

2018 Medicaid Provider Rate Review Analysis Report

May 1, 2018

**Submitted to: The Joint Budget Committee and the Medicaid Provider Rate
Review Advisory Committee**



COLORADO
Department of Health Care
Policy & Financing

Executive Summary

This report contains the work of the Colorado Department of Health Care Policy & Financing (the Department) to review rates paid to providers under the Colorado Medical Assistance Act. Services under review this year, year three of the five-year rate review process, are:

Rate Review - Year Three Services	
Evaluation & Management and Primary Care	Surgeries
Radiology Services	Other Physician Services
Physical and Occupational Therapy Services	Dental Services
Maternity Services	

This report is intended to be used by the Medicaid Provider Rate Review Advisory Committee (MPRRAC), stakeholders, and the Department to work collaboratively to evaluate findings and generate recommendations.

This report contains a service description, rate comparison analysis, access to care analysis, and conclusion for each service. Analyses suggest that, as of December 2016, payments for all services reviewed were sufficient to allow for client access and provider retention. For each service grouping, rate benchmark comparisons, which describe (as a percentage) how Colorado Medicaid payments compare to other payers, are as follows:

- Evaluation & management and primary care: **85.09%**
- Radiology services: **81.86%**
- Physical and occupational therapy services: **82.58%**
- Maternity services: **69.49%**
- Surgeries: **68.11%**
- Other physician services: **66.96%**
- Dental services: **98.07% to 153.45%**

For certain services, in certain regions, the Department plans to conduct additional research over the summer to identify if access issues exist, if they are unique to Medicaid, and if they are attributable to rates.

While it is important to thoughtfully and critically examine the contents of this report, readers must remember that services reviewed in this year's report are part of a larger set of services. Services reviewed this year encompass only a subset of all services to be reviewed over five years.

Members of the public are invited to attend MPRRAC meetings, provide input on provider rates, and engage in the rate review process. The five-year rate review schedule, MPRRAC meeting schedules, past MPRRAC meeting materials, and more can be found on the Department's [MPRRAC website](#).



Introduction

The Colorado Department of Health Care Policy & Financing (the Department) administers the State's public health insurance programs, including Medicaid, Child Health Plan *Plus* (CHP+), and a variety of other programs for Coloradans who qualify. Colorado Medicaid¹ is jointly funded by a federal-state partnership. The Department's mission is to improve health care access and outcomes for the people it serves while demonstrating sound stewardship of financial resources.

In 2015, the Colorado State Legislature adopted Senate Bill 15-228 "Medicaid Provider Rate Review", an act concerning a process for the periodic review of provider rates under the Colorado Medical Assistance Act. In accordance with [Colorado Revised Statutes \(CRS\) 25.5-4-401.5](#), the Department established a rate review process that involves four components:

- assess and, if needed, revise a five-year schedule of rates under review;
- conduct analyses of service, utilization, access, quality, and rate comparisons for services under review and present the findings in a report published the first of every May;
- develop strategies for responding to the analysis results; and
- provide recommendations on all rates reviewed and present them in a report published the first of every November.

The rate review process is advised by the Medicaid Provider Rate Review Advisory Committee (MPRRAC), whose members recommend changes to the five-year schedule, provide input on published reports, and conduct public meetings to allow stakeholders the opportunity to participate in the process.

MPRRAC meetings for services under review this year, year three of the five-year rate review process, began in September 2017 and included a general discussion of preliminary analyses and stakeholder feedback. Summaries from meetings, including presentation materials, documents from stakeholders, and meeting minutes, are found on the Department's [MPRRAC website](#).

This report contains:

- a comparison of Colorado Medicaid provider rates to those of other payers;
- the Department's access to care analysis; and
- an assessment of whether payments were sufficient to allow for client access and provider retention and to support appropriate reimbursement of high value services, including where additional research is necessary to identify potential access issues.

Payment Philosophy

The rate review process is a method to systematically review provider payments in comparison to other payers and investigate access to care. This process, which includes advice from the MPRRAC, has helped inform the Department's payment philosophy for fee-for-service rates.

Where Medicare is an appropriate comparator, the Department believes that a reasonable threshold for payments is 80% - 100% of Medicare; however, there are three primary situations where Medicare may not be an appropriate model when setting a rate, including, but not limited to:

¹ The consumer-facing name for Colorado Medicaid is now Health First Colorado. In this report, the Department refers to the program as Colorado Medicaid.



1. Medicare does not cover services covered by Colorado Medicaid or Medicare does not have a publicly available rate (e.g., dental services).
2. Medicare's population is different enough that services rendered do not necessarily translate to similar services covered by Colorado Medicaid (e.g., maternity services).
3. Instances where differences between Colorado Medicaid's and Medicare's payment methodologies prohibit valid rate comparison, even if covered services are similar (e.g., ambulatory surgical centers).
4. There is a known issue with Medicare's rates (e.g., home health services).

When Medicare is not an appropriate model, the Department may use its rate setting methodology to develop rates. This methodology incorporates indirect and direct care requirements, facility expense expectations, administrative expense expectations, and capital overhead expense expectations.

While the Department views payments between 80% - 100% of Medicare and payments determined by the rate setting methodology as reasonable, factors such as those listed below, must be considered when setting or changing a rate. These include:

- Budget constraints that may prevent payments at a certain amount.
- Investigating if a rate change could create distributional problems that may negatively impact individual providers and understanding feasible mitigation strategies.
- Identifying certain services where the Department may want to adjust rates to incentivize utilization of high-value services.
- Developing systems to ensure that payments are associated with high-quality provision of services.

When the rate review process indicates a current rate does not align with the Department's payment philosophy, the Department may recommend or implement a rate change. It is also important to note that the Department may not recommend a change, due to the considerations listed above.

1. Format of Report

Information below explains the four sections within each service grouping chapter of the report, including each section's basic structure and content.

Service Description

Service definitions and client and provider data are outlined in this section. This section is designed to provide the reader with an understanding of the service grouping under review, and the scale of clients utilizing, and providers delivering, this service grouping. For each service grouping, five statistics are provided. Those statistics and the calendar years (CY) they represent are:

- Total Adjusted Expenditures – CY 2016²
- Total Clients Utilizing Services – CY 2016
- Year Over Year Change in Clients Utilizing Services – CY 2015 and CY 2016
- Total Rendering Providers – CY 2016
- Year Over Year Change in Rendering Providers – CY 2015 and CY 2016

² Total adjusted expenditures may differ from total expenditures as reported in the annual budget, due to additional adjustments conducted for this report (e.g., incurred but not reported claims, etc.). For more information, see Appendix B.



Rate Comparison Analysis

For all service groupings, except dental services, the Department contracted with the actuarial firm Optumas to assist in the comparison of Colorado Medicaid provider rates to those of other payers. For dental services, the Department and DentaQuest conducted analyses. The resulting rate comparison analysis outlined in this section provides a reference point for how Colorado Medicaid reimbursement rates compare to other payers.

Analysis in this section is based on CY 2016 administrative claims data and contains a rate benchmark comparison, which describes (as a percentage) how Colorado Medicaid payments compare to other payers.³ This section also lists the number of procedure codes compared to either Medicare or an average of other state's Medicaid rates, and the range of rate ratios.⁴

To identify comparator rates for analysis, the Department first examined if a service had a corresponding Medicare rate. The Department relied primarily upon Medicare rates when available and appropriate and, when unavailable, upon other state Medicaid agency rates.⁵ The Department utilizes Medicare rates for comparison for reasons including:

- Medicare is the single largest health insurer in the country and is often recognized by the health insurance industry as a reference for payment policies and rates.
- Medicare's rates, methodologies, and service definitions are generally available to the public.
- Medicare rates are typically updated on a periodic basis.
- Most services covered by Colorado Medicaid are also covered by the Medicare program.

