



COLORADO
Department of Health Care
Policy & Financing

Department of Health Care Policy and Financing
1570 Grant Street
Denver, CO 80203

May 6, 2020

The Honorable Daneya Esgar, Chair
Joint Budget Committee
200 East 14th Avenue, Third Floor
Denver, CO 80203

Dear Representative Esgar:

Enclosed please find the Department of Health Care Policy and Financing's statutory report to the Joint Budget Committee on the Medicaid Provider Rate Review Recommendation Report.

Section 25.5-4-401.5 (2)(a), C.R.S., requires the Department to "conduct an analysis of the access, service, quality, and utilization of each service subject to a provider rate review ... compare the rates paid with available benchmarks ... and use qualitative tools to assess whether payments are sufficient ... on or before May 1st ."

The Department's report contains appropriate analyses, rate comparisons, and sufficiency assessments for seven sets of services: Pediatric Personal Care; Home Health; Private Duty Nursing; Pediatric Behavioral Therapy; Speech Therapy; Physical and Occupational Therapy; Prosthetics, Orthotics, and Supplies; and Vision.

If you require further information or have additional questions, please contact the Department's Legislative Liaison, Nina Schwartz at Nina.Schwartz@state.co.us or 303-866-6912.

Sincerely,

A handwritten signature in black ink, appearing to read "KB", is placed above the typed name.

Kim Bimestefer
Executive Director

KB/EH

Enclosure(s): 2020 Medicaid Provider Rate Review Analysis Report

Cc: Senator Dominick Moreno, Vice-chair, Joint Budget Committee
Representative Julie McCluskie, Joint Budget Committee
Representative Kim Ransom, Joint Budget Committee
Senator Bob Rankin, Joint Budget Committee
Senator Rachel Zenzinger, Joint Budget Committee
Carolyn Kampman, Staff Director, JBC
Eric Kurtz, JBC Analyst
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John Bartholomew, Finance Office Director, HCPF
Tracy Johnson, Medicaid Director, HCPF
Tom Massey, Policy, Communications, and Administration Office Director, HCPF
Bonnie Silva, Community Living Office Director, HCPF
Parrish Steinbrecher, Health Information Office Director, HCPF
Rachel Reiter, External Relations Division Director, HCPF
Nina Schwartz, Legislative Liaison, HCPF



COLORADO
Department of Health Care
Policy & Financing

Department of Health Care Policy and Financing
1570 Grant Street
Denver, CO 80203

May 6, 2020

Dr. Wilson Pace, Chair
Medicaid Provider Rate Review Advisory Committee
303 East 17th Avenue
Denver, Colorado 80203

Dear Dr. Pace:

Enclosed please find the Department of Health Care Policy and Financing's statutory report to the Medicaid Provider Rate Review Advisory Committee on the Medicaid Provider Rate Review Analysis Report.

Section 25.5-4-401.5 (2)(a), C.R.S., requires the Department to "conduct an analysis of the access, service, quality, and utilization of each service subject to a provider rate review ... compare the rates paid with available benchmarks ... and use qualitative tools to assess whether payments are sufficient ... on or before May 1st ."

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Sincerely,

A handwritten signature in black ink, appearing to read "KB", is written over a light gray rectangular background.

Kim Bimestefer
Executive Director

KB/EH

Enclosure(s): 2020 Medicaid Provider Rate Review Analysis Report

Cc: David Friedenson, Medicaid Provider Rate Review Advisory Committee
Rob Hernandez, Medicaid Provider Rate Review Advisory Committee
Tim Dienst, Medicaid Provider Rate Review Advisory Committee
Steve Hehnen, Medicaid Provider Rate Review Advisory Committee
Valerie Schlecht, Medicaid Provider Rate Review Advisory Committee
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Nina Schwartz, Legislative Liaison, HCPF

2020 Medicaid Provider Rate Review Analysis Report

May 1, 2020

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



COLORADO
Department of Health Care
Policy & Financing

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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 Five of the five-year review cycle, are listed in the table below.

Rate Review - Year Five Services	
Home Health	Physical and Occupational Therapy (PT/OT)
Private Duty Nursing (PDN)	Speech Therapy
Pediatric Personal Care (PPC)	Prosthetics, Orthotics, and Supplies (POS)
Pediatric Behavioral Therapy (PBT)	Vision

This report is intended to be used by the Department, in collaboration with the Medicaid Provider Rate Review Advisory Committee (MPRRAC) and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2020 Rate Review Recommendation Report on November 1, 2020.

This report contains a service grouping description, rate comparison analysis, access to care analysis, stakeholder feedback, additional research, and conclusion for each service.

For each service grouping, rate benchmark comparisons, which describe (as a percentage) how Colorado Medicaid¹ payments compare to other payers, are listed below.

- Pediatric Personal Care (PPC): **134.35%**
- Home Health: **101.72%**
- Private Duty Nursing (PDN): **98.15%**
- Pediatric Behavioral Therapy (PBT): **92.90%**
- Speech Therapy: **73.51%**
- Physical and Occupational Therapy (PT/OT): **86.41%**
- Prosthetics, Orthotics, and Supplies (POS): **80.80%**
- Vision: **81.13%**

The Departments conclusions for each service grouping are summarized below.

- Analyses suggest PPC rates at 134.35% of the benchmark were sufficient for member access and provider retention.
- Analyses suggest home health rates at 101.72% of the benchmark were sufficient for member access and provider retention.
- Analyses suggest PDN rates at 98.15% of the benchmark were sufficient for member access and provider retention.
- Analyses suggest PBT rates at 92.90% of the benchmark were sufficient for member access and provider retention.
- Analyses are inconclusive to determine if speech therapy rates at 73.51% of the benchmark were sufficient for member access and provider retention.
- Analyses suggest PT/OT rates at 86.41% of the benchmark were sufficient for member access and provider retention.

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

- Analyses suggest POS rates at 80.80% of the benchmark were sufficient for member access and provider retention.
- Analyses suggest vision rates at 81.13% of the benchmark were sufficient for member access and provider retention.

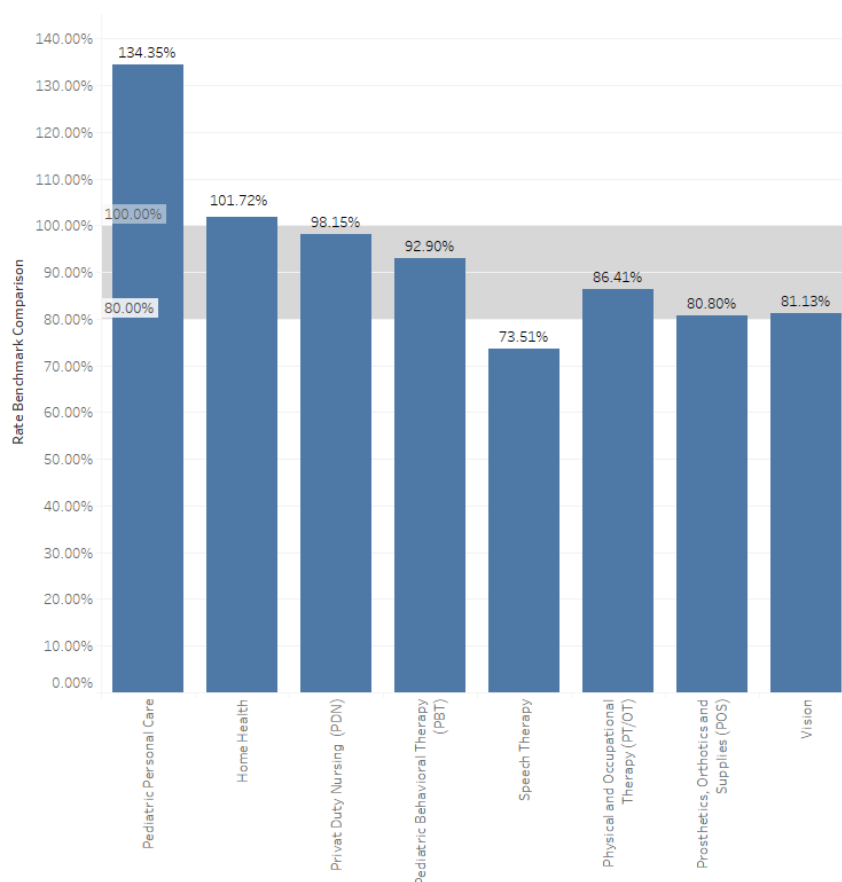


Figure 1. Colorado Medicaid rate benchmark comparison for all Year Five service groupings in FY 2018-19.

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

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 reviewed over the five-year cycle.

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

Introduction

The Colorado Department of Health Care Policy & Financing (the Department) administers the State's public health insurance programs, including Health First Colorado (Colorado's Medicaid Program), Child Health Plan *Plus* (CHP+), and a variety of other programs for Coloradans who qualify. Colorado Medicaid 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, review a five-year schedule of rates;
- 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 MPRRAC, whose members recommend changes to the five-year schedule, provide input on reports published by the Department, and conduct public meetings to allow stakeholders the opportunity to participate in the process.

MPRRAC meetings for services under review this year, Year Five of the five-year rate review cycle, began in November 2019 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 website](#).

This report contains:

- comparisons of Colorado Medicaid provider rates to those of other payers;
- access to care analyses; and
- assessments of whether payments were sufficient to allow for member 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 evaluate access to care. This process, which includes feedback from the MPRRAC, has helped inform the Department's payment philosophy for fee-for-service (FFS) rates.

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

1. Medicare does not cover services covered by Colorado Medicaid or Medicare does not have a publicly available rate (e.g., PDN services).

2. Medicare’s population is different enough that services rendered do not necessarily translate to similar services covered by Colorado Medicaid (e.g., Pediatric Personal Care and PBT).
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., Home Health services).
4. There is a known issue with Medicare’s rates.

When Medicare is not an appropriate comparator, 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 payment at a certain amount;
- investigating whether 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; and
- 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.

Format of Report

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

Service Description

Service definitions, procedure or revenue codes, and member 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, as well as the scale of members utilizing and providers delivering this service grouping. For each service grouping, statistics, are provided. Those statistics and fiscal year (FY) they represent are:

- Total Adjusted Expenditures – FY 2018-19²
- Total Members Utilizing Services – FY 2018-19
- Year-over-year Change in Members Utilizing Services – FY 2018 and FY 2019³

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.) and varying service category definitions. For more information, see Appendix B.

³ For all services, year-over-year change in members was calculated using data from FY 2018 and FY 2019.



- Total Rendering Providers⁴ – FY 2018-19
- Year-over-year Change in Rendering Providers – FY 2018 and FY 2019⁵

Rate Comparison Analysis

The Department contracted with the actuarial firm Optumas to assist in the comparison of Colorado Medicaid provider rates to those of other payers. 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 FY 2018-19 administrative claims data and contains a rate benchmark comparison, which describes (as a percentage) how Colorado Medicaid payments compare to other payers. This section also lists the number of procedure codes compared to either Medicare or an average of other states' Medicaid rates, and the range of individual rate ratios.⁶

The Department first examined whether a service had a corresponding Medicare rate to identify comparator rates for analysis. Medicare rates were primarily relied upon for this analysis when available and appropriate. When Medicare rates were unavailable, the Department relied upon other state Medicaid agency rates. 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's rates are typically updated on a periodic basis; and
- Most services covered by Colorado Medicaid are also covered by the Medicare program.

Technical information for all services is contained in Appendix B.

Access to Care Analysis

The Department contracted with the actuarial firm, Optumas, to assist in evaluating access. The resulting access to care analysis outlined in this section provides a reference point for how well Colorado Medicaid members can access health care services, and if rates are sufficient for provider retention. Access was measured for each of the three county classifications used by the Regional Accountable Entities (RAEs), which are urban, rural, and frontier.⁷

The access to care analysis includes a variety of metrics to capture a broad picture of access to these services by measuring realized access (e.g., penetration rate), potential access (e.g., member-to-provider ratio), and provider availability (e.g., panel size and active providers). It is important to note that these

⁴ A rendering provider is any provider with at least one Colorado Medicaid paid claim in a given month between July 2018 - June 2019. For home health and PDN services, billing provider data was used since rendering provider data is not available.

⁵ For all services, year-over-year change in providers was calculated using data from FY 2018 and FY 2019.

⁶ Definitions for certain terms in this report, such as rate ratio and rate benchmark comparison, are contained in Appendix A.

⁷ County classifications are defined as the following: urban counties are any county in the contractor's service area with a total population equal to or greater than 100,000 people; rural counties are any county in the contractor's service area with a total population of less than 100,000 people; and frontier counties are any county in the contractor's service area with a population density less than or equal to 6 persons per square mile. See Figure 2. Colorado Counties and RAE County Classifications on page 12 for a breakdown of each county classification.



access to care metrics do not indicate how Colorado Medicaid members' access to services in those regions compared to access for individuals with other insurance, or to the uninsured population.⁸

The five metrics used to analyze access to care for Colorado Medicaid members include:

- Utilizers per provider (panel size) – the average number of members seen per active provider of the service.
- Utilizer density – the total number of distinct utilizers of the service in each county.
- Penetration rate – the estimated share of total Colorado Medicaid members in a geographic area (county) that received the service, calculated per 1,000 members. Comparing the penetration rate across counties helps identify atypical utilization.⁹
- Member-to-provider ratio – the total number of Colorado Medicaid members residing in a geographic area compared to the total number of active providers of the service in the geographic area; calculated as providers per 1,000 members.¹⁰
- Drive times – the percentage of service utilizers that live within certain distances from provider locations, represented by drive time bands, using a Geographic Information System (GIS) software application referred to as ArcGIS. The percentage of Colorado Medicaid members is calculated as a percentage of members who utilized the service within each time band listed below:
 - 0 to 30 minutes;
 - 30 to 45 minutes;
 - 45 minutes to an hour;
 - an hour or more.

Access to care metrics are based on FY 2018-19 administrative claims data.^{11,12} More technical information, including details regarding how to read and interpret access to care analysis results, is contained in Appendix B.

Stakeholder Feedback

This section contains summaries of stakeholder comments received during the Rate Review Process.¹³

Additional Considerations

This section contains summaries of other considerations that informed the Department's conclusions. Themes of additional considerations include, but are not limited to:

⁸ See the Limitations section below for more information regarding this consideration.

⁹ A higher penetration rate might indicate that there is a higher concentration of members in need of services relative to other counties; or may be affected by other factors that impact service utilization in the county, such as drive times, member-to-provider ratios and provider supply, or wait times, amongst other factors.

¹⁰ This metric allows for comparison across areas with large differences in population size.

¹¹ The utilizers per provider (panel size) metric is based on monthly administrative claims data from March 2017-June 2019 for all services except PBT, which is based on claims data from July 2017-June 2019.

¹² The Department is working to adopt formal network adequacy standards to reach more meaningful conclusions in future analyses, especially for member-to-provider ratios and drive time metrics.

¹³ With permission from stakeholders, the Department posts stakeholder comments on the [Department website](#), except with comments containing PHI. This report references written comments the Department received September 2019-April 2020. The Department will post additional written comment on the [Department website](#) as it is received. Stakeholders did not provide comments for all service groupings; therefore, some service grouping sections do not summarize stakeholder comments.

- Stakeholder feedback provided by subject matter experts at the Department;
- Service-specific data (e.g., primary utilizer populations, billing specificities, etc.);
- Benefit restrictions or limitations;
- Additional research that has already been conducted; and
- Clarifying data responding to stakeholder feedback.

