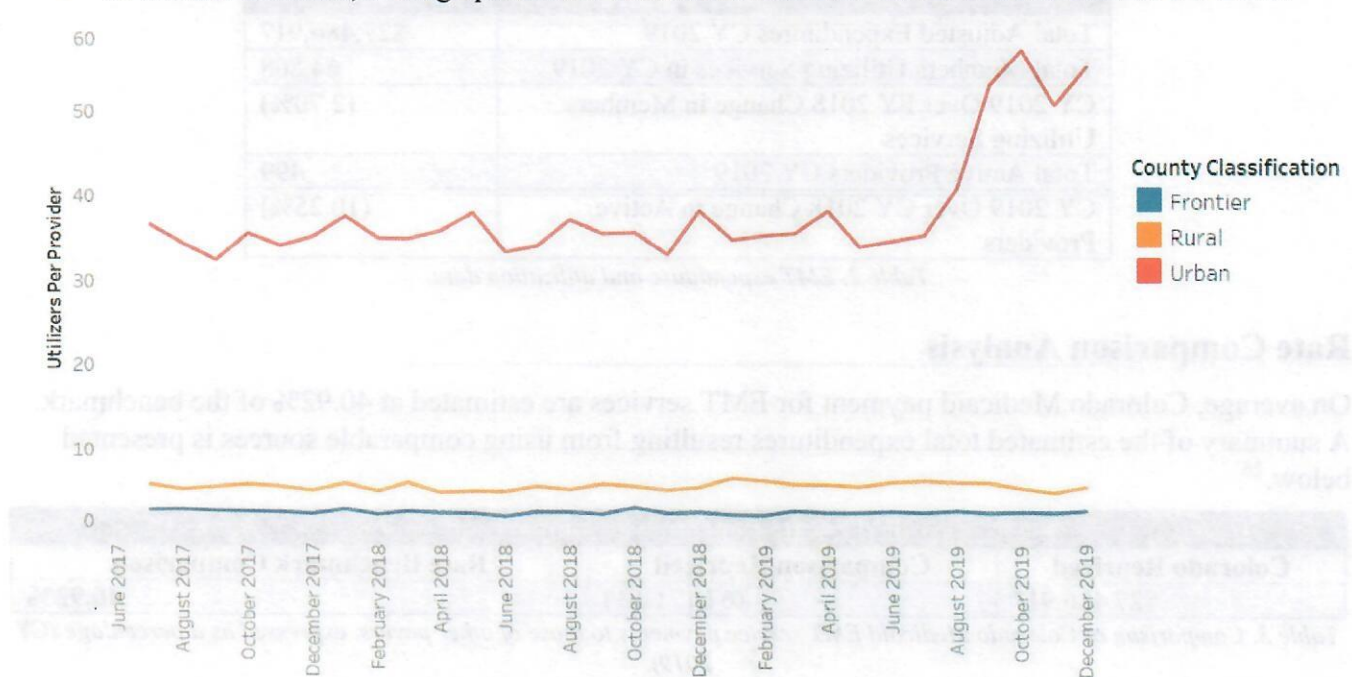


Figure 3. Utilizers per provider (panel size) for EMT services between July 2017 and December 2019.

Analysis indicates that both the number of distinct utilizers and active providers remained relatively stable over this time across all county classifications. Additionally, there was a decrease in active providers from August 2019 to October 2019 in urban counties.

The number of distinct utilizers and total active providers observed in all counties remained relatively steady, which led to consistent number of utilizers per provider from June 2017 to August 2019.²⁹

There was a noticeable change in urban counties from August 2019 to October 2019 that can be attributed to a perceived decrease in enrolled EMT providers, which was caused by a reconsolidation of provider IDs.³⁰ This was not permanent, and it did not impact the actual number of EMT providers rendering service to Medicaid members. Panel size remained relatively stable through December 2019 in rural and frontier counties.

²⁸ Due to changes in the Medicaid Management Information System (MMIS), data is only available from July 2017 to present.

²⁹ For data specific to distinct utilizers and active providers, see Appendix E.

³⁰ This included removing duplicate provider IDs, etc.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of EMT services reside throughout the state. Utilizer density for EMT services ranged from 36, in Phillips County, to 12,316 in Denver County, in CY 2019.

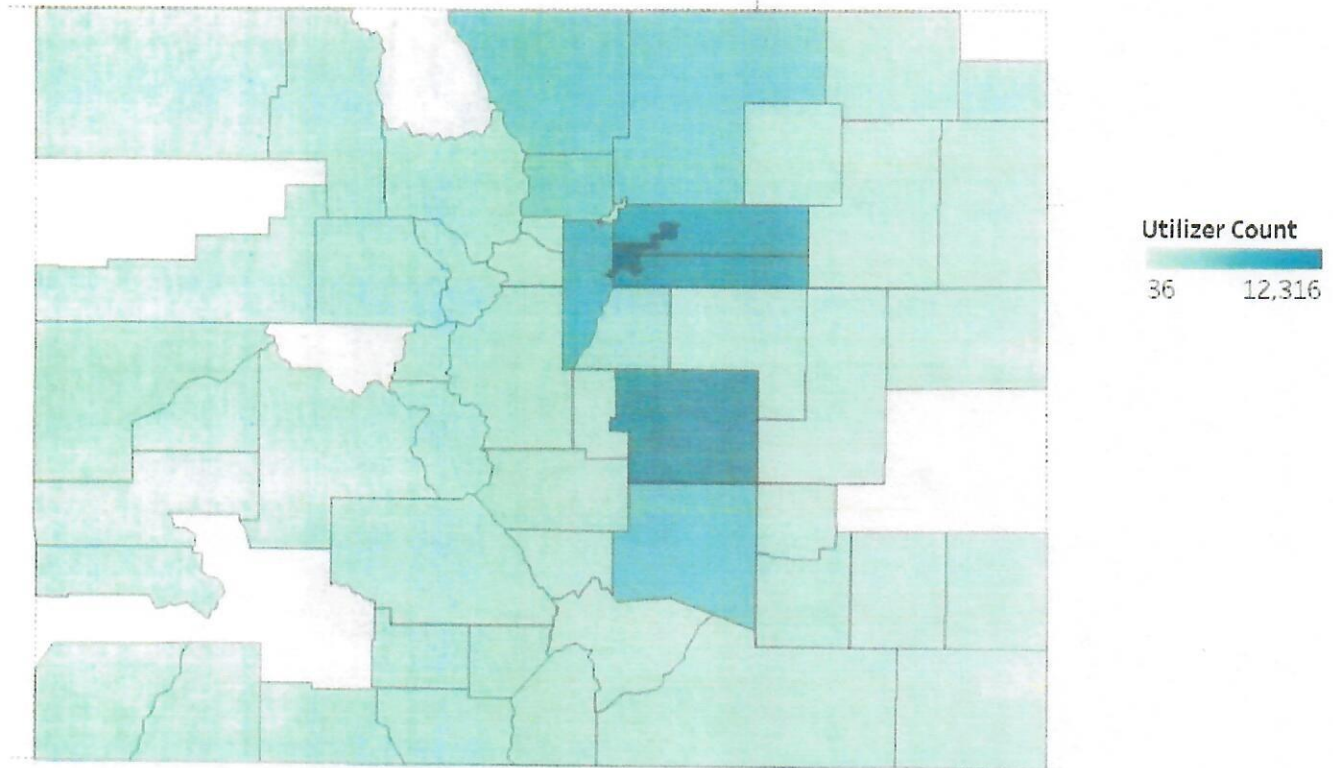


Figure 4. Utilizer density for EMT services by county for CY 2019.³¹

Counties with low numbers of utilizers might be due to factors including, but not limited to:

- relatively lower demand for EMT services, or a low number of Colorado Medicaid members utilizing EMT services.