Additionally, the Department examined instances in which Medicare reimburses multiple rates for the same service depending on the setting in which the service is provided. For example, certain physician services provided in a facility setting (e.g., hospital, nursing facility) are reimbursed by Medicare at a different rate than when the same service is provided in a non-facility setting (e.g., clinic, physician office).⁶ To better capture how Colorado payments compare, Optumas analyzed Medicare rates based on the place of service contained on the applicable Medicaid claims.⁷ Technical information for all services except for dental services is contained in Appendix B; technical information for dental services is contained in Appendix E.

Access to Care Analysis

The access to care analysis section includes an Access to Care Index (ACI) score for each service grouping under review and for each of the 21 Health Statistics Regions (regions) in Colorado. Regions were developed by the

³ During the February 16, 2018 MPRRAC meeting, the Department presented simple average rate ratio results, instead of the repriced rate benchmark comparison. Due to contracting delays with Optumas, the Department was unable to present rate benchmark comparisons in February.

⁴ Definitions for certain terms in this report, such as, rate ratio and rate benchmark comparison are contained in Appendix A.

⁵ Due to differences in eligible populations, all maternity services were compared to other state Medicaid rates, even though Medicare covers and has rates for these services.

⁶ For more information regarding the Centers for Medicare and Medicaid Services' place of service definitions, see [Place of Service Codes for Professional Claims](#).

⁷ In Appendix B this analysis is referred to as "Scenario 1".



Health Statistics and Evaluation Branch of the Colorado Department of Public Health and Environment (CDPHE).⁸ The regions, and the counties that make up each region, are outlined below.

The ACI combines metrics that attempt to capture a broad picture of access to these services, by measuring realized access (penetration rate and distance), potential access (member-to-provider ratio), and provider availability (panel estimates and active months). The index is also a tool to determine where potential issues may exist. It is important to note the ACI does not indicate how Medicaid client access services in those regions compared to access for individuals with other insurance, or to the uninsured population. For more information regarding this consideration, see the Limitations section below and Appendix C.

The five metrics used to calculate ACI scores include:

- The penetration rate – the percent of the full-time equivalent (FTE) clients who utilized the service. Comparing the penetration rate across regions helps identify atypical utilization.⁹
- The member-to-provider ratio – the ratio of FTE clients compared to active rendering providers. This ratio helps to determine if a sufficient number of available providers existed for the service over the time period observed.
- The average number of active provider months – the average number of months that rendering providers billed Medicaid over the course of 24-months. This metric provides information regarding how frequently providers of a service served Medicaid clients.
- The average panel size – the average number of clients seen per rendering provider.
- The percent of the population that traveled within 30 miles to receive the service, referred to in this report as the distance metric.¹⁰ This approximation of travel distance can be used to identify differences across regions, where larger portions of the population may have traveled longer distances.

ACI scores are based on CY 2015 and CY 2016 administrative claims data. Scoring each region allows the Department to standardize metrics to reach more meaningful conclusions. Where a region received an ACI score of 50 or less, and where the region scored in the lowest quartile on three or more of the five access-related metrics, the Department conducted further claims-based investigations to identify possible access issues.¹¹ More technical information, including details regarding how to read and interpret access to care analysis results, is contained in Appendix C.

Additional Research

For certain service groupings and regions, particularly when the Department’s analysis was inconclusive or indicated a potential access issue, the Department worked to identify other data sources that could be used to conduct additional research. Some data sources are created and maintained as part of the Department’s ongoing

⁸ For more information refer to CDPHE’s [Colorado Health Data – Health Disparities Profiles](#). Figure 1 was created by the Colorado Health Institute and is used here with their permission.

⁹ The FTE calculation was obtained from monthly enrollment files over a 12-month period. For example, if one client was enrolled for nine months and another client was enrolled for three months, together they qualified as one FTE.

¹⁰ Distance is measured in a straight line from the geographic center of a utilizer’s zip code to the geographic center of the billing provider’s zip code.

¹¹ In two instances, the Department evaluated a region with an ACI score of 50 or less with only two metrics in the lowest quartile: maternity services in region 6 and other physician services in region 9. Even though these regions did not meet the established criteria for further review, the Department investigated further because at least one metric did not indicate improvement over time and there was a decline in the number of providers serving clients in the region.



benefit management and programmatic operations, while others may be created by other organizations or State agencies. The Department plans to use these data sources to conduct further research over the summer as the 2018 Medicaid Provider Rate Review Recommendation Report is developed. Examples include:

- Examining claims and enrollment data to understand if clients are accessing services in settings, or via delivery systems, that are excluded from the rate review analysis. For more information regarding this consideration, see Appendix C (pp.4-6).
- Referring to previous research published in the Department’s [Access Monitoring Review Plan](#).
- Reviewing relevant, regional results on Key Performance Indicators (KPIs), which are tracked as a part of Colorado Medicaid’s delivery system, the Accountable Care Collaborative.
- Reviewing relevant, practice-level results on quality metrics, including Health Effectiveness Data and Information Set (HEDIS) and Consumer Assessment of Healthcare Providers & Systems (CAHPS) measures.
- Working with the Department’s provider relations and customer service teams to understand if there is a documented pattern of provider and client concerns.
- Examining relevant regional and statewide reports and studies published by other agencies, such as the Colorado Department of Public Health and Environment (CDPHE), local public health agencies, the Center for Improving Value in Health Care (CIVHC), and the Colorado Health Institute (CHI), including the Colorado Health Access Survey (CHAS).

Conclusion

In accordance with CRS 25.5-4-401.5, the Department examined results from its rate comparison and access to care analyses to determine whether payments are sufficient to allow for client access and provider retention and to support appropriate reimbursement of high-value services. In this report, conclusions state whether analyses suggest payments were sufficient and where additional research is necessary to identify potential access issues. This section also contains summaries of stakeholder comments received during the rate review process.¹²

¹² With permission from stakeholders, the Department posts stakeholder comments on the MPRRAC website, except when comment contains protected health information. This report references written comments the Department received from September 2017 to April 2018. The Department will post additional written comment on the MPRRAC website as it is received. Stakeholders did not provide comment for all service groupings, therefore some conclusions do not summarize stakeholder comments.