Additional Research

For certain service groupings and regions, particularly when the Department’s analysis was inconclusive or indicated a potential access issue, the Department will work to identify other data sources that may be used to conduct additional research. These data sources may be created and maintained as part of the Department’s ongoing 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 as the Department’s 2020 Medicaid Provider Rate Review Recommendation Report is developed. Options for additional research include:

- Examining claims and enrollment data to understand if members are accessing services in settings, or via delivery systems, that are excluded from the rate review analysis (e.g., services provided in hospital settings, which are not included in the rate review analysis.)
- 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 member concerns.
- Examining regional and statewide reports and studies published by the Department and 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 [25.5-4-401.5, C.R.S.](#), the Department evaluated rate comparison and access to care analyses to determine whether payments are sufficient to allow for member 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.



Limitations

Results from this report and additional research will inform the development of Department recommendations. 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 access to care analyses and resulting conclusions are based on administrative claims data. Claims-based analyses do not provide information regarding appointment wait times, quality of care, or 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 evaluate other data sources to address this. When the Department evaluates other data sources (mentioned above, in the Format of Report – Additional Research 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, many of the access to care indicators are relative, and without defined standards, cannot indicate if all regions are performing well or if all regions are performing poorly. However, these indicators, when analyzed altogether, can help identify regions for focus. For more information, see Appendix B.

There are complicating factors regarding determining rate sufficiency. Member 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; and member characteristics and behaviors.¹⁵ Additionally, rates may not be at their optimal level, even when there is no indication of member access or provider retention issues. For example, rates that are above 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 [25.5-4-401.5, C.R.S.](#), which guides the Department's rate review process, there are other federal statutes, rules and regulations, as well as Centers for Medicare and Medicaid Services (CMS) regulatory guidance, that guide the Department's analyses related to member 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 other Departmental initiatives and federal regulations, the Department has incorporated changes to the access analysis methodology utilized in the 2020 Rate Review Analysis Report. The changes described in the Format of Report – Access to Care Analysis section, are intended to improve the Department's ability to apply and interpret data for policy and rate recommendations.

¹⁵ 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 <https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2012.1010>.



Pediatric Personal Care

Service Description

The Pediatric Personal Care (PPC) service grouping is comprised of one procedure code. PPC services consist of 17 personal care tasks performed by a non-medically trained caregiver for children ages 0-20 and provided in the member home. The PPC benefit was implemented in October 2015. PPC services are the lowest level of care in the home health care continuum for children. Colorado is one of three states that provides pediatric personal care services outside of waiver benefits. There are currently 19 agencies enrolled to provide pediatric personal care services to Colorado Medicaid members.¹⁶

PPC Statistics	
Total Adjusted Expenditures FY 2018-19	\$1,782,986
Total Members Utilizing Services in FY 2018-19	137
FY 2018-19 Over FY 2017-18 Change in Members Utilizing Services	28.04%
Total Rendering Providers FY 2018-19 ¹⁷	8
FY 2018-19 Over FY 2017-18 Change in Rendering Providers	14.29%

Table 2. PPC expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payment for PPC services are estimated at 134.35% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.¹⁸

PPC Rate Benchmark Comparison		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$1,327,092	\$1,782,986	134.35%

Table 3. Comparison of Colorado Medicaid PPC service payments to those of other payers, expressed as a percentage (FY 2018-19).

The estimated fiscal impact to Colorado Medicaid would be a savings of \$455,894 in total funds if Colorado had reimbursed at 100% of the combined benchmark in FY 2018-19. The procedure code analyzed in this service grouping was compared to an average of five other states' Medicaid rates.¹⁹ A summary of Colorado's expenditures described as a percentage relative to the expenditures of the other five states is presented below.

¹⁶ While there are 19 agencies enrolled to provide PPC services to Medicaid members, there are only eight agencies rendering PPC services. Additionally, the total number of rendering providers does not reflect the total number of caregivers that actually provide the services in the members' homes, since agencies likely employ several caregivers at any given time.

¹⁷ Number of providers indicates provider agencies that have submitted claims, not individual providers or caregivers.

¹⁸ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

¹⁹ States used in the PPC rate comparison analysis were California, Florida, Idaho, Louisiana, and Texas. Only Florida and Texas had pediatric-specific rates. For more details on PPC rate comparisons, see Appendix B.

PPC Rate Comparison – Colorado as a Percentage of Other States' Medicaid Rates					
State	CA	ID	FL	LA	TX
Rate Ratio	135.91%	109.58%	131.20%	140.57%	134.35%

Table 4. Comparison of Colorado Medicaid PPC payments to those of five other states, expressed as a percentage (FY 2018-19).



Access to Care Analysis²⁰

Utilizers per Provider (Panel Size) Summary

Statewide, utilizers per provider for PPC services averaged 15.93 in FY 2017-18 and decreased to 14.77 in FY 2018-19.²¹

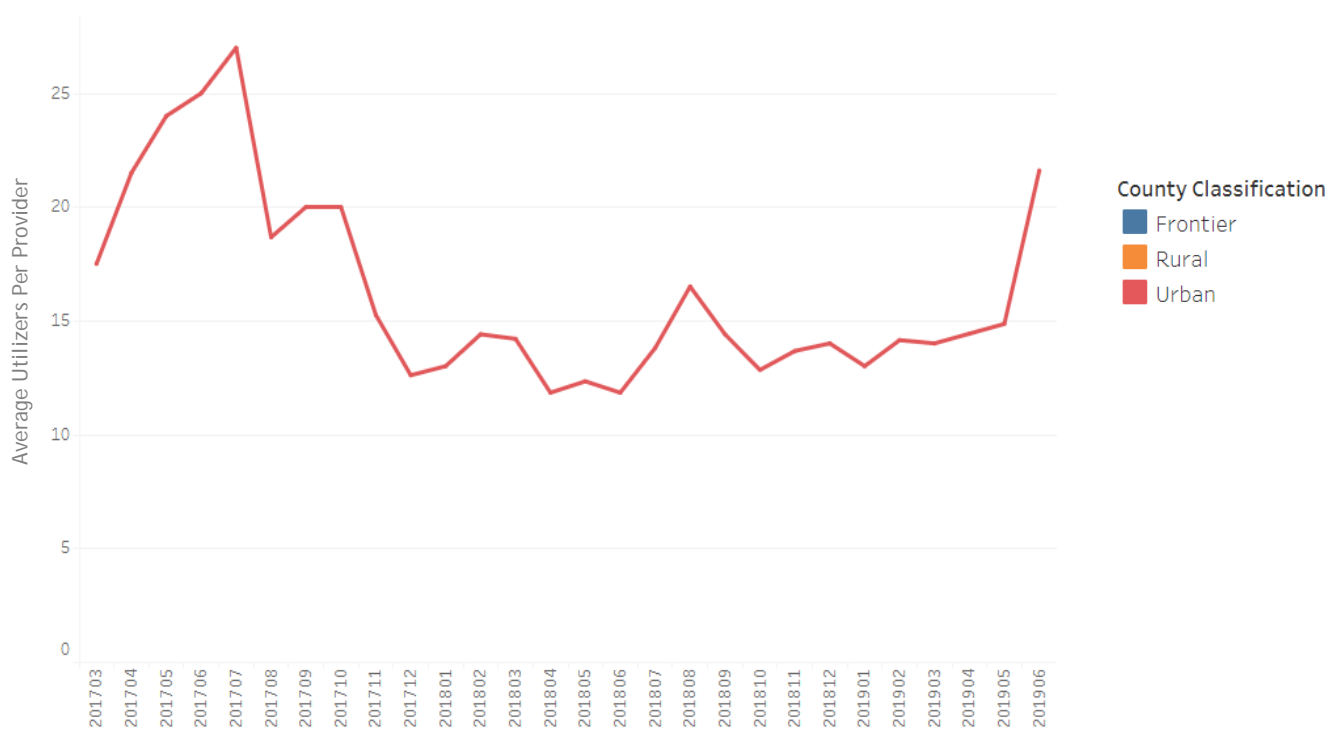


Figure 3. Utilizers per provider (panel size) for PPC services between March 2017 and June 2019.²²

Analysis indicates that there were increases in both the number of distinct utilizers and active providers over this time across the urban county classification.

The number of distinct utilizers observed in urban counties rose at a slower rate than the increase in total active providers, which led to a slight decrease in the number of utilizers per provider from FY 2017-18 to FY 2018-19.²³

There was a noticeable change May 2018 to August 2018 that could be attributed to utilization patterns related to the school year.

²⁰ It is important to note that the access to care metrics in this report do not indicate how Colorado Medicaid members' access to services in those regions compared to access for individuals with other or no insurance.

²¹ Due to changes in the Medicaid Management Information System (MMIS), data is only available from March 2017 to present.

²² Data from the frontier and rural classification groups were blinded for protected health information (PHI), accounting for the missing lines in the graph.

²³ For data specific to distinct utilizer and active providers, see Appendix C.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of PPC services reside throughout the state. Adams County had the highest number of utilizers at 31 in FY 2018-19.

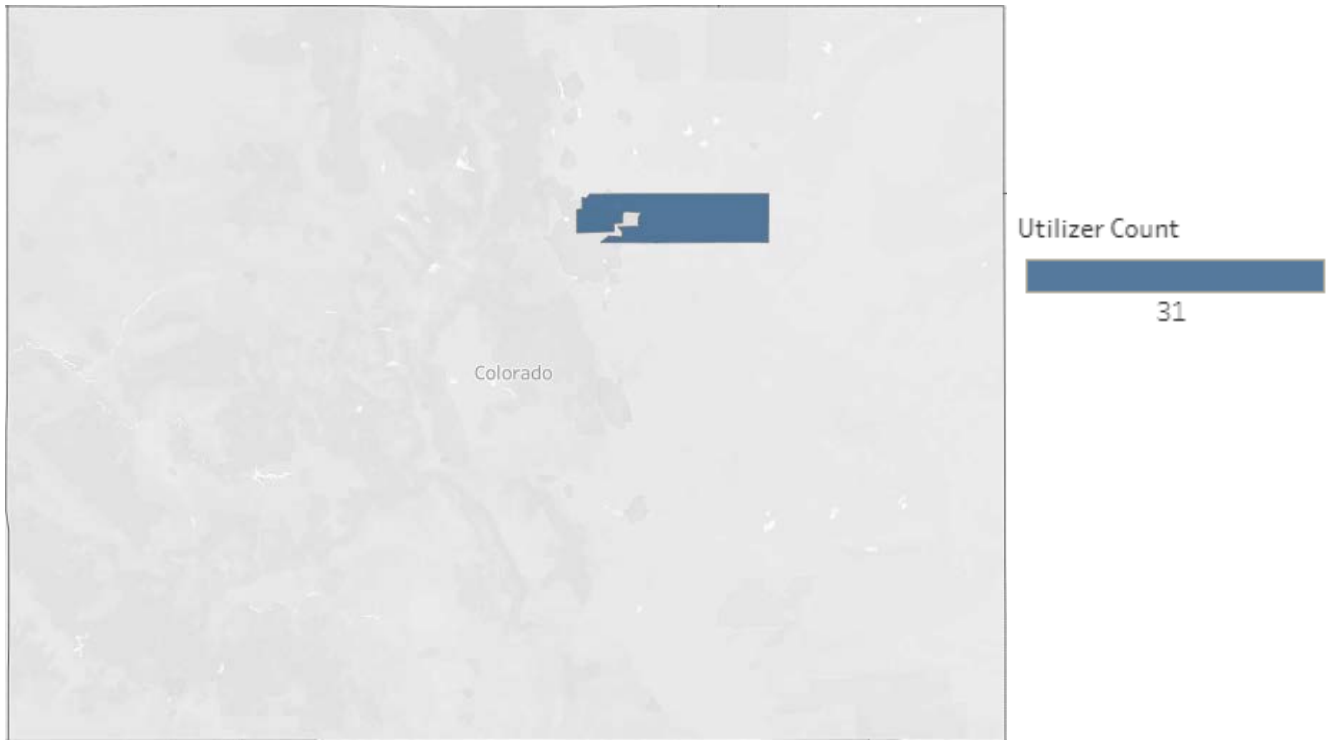


Figure 4. Utilizer density for PPC services by county for FY 2018-19.²⁴

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

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

Additionally, 14 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.

²⁴ See Figure 2. Colorado Counties and RAE County Classification on page 12 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, per 1,000 members. Adams County had a penetration rate of 0.18 in FY 2018-19.

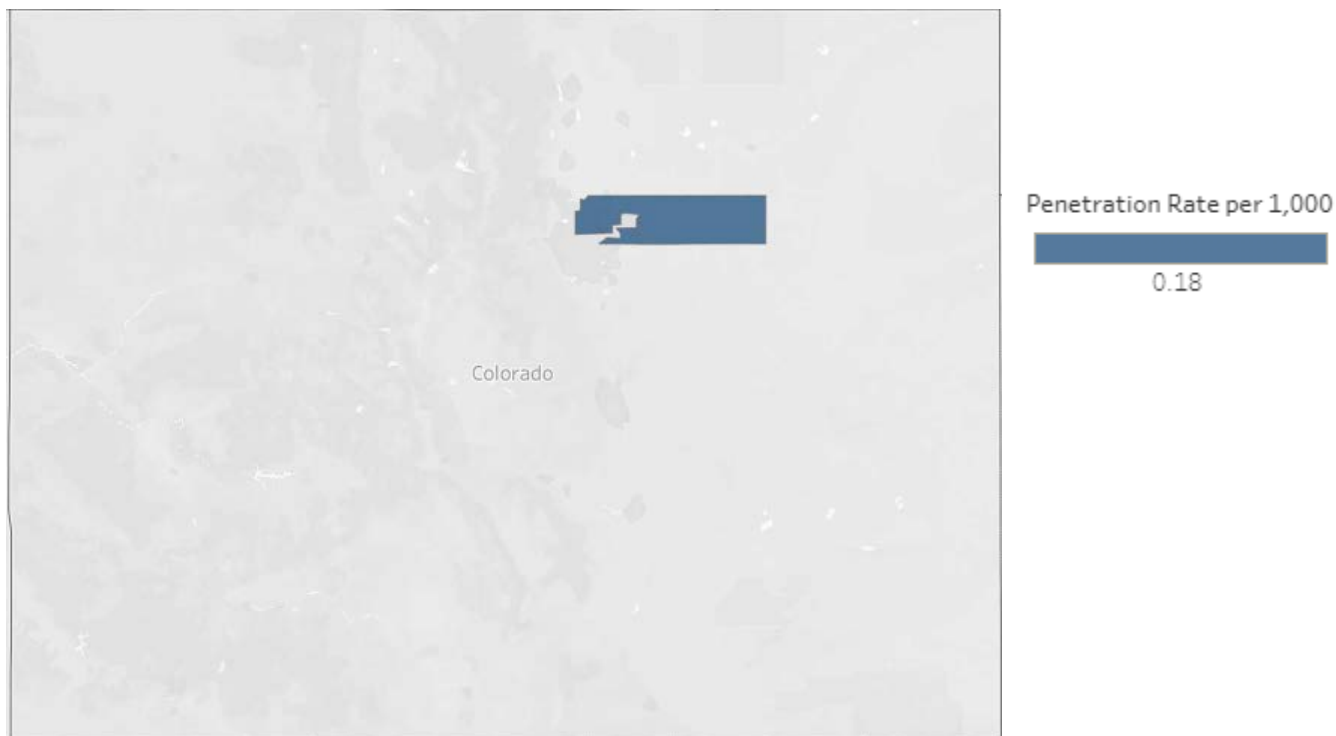


Figure 5. Penetration rates for PPC services by county in FY 2018-19.

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

Additionally, 14 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 PPC service providers relative to all Colorado Medicaid members in a geographic area. This ratio is calculated as providers per 1,000 pediatric members.²⁵

PPC Member-to-Provider Ratios			
Region	FY 2018-19 Providers²⁶	FY 2018-19 Members Ages 0-20	Providers per 1,000 Members
Frontier	1	17,591	0.06
Rural	1	70,517	0.01
Urban	7	568,901	0.01
Statewide	8	657,309	0.01

Table 5. Member-to-provider ratio for PPC services expressed as providers per 1,000 members by county classification in FY 2018-19.²⁷

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 the same number of 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.²⁸

²⁵ Pediatric members are members ages 0-20.