Additionally, some counties have been omitted due to protected health information (PHI). For these counties, the Department intends to use the analysis internally to inform ongoing benefit and program management activities.

³¹ See Figure 2. Colorado Counties and RAE County Classification on page 18 to reference Colorado counties by name.

Penetration Rate

The penetration rate estimates the share of total Colorado Medicaid members in a geographic area that received the service. Penetration rates for EMT services ranged from 13.21 in Gunnison County, to 78.36 in Crowley County, in CY 2019.

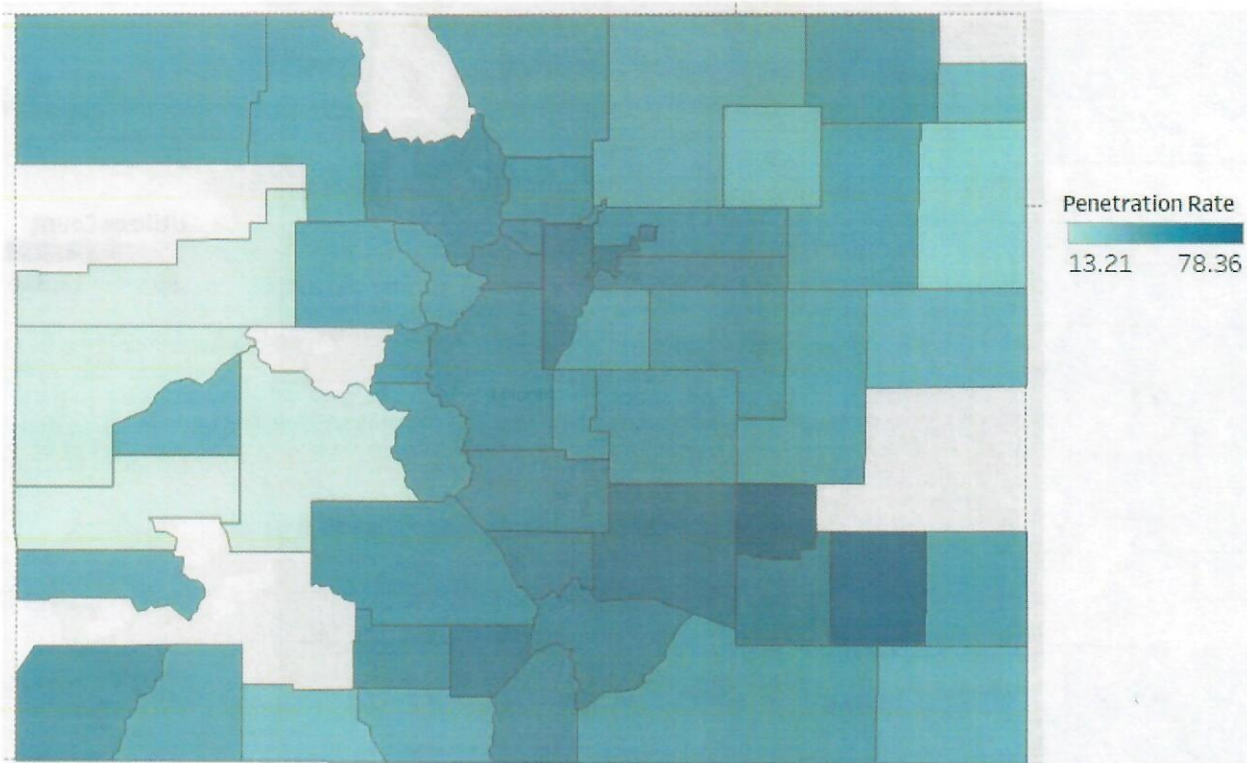


Figure 5. Penetration rates for EMT services by county in CY 2019.

Counties with relatively higher penetration rates indicate that, as a share of total Colorado Medicaid members residing in the county, a larger proportion received EMT services.

Additionally, some counties have been omitted due to protected health information (PHI). For these counties, the Department intends to use the analysis internally to inform ongoing benefit and program management activities.

Member-to-Provider Ratios

The member-to-provider ratio indicates the total number of active EMT service providers relative to all Colorado Medicaid members in a geographic area. This ratio is calculated as providers per 1,000 members.

EMT Member-to-Provider Ratios			
Region	CY 2019 EMT Providers	CY 2019 Total Colorado Medicaid Members	Providers per 1,000 Members
Frontier	171	48,210	3.55
Rural	246	179,929	1.37
Urban	422	1,357,110	0.31
Statewide	499	1,478,090	0.34

Table 5. Member-to-provider ratio for EMT services expressed as providers per 1,000 members by county classification in CY 2019.

The member-to-provider ratio results indicate that there are more providers per 1,000 members in frontier counties than there are in rural and urban counties, and more providers per 1,000 members in rural counties than there are in urban counties. The primary driver of these results is the fact that, while there are more providers in urban counties, there are significantly more Colorado Medicaid members in these counties when compared to other areas.³²

³² Currently, the Department does not use member-to-provider ratio standards specific to EMT services. The Department will explore the development of these standards going forward. Comparison of these results with future analyses may assist the Department in determining whether the supply of providers is changing over time.

Drive Times

The drive times metric calculates the percentage of total Colorado Medicaid members that live within certain drive time bands from where EMT service providers are located.³³