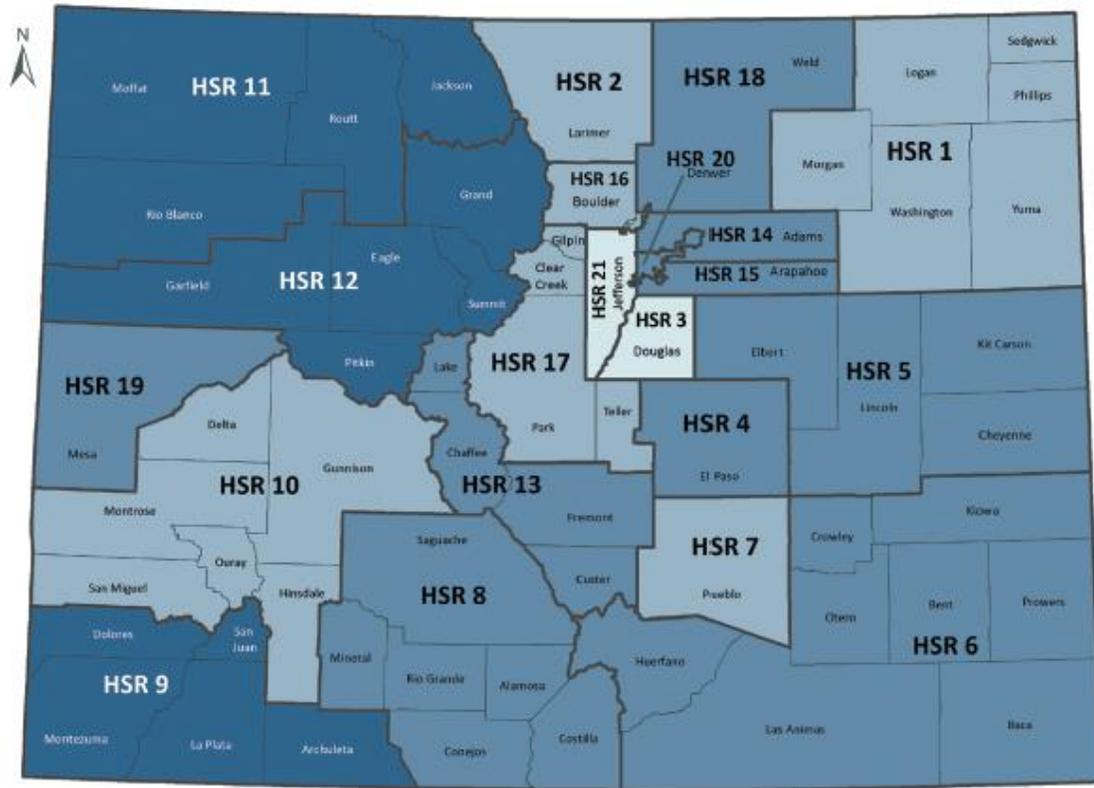


Figure 1 - Health Statistics Region (region) map.

Health Statistic Regions	
Region 1: Logan, Morgan, Phillips, Sedgwick, Washington and Yuma	Region 12: Eagle, Garfield, Grand, Pitkin and Summit
Region 2: Larimer	Region 13: Chaffee, Custer, Fremont and Lake
Region 3: Douglas	Region 14: Adams
Region 4: El Paso	Region 15: Arapahoe
Region 5: Cheyenne, Elbert, Kit Carson and Lincoln	Region 16: Boulder and Broomfield
Region 6: Baca, Bent, Crowley, Huerfano, Kiowa, Las Animas, Otero and Prowers	Region 17: Clear Creek, Gilpin, Park and Teller
Region 7: Pueblo	Region 18: Weld
Region 8: Alamosa, Conejos, Costilla, Mineral, Rio Grande and Saguaque	Region 19: Mesa
Region 9: Archuleta, Dolores, La Plata, Montezuma and San Juan	Region 20: Denver
Region 10: Delta, Gunnison, Hinsdale, Montrose, Ouray and San Miguel	Region 21: Jefferson
Region 11: Jackson, Moffat, Rio Blanco and Routt	

Table 1 - Colorado counties by Health Statistics Region.



2. Limitations

The Department believes that results from this report and additional research conducted over the summer, should be used to develop recommendations to address findings. Still, it is important to note limitations inherent to analyses in this report and limitations that exist generally when evaluating payment sufficiency and access to care.

The ACI and resulting ACI scores are based on claims data. Claims-based analyses do not provide information regarding appointment wait times, quality measures, and differences in provider availability and service utilization based on insurance type, nor do claims-based analyses allow for the Department to quantify care that an individual may have needed but did not receive. The Department plans to investigate other data sources to address this. When the Department investigates other data sources (mentioned above, in the Format of Report – Access to Care Analysis section), there may be assumptions and extrapolations made due to differences in geographic area designations, differences in population definitions, and differences in service definitions. Additionally, ACI scores are relative and, without defined standards, ACI scores cannot indicate if all regions are performing well or if all regions are performing poorly; however, the ACI can help identify regions for focus. For more information, see Appendix C.

There are complicating factors regarding determining rate sufficiency. Client access and provider retention are influenced by factors beyond rates, such as provider outreach and recruitment strategies, the administrative burden of program participation, health literacy and healthcare system navigation ability, provider scheduling and operational practices, as well as client characteristics and behaviors.¹³ Additionally, rates may not be at their optimal level, even when there is no indication of client access or provider retention issues. For example, rates that are above optimal may lead to increases in unwarranted utilization or utilization of low-value services and rates that are less than optimal may lead to decreases in the provision of high-quality care or increases in the provision of services in a less cost-effective setting.

In addition to the Colorado Revised Statutes, which guide the Department’s rate review process, found in [C.R.S. 25.5-4-401.5](#), there are other federal statutes, rules and regulations, as well as CMS regulatory guidance, that guide the Department’s analyses related to client access, provider retention, and payment sufficiency. Given data limitations, which impact how the data can be interpreted, and the increasing need to align the rate review process with federal regulations, the Department anticipates that access to care analyses will change in the future. Changes should improve the Department’s ability to apply and interpret data for policy and rate recommendations.

¹³ The Department adapted some factors from: Long, Sharon 2013. Physicians May Need More Than Higher Reimbursements to Expand Medicaid Participation: Findings from Washington State. Accessed via <http://content.healthaffairs.org/content/32/9/1560.full.pdf+html>



3. Evaluation & Management and Primary Care

The evaluation & management and primary care service grouping is comprised of 182 procedure codes, including:¹⁴

- Evaluation & management services (procedure codes 99201-99499)
- Vaccines and immunizations (procedure codes 90281-90749, S0195)
- Family planning services (procedure codes billed with the family planning modifier; see the [Family Planning Services Rate Schedule](#) for a list of applicable procedure codes)
- [Alternative Payment Methodology \(APM\) codes](#)¹⁵

The Department notes that the Affordable Care Act provided federal funding, known as the 1202 bump, for a temporary increase in primary care rates beginning in 2013. When federal funding expired on December 31, 2014, the Colorado General Assembly chose to continue the 1202 bump with State General Fund dollars. The APM is a transformation of the 1202 bump.¹⁶ Previous targeted rate increases for APM codes are accounted for in this report.

Evaluation & Management and Primary Care Statistics	
Total Adjusted Expenditures	\$393,638,243
Total Clients Utilizing Services	787,341
Year Over Year Change in Clients Utilizing Services	2.64%
Total Rendering Providers	16,039
Year Over Year Change in Rendering Providers	5.51%

Table 2 - Evaluation & management and primary care expenditure and utilization data (CY 2016).

¹⁴ The MPRRAC provided guidance that the Department’s original service grouping name, Primary Care and Evaluation & Management, can be misleading given evaluation & management services alone comprise most expenditures and service utilization in this service grouping. The Department has slightly modified the service grouping name. The Department may reconsider the grouping of services within this service group in future years of the rate review process.

¹⁵ For more information, see the Department’s [Primary Care Payment Reform website](#).

¹⁶ As part of the Department’s efforts to shift providers from volume to value, the Department, along with stakeholders, developed a payment model to make differential fee-for-service payments for APM codes based on provider’s performance. This payment model aims to give providers greater flexibility in care provided, reward performance, and maintain transparency and accountability in payments made.



Rate Comparison Analysis

On average, Colorado Medicaid payments for evaluation & management and primary care services are 85.09% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below:¹⁷

Evaluation & Management and Primary Care Rate Benchmark Comparison		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$362,749,315	\$426,290,839	85.09%

Table 3 – Comparison of Colorado Medicaid evaluation & management and primary care payments to those of other payers, expressed as a percentage (CY 2016).

Of the 182 procedure codes analyzed in this service grouping, 144 procedure code rates were compared to Medicare rates, 36 procedure code rates were compared to an average of five other states’ Medicaid rates, while two procedure codes had no comparable rate.¹⁸ Individual evaluation & management and primary care service rate ratios ranged from 17.64% to 313.03%.

¹⁷ For this service grouping and every service grouping, except dental services, detailed information regarding the rate comparison analysis methodology is contained in Appendix B. Additional analysis results are contained in Appendices B and D. For dental services, rate comparison analysis methodology and additional analysis results are contained in Appendix E.