²⁶ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

²⁷ Number of providers indicates provider agencies that have submitted claims, not individual providers or caregivers.

²⁸ Currently, the Department does not use member-to-provider ratio standards specific to PPC 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 PPC utilizers that live within certain drive time bands from where PPC agencies are located.²⁹

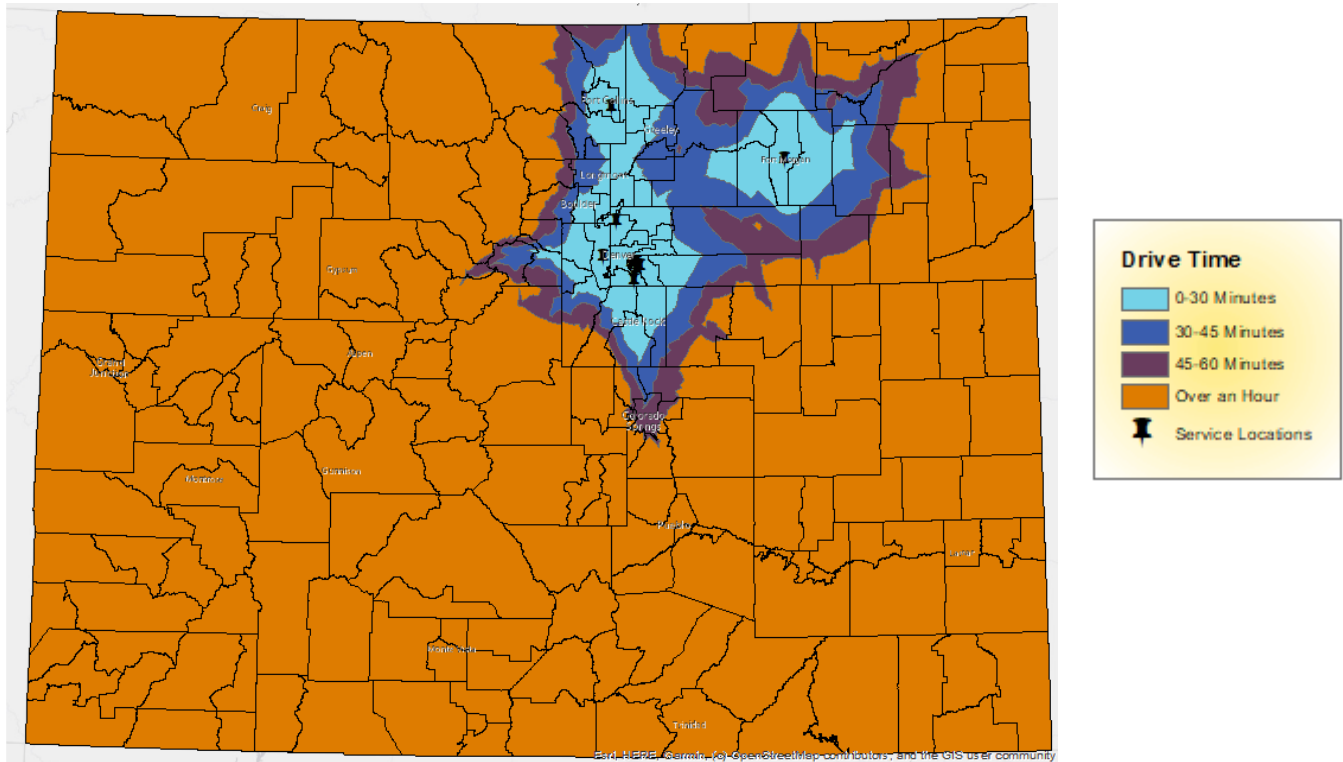


Figure 6. ArcGIS map of drive times of PPC provider agencies to utilizers in FY 2018-19.

Overall, 93.22% of the total utilizers of PPC services in FY 2018-19 resided 30 minutes or less from a PPC provider. Additionally, 2.26% of the total utilizers resided approximately 30-45 minutes from a PPC provider; 1.69% of the total utilizers resided 45-60 minutes from a PPC provider. Finally, 2.82% of utilizers resided over an hour from a PPC provider.

²⁹ Due to claims data, service locations shown on the ArcGIS map represent provider billing locations. PPC services are provided in the member home and caregivers are not necessarily located where the provider billing location is shown on the map. Service locations represent providers that have submitted claims, not all auxiliary provider agencies or individual caregivers.

Stakeholder Feedback

During the MPRRAC meetings on November 15, 2019³⁰ and February 21, 2020,³¹ the themes of stakeholder comments for PPC services were reportedly low availability of active providers of PPC services for Medicaid members and low wages paid to caregivers.

Additional Considerations

Other considerations include:

- PPC services are performed by a non-medically trained caregiver in the member's home;
- Members seeking PPC services are often directed to long-term home health (LTHH) services provided by licensed home health agencies;
- The total number of billing providers does not represent the total number of caregivers employed by agencies providing PPC services (e.g., the billing provider employs a number of caregivers for which the billing provider submits all claims); and
- Provider billing locations do not encompass all brick-and-mortar agency locations (e.g., the primary billing provider may also submit claims from auxiliary agency locations).

Additional Research

The Department plans to look at the saturation of caregivers, employed by each of the 19 agencies enrolled to provide PPC services to Medicaid members in all Colorado counties to better quantify providers of PPC services.³² The Department will also consider the utilization of other services across the continuum of care.

Conclusion

Analyses suggest PPC rates at 134.35% of the benchmark were sufficient for member access and provider retention.³³

The primary factors that led to this conclusion included:

- Overall decrease in average panel size from FY 2017-18 to FY 2018-19;
- Significant increase in distinct utilizers over time, with a year-over-year change of 28.04% from FY 2017-18 to FY 2018-19; and
- Reimbursement rates are set significantly above those of all other states in rate comparison analysis.³⁴

³⁰ Meeting minutes for the MPRRAC meeting on November 15, 2019 can be found on the [Rate Review web page](#).

³¹ The meeting recording for the MPRRAC meeting on February 21, 2020 can be found on the [MPRRAC web page](#).

³² For more information on PPC providers in Colorado, see the [Pediatric Personal Care Services Provider List web page](#).

³³ The Department recognizes that, while rates are sufficient, there may be other opportunities to improve access to care and provider retention.

³⁴ Distinct utilizers over time and rate comparison by benchmark state data can be found in Appendix C.



Home Health Services

Service Description

The home health service grouping is comprised of 15 revenue codes.³⁵ Home health services consist of skilled nursing, certified nurse aid (CNA) services, physical (PT) and occupational therapy (OT) services and speech/language pathology (SLP) services. Home health services are a mandatory State Plan benefit offered to Colorado Medicaid members who need intermittent skilled care. Providers that render home health services must be employed by a class A licensed home health agency. Home health services are provided in home and community settings. Home health services were previously reviewed in the [2016 Medicaid Provider Rate Review Analysis Report](#).

Home Health Statistics	
Total Adjusted Expenditures FY 2018-19	\$405,487,149
Total Members Utilizing Services in FY 2018-19 ³⁶	24,859
FY 2018-19 Over FY 2017-18 Change in Members Utilizing Services	5.72%
Total Billing Providers FY 2018-19 ³⁷	197
FY 2018-19 Over FY 2017-18 Change in Rendering Providers	0.51%

Table 6. Home Health expenditure and utilization data.

Home health services are divided into two service types: acute and long-term. Acute home health services are provided for treatment of acute conditions and episodes (e.g., post-surgical care) for up to 60 days without prior authorization. Long-term home health services are available to members who require ongoing home health services beyond the 60-day acute home health period; long-term home health services require prior authorization.³⁸

Rate Comparison Analysis

On average, Colorado Medicaid payment for home health services are estimated at 101.72% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.³⁹

Home Health Rate Benchmark Comparison		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$405,487,149	\$398,640,813	101.72%

Table 7. Comparison of Colorado Medicaid home health service payments to those of other payers, expressed as a percentage (FY 2018-19).

³⁵ Colorado Medicaid reimburses for Home Health services based on revenue code, not procedure code.

³⁶ Members receiving Medicare benefits were included in this analysis; Medicare home health benefits differ from those provided by Colorado Medicaid’s State Plan (e.g., the patient must be home bound to receive Medicare services), so many of these services are covered only by Medicaid. Claims paid for by Medicare are excluded.

³⁷ Number of billing providers indicates provider agencies that have submitted claims, not individual providers or caregivers.

³⁸ To view Home Health Benefit Coverage Standards, see

<https://www.colorado.gov/pacific/sites/default/files/HOME%20HEALTH%20SERVICES.pdf>.

³⁹ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.



The estimated fiscal impact to Colorado Medicaid would be a savings of \$6,846,336 in total funds if Colorado had reimbursed at 100% of the combined benchmark in FY 2018-19. All 15 revenue codes analyzed in this service grouping were compared to an average of 10 other states' Medicaid rates.⁴⁰ The individual rate ratios were 76.04%-348.53%.⁴¹ A summary of Colorado's expenditures described as a percentage relative to the expenditures of the other 10 states is presented below.

Home Health Rate Comparison – Colorado as a Percentage of Other States' Medicaid Rates										
State	CA	ID	IL	LA	NC	NE	OH	OR	WA	WI
Rate Ratio	125.89%	119.46%	88.39%	90.80%	111.19%	72.48%	160.87%	75.21%	89.88%	131.83%

Table 8. Comparison of Colorado Medicaid home health service payments to those of ten other states, expressed as a percentage (FY 2018-19).

⁴⁰ States used in the home health rate comparison analysis were California, Idaho, Illinois, Louisiana, Nebraska, North Carolina, Ohio, Oregon, Washington, and Wisconsin. For more details on Home Health rate comparisons, see Appendix B. The Department expanded its review of home health services to include four more states than the previous review in the [2016 Medicaid Provider Rate Review Analysis Report](#).

⁴¹ Individual rate ratios for each revenue code are contained in Appendix B.



Access to Care Analysis⁴²

Utilizers per Provider (Panel Size) Summary

Statewide, utilizers per provider for home health services averaged 98.10 in FY 2017-18 and increased to 108.82 in FY 2018-19.⁴³ Additionally:

- In urban counties, utilizers per provider averaged 77.16 in FY 2017-18 and increased to 86.32 in FY 2018-19.
- In rural counties, utilizers per provider averaged 14.92 in FY 2017-18 and increased to 15.57 in FY 2018-19.
- In frontier counties, utilizers per provider averaged 6.03 in FY 2017-18 and increased to 6.93 in FY 2018-19.

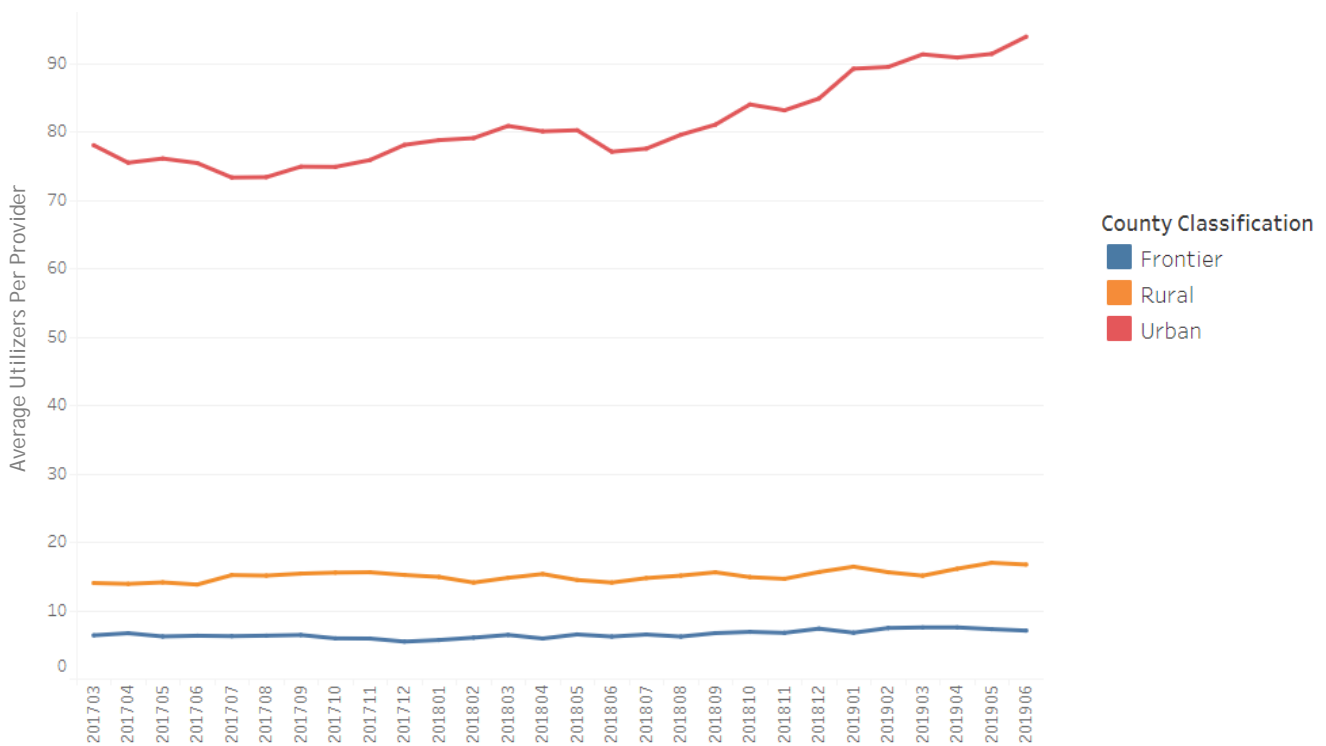


Figure 7. Utilizers per provider (panel size) for home health services between March 2017 to June 2019.

Analysis indicates that there were increases in the number of distinct utilizers over this time across urban county classifications.

The increase in distinct utilizers observed in urban counties, compared to the relatively steady number of active providers, led to an increased number of utilizers per provider in those counties.⁴⁴

⁴² It is important to note that the access to care metrics in this report do not indicate how Colorado Medicaid members' access to services in those regions compared to access for individuals with other or no insurance.

⁴³ Due to changes in the Medicaid Management Information System (MMIS), data is only available from March 2017 to present.

⁴⁴ For data specific to distinct utilizer and active providers, please see Appendix C.

There was a noticeable change from June 2017 to August 2017 and May 2018 to July 2018 that could be attributed to seasonal utilization patterns.⁴⁵

Utilizer Density

The utilizer density metric provides information regarding where utilizers of home health services reside throughout the state. Arapahoe County had the highest number of utilizers at 3,872 in FY 2018-19.