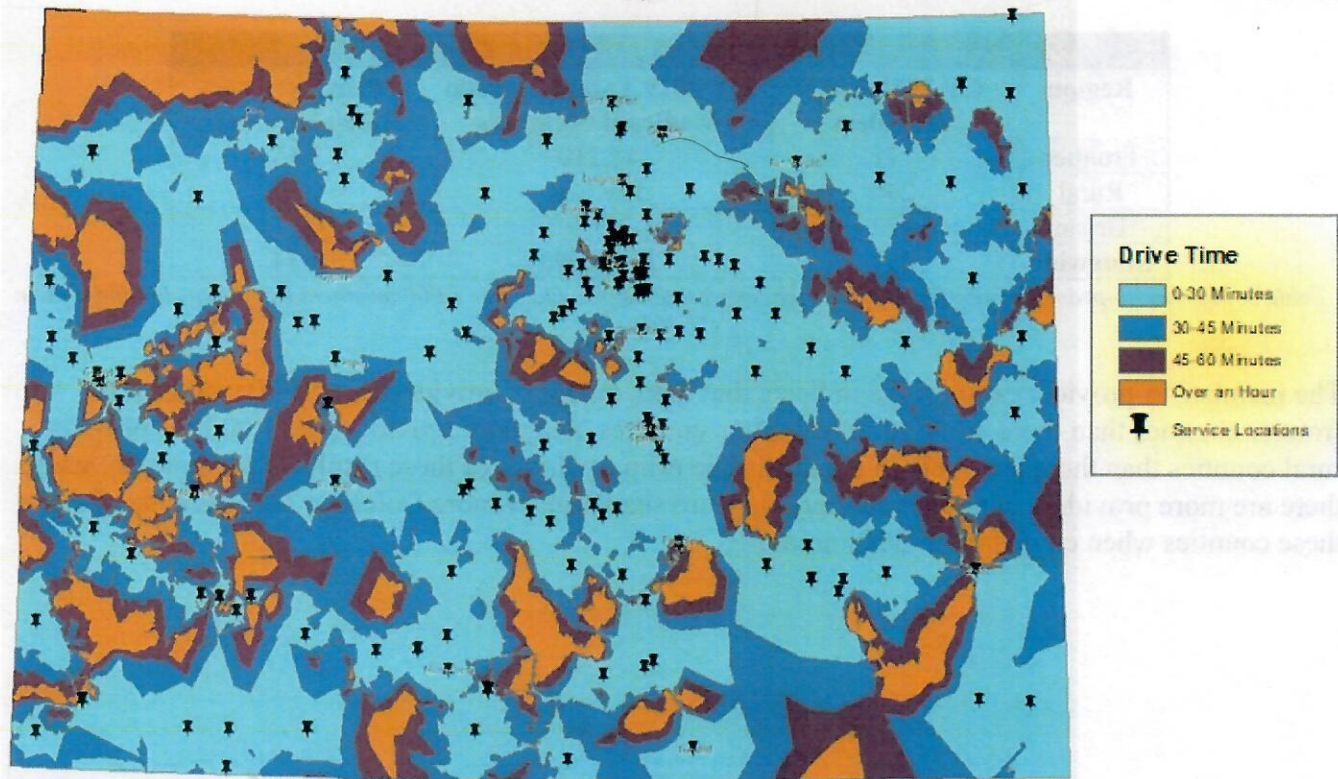


Figure 6. ArcGIS map of drive times of EMT provider service locations to members in CY 2019.

Overall, 95.36% of total Colorado Medicaid members in CY 2019 resided 30 minutes or less from an EMT provider. Additionally, 1.82% of total members resided approximately 30-45 minutes from an EMT provider; 1.49% of total members resided 45-60 minutes from an EMT provider. Finally, 1.33% of total members resided over an hour from an EMT provider.

Additionally, of the 95.36% of total Colorado Medicaid members in CY 2019 that resided 30 minutes or less from an EMT provider:³⁴

- 73% of total members resided approximately 10 minutes or less from an EMT provider;
- 18% of total members resided approximately 10-20 minutes from an EMT provider;
- 7% of total members resided approximately 20-30 minutes from an EMT provider; and
- 2% of total members resided over 30 minutes from an EMT provider.

³³ Due to claims data, service locations shown on the ArcGIS map represent provider dispatch locations. Service locations represent dispatch location of providers that have submitted claims, not all auxiliary agencies or individual service delivery providers.

³⁴ The Department conducted drive times analyses at 10-minute bands for members residing 30 minutes or less from an EMT provider at the request of stakeholders.

Stakeholder Feedback

Themes of stakeholder feedback and committee member comments from the Medicaid Provider Rate Review Process public meeting on February 5, 2021,³⁵ as well as feedback received by Department staff regarding EMT services, are summarized below.

- EMT rate ratios are among the lowest for service groupings reviewed through the Medicaid Provider Rate Review Process.
- EMT services have a high readiness cost compared to other services due to the component of EMT services that require emergency vehicles to be staffed with trained service delivery providers and stocked with any medical equipment that may be required.
- There have been small incremental rate increases for particular EMT services, but not any noticeable, significant increases in reimbursement.
- Providers appreciate collaboration with Department on policies and the supplemental payment program since 2016 but indicate there are still gaps in reimbursement for EMT service providers.

Additional Considerations

Other considerations include:

- Since EMT services were reviewed in the [2016 Medicaid Provider Rate Review Analysis Report](#), both total members accessing EMT services and total active EMS providers increased. In addition, total expenditures increased by over \$12 million;³⁶
- As a result of the rate review team working with the Governor's Office in response to the [2016 Medicaid Provider Rate Review Recommendation Report](#), the legislature approved Targeted Rate Increases (TRIs) to a subset of EMT services, effective July 2017;³⁷
- Effective January 1, 2018, the Department amended the Colorado State Plan to create an EMT Supplemental Payment program that allows eligible EMS providers to receive an annual supplemental payment for the uncompensated costs incurred by providing ground or air emergency medical transportation services to Medicaid beneficiaries. Data indicates the supplemental payment program provided 43 participating providers with \$11 million in supplemental reimbursement in FY 2017-18, and provided 63 providers with \$26 million in supplemental reimbursement;³⁸
- The total number of active providers does not represent the total number of service delivery providers employed by agencies providing EMT services.

³⁵ The meeting recording for the Medicaid Provider Rate Review quarterly public meeting on February 21, 2020 can be found on the [Rate Review Process Public Meetings web page](#).

³⁶ For more information, see the [2016 Medicaid Provider Rate Review Analysis Report](#).

³⁷ EMT services received a Targeted Rate Increase (TRI) of 6.61%, effective July 2018.

³⁸ For more information, see the [Public Emergency Medical Services Supplemental Payment web page](#).



Additional Research

The Department plans to look at the utilization in counties that have a low penetration rate in both the 2016 and 2021 Medicaid Provider Rate Review Analysis Reports to identify if there is a persisting access to care issue or whether it is due to a lower need for Medicaid EMT services in those areas.³⁹

Conclusion

Analyses suggest that EMT rates at 40.92% of the benchmark were sufficient for member access and provider retention; however current rates may not support appropriate reimbursement for high-value services.⁴⁰

The primary factors that led to this conclusion included:

- Increases were observed in total expenditures, distinct utilizers, and active providers since EMT services were previously reviewed in the [2016 Medicaid Provider Rate Review Analysis Report](#);
- Over 95% of members reside within 30 minutes of an EMT service location; and
- Low rates do not necessarily impact access to EMT services since EMT service providers cannot refuse services to members.

³⁹ Counties to review include Delta, Gunnison, Hinsdale, Ouray, Montrose, San Miguel, Garfield, Eagle, Pitkin, Summit, and Grand. Low penetration rates for EMT services could be due to a number of reasons that do not indicate an access issue, including, but not limited to, number and locations of urgent care facilities, access to and knowledge of nurse advice telephone lines, increased health literacy, longer general practice hours in those regions, or private payers covering more services in those regions.

⁴⁰ The Department recognizes that, while rates are sufficient, there may be other opportunities to improve access to care and provider retention.

Appendix B – Transportation Services Methodologies and Data

Executive Summary

The Department contracted with the actuarial firm **Optumas** to provide support in comparing Colorado Medicaid provider rates to those of other payers (a comparable benchmark) and for calculating access to care metrics.

The following service groups were reviewed by **Optumas** for transportation services, as part of the 2021 Medicaid Provider Rate Review Analysis Report:

- Emergency Medical Transportation (EMT)
- Non-Emergent Medical Transportation (NEMT)

The work performed on transportation services comprised three analyses:

- 1) Data validation
- 2) Rate comparison benchmark
- 3) Access to care

The data validation process includes:

- Volume checks over time to determine completeness and reliability of data
- Determination of relevant utilization base and appropriate exclusions
- Incurred but not reported (IBNR) adjustment

The rate comparison benchmark analysis for January 1, 2019 through December 31, 2019 (CY 2019) compares Colorado Medicaid’s latest fee schedule estimated reimbursement¹ with the estimated reimbursement of the overall benchmark(s). The rate comparison benchmark analysis for Transportation considers Medicare rates the primary comparator. In cases where Medicare rates were not used for comparison, an average rate from a selected group of other states was used.