¹⁸ While most evaluation & management procedure codes had a Medicare rate for comparison, most family planning, vaccine, and immunization procedure codes did not and were therefore compared to the average of five other state’s Medicaid rates.



- working with CDPHE and examining their provider directory tool, to understand if the number of primary care providers varies based on insurance type (the Department anticipates obtaining this data by July 2018).

In September 2017, the Colorado Health Institute (CHI) published their findings from the 2017 Colorado Health Access Survey (CHAS) in a report titled, "[Colorado's New Normal](#)". One of the Top 10 Takeaways from the 2017 CHAS was the following:

Nine of 10 [Medicaid clients] are happy with the range of services covered, trailing only Medicare. Eight of 10 are happy with their choice of doctors, a better rate than those with individual coverage but trailing employer-sponsored insurance and Medicare. Finally, 81.0 percent of Medicaid clients say their family's needs are being met by the health care system, higher than any insurance type, including employer-sponsored insurance. ("[Colorado's New Normal](#)", p.7)

The Department further plans to:

- review regional data from the 2017 CHAS, and CHI's Access to Care Index, to understand: the client experience; regional variation in potential access, pathways to care, and realized access; and how those results may vary based on insurance type (the Department has some of this data and anticipates obtaining all data by September 2018).

Conclusion

Analyses suggest that evaluation & management and primary care payments at 85.09% of the benchmark were sufficient to allow for client access and provider retention. The Department plans to conduct additional research related to primary care as outlined above.



4. Radiology Services

The radiology service grouping is comprised of 514 procedure codes, including 70010-79999, S8032, and G0297.

Radiology Statistics	
Total Adjusted Expenditures	\$49,257,322
Total Clients Utilizing Services	360,072
Year Over Year Change in Clients Utilizing Services	2.68%
Total Rendering Providers	6,331
Year Over Year Change in Rendering Providers	7.29%

Table 4 - Radiology services expenditure and utilization data (CY 2016).

Rate Comparison Analysis

On average, Colorado Medicaid payments for radiology services are 81.86% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below:

Radiology Services Rate Benchmark Comparison		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$50,946,184	\$62,232,210	81.86% ¹⁹

Table 5 - Comparison of Colorado Medicaid radiology service payments to those of other payers, expressed as a percentage (CY 2016).

Of the 514 procedure codes analyzed in this service grouping, 493 procedure code rates were compared to Medicare rates, 15 procedure code rates were compared to an average of five other states' Medicaid rates, while six procedure codes had no comparable rate. Individual radiology service rate ratios ranged from 8.76% to 397.12%.

¹⁹ For some radiology services, Medicare has a multiple procedure discount policy. This means that, if additional radiology services are performed on the same day for the same client, Medicare reduces payments for the additional radiology services. Colorado does not have this policy. Therefore, the rate benchmark comparison could potentially underrepresent how Colorado Medicaid payments compare to Medicare (i.e., Colorado Medicaid payments may be closer to Medicare payments).



Access to Care Analysis

For radiology services, regional ACI scores ranged from 45 to 85.

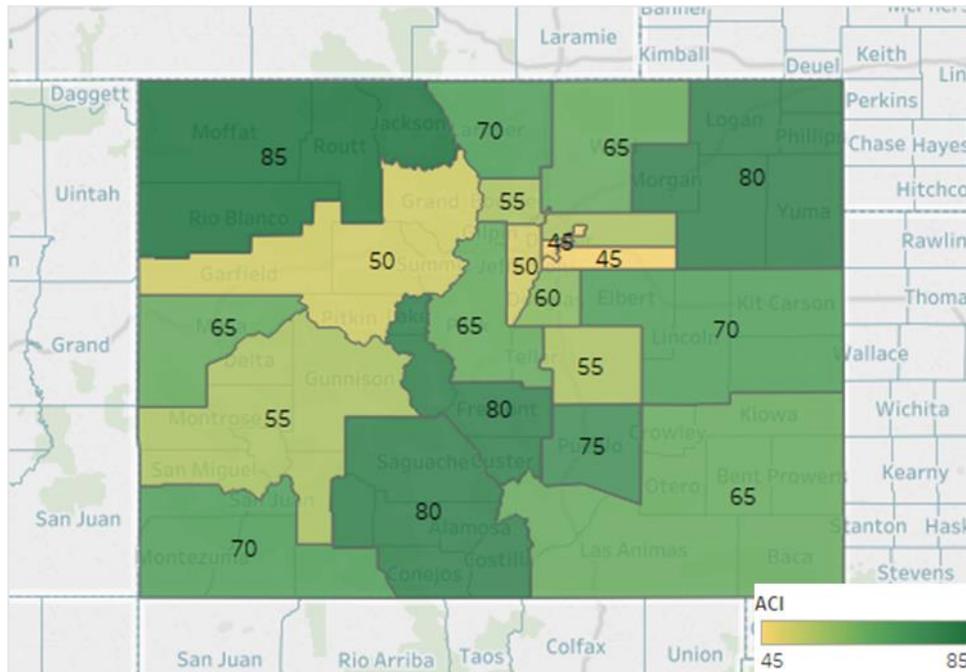


Figure 3 - Radiology services Access to Care Index (ACI) scores by region.

In regions 15 and 20 (Arapahoe County and Denver County, respectively), the Department calculated ACI scores of 45. Components of these scores that required further review, because they were in the lowest quartile, were the member-to-provider ratios and provider metrics. After further investigation, the Department was unable to identify potential access issues. Improvements on the member-to-provider ratios, as well as increases in providers serving clients living in the region, are not trends the Department would expect to see were an access issue present.

Conclusion

Analyses suggest that radiology service payments at 81.86% of the benchmark were sufficient to allow for client access and provider retention.

During the February 16, 2018 MPRRAC meeting, committee members commented that it may be more cost effective for the Department to encourage radiology services in the free-standing outpatient setting, as opposed to the hospital setting. A stakeholder offered another opinion, expressing that hospitals may be more equipped to own and operate expensive radiology equipment. Additionally, this stakeholder noted that, in rural areas, hospitals may be closer than free-standing outpatient facilities, so incentivizing use of radiology services in the outpatient facility setting may result in access issues for rural clients.



5. Physical and Occupational Therapy Services

The physical and occupational therapy service grouping is comprised of 38 procedure codes, including 97001-97799. Certain physical and occupational therapy services received targeted rate increases in fiscal year (FY) 2014-15 and FY 2015-16; these increases are accounted for in this report.

Physical and Occupational Therapy Services Statistics	
Total Adjusted Expenditures	\$31,137,894
Total Clients Utilizing Services	30,597
Year Over Year Change in Clients Utilizing Services	27.51%
Total Rendering Providers	1,536
Year Over Year Change in Rendering Providers	20.85%

Table 6 - Physical and occupational therapy services expenditure and utilization data (CY 2016).

Rate Comparison Analysis

On average, Colorado Medicaid payments for physical and occupational therapy services are 82.58% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below:

Physical and Occupational Therapy Services Rate Benchmark Comparison		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$31,068,422	\$37,620,595	82.58%

Table 7 - Comparison of Colorado Medicaid physical and occupational therapy service payments to those of other payers, expressed as a percentage (CY 2016).

Of the 38 procedure codes analyzed in this service grouping, 37 procedure code rates were compared to Medicare rates and one procedure code rate was compared to an average of five other states' Medicaid rates. Individual physical and occupational therapy service rate ratios ranged from 23.09% to 389.13%.



Access to Care Analysis

For physical and occupational therapy services, regional ACI scores ranged from 45 to 90.