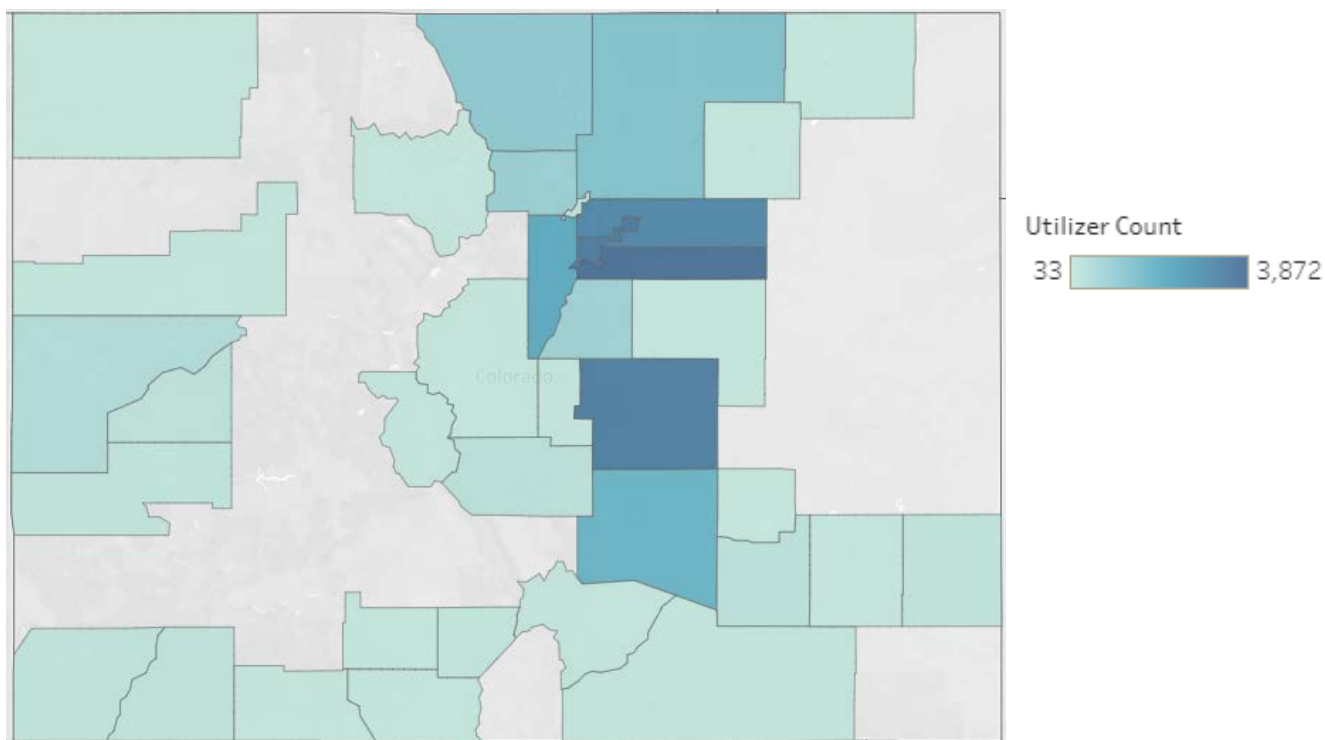


Figure 8. Utilizer density for home health services by county for FY 2018-19.⁴⁶

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

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

Additionally, 27 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.

⁴⁵ Seasonal utilization patterns are influenced by a variety of factors (e.g., shorter recovery times, less severe acute episodes, alternative caregiver availability, etc.)

⁴⁶ See Figure 2. Colorado Counties and RAE County Classification on page 12 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 home health services in FY 2018-19 ranged from 3.10 in Garfield County to 32.11 in Bent County. The penetration rate in Denver county was 13.29.

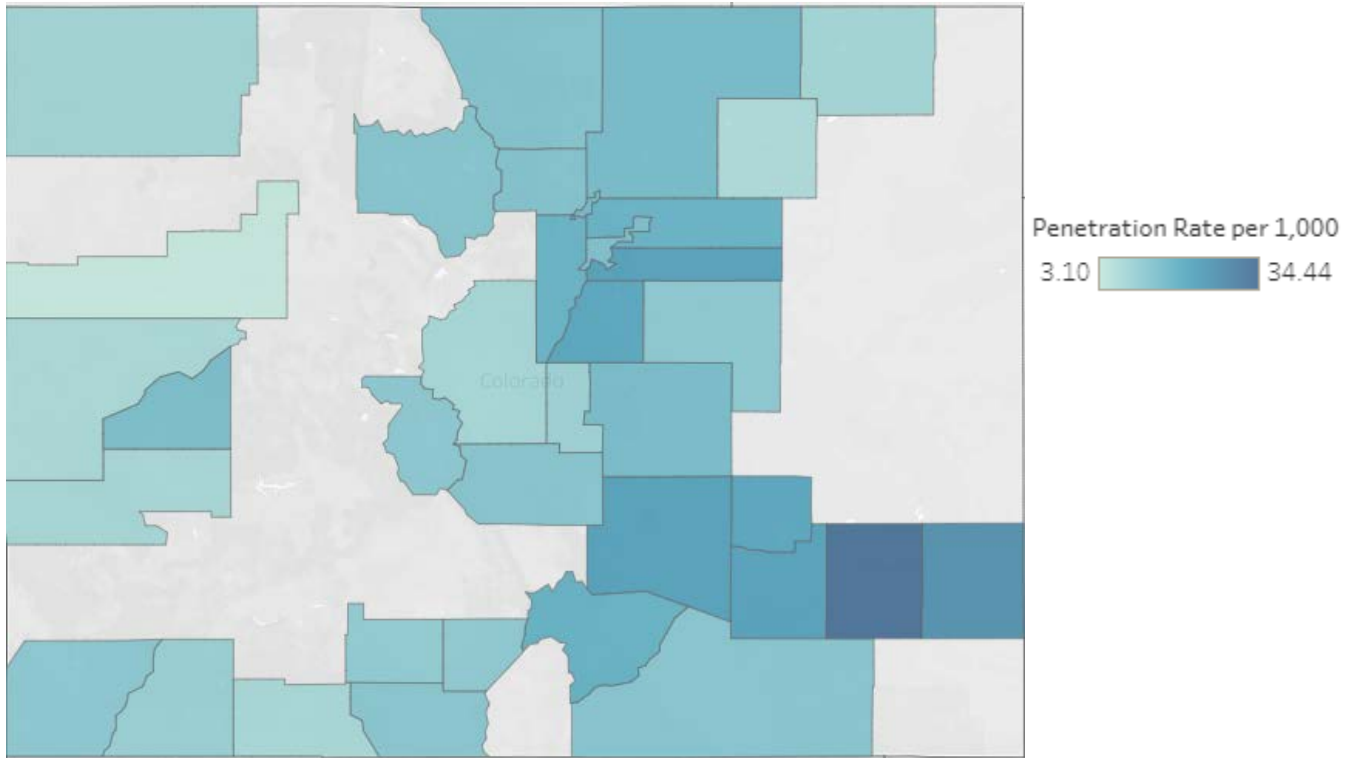


Figure 9. Penetration rates for home health services by county in FY 2018-19.

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

Additionally, 27 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 home health service providers relative to all Colorado Medicaid members in a geographic area. This ratio is calculated as providers per 1,000 members.

Home Health Member-to-Provider Ratios			
Region	FY 2018-19 Providers⁴⁷	FY 2018-19 Members	Providers per 1,000 Members
Frontier	58	45,482	1.28
Rural	97	171,787	0.56
Urban	186	1,304,100	0.14
Statewide	197	1,510,258	0.13

Table 9. Member-to-provider ratio for home health services expressed as providers per 1,000 members by county classification in FY 2018-19.⁴⁸

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.⁴⁹

⁴⁷ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

⁴⁸ Number of providers indicates provider agencies that have submitted claims, not individual providers or caregivers.

⁴⁹ Currently, the Department does not use member-to-provider ratio standards specific to home health 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 home health utilizers that live within certain drive time bands from where home health agencies are located.⁵⁰

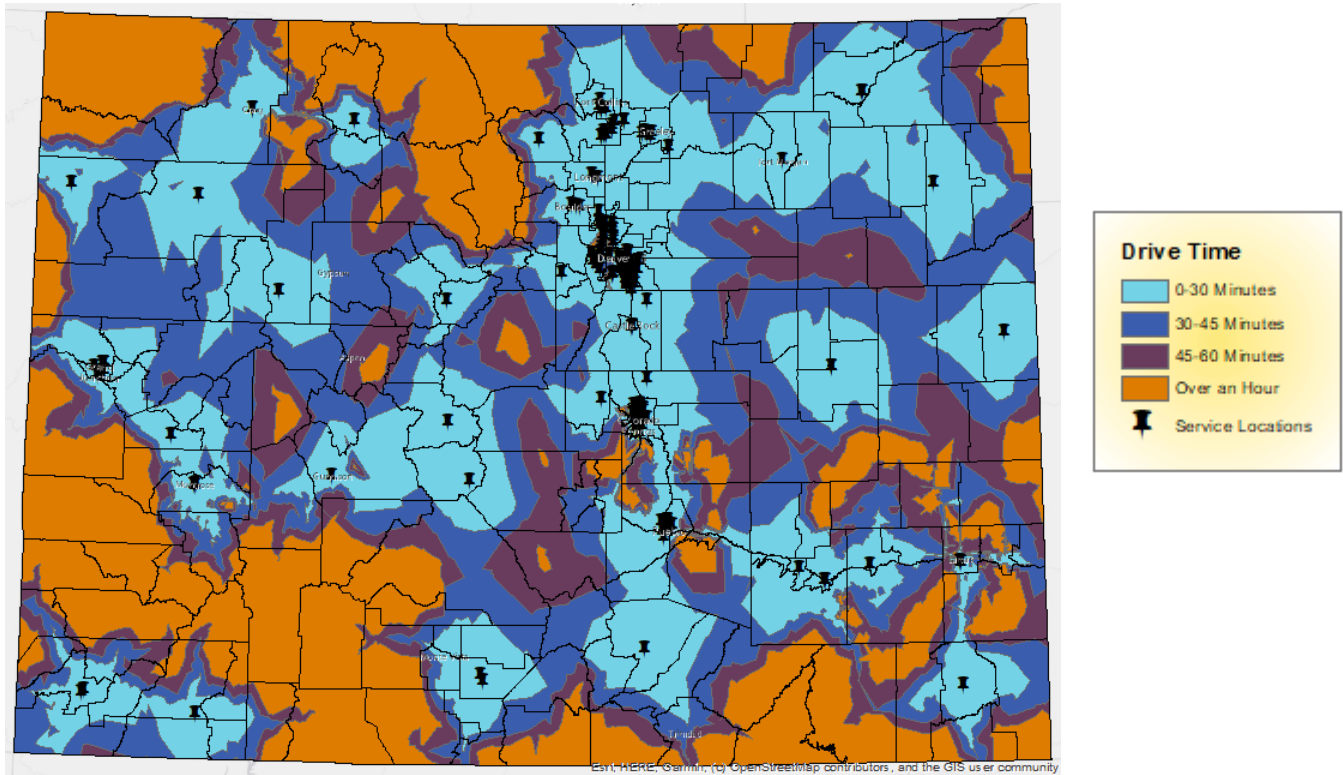


Figure 10. ArcGIS map of drive times of home health provider agencies to utilizers in FY 2018-19.

Overall, 88.28% of the total utilizers of home health services in FY 2018-19 resided 30 minutes or less from a home health provider. Additionally, 6.99% of the total utilizers resided approximately 30-45 minutes from a home health provider; 2.91% of the total utilizers resided 45-60 minutes from a home health provider. Finally, 1.82% of utilizers resided over an hour from a home health provider.

⁵⁰ Due to claims data, service locations shown on the ArcGIS map represent provider billing locations. Home health services are provided in the member home and caregivers are not necessarily located where the provider billing location is shown on the map. Service locations represent providers that have submitted claims, not all auxiliary home health agencies or individual caregivers.

Stakeholder Feedback

During the MPRRAC meetings on November 15, 2019⁵¹ and February 21, 2020,⁵² the themes in stakeholder and committee comments for home health services included consideration of waiver homemaker and personal care rates, potential to migrate services from the hospital setting to home setting, and concerns about the fixed rate without a minimum requirement for services.

Additional Considerations

Other considerations include:

- Unit values for most home health services in Colorado are based on one hour or two and a half hours per visit, compared to other states that reimbursed based on various unit values (e.g., 15-minute increments, untimed visits, etc.);⁵³
- Colorado is one of four states⁵⁴ that has both a home health basic and extended rate.⁵⁵
 - The rate comparison shows that Colorado Medicaid pays \$38.12 for the home health basic rate, which is for the initial one-hour visit; this rate is 76.04% of the benchmark average; and
 - Colorado Medicaid balances out the lower home health basic rate with additional reimbursement for visits lasting more than one-hour with the home health extended rate, which pays an additional \$11.39 for each extended unit of 15-30 minutes; this rate is 348.53% of the benchmark.⁵⁶
- The Department received information that some home health agencies merged with other agencies, which led to a perceived decrease in active providers, but did not have an impact on the actual number of agencies providing home health services; therefore, access was not negatively impacted;
- The total number of billing providers does not represent the total number of caregivers employed by home health agencies;
- Provider billing locations do not encompass all brick-and-mortar agency locations (e.g., the primary billing provider may also submit claims from auxiliary agency locations);
- Total adjusted yearly expenditures have increased by \$156,669,503 for home health services since they were reviewed in the [2016 Medicaid Provider Rate Review Analysis Report](#).
- Home health Registered Nurse (RN) rates and occupational therapy (OT) rates received a targeted rate increase (TRI) of 6.02% in 2017; and
- Home health physical therapy (PT) and speech therapy rates received a TRI of 6.01% in 2017.

⁵¹ Meeting minutes for the MPRRAC meeting on November 15, 2019 can be found on the [Rate Review web page](#).

⁵² The meeting recording for the MPRRAC meeting on February 21, 2020 can be found on the [MPRRAC web page](#).

⁵³ The actuarial analysis takes unit values into account when conducting the rate comparison; methodology used for the rate comparison analysis are contained in Appendix B.

⁵⁴ Other states that include both basic and extended home health rates on their fee schedules are Louisiana, Nebraska, and Ohio.

⁵⁵ Home health basic revenue codes are 570 and 571; home health extended revenue codes are 572 and 579.

⁵⁶ For home health basic and extended rate ratios, see Appendix B.



Additional Research

The Department will investigate the apparent decrease in active providers in rural counties to determine if the number of active providers translates to the total number of enrolled home health providers.⁵⁷ Additionally, the Department will consider other data sources to provide context for additional research.

Conclusion

Analyses suggest that home health services payments at 101.72% of the benchmark were sufficient to allow for member access and provider retention.

The primary factors that led to this conclusion included:

- Significant increase in distinct utilizers over time;
- Over 95% of utilizers live within 45 minutes of a home health care provider;⁵⁸ and
- Rate comparison data shows Colorado reimbursement rates for home health services are at least 80% of the benchmark in eight of 10 states used in the comparison, and over 100% of the benchmark for six states.

⁵⁷ Data blinded for PHI has been considered in this analysis and will be used internally by the Department to inform ongoing benefit and program management activities.

⁵⁸ Home health services are provided in the member home and caregivers travel to member home to provide services.



Private Duty Nursing (PDN) Services

Service Description

The Private Duty Nursing (PDN) service grouping is comprised of five revenue codes.⁵⁹ PDN services consist of continuous skilled nursing care provided by a Registered Nurse (RN) or Licensed Practical Nurse (LPN) for Colorado Medicaid members who are dependent on medical technology. PDN services are meant to provide care to members who need a higher level of care than is available in the home health benefit. PDN services are performed by an RN or LPN in the member’s home. The PDN benefit is an optional benefit provided through Medicaid agencies; Colorado is one of 25 states that reimburses for PDN services. PDN services were previously reviewed in the [2016 Medicaid Provider Rate Review Analysis Report](#).

PDN Statistics	
Total Adjusted Expenditures FY 2018-19	\$98,923,871
Total Members Utilizing Services in FY 2018-19 ⁶⁰	891
FY 2018-19 Over FY 2017 –1 8 Change in Members Utilizing Services	7.22%
Total Billing Providers FY 2018-19 ⁶¹	38
FY 2018-19 Over FY 2017-18 Change in Billing Providers	5.56%

Table 10. PDN expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payment for PDN services are estimated at 98.15% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.⁶²

PDN Rate Benchmark Comparison		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$98,923,871	\$100,789,649	98.15%

Table 11. Comparison of Colorado Medicaid PDN service payments to those of other payers, expressed as a percentage (FY 2018-19).