All else being equal, if Colorado Medicaid were to reimburse at 100.00% of the overall benchmark, expenditures for CY 2019 would see the estimated total funds impacts summarized in **Table 1**:

Table 1. Colorado as a Percent of the Benchmark and Estimated CY 2019 Fund Impact

Service Group	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark	Estimated CY 2019 Total Fund Impact
EMT	\$27,486,917	\$67,171,134	40.92%	\$39,684,217
NEMT	\$27,213,979	\$72,546,529	37.51%	\$45,332,551

The access to care analyses consist of a set of metrics to assist the Department in determining the ease in which members can obtain needed medical services by county classification over time and for the CY

¹ The Colorado Medicaid’s estimated reimbursement does not include an adjustment for the transportation administrative brokerage fee

2019 time period. **Table 2** lists the access to care metrics, definitions, and the time period for which the metric was evaluated when available.

Table 2. Access to Care Definitions²

Metric	Definition	Time Period
Utilizers	The count of distinct utilizers	July 2017 – Dec 2019, Monthly
Providers	The count of active providers	July 2017 – Dec 2019, Monthly
Utilizers Per Provider (Panel Size)	Panel Size is the ratio of utilizers to active providers, and estimates average Medicaid members seen per provider	July 2017 – Dec 2019, Monthly
Member to Provider Ratio	Expressed as providers per 1,000 members, and allows for comparison across areas with large differences in population size	CY 2019
Utilizer Density Map	Utilizer count by county of residence	CY 2019
Penetration Rate Map	The estimated share of total Medicaid members that received the service by county of residence expressed as per 1,000 members	CY 2019

All metrics are screened for personal health information (PHI).

Data Validation

The Department provided two years and ten months (July 2017 through December 2019) of eligibility data and fee-for-service (FFS) EMT and NEMT claims data to **Optumas**. The data validation process included utilization and dollar volume summaries over time which were validated against the Department’s expectations, as well as **Optumas’** expectations based on prior analyses in order to identify potential inconsistencies. In addition, a frequency analysis was performed to examine valid values appearing across all fields contained in the data. Overall, results of this process suggested that the CY 2019 data for EMT and NEMT is reliable.

Next, the data was reviewed to determine the relevant utilization after accounting for applicable exclusions. The exclusion criteria adhere to the general guidelines set forth in the Rate Review Schedule:³

- Claims attributed to members that are non-TXIX Medicaid eligible, i.e., Child Health Plan *Plus* (CHP+) program;
- Claims attributed to members with no corresponding eligibility span; and

² The access to care analyses for some services also included drive time estimates. Drive time estimates were completed by the Department.

³ See the [Rate Review Schedule](#) on the Department’s Medicaid Provider Rate Review Advisory Committee (MPRRAC) website.

Appendix B – Transportation Services Methodologies and Data Optumas

- Claims associated with members enrolled in Medicaid and Medicare (dual membership) ⁴.

Furthermore, for the rate comparison benchmark, the validation process included three additional exclusions:

- Procedure codes that are manually priced, and therefore not comparable;
- Procedure codes that have a public utility commission rate; and
- Procedure codes that do not have a comparable Medicare or other states' average rate
 - EMT Procedure code A0021, outside of the state ambulance services, and
 - NEMT Procedure code A0430 and A0431, wing air transportation

The number of excluded procedure codes for each service group is shown in **Table 3**:

Table 3. Count of Procedure Codes Excluded

Service Group	Manually Priced	Public Utility Commission	No Comparable Rate Available
EMT	0	0	1
NEMT	3	1	2

Services were priced to the Colorado Medicaid fee schedules at the procedure code level. The summary of exclusions from the CY 2019 base data can be found in **Appendix B1**.

CY 2019 claims data was selected as the base data of the repricing analysis because it yields an annualized result derived from the most recent experience. There is an inherent processing lag in claims between the time a claim is incurred when it is billed. Claims rendered in any given month can take weeks or months to be reported in the claims system. The claims data for Year Six services was provided with seven months of claims runout. While the raw claims data reflects the vast majority of FFS experience for Year Six services in CY 2019, a small incurred but not reported (IBNR) adjustment was performed to better estimate an annualized level of utilization after all services rendered have been fully realized. The IBNR utilization completion factors derived from this analysis for each service group can be found in **Appendix B2**.

After the data validations steps, the rate comparison benchmark analysis is performed.

Rate Comparison Benchmark Analysis

The first steps in the rate comparison benchmark analysis were identifying the other payer sources and the repricing validations. Many of the Transportation Year Six services offered by Colorado Medicaid are covered by Medicare. To identify comparable rates, publicly available documentation on reimbursement policy was referenced, and the analysis employed a fee schedule specific to Colorado to produce a more

⁴ Medicare Part B covers ground ambulance and emergency airplane or helicopter transportation. In some cases, Medicare may also pay for nonemergency ambulance transportation as well.

valid comparison.⁵ Rates were assigned by considering the procedure code present on each claim and included a geographic component. Medicare’s base rate which includes a geographic breakout for Urban and Rural areas defined by a zip code crosswalk furnished by CMS is considered in order to compare an appropriate rate.

This left a small portion of the data for which a comparable rate could not be found under the Year Six service categories. The utilization in the base data associated with these non-comparable claims were excluded for the remainder of the rate comparison benchmark analysis. The distribution of procedure codes compared across benchmark sources for each service group is shown in **Table 4**:

Table 4. Count of Codes by Comparison Source

Service Group	Medicare	Other States	No Comparable Rate Available
EMT	9	1	1
NEMT	5	11	2

The range of ratios derived from comparing Health First Colorado rates to those of either Medicare or other states is shown by service group in **Table 5**:

Table 5. Rate Ratio Ranges by Comparison Source

Service Group	Medicare	Other States
EMT	26.92% - 98.50%	99.51%
NEMT	26.92% - 54.10%	36.18% - 134.51%

As an example, the top figures in Table 5 can be interpreted to mean that when comparing EMT services to Medicare rates by procedure code, the Colorado Medicaid rates were anywhere from 26.92% to 98.50% of the Medicare rate. The NEMT service group can be interpreted to mean when comparing NEMT services to other states average at the procedure code level, the Colorado Medicaid rates were anywhere from 36.18% to 134.51% of the other states average rates.

The final step consisted of applying the base utilization to reprice claims at Colorado Medicaid’s latest available fee schedule as well as the matched rates from Medicare or other states. This entailed multiplication of utilization and the corresponding rates from each source, followed by subtraction of third-party liability (TPL) and copayments, to calculate the estimated total dollars that would theoretically be reimbursed by each source.

Estimated expenditures were only compared for the subset of Year Six services that are common between Colorado Medicaid and another source. In other words, if no comparable rate could be found

⁵ The payment rate comparison is influenced by the choice of fee schedule since Colorado-specific Medicare rates are higher than those derived from unadjusted national relative value units. All Medicare rates and relevant information were effective calendar year 2020.

Appendix B – Transportation Services **Optumas** Methodologies and Data

for a specific service offered in Colorado Medicaid, then the associated utilization and costs were not shown within the comparison results.

In the service-specific payment comparison sections of the narrative that follow, more detailed information can be found on the Medicare and other states portions of the rate comparison benchmark.

EMT Payment Comparison

The rate comparison analysis for Emergency Medical Transportation (EMT) services first assigns the Colorado Medicaid EMT rates effective July 1st, 2020 by procedure code to obtain a Colorado Repriced amount.

The next step assigns Medicare’s Ambulance fee schedule to Colorado’s base utilization. Medicare provides rates that are carrier specific to Colorado and includes a breakout of urban and rural geographic area defined by zip code. Medicare’s Colorado specific urban and rural rates are applied to Colorado’s base utilization by procedure code.