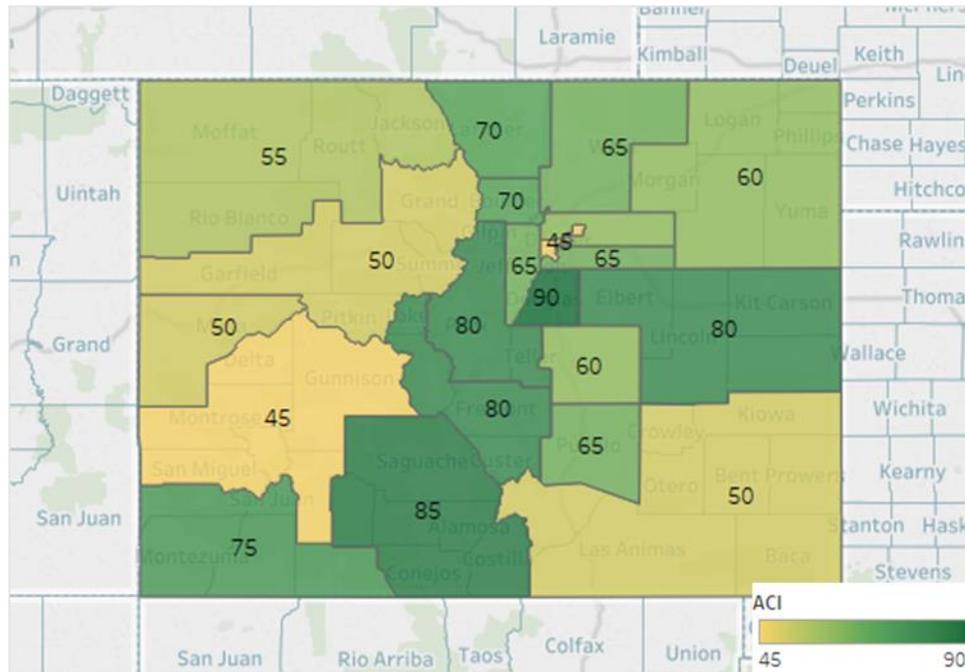


Figure 4 - Physical and occupational therapy services Access to Care Index (ACI) scores by region.

In region 10 (Delta, Gunnison, Hinsdale, Montrose, Ouray, and San Miguel Counties), the Department calculated an ACI score of 45. Components of this score that required further review, because they were in the lowest quartile, were the penetration rate, member-to-provider ratio, and distance metric. Though further investigation indicated improvement on the penetration rate and member-to-provider ratio, there was a slight decline on the distance metric, which may indicate an access issue. The Department plans to:

- conduct county-specific investigations for the counties in region 10, to understand if trends in one county are driving results for the entire region (the Department has this data and anticipates results by July 2018); and
- continue access analysis and utilization monitoring for physical and occupational therapy services in this region.

In region 20 (Denver County), the Department calculated an ACI score of 50. Components of this score that required further review, because they were in the lowest quartile, were the penetration rate and provider metrics. After further investigation, the Department was unable to identify potential access issues. Improvement on the penetration rate, as well as increase in providers serving clients living in the region, are not trends the Department would expect to see were an access issue present.

Conclusion

Analyses suggest that physical and occupational therapy service payments at 82.58% of the benchmark were sufficient to allow for client access and provider retention. The Department plans to conduct additional research

in region 10 to determine if access issues exist, if they are unique to Medicaid, and if issues are attributable to rates.

Through the rate review process, the Department received stakeholder and committee member feedback that access issues may exist.²⁰ Stakeholders expressed concern that when service code 97001 was recently deconsolidated by CMS and the American Medical Association into three codes, based on the time and complexity of service, the associated rates the Department set were not appropriate. Similarly, stakeholders expressed concern with the rate the Department set for service code 97164, which replaced service code 97002, and further defines the time and complexity of the service.²¹

Updated Physical Therapy Codes		
Additional Code	Associated Time	Rate
97161 ^a	20 minutes	\$28.76
97162 ^a	30 minutes	\$40.50
97163 ^a	45 minutes	\$70.46
97164 ^b	20 minutes	\$28.76

Table 8 - Deconsolidated physical therapy evaluation service codes, associated time, and rates.

^a These codes represent the deconsolidation of code 97001, an untimed code with a rate of \$68.55.

^b This code replaced 97002, an untimed code with a rate of \$38.49.

Specifically, stakeholders expressed concern that:

- The Department did not conduct stakeholder engagement or message the additional codes and rates prior to implementation.
- Medicare, and most other states, have not calculated rates for the additional codes and currently pay the same amount for all additional codes.

The Department plans to evaluate stakeholder concerns and continue discussions over the summer.

²⁰ During the February 16, 2018 MPRRAC meeting, the Department received additional written feedback from stakeholders regarding potential access issues for certain physical therapy services. Written feedback is located on the Department’s [MPRRAC website](#).

²¹ Procedure codes are updated every January by CMS and the American Medical Association (AMA), to delete, replace, and add new procedure codes. Beginning January 2017, two physical therapy procedure codes, evaluation and re-evaluation, were deleted and replaced with four codes that contain more specific descriptions based on visit times and complexity.



6. Maternity Services

The maternity service grouping is comprised of 48 procedure codes, including 59000-59899 and H1005. The Department notes that, like all services reviewed in year three of the rate review process, maternity services reviewed in this report are services billed on the professional claim for the professional portion of services. The facility portions of maternity services, billed on facility claims, are excluded from the rate review process and these analyses. It is also worth noting that, in 2016, approximately 45% of babies in Colorado were born to mothers enrolled in Colorado Medicaid (including CHP+).

Maternity Services Statistics	
Total Adjusted Expenditures	\$26,888,566
Total Clients Utilizing Services	26,487
Year Over Year Change in Clients Utilizing Services	-1.64%
Total Rendering Providers	1,213
Year Over Year Change in Rendering Providers	3.68%

Table 9 - Maternity services expenditure and utilization data (CY 2016).

It is also important to note an emerging national and state trend, which may not be evident in this report's claims-based analyses: maternal mortality. A recent study found that, from 2000 to 2014, the estimated maternal mortality rate increased for 48 states and Washington, DC, while the international trend moved in the opposite direction (MacDorman, et al., 2016).²² In Colorado, a recent CDPHE study, titled "[Understanding Maternal Deaths in Colorado](#)", found that maternal mortality is increasing, but not from causes directly related to pregnancy. Instead, maternal mortality increases are attributable to non-pregnancy related deaths, such as motor vehicle accidents, which are on the decline, and underlying mental health conditions, which are on the rise. The report states, "furthermore, toxic amounts of prescription and/or recreational drugs have played a role in one-quarter of all deaths" ("[Understanding Maternal Deaths in Colorado](#)", p.14). According to the study, the Colorado Maternal Mortality Review Committee identified a high percentage of maternal deaths as preventable.

The Department has received feedback, outside of the rate review process, that increased maternal mortality may be related to access to care and quality concerns. The Department will continue to partner with CDPHE and other organizations to address the findings of this study and develop solutions and next steps.

²² MacDorman, M. F., Declercq, E., Cabral, H., & Morton, C. (2016). Is the United States Maternal Mortality Rate Increasing? Disentangling trends from measurement issues. Short title: U.S. Maternal Mortality Trends. *Obstetrics and Gynecology*, 128(3), 447–455. Accessed via: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5001799/>.



Rate Comparison Analysis

On average, Colorado Medicaid payments for maternity services are 69.49% of the benchmark.²³ A summary of the estimated total expenditures resulting from using comparable sources is presented below:

Maternity Services Rate Benchmark Comparison		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$29,134,265	\$41,927,371	69.49%

Table 10 - Comparison of Colorado Medicaid maternity services payments to those of other payers, expressed as a percentage (CY 2016).

Of the 48 procedure codes analyzed in this service grouping, all 48 procedure code rates were compared to an average of five other states' Medicaid rates. Medicare covers certain maternity services for individuals under 65 years old who qualify for Medicare due to disability; however, because the population eligible for Medicare maternity services is considerably different from the population eligible for Colorado Medicaid's maternity services, the Department compared exclusively to other states' Medicaid rates. Individual maternity service rate ratios ranged from 29.73% to 95.68%.