The estimated fiscal impact to Colorado Medicaid would be \$1,865,778 in total funds if Colorado had reimbursed at 100% of the combined benchmark in FY 2018-19. The individual rate ratios for PDN services were 74.08%-102.03%.⁶³ All five revenue codes analyzed in this service grouping were

⁵⁹ Colorado Medicaid reimburses for PDN services based on revenue code, not procedure code.

⁶⁰ Members receiving Medicare benefits were included in this analysis; Medicare PDN benefits differ from those provided by Colorado Medicaid’s State Plan (e.g., the patient must be home bound to receive Medicare services), so many of these services are covered only by Medicaid. Claims paid for by Medicare are excluded.

⁶¹ Number of billing providers indicates provider agencies that have submitted claims, not individual providers or caregivers.

⁶² Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

⁶³ Individual rate ratios for each revenue code are contained in Appendix B.



compared to an average of 14 other states' Medicaid rates.⁶⁴ A summary of Colorado's expenditures described as a percentage relative to the expenditures of the other 14 states is presented below.

PDN Benchmark Comparison – Colorado as a Percentage of Other States' Medicaid Rates							
State	AZ	CA	IL	IN	LA	MA	MD
Rate Ratio	71.15%	66.6%	133.7%	109.73%	131.84%	71.43%	91.84%
State (cont.)	MN	NE	NC	OH	OR	WA	WI
Rate Ratio (cont.)	132.14%	112.79%	109.23%	125.34%	80.72%	103.97%	144.58%

Table 12. Comparison of Colorado Medicaid PDN service payments to those of 14 other states, expressed as a percentage (FY 2018-19).

⁶⁴ States used in the PDN rate comparison analysis were Arizona, California, Illinois, Indiana, Louisiana, Massachusetts, Maryland, Minnesota, Nebraska, North Carolina, Ohio, Oregon, Washington, and Wisconsin. The Department expanded its review of PDN services to include eight more states than the previous review in 2016.



Access to Care Analysis⁶⁵

Utilizers per Provider (Panel Size) Summary

Statewide, utilizers per provider for PDN services averaged 21.24 in FY 2017-18 and increased to 21.89 in FY 2018-19.⁶⁶

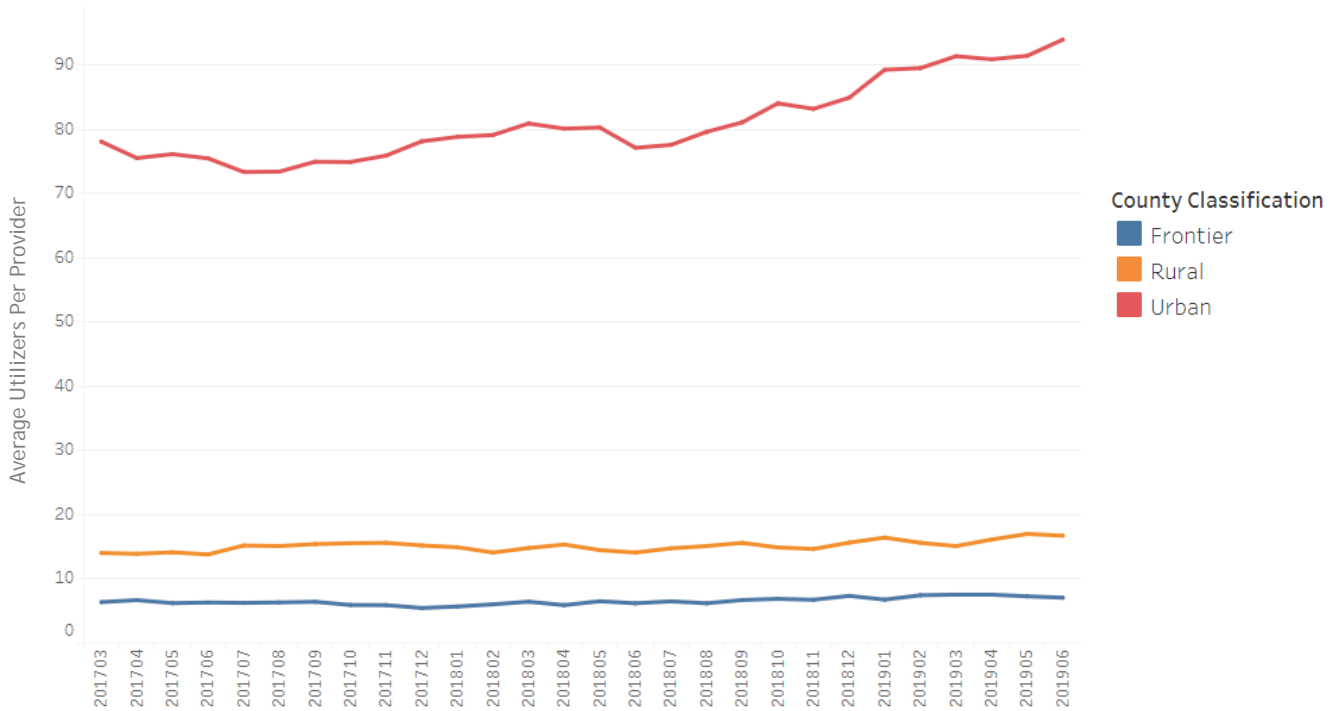


Figure 11. Utilizers per provider (panel size) for PDN services between March 2017 to June 2019.

Analysis indicates that there were increases in the number of distinct utilizers over this time across urban county classifications.

The increase in distinct utilizers observed in urban counties, compared to the relatively steady number of active providers, led to an increased number of utilizers per provider in those counties.⁶⁷

There was a noticeable change April 2018 to July 2018 that could be attributed to seasonal utilization patterns.

⁶⁵ It is important to note that the access to care metrics in this report do not indicate how Colorado Medicaid members' access to services in those regions compared to access for individuals with other or no insurance.

⁶⁶ Due to changes in the Medicaid Management Information System (MMIS), data is only available from March 2017 to present.

⁶⁷ For data specific to distinct utilizer and active providers, please see Appendix C.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of PDN services reside throughout the state. El Paso County had the highest number of utilizers at 256 in FY 2018-19.

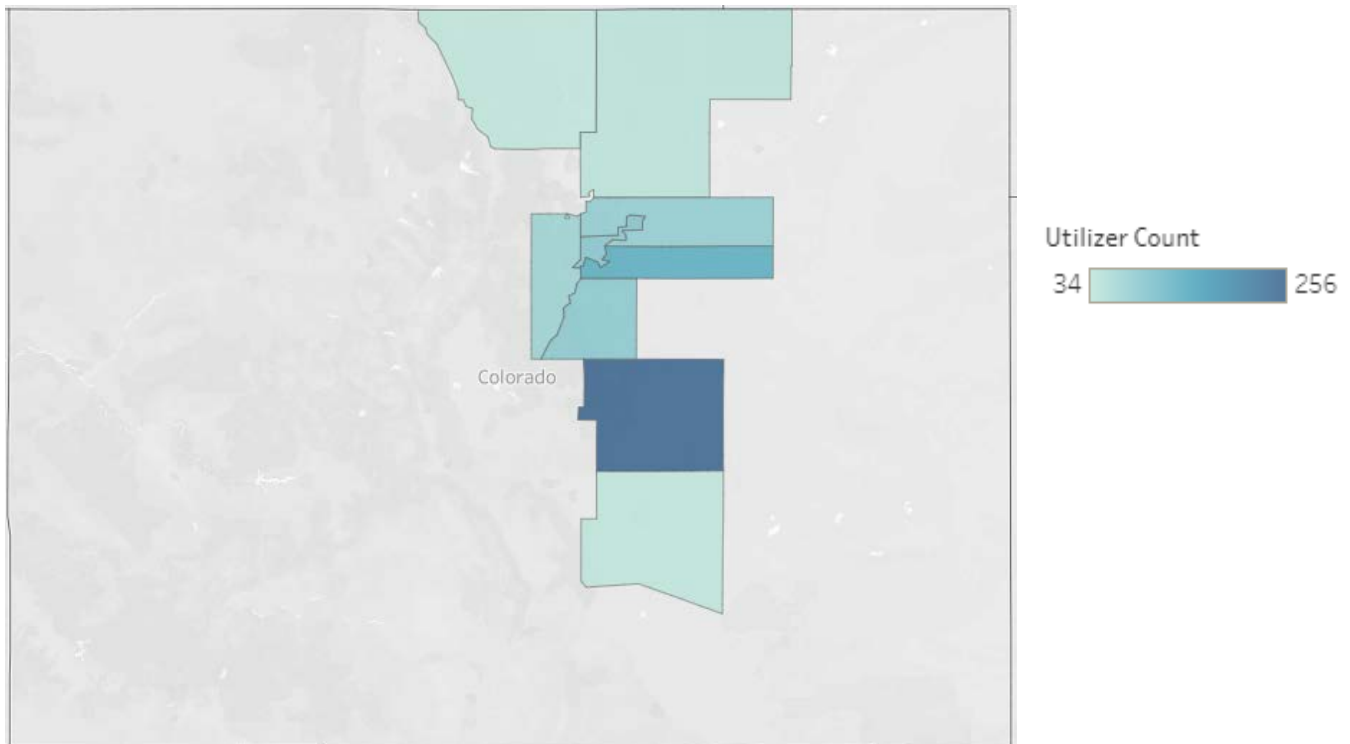


Figure 12. Utilizer density for PDN services by county for FY 2018-19.⁶⁸

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

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

Additionally, 14 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.

⁶⁸ See Figure 2. Colorado Counties and RAE County Classification on page 12 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 PDN services in FY 2018-19 ranged from 0.38 in Denver County to 2.27 in Douglas County.

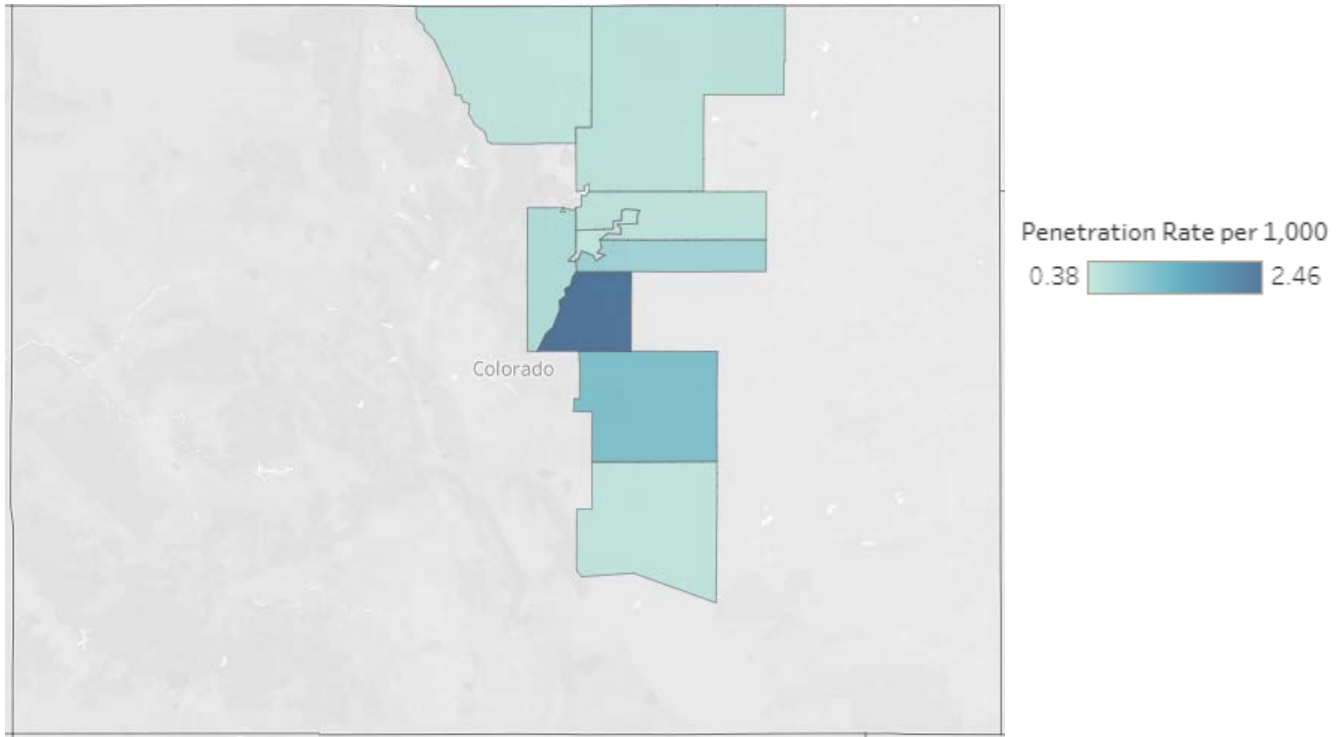


Figure 13. Penetration rates for PDN services by county in FY 2018-19.

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

Additionally, 14 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 PDN service providers relative to all Colorado Medicaid members in a geographic area. This ratio is calculated as providers per 1,000 members.

PDN Member-to-Provider Ratios			
Region	FY 2018-19 Providers⁶⁹	FY 2018-19 Members	Providers per 1,000 Members
Frontier	5	45,482	0.11
Rural	9	171,787	0.05
Urban	36	1,304,100	0.03
Statewide	38	1,510,258	0.03

Table 13. Member-to-provider ratio for PDN services expressed as providers per 1,000 members by county classification in FY 2018-19.⁷⁰

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.⁷¹

⁶⁹ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

⁷⁰ Number of providers indicates provider agencies that have submitted claims, not individual providers or caregivers.

⁷¹ Currently, the Department does not use member-to-provider ratio standards specific to PDN 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 PDN utilizers that live within certain drive time bands from where PDN providers are located.⁷²

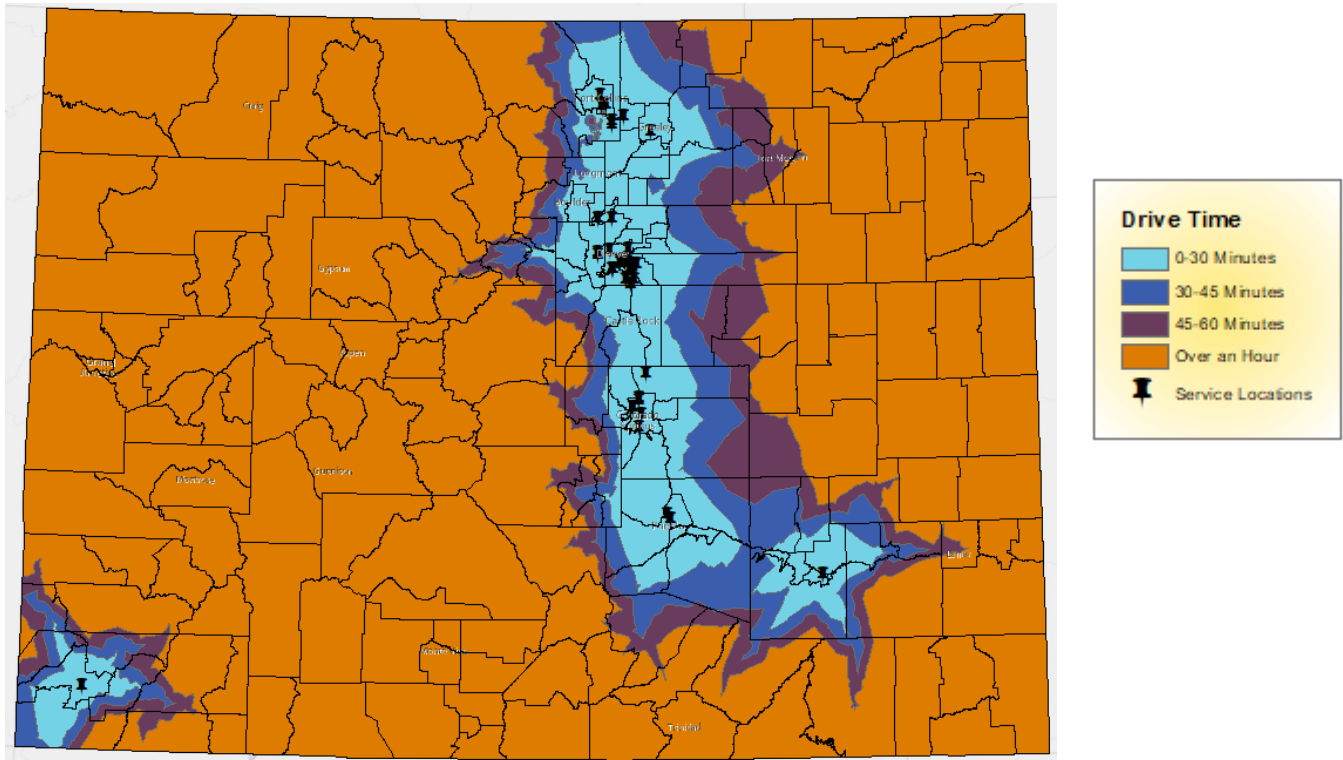


Figure 14. ArcGIS map of drive times of PDN provider agencies to utilizers in FY 2018-19.