For services without a comparable Medicare rate, supplemental rates were drawn from other state Medicaid programs. Alabama, Arkansas, California, Montana, Oklahoma, and Wisconsin are linked to the Colorado Medicaid claims on a procedure code basis and the simple average of all corresponding rates is used.

Overall, there is a matching Medicare rate for over 99% of the base EMT utilization in CY 2019. Other states average Medicaid rate is utilized for one procedure code, A0422 ‘ambulance 02 life sustaining’. The Benchmark repriced amount is the combination of Medicare and Other States repriced amount combined.

Table 6 summarizes the EMT rate benchmark by the comparison sources.

Table 6. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$133,112	\$133,774	99.51%
Medicare	\$27,353,805	\$67,037,361	40.80%
Total	\$27,486,917	\$67,171,134	40.92%

Table 7 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 7. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	40.92%
Colorado Repriced Amount	\$27,486,917
Benchmark Repriced Amount	\$67,171,134
Est. CY 2019 Total Fund Impact	\$39,684,217

Table 7 can be interpreted to mean that for EMT services under review, Colorado Medicaid pays an estimated 59.08% less than the benchmark. Had Colorado Medicaid reimbursed at 100.00% of the benchmark rates in CY 2019, the estimated impact to the Total Fund would be \$39,684,214. Detailed comparison results can be found in **Appendix B3**.

NEMT Payment Comparison

The rate comparison analysis for Non-Emergent Medical Transportation (NEMT) services first assigns the Colorado Medicaid NEMT rates effective July 1st, 2020 by procedure code to obtain a Colorado Repriced amount.

The next step assigns Medicare’s Ambulance fee schedule to Colorado’s base utilization, similar to process done for EMT services. Medicare provides rates that are carrier specific to Colorado and includes a breakout of urban and rural geographic area defined by zip code. Medicare’s Colorado specific urban and rural rates are applied to Colorado’s base utilization by procedure code.

For services without a comparable Medicare rate, supplemental rates were drawn from other state Medicaid programs. Alabama, Alaska, Arizona, Arkansas, California, Connecticut, Illinois, Montana, Nebraska, New Mexico, North Dakota, Ohio, Oklahoma, and Wisconsin are linked to the Colorado Medicaid claims on a procedure code basis and the simple average of all corresponding rates is used.

Overall, there is a matching Medicare rate for 48.35% of the base NEMT utilization in CY 2019. The Benchmark repriced amount is the combination of Medicare and Other States repriced amount combined.

Table 8 summarizes the NEMT rate benchmark by the comparison sources.

Table 8. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$13,753,641	\$24,598,445	55.91%
Medicare	\$13,460,337	\$47,948,084	28.07%
Total	\$27,213,979	\$72,546,529	37.51%

Table 9 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 9. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	37.51%
Colorado Repriced Amount	\$27,213,979
Benchmark Repriced Amount	\$72,546,529
Est. CY 2019 Total Fund Impact	\$45,332,551

Table 9 can be interpreted to mean that for NEMT services under review, Colorado Medicaid pays an estimated 62.49% less than the benchmark. Had Colorado Medicaid reimbursed at 100.00% of the benchmark rates in CY 2019, the estimated impact to the Total Fund would be \$45,332,551. Detailed comparison results can be found in **Appendix B4**.

Access to Care

This year, the Department contracted with **Optumas** to analyze access to care metrics for Year Five services. These metrics inform the Department about the ease with which members can access these services and patterns over time. The metrics analyzed included:

1. **Distinct utilizers over time by county classification** showing the monthly number of members that receive a service in each county classification of residence. Utilizers are identified by their unique Member ID;
2. **Active providers over time by county classification** showing the monthly number of providers providing services to members residing in each county classification residence. Providers are identified by their rendering provider Medicaid ID for all service groups except for HH and PDN, for which the billing provider’s Medicaid ID was considered the unique provider identifier;
3. **Utilizer per Provider (Panel Size) over time by county classification** estimating the number of utilizers per provider actively servicing members who reside in that county classification;
4. **Member-to-Provider Ratios by county classification in CY 2019** which is useful in normalizing, and eventually standardizing, the supply of active providers relative to total membership in different county classifications;
5. **Utilizer Density by county in CY 2019** showing on a map the geographic distribution and prevalence of members utilizing each service group, and;
6. **Penetration Rates by county in CY 2019** showing on a map the relative share of members utilizing each service group across different counties, normalizing for the total number of Medicaid members residing in each county expressed as per 1,000.

For the definition of each metric, please view Table 2 above. More detailed information including data visualization is included in the main body of the Department’s 2021 Medicaid Provider Rate Review Analysis Report (the report).

Data Validation

The access to care analysis applies the following exclusion criteria to the EMT and NEMT July 2017 through December 2019 FFS claims data the Department provided as part of the rate review analysis:

- Claims attributed to members that are non-TXIX Medicaid eligible, i.e. Child Health Plan *Plus* (CHP+) program; and
- Claims attributed to members with no corresponding eligibility span;

No other adjustments are made to the access to care data.

Interpretation of Results

To address access to care for Year Six services, different partitions in the data are analyzed to enhance the value and actionability of the results. There are considerations to be made at different levels of aggregation and data partitioning to accurately interpret what the summarized figures and distinct counts represent. Distinct counts of members and providers, when grouped by different dimensions, will have varying degrees of duplication and may not be directly summed to arrive back at total, undivided distinct utilizer and provider counts. The two main types of data partition are discussed below, along with considerations one should make when accurately interpreting access to care results.

Geographic Partitions

Geographic partitions are arranged in the access metrics because they provide important distinctions when comparing and evaluating access to care for members residing in similar and dissimilar geographic locations. The utilizer and member counts grouped by county and county classification are nonduplicative when analyzed over time on a monthly basis and may be duplicative at the CY 2019 aggregate level. However, the active provider counts grouped by county and county classification maintain potential for duplication even within a single month because these geographic partitions represent the county of residence for the utilizers in the data. For example, if a member resided in both an urban and rural county during the CY 2019 time period, that member would contribute to both the urban CY 2019 total utilizer counts as well as the rural CY 2019 total utilizer counts for the service groups applicable to this member. To the degree that members residing in multiple counties were able to access a single provider within a given month, that provider contributes to the active provider counts for all counties in which that provider's panel resides. Although this duplication does not adversely impact the informational value of the annualized access metrics, it should be considered when interpreting the aggregated results.

The following appendices provide more detailed rate comparison benchmark summaries and results that were introduced and discussed in the narrative.

Appendix B1: Base Data Summary

	EMT	NEMT
CY 2019 Paid Amount	\$26,385,307	\$53,636,108
Exclusions		
Non-TXIX	\$358,628	\$26,795
No Eligibility Span	\$110,178	\$88,533
Dual Eligible	\$1,029,217	\$19,649,363
Manually Priced	\$0	\$835,285
Public Utility Commission	\$0	\$7,766,854
No Comparable Rate	\$432	\$282
Total Exclusions	\$1,498,455	\$28,367,111
Repricing Base		
Year Six Base Data	\$24,886,852	\$25,268,997
Percentage of Raw	94.32%	47.11%

Note: as an example, the EMT final figures in the above table can be interpreted to mean that 94.32% (accounting for \$24,886,852 in unadjusted paid dollars) of the CY 2019 data provided by the Department was appropriate for use in the payment rate comparison analysis.

Appendix B2: Utilization IBNR

Service Group	Utilization Factor
EMT	0.9684
NEMT	0.9814

Note: as an example, the first figure in this table can be interpreted as an estimate that the raw utilization data for EMT represents 96.84% of the true total expected for CY 2019 after all claims run-out has been reported in the payment system.