²³ The Department did not conduct a rate comparison for the Prenatal Plus program (service code H1005), which provides case management services for high-risk pregnant individuals. Differences in payment methodologies did not allow for a valid comparison to other state Medicaid rates.



Access to Care Analysis

For maternity services, regional ACI scores ranged from 35 to 90.

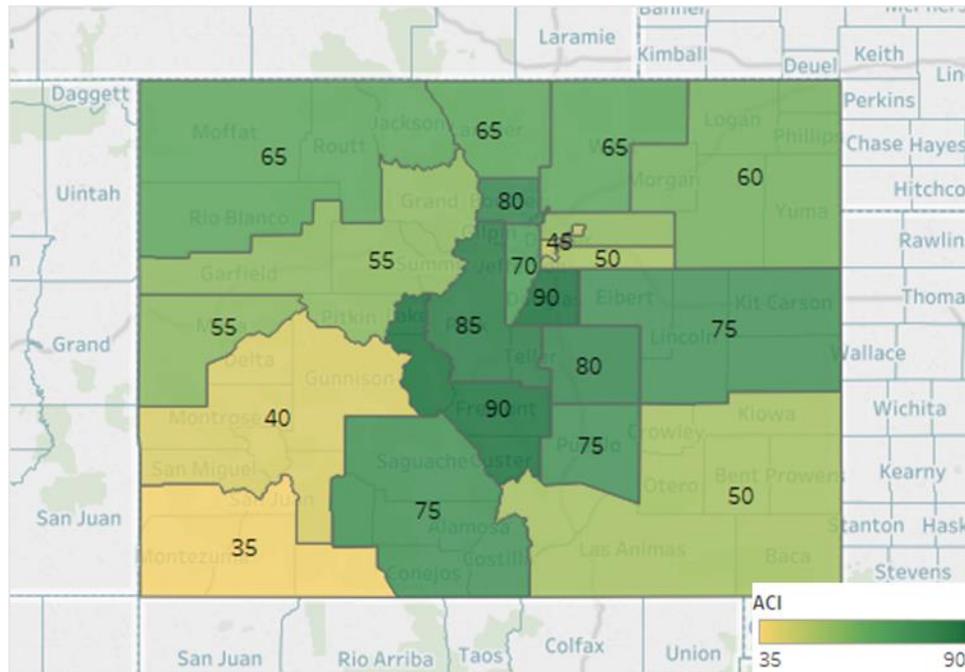


Figure 5 - Maternity services Access to Care Index (ACI) scores by region.

In region 9 (Archuleta, Dolores, La Plata, Montezuma, and San Juan Counties), the Department calculated an ACI score of 35. Components of this score that required further review, because they were in the lowest quartile, were the member-to-provider ratio, distance metric, and active provider months. Though further investigation indicated improvement on the member-to-provider ratio, as well as increases in providers serving clients living in the region, there was a decline on the distance metric, which may indicate an access issue. The Department plans to:

- conduct county-specific investigations for the counties in region 9, to understand if trends in one county are driving results for the entire region (the Department has this data and anticipates results by July 2018);
- investigate how utilization of maternity services in FQHCs and RHCs, which were excluded from this analysis, might provide a more robust understanding of client access (the Department has this data and anticipates results by September 2018);
- examine CDPHE's provider directory data to understand if the number of providers varies based on insurance type (the Department anticipates obtaining this data by July 2018); and
- continue access analysis and utilization monitoring for maternal services in this region.

In region 10 (Delta, Gunnison, Hinsdale, Montrose, Ouray, and San Miguel Counties), the Department calculated an ACI score of 40. Components of this score that required further review, because they were in the lowest quartile, were the member-to-provider ratio, distance metric, and provider metrics. After further investigation, the Department was unable to identify potential access issues. Improvement on the member-to-provider ratio

and distance metric, as well as increases in providers serving clients living in the region, are not trends the Department would expect to see were an access issue present.

In region 20 (Denver County), the Department calculated an ACI score of 45. Components of this score that required further review, because they were in the lowest quartile, were the penetration rate and provider metrics. After further investigation, the Department was unable to identify potential access issues. Improvement on the penetration rate, as well as increases in providers serving clients living in the region, are not trends the Department would expect to see were an access issue present.

Region 6 (Baca, Bent, Crowley, Huerfano, Kiowa, Las Animas, Otero, and Prowers Counties), where the Department calculated an ACI score of 50, did not meet the criteria for further review because only two metrics, penetration rate and the distance metric, were in the lowest quartile. However, because the Department noticed a decline on both the penetration rate and the distance metric, as well as a decrease in providers serving clients living in the region, the Department plans to conduct the same research for region 6 as it does for region 9.

Conclusion

Analyses suggest that maternity service payments at 69.49% of the benchmark were sufficient to allow for client access and provider retention. The Department notes that payments for maternity services are below 80-100% of other state Medicaid rates. Over the summer, the Department plans to use its rate setting methodology to examine certain maternity service rates, in addition to investigating considerations (outlined in the Payment Philosophy section, pp.2-3) and possible solutions. The Department also plans to conduct additional research in regions 6 and 9 to determine if access issues exist, if they are unique to Colorado Medicaid, and if issues are attributable to rates. Finally, as mentioned in the Service Description section above, the Department plans to continue to partner with CDPHE and other organizations to monitor and develop solutions related to maternal mortality.



7. Surgeries

The surgery service grouping is comprised of 819 procedure codes, including:

- genital system surgeries (54000-58999)
- nervous system surgeries (61000-64999)
- urinary system surgeries (50010-53899)
- endocrine system surgeries (60000-60699)

Remaining surgeries were examined in year two of the rate review process. For more information, see the [2017 Medicaid Provider Rate Review Analysis Report](#) (pp.58-101) and the [2017 Medicaid Provider Rate Review Recommendation Report](#) (pp.5-8).

Surgery Statistics	
Total Adjusted Expenditures	\$13,575,143
Total Clients Utilizing Services	38,141
Year Over Year Change in Clients Utilizing Services	4.25%
Total Rendering Providers	4,935
Year Over Year Change in Rendering Providers	2.71%

Table 11 - Surgeries expenditure and utilization data (CY 2016).

Rate Comparison Analysis

On average, Colorado Medicaid payments for surgeries are 68.11% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below:

Surgery Services Rate Benchmark Comparison		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$14,612,541	\$21,453,664	68.11%

Table 12 - Comparison of Colorado Medicaid surgery payments to those of other payers, expressed as a percentage (CY 2016).

Of the 819 procedure codes analyzed in this service grouping, 812 procedure code rates were compared to Medicare rates, four procedure code rates were compared to an average of five other states' Medicaid rates, while three procedure codes had no comparable rate. Individual surgery service rate ratios ranged from 2.16% to 1,194.84%.



Access to Care Analysis

For surgeries, regional ACI scores ranged from 30 to 85.