Overall, 95.27% of the total utilizers of PDN services in FY 2018-19 resided 30 minutes or less from a PDN provider. Additionally, 2.74% of the total utilizers resided approximately 30-45 minutes from a PDN provider; 0.66% of the total utilizers resided 45-60 minutes from a PDN provider. Finally, 1.32% of utilizers resided over an hour from a PDN provider.

⁷² Due to claims data, service locations shown on the ArcGIS map represent provider billing locations. PDN services are provided in the member home and caregivers are not necessarily located where the service locations are shown on the map. Service locations represent providers that have submitted claims, not all auxiliary provider agencies or individual caregivers.

Stakeholder Feedback

During the MPRRAC meeting on February 21, 2020,⁷³ the themes that emerged from stakeholder and committee member comments included concerns about low rates for LPN services under the PDN benefit, leading to untapped potential in recruiting LPNs for PDN providers serving Medicaid members.

Additional Considerations

Other considerations include:

- Unit values for PDN services in Colorado are based on one hour per visit, compared to other states that reimburse based on various unit values (e.g., 15-minute increments, untimed visits, etc.);⁷⁴
- The most recent targeted rate increase (TRI) of 7.24% provided for PDN LPN services in 2017 did not significantly impact utilization;
- There has been an increase in total adjusted expenditures, total utilizers, and providers rendering services since the PDN services were reviewed in the [2016 Medicaid Provider Rate Review Analysis Report](#);
- The total number of billing providers does not represent the total number of RNs and/or LPNs employed by agencies providing PDN services; and
- Provider billing locations do not encompass all brick-and-mortar agency locations (e.g., the primary billing provider may also submit claims from auxiliary agency locations).

Additional Research

The Department plans to further investigate stakeholder comments regarding untapped potential due to low rates for PDN services performed by LPNs, as well as how Colorado's LPN rate compares to other states used in the rate comparison analysis.

Conclusion

Analyses suggest that PDN payments at 98.15% of the benchmark were sufficient to allow for member access and provider retention.

The primary factors that led to this conclusion included:

- Steady increase in distinct utilizers over time, with a year-over-year change of 7.22% from FY 2017-18 to 2018-19;
- A year-over-year increase of 5.56% in rendering providers from FY 2017-18 to FY 2018-19;
- Over 98% of utilizers live within 45 minutes of a provider of PDN services; and
- Rate comparison data shows Colorado reimbursement rates for PDN services are at least 80% of the benchmark in 11 of 14 states used in the comparison, and over 100% of the benchmark in nine of 14 states.

⁷³ The meeting recording for the MPRRAC meeting on February 21, 2020 can be found on the [MPRRAC web page](#).

⁷⁴ The actuarial analysis takes unit values into account when conducting the rate comparison; methodology used for the rate comparison analysis are contained in Appendix B.

Pediatric Behavioral Therapy (PBT)

Service Description

The Pediatric Behavioral Therapy (PBT) service grouping is comprised of six procedure codes and modifier combinations. PBT services consist of adaptive behavior treatment services, as well as evaluation and assessment services, for children ages 0-20. PBT services are covered by the Early Periodic Screening, Diagnostic, and Treatment (EPSDT) benefit. This benefit was created as a benefit through EPSDT in January 2018, after being removed as a waiver service. These services are provided both in home and clinical settings.

PBT Statistics	
Total Adjusted Expenditures FY 2018-19	\$52,508,317
Total Members Utilizing Services in FY 2018-19	3,414
FY 2018-19 Over FY 2017-18 Change in Members Utilizing Services	42.85%
Total Rendering Providers FY 2018-19	431
FY 2018 -19 Over FY 2017-18 Change in Rendering Providers	49.13%

Table 14. PBT expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payment for PBT services are estimated at 92.90% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.⁷⁵

PBT Rate Benchmark Comparison		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$52,508,317	\$56,519,880	92.90%

Table 15. Comparison of Colorado Medicaid PBT service payments to those of other payers, expressed as a percentage (FY 2018-19).

The estimated fiscal impact to Colorado Medicaid would be \$4,011,563 in total funds if Colorado had reimbursed at 100% of the combined benchmark in FY 2018-19. The PBT individual rate ratios ranged from 85.99%-94.31%.⁷⁶ All six procedure codes and modifier combinations analyzed in this service grouping were compared to an average of nine other states' Medicaid rates.⁷⁷

⁷⁵ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

⁷⁶ Individual rate ratios for each procedure code and modifier combination are contained in Appendix B.

⁷⁷ States used in the PBT rate comparison analysis were Connecticut, Louisiana, Minnesota, North Carolina, New Mexico, Nevada, Oregon, Utah, and Washington. Rates from other states used in the PBT rate comparison analysis are not pediatric-specific rates. For more details on PBT rate comparisons, see Appendix B.

Access to Care Analysis⁷⁸

Utilizers per Provider (Panel Size) Summary

Statewide, utilizers per provider for PBT services averaged 10.54 in FY 2017-18 and increased to 12.13 in FY 2018-19.⁷⁹ Additionally:

- In urban counties, utilizers per provider averaged 7.41 in FY 2017-18 and increased to 8.19 in FY 2018-19.
- In rural counties, utilizers per provider averaged 3.41 in FY 2017-18 and increased to 3.94 in FY 2018-19.

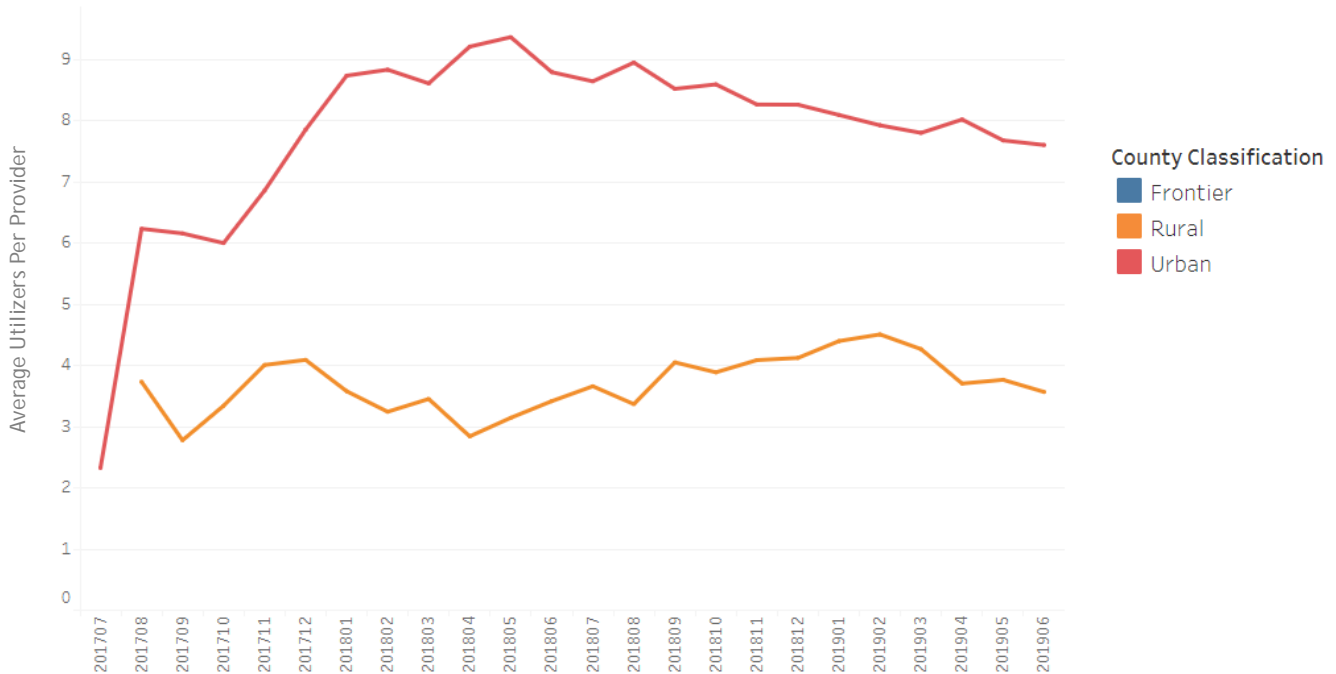


Figure 15. Utilizers per provider (panel size) for PBT services between July 2017 to June 2019.⁸⁰

Analysis indicates that there were increases in both the number of distinct utilizers and active providers over this time across all county classifications.

The rate of distinct utilizers and active providers increased at different rates over time, which initially led to an increase in the average panel size; yet, as the graph indicates, the number of utilizers per provider has been steadily decreasing since May 2018.⁸¹

There was a noticeable change July 2017 to January 2018 that can be attributed to the transition of PBT services from a waiver service to an EPSDT benefit.

⁷⁸ It is important to note that the access to care metrics in this report do not indicate how Colorado Medicaid members' access to services in those regions compared to access for individuals with other or no insurance.

⁷⁹ Data for PBT services through the EPSDT begin in July 2017 as PBT services were transitioned from a waiver service to an EPSDT benefit, which was officially implemented in January 2018.

⁸⁰ Data from the Frontier classification group was blinded for protected health information (PHI), accounting for the missing line in the graph.

⁸¹ For data specific to distinct utilizer and active providers, please see Appendix C.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of PBT services reside throughout the state. El Paso County had the highest number of utilizers at 789 in FY 2018-19.

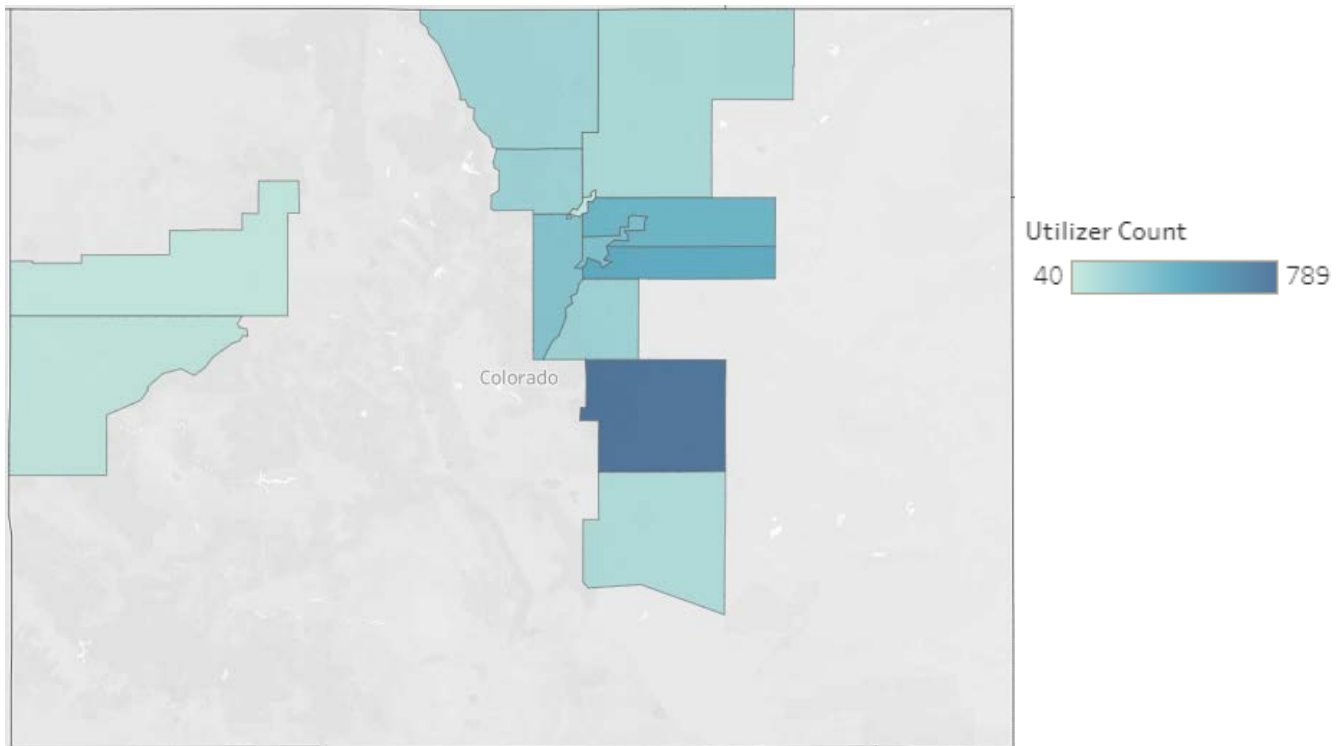


Figure 16. Utilizer density for PBT services by county for FY 2018-19.⁸²

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

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

Additionally, 33 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.

⁸² See Figure 2. Colorado Counties and RAE County Classification on page 12 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 PBT services in FY 2018-19 ranged from 1.22 in Mesa County to 5.01 in Douglas County. The penetration rate in Denver county was 1.19.

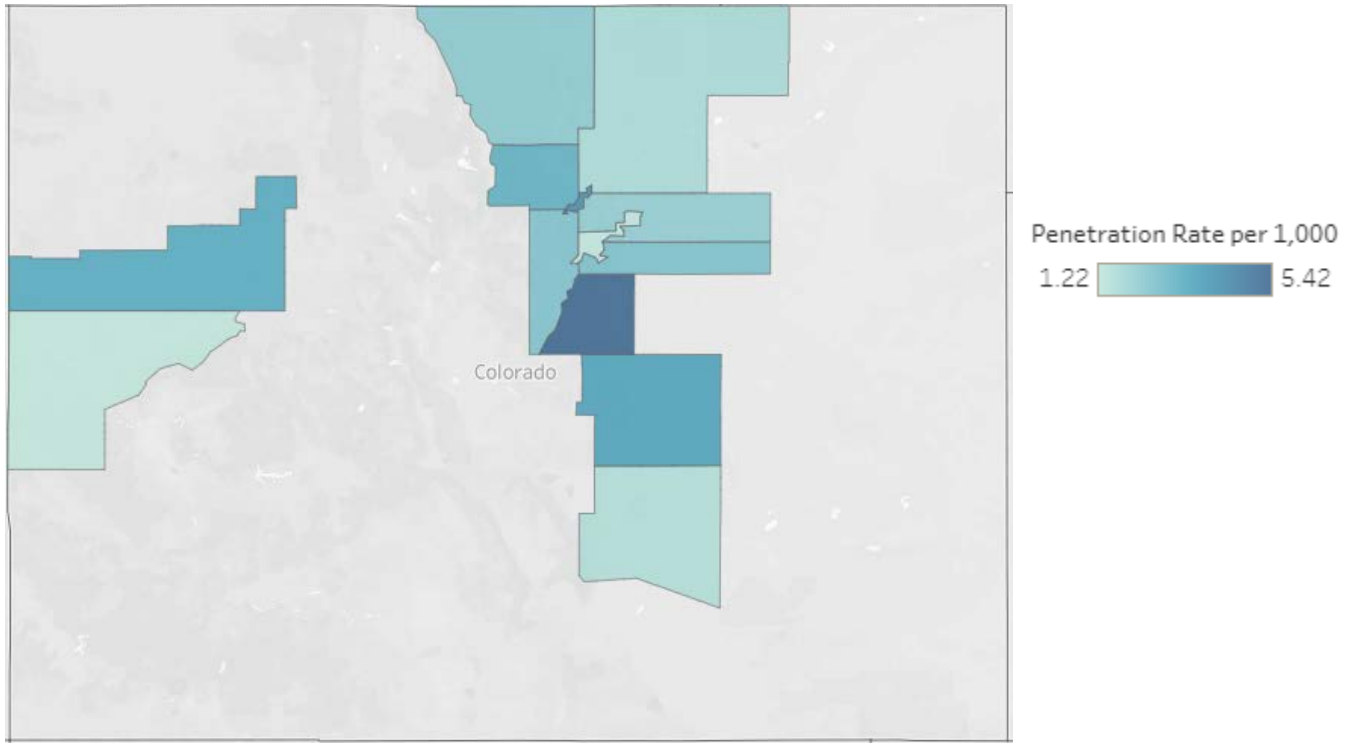


Figure 17. Penetration rates for PBT services by county in FY 2018-19.