Appendix B3: EMT Rate Ratio Results **Optumas**

Appendix B3: EMT Rate Ratio Results

These appendices show the rate ratios for all unique combinations of Colorado Medicaid and benchmark comparison rates found in the rate comparison benchmark analysis at a procedure code level. Procedure codes are duplicated to the extent that Medicare's geographic rate break-out of urban and rural rates are applied.

The services analyzed in the EMT rate comparison benchmark analysis is repriced using methodology that incorporates the following data elements:

- Procedure Code
- Zip Code

Procedure Code	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
A0422	AMBULANCE 02 LIFE SUSTAINING	Other States Average	\$14.09	\$14.16	99.51%
A0425	GROUND MILEAGE	Medicare Urban Rate	\$2.07	\$7.62	27.17%
A0425	GROUND MILEAGE	Medicare Rural Rate	\$2.07	\$7.69	26.92%
A0427	ALS1-EMERGENCY	Medicare Urban Rate	\$197.81	\$459.96	43.01%
A0427	ALS1-EMERGENCY	Medicare Rural Rate	\$197.81	\$464.47	42.59%
A0429	BLS-EMERGENCY	Medicare Urban Rate	\$135.31	\$387.34	34.93%
A0429	BLS-EMERGENCY	Medicare Rural Rate	\$135.31	\$391.13	34.59%
A0430	FIXED WING AIR TRANSPORT	Medicare Urban Rate	\$3,151.79	\$3,199.85	98.50%
A0430	FIXED WING AIR TRANSPORT	Medicare Rural Rate	\$3,151.79	\$4,799.78	65.67%
A0431	ROTARY WING AIR TRANSPORT	Medicare Urban Rate	\$2,790.43	\$3,720.31	75.01%
A0431	ROTARY WING AIR TRANSPORT	Medicare Rural Rate	\$2,790.43	\$5,580.46	50.00%
A0433	ALS 2	Medicare Urban Rate	\$216.97	\$665.74	32.59%
A0433	ALS 2	Medicare Rural Rate	\$216.97	\$672.26	32.27%
A0434	SPECIALTY CARE TRANSPORT	Medicare Urban Rate	\$232.44	\$786.78	29.54%
A0434	SPECIALTY CARE TRANSPORT	Medicare Rural Rate	\$232.44	\$794.49	29.26%
A0435	FIXED WING AIR MILEAGE	Medicare Urban Rate	\$7.54	\$8.93	84.43%
A0435	FIXED WING AIR MILEAGE	Medicare Rural Rate	\$7.54	\$13.40	56.27%

Appendix B4: NEMT Rate Ratio Results **Optumas**

Appendix B4: NEMT Rate Ratio Results

These appendices show the rate ratios for all unique combinations of Colorado Medicaid and benchmark comparison rates found in the rate comparison benchmark analysis at a procedure code level. Procedure codes are duplicated to the extent that Medicare's geographic rate break-out of urban and rural rates are applied.

The services analyzed in the NEMT rate comparison benchmark analysis is repriced using methodology that incorporates the following data elements:

- Procedure Code
- Zip Code

Procedure Code	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
A0080	NONINTEREST ESCORT IN NON ER	Other States Average	\$0.44	\$0.51	87.13%
A0090	INTEREST ESCORT IN NON ER	Other States Average	\$0.44	\$0.42	105.60%
A0120	NONER TRANSPORT MINI-BUS	Other States Average	\$17.91	\$49.51	36.18%
A0130	NONER TRANSPORT WHEELCH VAN	Other States Average	\$31.72	\$23.58	134.51%
A0180	NONER TRANSPORT LODGNG RECIP	Other States Average	\$93.06	\$79.81	116.61%
A0190	NONER TRANSPORT MEALS RECIP	Other States Average	\$40.84	\$32.39	126.11%
A0200	NONER TRANSPORT LODGNG ESCRT	Other States Average	\$93.06	\$79.81	116.61%
A0210	NONER TRANSPORT MEALS ESCORT	Other States Average	\$40.84	\$36.00	113.44%
A0422	AMBULANCE 02 LIFE SUSTAINING	Other States Average	\$14.09	\$14.16	99.51%
A0425	GROUND MILEAGE	Medicare Urban Rate	\$2.07	\$7.62	27.17%
A0425	GROUND MILEAGE	Medicare Rural Rate	\$2.07	\$7.69	26.92%
A0426	ALS 1	Medicare Urban Rate	\$146.84	\$290.50	50.55%
A0426	ALS 1	Medicare Rural Rate	\$146.84	\$293.35	50.06%
A0428	BLS	Medicare Urban Rate	\$130.97	\$242.09	54.10%
A0428	BLS	Medicare Rural Rate	\$130.97	\$244.46	53.58%
A0433	ALS 2	Medicare Urban Rate	\$216.97	\$665.74	32.59%
A0433	ALS 2	Medicare Rural Rate	\$216.97	\$672.26	32.27%

		Medicare Urban Rate		
A0434	SPECIALTY CARE TRANSPORT		\$232.44	\$786.78
A0434	SPECIALTY CARE TRANSPORT	Medicare Rural Rate	\$232.44	\$794.49
S0209	WC VAN MILEAGE PER MI	Other States Average	\$1.05	\$1.64
T2005	N-ET; STRETCHER VAN	Other States Average	\$45.91	\$53.88
				29.54%
				29.26%
				64.22%
				85.21%



COLORADO
Department of Health Care
Policy & Financing

2021 Medicaid Provider Rate Review Analysis Report

Appendix J – COVID-19 Impact on Transportation Services



COVID-19 Pandemic Impact on Transportation Services

The 2021 Medicaid Provider Rate Review Analysis Report reviewed service utilization for CY 2019 and does not include data from the COVID-19 pandemic. The Department recognizes that many services were impacted by the COVID-19 pandemic; however, some services may have been disproportionately impacted, including transportation services. It remains to be seen how the COVID-19 pandemic, as well as the increased utilization of telemedicine and telehealth, will impact health care services in both the short- and long-term. For example, non-emergent medical transportation (NEMT) utilization and reimbursement may be directly or indirectly impacted by the increase in telemedicine utilization and expansion of telemedicine benefits, among other factors. However, the full impacts have yet to be captured by current data.

Below shows recent transportation expenditures and utilization compared to past expenditures and utilization. March 15, 2020 is noted by a vertical dotted line, indicating the start of Public Health Emergency guidance and mandates.

Methodology and Considerations

Typically, data analyzed for the purpose of the Rate Review Process is validated for reliability by an actuary, using claims run-out data (approximately six months of data after the base year); data is then reviewed to determine the relevant utilization after accounting for applicable exclusions.¹ Since timelines for the COVID-19 Public Health Emergency, for which this data was originally used to inform, were truncated, the data presented in Appendix J has not gone through the same data validation process outlined in Appendix B.

The data used to create the visuals in Appendix J is from claims data in the Medicaid Management Information System (MMIS) from February 2019 to January 2021 and does not include claims run-out data;² in addition, this data set did not undergo an incurred but not reported (IBNR) adjustment. The Department plans to present this data with an IBNR adjustment performed to better estimate an annualized level of utilization after all services rendered have been fully realized.³

Definitions

Incurred monthly service utilization trends, in dollars, were calculated as total monthly dollars reimbursed, or Total Paid Dollars, for both Emergency Medical Transportation (EMT) and Non-Emergent Medical Transportation (NEMT) services.