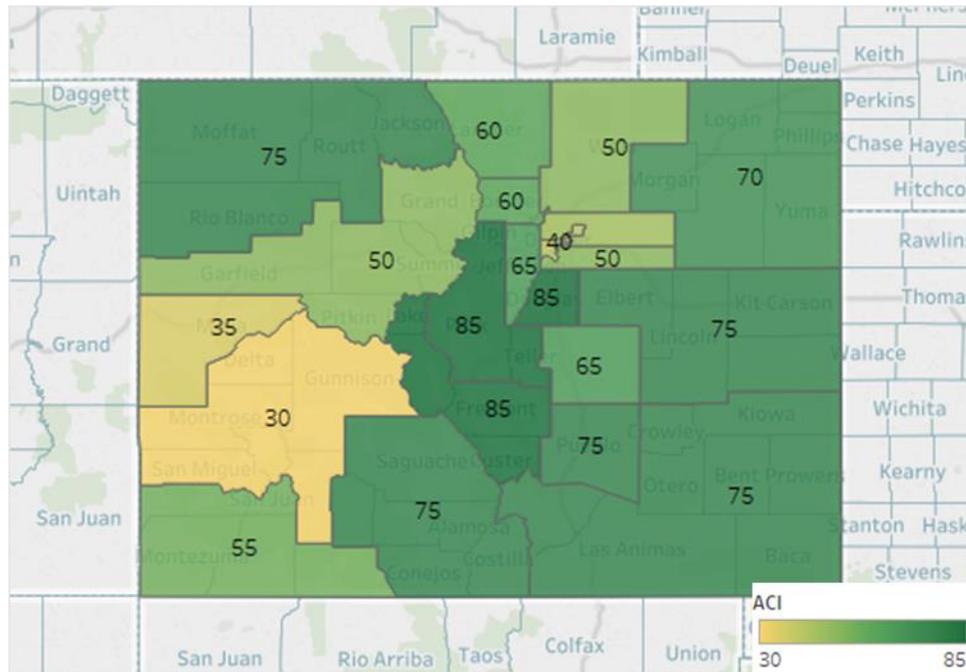


Figure 6 - Surgery Access to Care Index (ACI) scores by region.

In region 10 (Delta, Gunnison, Hinsdale, Montrose, Ouray, and San Miguel Counties), the Department calculated an ACI score of 30. Components of this score that required further review, because they were in the lowest quartile, were the penetration rate, member-to-provider ratio, distance metric, and active provider months. Though further investigation indicated improvement on the penetration rate and member-to-provider ratio, as well as an increase in providers serving clients living in the region, there was a decline on the distance metric, which may indicate an access issue. The Department plans to:

- conduct county-specific investigations for the counties in region 10, to understand if trends in one county are driving results for the entire region (the Department has this data and anticipates results by July 2018);
- examine CDPHE’s provider directory data to understand if the number of providers varies based on insurance type (the Department anticipates obtaining this data by July 2018); and
- continue access analysis and utilization monitoring for surgeries in this region.

In region 19 (Mesa County), the Department calculated an ACI score of 35. Components of this score that required further review, because they were in the lowest quartile, were the penetration rate, member-to-provider ratio, and provider metrics. After further investigation, the Department was unable to identify potential access issues. The penetration rate was within one standard deviation from the mean and is therefore attributed to normal variation. Additionally, improvement on the member-to-provider ratio, as well as increases in providers serving clients living in the region, are not trends the Department would expect to see were an access issue present.

In region 20 (Denver County), the Department calculated an ACI score of 40. Components of this score that required further review, because they were in the lowest quartile, were the penetration rate, member-to-provider

ratio, and provider metrics. After further investigation, the Department was unable to identify potential access issues. Improvement on the penetration rate and member-to-provider ratio, as well as increases in providers serving clients living in the region, are not trends the Department would expect to see were an access issue present.

In region 14 (Adams County), the Department calculated an ACI score of 45. Components of the score that required further review, because they were in the lowest quartile, were the penetration rate and provider metrics. Though further investigation indicated improvement on the penetration rate, there was a decrease in providers serving clients living in the region, which may indicate an access issue. The Department plans to conduct the same research for region 14 as it does for region 10.

Conclusion

Analyses suggest that surgery service payments at 68.11% of the benchmark were sufficient to allow for client access and provider retention. The Department notes that payments for surgeries are below the threshold identified in the Payment Philosophy section of this report and plans to investigate considerations (outlined in the Payment Philosophy section, pp.2-3) and possible solutions over the summer. The Department also plans to conduct additional research in regions 10 and 14 to determine if access issues exist, if they are unique to Colorado Medicaid, and if issues are attributable to rates. Finally, as mentioned in the [2017 Medicaid Provider Rate Review Recommendation Report](#), the Department will continue access analysis and utilization monitoring for certain surgeries, in certain regions, examined through last year's rate review process.



8. Other Physician Services

The other physician services grouping is comprised of 160 procedure codes, including:

- allergy services (95004-95199)
- neurology services (CPTs 95812-96020)
- infusion and similar products (CPTs 96372-96571)
- sleep studies (CPTs 95782-95811)
- miscellaneous services (CPTs 97802-99199 and 95250-95251)
- skin procedures (CPTs 96900-96999)
- genetic counseling (CPT 96040 and S0265)

Remaining physician services were examined in year two of the rate review process. For more information, see the [2017 Medicaid Provider Rate Review Analysis Report](#) (pp.15-58) and the [2017 Medicaid Provider Rate Review Recommendation Report](#) (pp.5-7).

Other Physician Services Statistics	
Total Adjusted Expenditures	\$10,229,573
Total Clients Utilizing Services	108,835
Year Over Year Change in Clients Utilizing Services	6.10%
Total Rendering Providers	5,516
Year Over Year Change in Rendering Providers	3.55%

Table 13 - Other physician services expenditure and utilization data (CY 2016).

Rate Comparison Analysis

On average, Colorado Medicaid payments for other physician services are 66.96% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below:

Other Physician Services Rate Benchmark Comparison		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$10,169,132	\$15,185,778	66.96%

Table 14 - Comparison of Colorado Medicaid other physician services payments to those of other payers, expressed as a percentage (CY 2016).

Of the 160 procedure codes analyzed in this service grouping, 148 procedure code rates were compared to Medicare rates, nine procedure code rates were compared to an average of five other states' Medicaid rates, while three procedure codes had no comparable rate. Individual other physician service rate ratios ranged from 3.05% to 458.44%. The Department notes that this service grouping contains a wider variety of codes than other service groupings examined this year; to view rate ratios for individual services, see Appendix B.



Access to Care Analysis

For other physician services, regional ACI scores ranged from 45 to 85.

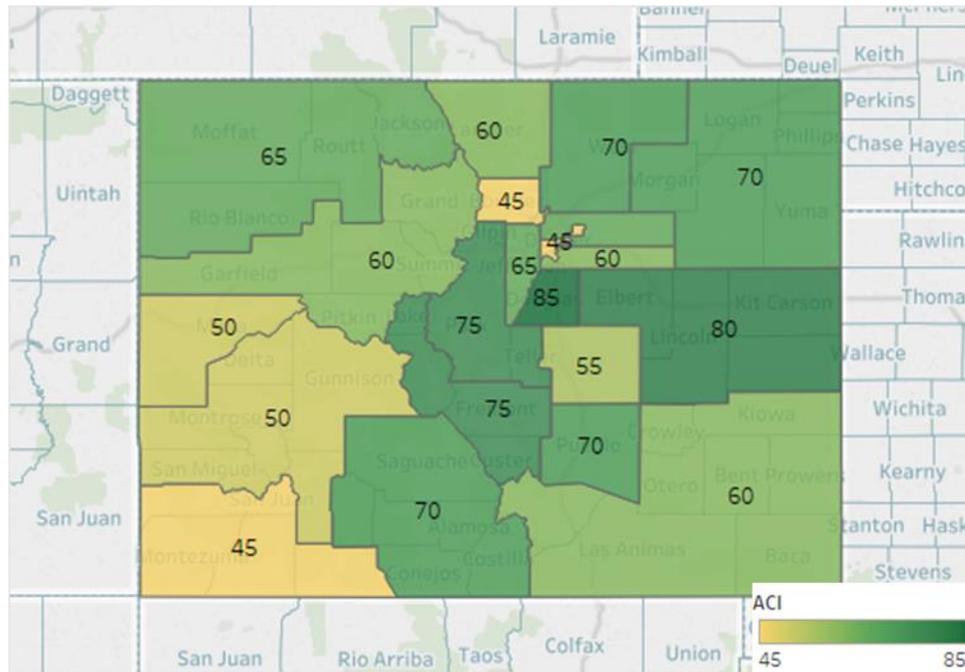


Figure 7 - Other physician services Access to Care Index (ACI) scores by region.