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

Additionally, 33 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 PBT service providers relative to all Colorado Medicaid members in a geographic area. This ratio is calculated as providers per 1,000 pediatric members.⁸³

PBT Member-to-Provider Ratios			
Region	FY 2018-19 Providers⁸⁴	FY 2018-19 Members Ages 0-20	Providers per 1,000 Members
Frontier	13	17,591	0.74
Rural	55	70,517	0.78
Urban	415	568,901	0.73
Statewide	431	657,309	0.66

Table 16. Member-to-provider ratio for PBT services expressed as providers per 1,000 members by county classification in FY 2018-19.

The member-to-provider ratio results indicate that there are less 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.⁸⁵

⁸³ Pediatric members are members ages 0-20.

⁸⁴ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

⁸⁵ Currently, the Department does not use member-to-provider ratio standards specific to PBT 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 PBT utilizers that live within certain drive time bands from where PBT providers are located.⁸⁶

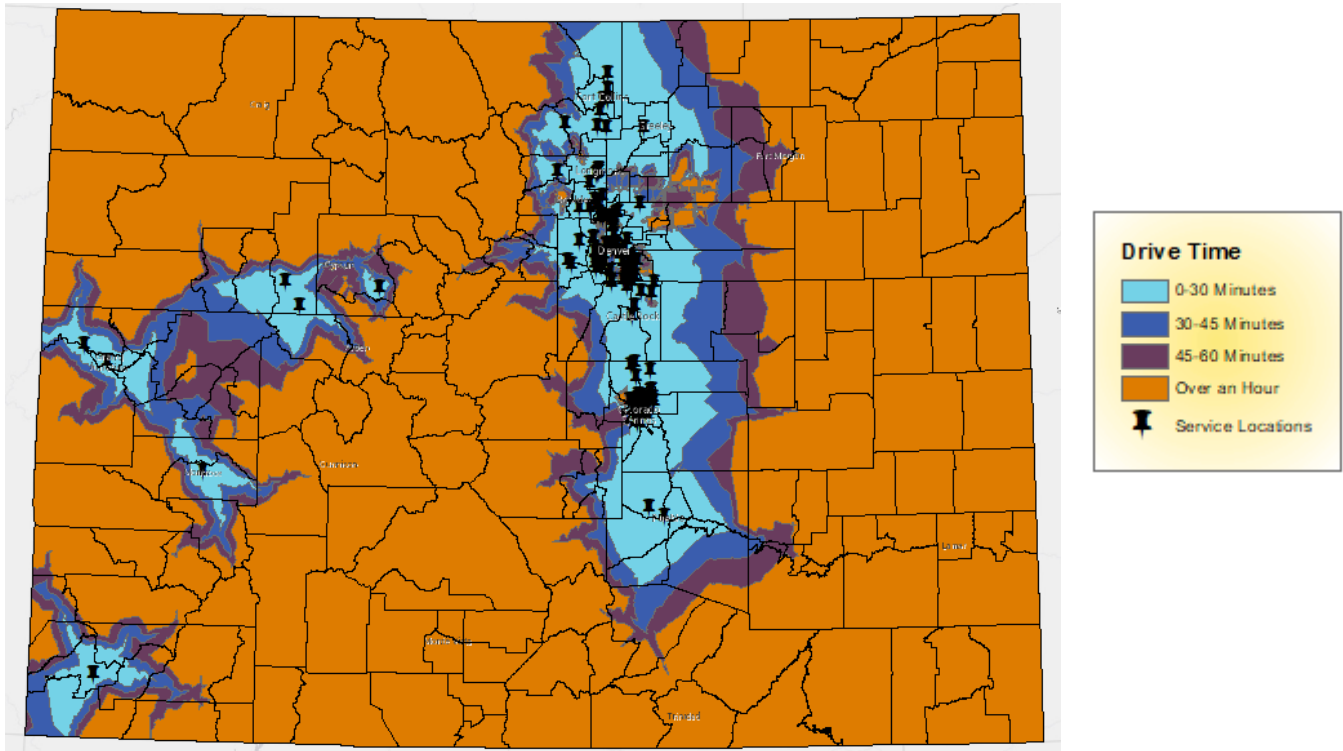


Figure 18. ArcGIS map of drive times of PBT provider agencies to utilizers in FY 2018-19.

Overall, 84.84% of the total utilizers of PBT services in FY 2018-19 resided 30 minutes or less from a PBT provider. Additionally, 6.62% of the total utilizers resided approximately 30-45 minutes from a PBT provider; 3.91% of the total utilizers resided 45-60 minutes from a PBT provider. Finally, 4.63% of utilizers resided over an hour from a PBT provider.

⁸⁶ Due to claims data, service locations shown on the ArcGIS map represent provider billing locations. PBT services are provided in the member home, as well as clinical settings, and caregivers are not necessarily located where the provider billing location is shown on the map. Service locations represent providers that have submitted claims, not all auxiliary PBT agencies or individual caregivers.

Stakeholder Feedback

During the MPRRAC meetings on November 15, 2019⁸⁷ and February 21, 2020,⁸⁸ the themes that emerged from stakeholder feedback and committee member comments included the impact of PBT services being shifted from a waiver benefit to an EPSDT benefit, resulting in a rate cut and increased complexity of requirements for EPSDT providers, in turn impacting provider retention. There was also feedback regarding a possible disruption of services as members transition from EPSDT services to waiver services as they reach 21 years of age and are no longer eligible for EPSDT services.

Additional Considerations

Other considerations included:

- Colorado is currently the only state offering pediatric-specific rates for behavioral therapy;
- PBT was implemented as an EPSDT benefit in January 2018, affecting the panel size as providers and members migrated from waiver to EPSDT services;
- The reimbursement rates for PBT services remained consistent in the transition from waiver to EPSDT services;⁸⁹ and
- There are currently 431 providers rendering PBT services through the EPSDT benefit, while there were only 88 providers enrolled as Behavioral Service providers for the Children's Extensive Supports (CES) waiver and 28 providers enrolled as Behavioral Service providers for the Children with Autism (CWA) waiver in FY 2017-18.

Additional Research

The Department plans to investigate the contradiction between stakeholder feedback regarding provider retention and data analysis results which suggest PBT providers are increasing.

Conclusion

Analyses suggest that PBT payments at 92.90% of the benchmark are sufficient to allow for member access and provider retention.

The primary factors that led to this conclusion included:

- Significant increase in distinct utilizers and active providers over time; and
- Rate comparison data shows individual rate ratios for all PBT services are at least 80% of the benchmark, ranging from 85.99%-94.31%.

⁸⁷ Meeting minutes for the MPRRAC meeting on November 15, 2019 can be found on the [Rate Review web page](#).

⁸⁸ The meeting recording for the MPRRAC meeting on February 21, 2020 can be found on the [MPRRAC web page](#).

⁸⁹ Previous rates for waiver behavioral services through the Children's Extensive Supports (CES) and Children with Autism (CWA) waivers can be found on the [Provider Rates and Fee Schedule web page](#).

Speech Therapy

Service Description

The speech therapy service grouping is comprised of 20 procedure codes.⁹⁰ Speech therapy consists of services that address and remedy speech language deficits. Speech therapy services are provided in home and clinical settings.⁹¹ Speech therapy services were previously reviewed in the [2017 Medicaid Provider Rate Review Analysis Report](#).

Speech Therapy Statistics	
Total Adjusted Expenditures FY 2018-19	\$20,174,700
Total Members Utilizing Services in FY 2018-19	11,264
FY 2018-19 Over FY 2017-18 Change in Members Utilizing Services	0.37%
Total Rendering Providers FY 2018-19	780
FY 2018-19 Over FY 2017-18 Change in Rendering Providers	(3.82%)

Table 17. Speech therapy expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payment for speech therapy services are estimated at 73.51% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.⁹²

Speech Therapy Rate Benchmark Comparison		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$20,174,700	\$27,446,109	73.51%

Table 18. Comparison of Colorado Medicaid speech therapy service payments to those of other payers, expressed as a percentage (FY 2018-19).

The estimated fiscal impact to Colorado Medicaid would be \$7,271,409 in total funds if Colorado had reimbursed at 100% of the combined benchmark in FY 2018-19. The speech therapy individual rate ratios ranged from 16.82%-107.20%.⁹³ Of the 20 procedure codes analyzed in this service grouping, 19 were compared to Medicare and one was compared to an average of six other states' Medicaid rates.⁹⁴

⁹⁰ CPT 97532 for cognitive skills development was not included in this analysis; the [2017 Medicaid Provider Rate Review Analysis Report](#) revealed a 33.63% decrease in the number of rendering providers that billed for this service due to the National Correcting Coding Initiative (NCCI) instructions that cognitive skills development should not be billed with speech/hearing therapy (CPT 92507). This likely impacted utilization data for speech therapy since the last review cycle.

⁹¹ Speech therapy services provided in outpatient hospitals were not included in this analysis.

⁹² Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

⁹³ Individual rate ratios for each procedure code are contained in Appendix B.

⁹⁴ States used in the speech therapy rate comparison analysis were Arizona, California, Minnesota, Nevada, North Dakota, and South Carolina.

Access to Care Analysis⁹⁵

Utilizers per Provider (Panel Size) Summary

Statewide, utilizers per provider for speech therapy services averaged 21.01 in FY 2017-18 and increased to 21.03 in FY 2018-19.⁹⁶ Additionally:

- In urban counties, utilizers per provider averaged 12.45 in FY 2017-18 and decreased to 12.41 in FY 2018-19.
- In rural counties, utilizers per provider averaged 3.94 in FY 2017-18 and increased to 4.10 in FY 2018-19.
- In frontier counties, utilizers per provider averaged 4.62 in FY 2017-18 and decreased to 4.51 in FY 2018-19.

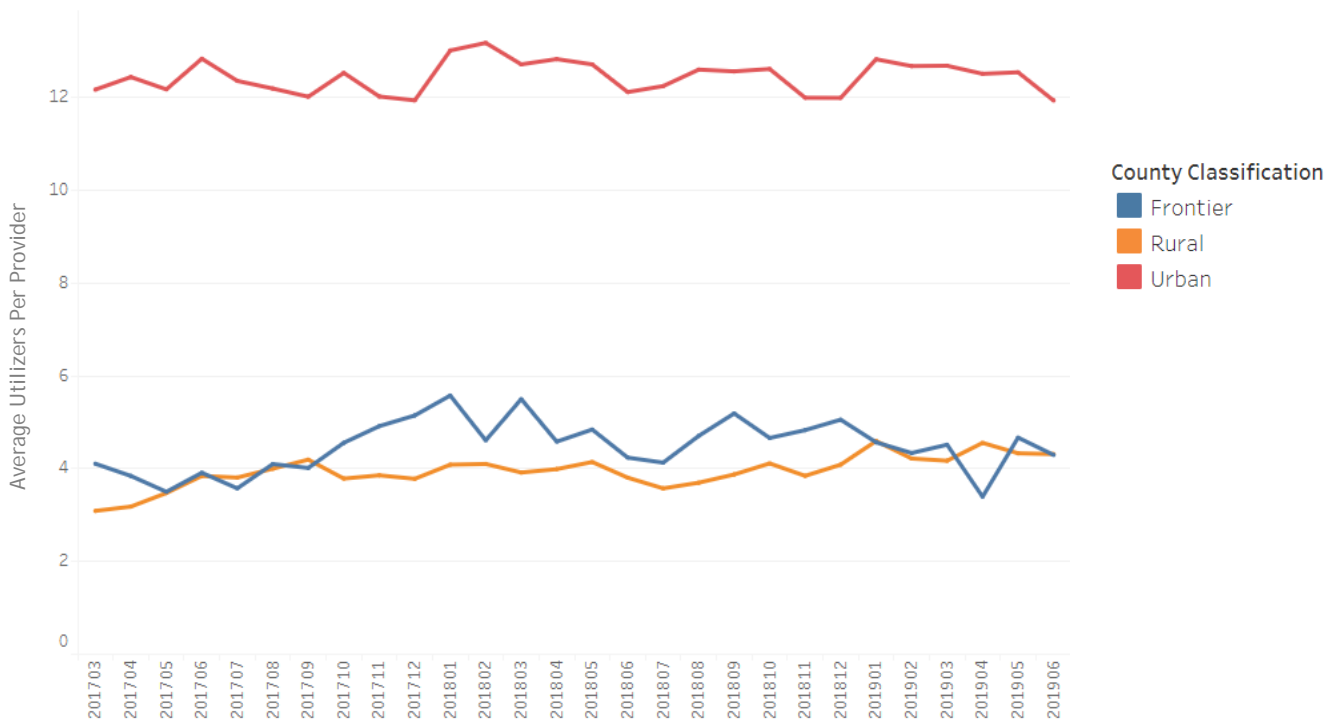


Figure 19. Utilizers per provider (panel size) for speech therapy services between March 2017 to June 2019.

Analysis indicates that there was a relatively stable number of distinct utilizers and active providers over this time across all county classifications.

The number of distinct utilizers and active providers increased at a similar rate over time, which led to a relatively stable number of utilizers per provider.⁹⁷

⁹⁵ It is important to note that the access to care metrics in this report do not indicate how Colorado Medicaid members' access to services in those regions compared to access for individuals with other or no insurance.

⁹⁶ Due to changes in the Medicaid Management Information System (MMIS), data is only available from March 2017 to present.

⁹⁷ For data specific to distinct utilizer and active providers, please see Appendix C.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of speech therapy services reside throughout the state. El Paso County had the highest number of utilizers at 2,914 in FY 2018-19.