Incurred monthly service utilization trends, in participants, were calculated as the total monthly service utilizers, for both EMT and NEMT services.

¹ See Appendix B for more information regarding data validation and exclusions.

² These calculations are preliminary, using data that had been recently run by Department data experts and was readily available for the purposes of this report; the preliminary data set was limited to total monthly expenditures and utilization for EMT and NEMT services from February 2019 through January 2021. The Department is currently working on creating updated visuals that will provide more insight for 2021 data, as well as an IBNR adjustment to better estimate an annualized level of utilization after all services rendered have been fully realized.

³ Updated visuals will be shared upon availability at a Quarterly Public Rate Review Meeting.



Emergency Medical Transportation Service Impacts Over Time

Figure J-1 illustrates, for EMT services, the incurred monthly service utilization trends from February 2019 to January 2021.⁴ The pink (light colored) line represents monthly incurred expenditures, or Total Paid Amount, for EMT services. The blue (dark colored) line illustrates the incurred monthly service utilization trends for the same time period. The vertical dotted line notes the last week prior to social distancing.

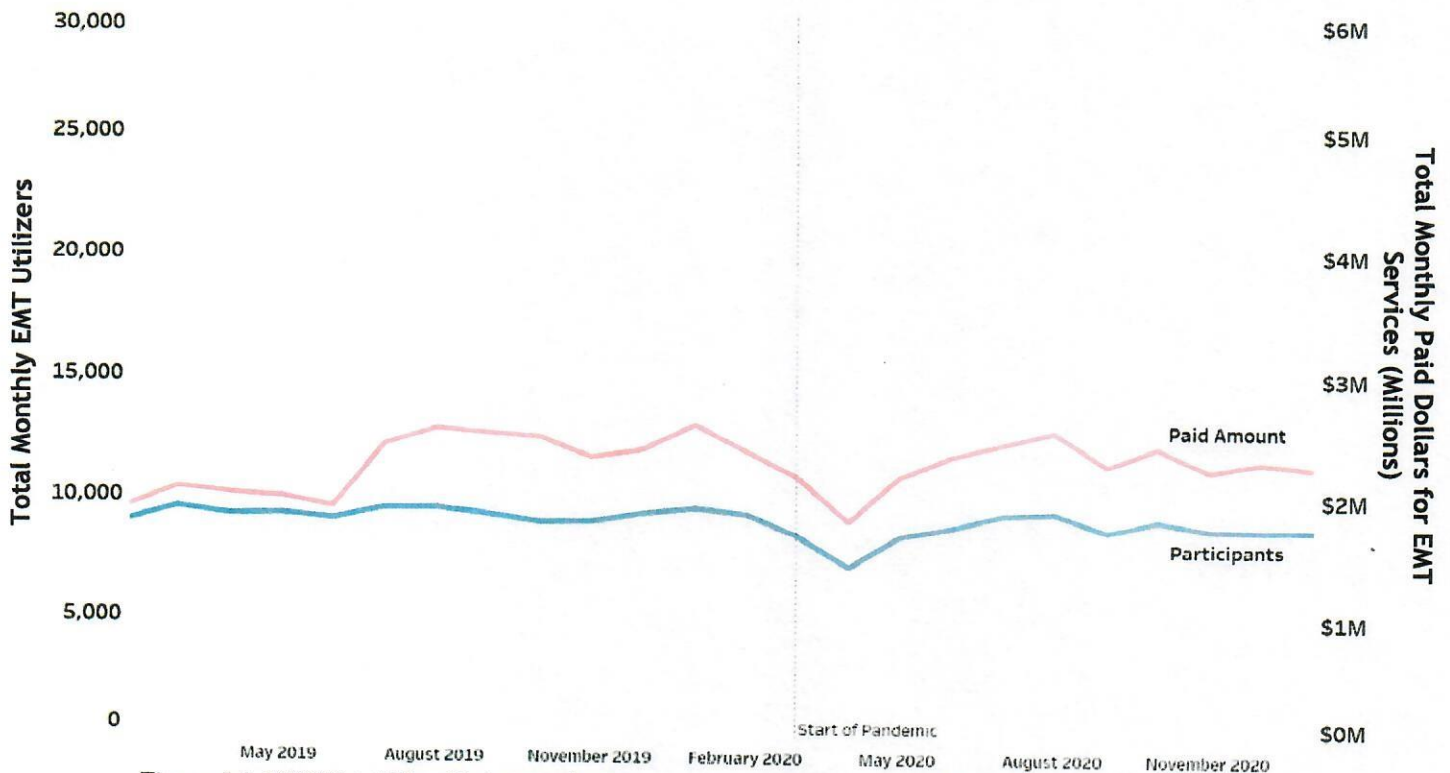


Figure J-1. EMT Total Monthly incurred expenditures and utilization from February 2019 to January 2021.

⁴ These calculations are preliminary, using data that had been recently run by Department data experts and was readily available for the purposes of this report; the preliminary data set was limited to total monthly expenditures and utilization for EMT and NEMT services from February 2019 through January 2021. The Department is currently working on creating updated visuals that will provide more insight for 2021 data, as well as an IBNR adjustment to better estimate an annualized level of utilization after all services rendered have been fully realized.



Non-Emergent Medical Transportation Service Impacts Over Time

Figure J-2 illustrates, for NEMT services, the incurred monthly service utilization trends from February 2019 to January 2021.⁵ The pink (light colored) line represents monthly incurred expenditures, or Total Paid Amount, for NEMT services. The blue (dark colored) line illustrates the incurred monthly service utilization trends for the same time period. The solid line shows incurred weekly service utilization trends per member per week. The vertical dotted line notes the last week prior to social distancing.