In region 20 (Denver County), the Department calculated an ACI score of 45. Components of this score that required further review, because they were in the lowest quartile, were the member-to-provider ratio and provider metrics. After further investigation, the Department was unable to identify potential access issues. Improvement on the member-to-provider ratio, as well as increases in providers serving clients living in the region, are not trends the Department would expect to see were an access issue present.

Region 9 (Archuleta, Dolores, La Plata, Montezuma, and San Juan Counties), where the Department calculated an ACI score of 45, did not meet the criteria for further review because only two metrics, member-to-provider ratio and the distance metric, were in the lowest quartile; however, because the Department noticed a decline on the distance metric, in the member-to-provider ratio metrics, and in providers serving clients in the region, the Department plans to conduct further research. Additionally, the Department's analyses of physician services in year two of the rate review process indicated potential access issues in region 9 for speech therapy services and respiratory services (see the [2017 Medicaid Provider Rate Review Analysis Report](#) for more details). The Department plans to:

- conduct county-specific investigations for the counties in region 9, to understand if trends in one county are driving results for the entire region (the Department has this data and anticipates results by July 2018);
- examine CDPHE's provider directory data to understand if the number of providers varies based on insurance type (the Department anticipates obtaining this data by July 2018); and
- continue access analysis and utilization monitoring for surgeries in this region.

Conclusion

Analyses suggest that other physician service payments at 66.96% of the benchmark are sufficient to allow for client access and provider retention. The Department notes that payments for other physician services are below the threshold identified in the Payment Philosophy section of this report and plans to investigate considerations (outlined in the Payment Philosophy section, pp.2-3) and possible solutions over the summer. The Department plans to conduct additional research in region 9 to determine if access issues exist, if they are unique to Colorado Medicaid, and if issues are attributable to rates. Finally, as mentioned in the [2017 Medicaid Provider Rate Review Recommendation Report](#), the Department will continue access analysis and utilization monitoring for certain other physician services, in certain regions, examined through last year's rate review process.



9. Dental Services

The dental services grouping is comprised of 452 procedure codes, including D0120 – D9996. Historically, Colorado Medicaid covered dental services for children; Colorado Medicaid began covering dental services for adults in 2013. The adult dental benefit provides eligible Colorado Medicaid clients up to \$1,000 in dental services per state fiscal year.

Colorado Medicaid partners with DentaQuest, which operates as an Administrative Services Only organization (ASO), to help clients find a dentist and manage dental benefits. DentaQuest assisted the Department in conducting the rate comparison analysis for this report. Additionally, DentaQuest provides annual reports to the Department that outline, for example, DentaQuest provider outreach efforts and service utilization information. Because this analysis is conducted annually, instead of every five years, and because it contains much of the same information the Department gathers when conducting an access to care analysis, the forthcoming 2017 Dental Services Annual Report serves as the Department’s access to care analysis.²⁴

Dental Services Statistics	
Total Expenditures on Services	\$306,421,498
Total Clients Utilizing Services	580,822
Year Over Year Change in Clients Utilizing Services	6.35%
Total Rendering Providers	2,162
Year Over Year Change in Rendering Providers	15.61%

Table 15 - Dental services expenditure and utilization data (CY 2016).

Rate Comparison Analysis

Dental services are an optional State Plan benefit; states that choose to cover dental services have flexibility in deciding how to best design and manage the benefit. Variability across Medicaid dental programs nationally presents unique challenges for picking comparator states. Understanding this, DentaQuest and the Department identified seven states for comparison:

- DentaQuest selected New Mexico (NM) and Tennessee (TN) for comparison because these states:
 - cover a comparable number of service codes; and
 - have robust provider networks.
- At the advice of a stakeholder, the Department also chose to compare to other states, including Montana (MT), Nebraska (NE), Oklahoma (OK), Oregon (OR), and Wyoming (WY) because these states:
 - were used by the Department for other comparisons in this year’s analyses; and
 - offer a range of dental benefits, from emergency-only (OK) to limited (NE, WY) to extensive (MT, OR) dental benefits.²⁵

²⁴ The Department estimates the 2017 Dental Services Annual Report will be published June 2018.

²⁵ The Department referenced the Center for Health Care Strategies’ [Medicaid Adult Dental Benefits: An Overview](#) to better understand the range of comparator states’ adult dental benefits and select comparator states from across the range.



On average, Colorado Medicaid payments for dental services range from 98.07% to 153.45% of the benchmarks. A summary of average fees and estimated total expenditures resulting from using comparable sources is presented below. For information on how to read the table, see Appendix E (pp.1-3).

Dental Services Rate Benchmark Comparison							
	MT	NE	NM	OK	OR	TN ²⁶	WY
Service Match Rate ²⁷	96.80%	84.85%	91.15%	81.84%	78.55%	N/A	86.53%
Colorado Repriced	\$296,525,485	\$259,908,830	\$279,226,812	\$250,710,904	\$240,630,594	N/A	\$265,069,416
Comparison Repriced	\$296,981,773	\$189,518,469	\$238,670,199	\$206,735,827	\$156,818,392	N/A	\$270,278,193
Rate Benchmark Comparison	99.85%	137.14%	116.99%	121.27%	153.45%	114.77%	98.07%

Table 16 - Comparison of Colorado Medicaid dental service payments to those of other payers, expressed as a percentage (CY 2016).

For individual service rate ratios for dental services to Montana, Nebraska, New Mexico, Oklahoma, Oregon, and Wyoming see Appendix E (pp.5-17).

Conclusion

Analyses suggest that dental service payments ranging from 98.07% to 153.45% of the benchmarks are sufficient to allow for client access and provider retention.

Additionally, on April 3, 2018, the Department hosted a meeting with committee members and stakeholders to answer questions and solicit feedback regarding rate comparison and access to care analyses, contained within the 2016 Dental Services Annual Report, and how access to care analyses can be improved in future years. The Department will evaluate stakeholder suggestions for incorporation into next year’s Dental Services Annual Report.

²⁶ DentaQuest manages Tennessee Medicaid’s shared risk contract for dental services. The rates that DentaQuest pays for Tennessee Medicaid’s dental services are proprietary. As a result, DentaQuest could not provide more specific information to the Department.

²⁷ Service Match Rate represents the percent of Colorado Repriced amount that had a matching service in each state.



10. Appendices

Appendix A – Glossary

Appendix A provides explanations for common terms used in this report.

[Appendix A - Glossary](#)

Appendix B – Rate Comparison Analysis Methodology

Appendix B includes details of the benchmark creation and payment comparison methodology for all services except dental services. Appendix B also contains rate comparison results by individual service.

[Appendix B – Rate Comparison Analysis Methodology](#)

Appendix C – Access to Care Analysis Methodology

Appendix C outlines the methodology used to create the Access to Care Index and analyze access to care for all services except dental services.

[Appendix C – Access to Care Analysis Methodology](#)

Appendix D – Service Grouping Data Books

Appendix D contains, by service grouping, the following information:

- Top 15 procedures by total paid.
- Provider location maps.
- Additional access to care analysis information, including:
 - previously published access to care visuals and charts; and
 - detailed access to care metric bar charts and year over year change tables.

[Appendix D – Service Grouping Data Books](#)

Appendix E – Dental Services Rate Comparison Analysis Methodology

Appendix E contains the Department’s rate comparison analysis methodology for dental services and results by individual service.

[Appendix E – Dental Services Rate Comparison Analysis Methodology](#)