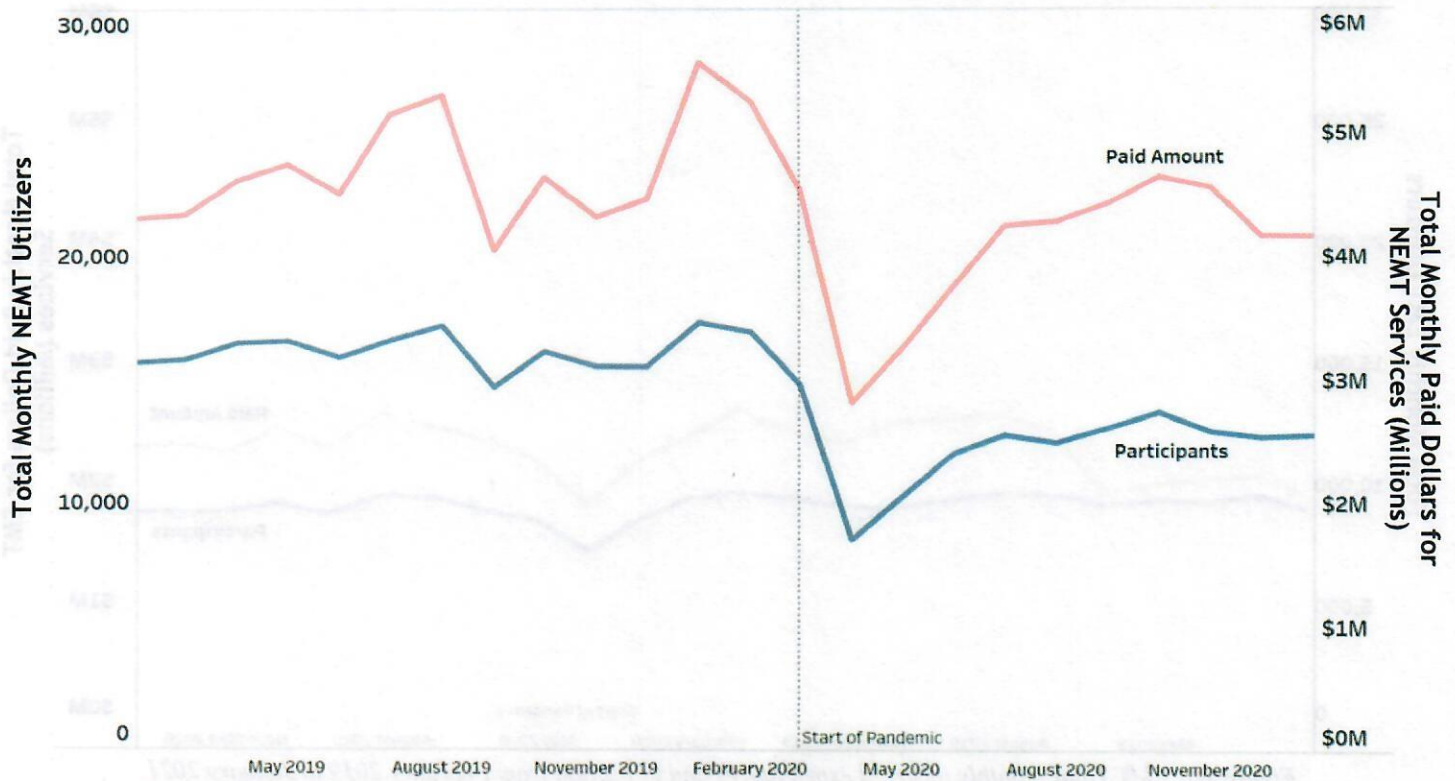


Figure J-1. NEMT Total Monthly incurred expenditures and utilization from February 2019 to January 2021.

Conclusion

While it is difficult to draw conclusions on limited data, the Department has noted these evolving trends and is currently investigating whether transportation services have been disproportionately impacted by the COVID-19 pandemic, and further impacted by increasing use of telemedicine or telehealth services. Additional research, and stakeholder engagement, will help identify where there may be opportunities, if

⁵ These calculations are preliminary, using data that had been recently run by Department data experts and was readily available for the purposes of this report; the preliminary data set was limited to total monthly expenditures and utilization for EMT and NEMT services from February 2019 through January 2021. The Department is currently working on creating updated visuals that will provide more insight for 2021 data, as well as an IBNR adjustment to better estimate an annualized level of utilization after all services rendered have been fully realized.



any, to improve access to care and provider retention, and ensure appropriate reimbursement of high-value services.⁶

⁶ The Department is currently working on collecting this data and plans to continue to monitor for up to 24 months, to account for claims data run out, and provide contextual data for a full picture of the impact and where there may be opportunities for improving access to care and provider retention.



Emergency Medical Transportation (EMT) Services

Summary of Findings

Analyses suggest that EMT payments at 40.92% of the benchmark were sufficient to allow for member access and provider retention; however, current rates may not support appropriate reimbursement for high-value services.³¹ The individual rate ratios were 29.44%-99.51% of the benchmark.

Key Considerations

Stakeholder Feedback

- EMT rates are among the lowest for service groupings reviewed through the Medicaid Provider Rate Review Process.
- EMT services have a high readiness cost compared to other services due to the requirements that emergency vehicles be staffed with trained service delivery providers and stocked with any medical equipment that may be required.
- There have been small incremental rate increases for particular EMT services, but not any noticeable, significant increases in reimbursement.
- Providers appreciate collaboration with the Department on policies and the supplemental payment program since 2016 but indicate there are still gaps in reimbursement for EMT service providers.
- Providers report that EMT/Emergency Medical Service (EMS) providers see many more Medicaid patients than is recorded in claims data because treat-and-release services are not reimbursed for EMT/EMS providers.³² For this reason, providers request that the Department consider adding an EMS treat-and-release model as a covered benefit.³³

Additional Considerations

- Since EMT services were reviewed in the [2016 Medicaid Provider Rate Review Analysis Report](#), both total members accessing EMT services and total active EMS providers increased. In addition, total expenditures increased by over \$12 million.³⁴
- As a result of the [2016 Medicaid Provider Rate Review Recommendation Report](#), the legislature approved Targeted Rate Increases (TRIs) to a subset of EMT services, effective July 2017.³⁵
- Effective January 1, 2018, the Department amended the Colorado State Plan to create an EMT Supplemental Payment program that allows eligible EMS providers to receive an annual supplemental payment for the uncompensated costs incurred by providing ground or air emergency medical transportation services to Medicaid beneficiaries. Data indicates the

³¹ The Department recognizes that, while rates are sufficient, there may be other opportunities to improve access to care and provider retention.

³² Current policy requires EMT providers to complete transport of a member to a health care facility to be reimbursed by Medicaid.

³³ Treat-and-release model refers to “the onsite (at the scene) treatment of a patient by a responding trained paramedic without either transporting that patient to a healthcare facility... or referring that patient to a healthcare facility.” Citation: Emergency Medical Service “Treat and Release” Protocols: A Review of Clinical and Cost-Effectiveness, Safety, and Guidelines [Internet]. Ottawa (ON): Canadian Agency for Drugs and Technologies in Health; 2014 May 27. CONTEXT AND POLICY ISSUES. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK264086/>.

³⁴ For more information, see the [2016 Medicaid Provider Rate Review Analysis Report](#).

³⁵ EMT services received a Targeted Rate Increase (TRI) of 6.61%, effective July 2018.

supplemental payment program provided 43 participating providers with \$11 million in supplemental reimbursement in FY 2017-18, and provided 63 providers with \$26 million in supplemental reimbursement in FY 2018-19.³⁶

- The Department is currently reviewing its authority to establish an EMS treat-and-release model as a covered benefit to address pay inequities for transportation services, as well as part of the Department's effort in pursuing opportunities for health care community integration.³⁷
- The total number of active providers does not represent the total number of service delivery providers employed by agencies providing EMT services.

Department Recommendations

1. The Department recommends a rate increase for EMT services to bring them to 80% of the benchmark.^{38, 39}
2. The Department recommends evaluating the authority to develop and implement an EMS treat-in-place model for Health First Colorado EMS providers.⁴⁰
3. The Department recommends continuing to pursue opportunities for policy development, working with community partners to understand current practices and community needs.⁴¹

Non-Emergent Medical Transportation (NEMT) Services

Summary of Findings

Analyses suggest NEMT payments at 37.51% of the benchmark were sufficient to allow for member access and provider retention; however, current rates may not support appropriate reimbursement for high-value services.⁴² The individual rate ratios were 27.06%-134.51% of the benchmark.

Key Considerations

Stakeholder Feedback

- Providers indicate that rates are reportedly too low to ensure provider retention and appropriate access to high-value services.

³⁶ For more information, see the [Public Emergency Medical Services Supplemental Payment web page](#).

³⁷ More information about community integration of health care services in Colorado, see the [CDHPE Community Integration web page](#).

³⁸ This recommendation partially aligns with R-10 in the 2022 Governor's Budget Request. Rate changes, if any, will be implemented upon state and federal approval, with a projected implementation date of July 1, 2022.

³⁹ See page 10 for more information detailing Department best practices for the Rate Review Process.

⁴⁰ This recommendation may require additional resources.

⁴¹ The Department is currently investigating opportunities for Emergency Medical Services (EMS) to support and provide community service needs.

⁴² See the [2021 Medicaid Provider Rate Review Analysis Report](#) for more information.