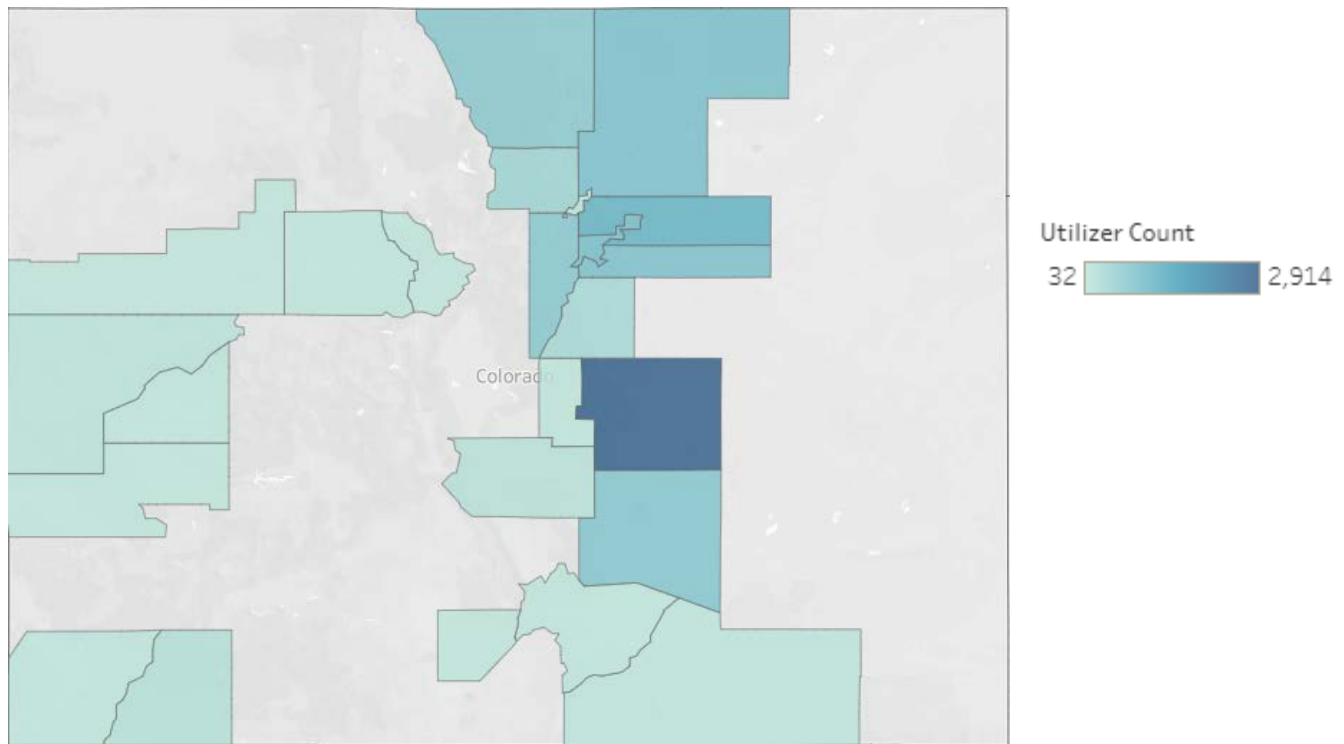


Figure 20. Utilizer density for speech therapy services by county for FY 2018-19.⁹⁸

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

- relatively lower demand for speech therapy services, or a low number of Colorado Medicaid members utilizing speech therapy services; and
- accessing speech therapy services in other settings not included in this analysis.⁹⁹

Additionally, 38 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.

⁹⁸ See Figure 2. Colorado Counties and RAE County Classification on page 12 to reference Colorado counties by name.

⁹⁹ Speech therapy services provided in outpatient hospital settings were not included in this analysis.

Penetration Rate

The penetration rate estimates the share of total Colorado Medicaid members in a geographic area that received the service. Penetration rates for speech therapy services in FY 2018-19 ranged from 1.96 in Mesa County to 13.34 in Huerfano County. The penetration rate in Denver county was 3.64.

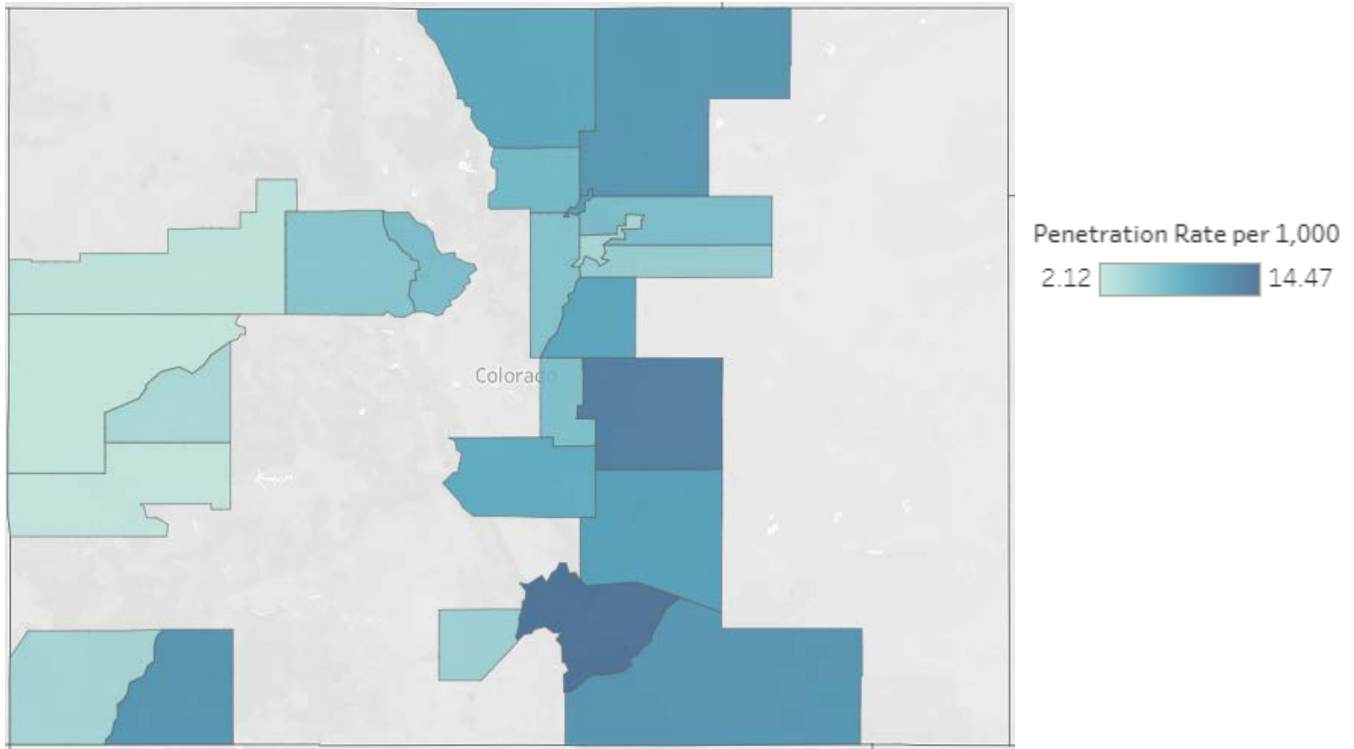


Figure 21. Penetration rates for speech therapy services by county in FY 2018-19.

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

Additionally, 38 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 speech therapy service providers relative to all Colorado Medicaid members in a geographic area. This ratio is calculated as providers per 1,000 members.

Speech Therapy Member-to-Provider Ratios			
Region	FY 2018-19 Providers¹⁰⁰	FY 2018-19 Members	Providers per 1,000 Members
Frontier	67	45,482	1.47
Rural	163	171,787	0.95
Urban	723	1,304,100	0.55
Statewide	780	1,510,258	0.52

Table 19. Member-to-provider ratio for Speech Therapy services expressed as providers per 1,000 members by county classification in FY 2018-19.

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.¹⁰¹

¹⁰⁰ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

¹⁰¹ Currently, the Department does not use member-to-provider ratio standards specific to Speech Therapy 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 speech therapy utilizers that live within certain drive time bands from where speech therapy providers are located.¹⁰²

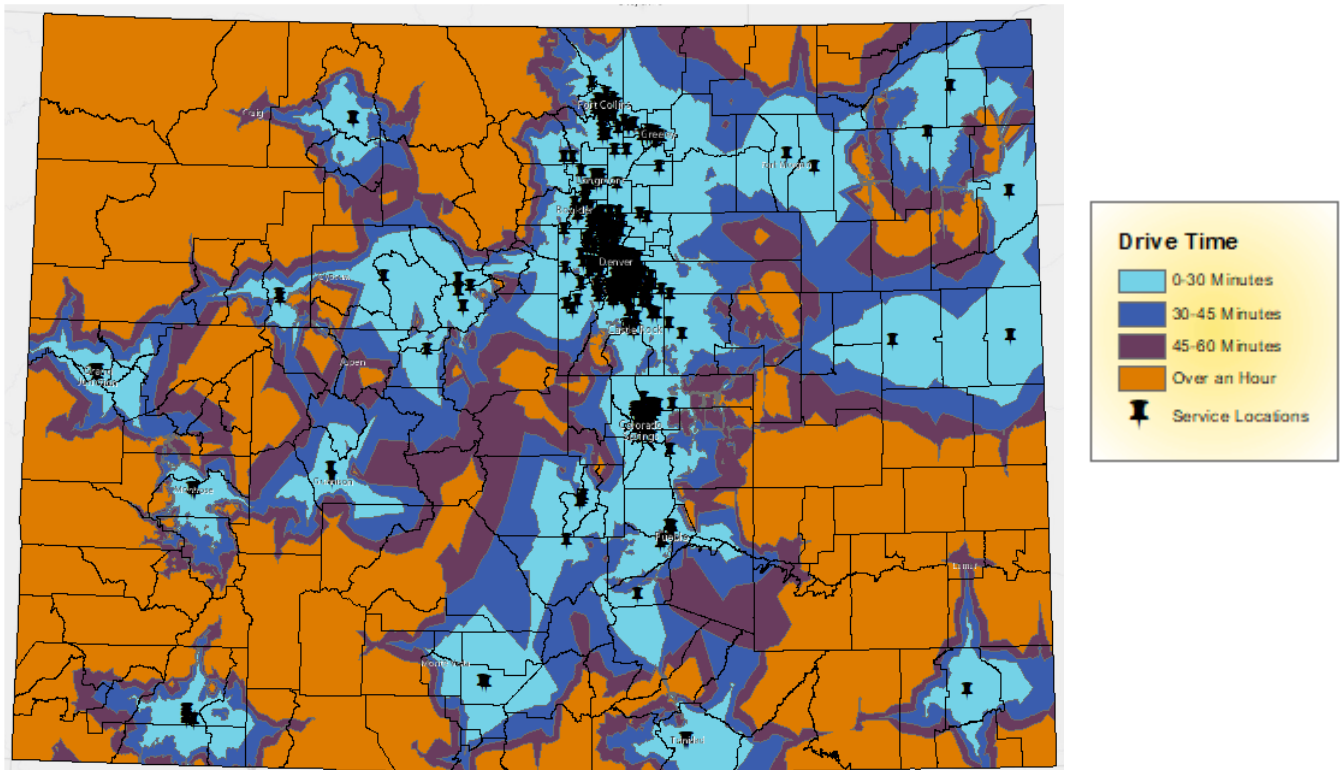


Figure 22. ArcGIS map of drive times of Speech Therapy provider agencies to utilizers in FY 2018-19.

Overall, 95.28% of the total utilizers of speech therapy services in FY 2018-19 resided 30 minutes or less from a speech therapy provider. Additionally, 1.98% of the total utilizers resided approximately 30-45 minutes from a speech therapy provider; 1.73% of the total utilizers resided 45-60 minutes from a speech therapy provider. Finally, 1.00% of utilizers resided over an hour from a speech therapy provider.

¹⁰² Due to claims data, service locations shown on the ArcGIS map represent provider billing locations. Speech therapy services are provided in the member home, as well as in clinical settings, and caregivers are not necessarily located where the provider billing location is shown on the map.

Stakeholder Feedback

During the MPRRAC meetings on November 15, 2019¹⁰³ and February 21, 2020,¹⁰⁴ themes that emerged from stakeholder and committee member comments included current rates are too low to maintain qualified staff, as well as to cover overhead and administrative costs. In addition, stakeholders emphasized that speech therapists are reimbursed at lower rates compared to home health agencies that provide speech therapy services, even though both provider groups require similar levels of training and expertise. Finally, feedback indicated that the rate for feeding therapy is too low to cover cost of services and the rates with modifier TL should be reviewed separately based on place of service.

Additional Considerations

Other considerations included:

- Utilization trends in data indicate a migration of speech therapy services from individual speech therapy providers to home health agencies, who provide a wider range of services for individuals needing more comprehensive home health care;¹⁰⁵
- Home health agencies have more requirements and administrative costs compared to speech therapy providers, which are factored into home health rates;
- Procedure codes with modifier TL are reimbursed at the same rate as those without the modifier regardless of place of service;
- Most visits for therapy services include more than one service; and
- Speech therapy rates could not be rebalanced in a budget-neutral rebalancing project, as recommended by the Department in the [2017 Medicaid Provider Rate Review Recommendation Report](#), because the speech therapy rates below 80% of the benchmark could not be raised while maintaining budget neutrality.

Additional Research

The Department plans to further investigate utilization trends in northeastern frontier counties, particularly Logan, Washington, and Sedgwick for speech therapy services to identify member needs, if any. These counties have unusually low utilization for speech therapy services, relatively low penetration rates, and are partially located in the 60+ minute drive-time band.

Conclusion

Analyses are inconclusive to determine if speech therapy service payments at 73.51% of the benchmark were sufficient to allow for member access and provider retention.

There were conflicting results that led to this conclusion. Results that indicate speech therapy service payments at 73.51% of the benchmark were sufficient included:

- Over 97% of utilizers live within 45 minutes of a provider of speech therapy services;¹⁰⁶ and
- Total rendering providers has significantly increased since speech therapy services were reviewed in the [2017 Medicaid Provider Rate Review Analysis Report](#).

¹⁰³ Meeting minutes for the MPRRAC meeting on November 15, 2019 can be found on the [Rate Review web page](#).

¹⁰⁴ The meeting recording for the MPRRAC meeting on February 21, 2020 can be found on the [MPRRAC web page](#).

¹⁰⁵ For more information on trends in home health speech therapy utilization, see Appendix D.

¹⁰⁶ This does not include home health agencies that provide speech therapy services.



However, there are some indications that provider retention and member access may be impacted by the current rates for speech therapy services, including:

- A 3.82% decrease in speech therapy providers from FY 2017-18 to FY 2018-19;
- The Department has identified a correlation between changes in outpatient speech therapy utilization and home health speech therapy utilization;¹⁰⁷ and
- Rate comparison data shows individual rate ratios for speech therapy services ranged from as low as 16.82%, and up to 103.46%.

Additional information is needed to determine if member access and provider retention issues exist, if they are unique to Medicaid, and if issues are attributable to rates.

¹⁰⁷ For more information on trends in home health speech therapy utilization, see Appendix D.



Physical and Occupational Therapy (PT/OT)

Service Description

The physical and occupational therapy (PT/OT) service grouping is comprised of 45 procedure codes. PT/OT services are provided primarily in clinical settings.¹⁰⁸ PT/OT services were previously reviewed in the [2018 Medicaid Provider Rate Review Analysis Report](#).

PT/OT Statistics	
Total Adjusted Expenditures FY 2018-19	\$55,285,876
Total Members Utilizing Services in FY 2018-19	42,562
FY 2018-19 Over FY 2017-18 Change in Members Utilizing Services	8.99%
Total Rendering Providers FY 2018-19	2,468
FY 2018-19 Over FY 2017-18 Change in Rendering Providers	7.82%

Table 20. PT/OT expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payment for PT/OT services are estimated at 86.41% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.¹⁰⁹

PT/OT Rate Benchmark Comparison		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$55,285,876	\$63,983,861	86.41%

Table 21. Comparison of Colorado Medicaid PT/OT service payments to those of other payers, expressed as a percentage (FY 2018-19).

The estimated fiscal impact to Colorado Medicaid would be \$8,697,985 in total funds if Colorado had reimbursed at 100% of the combined benchmark in FY 2018-19. The PT/OT individual rate ratios ranged from 28.06%-793.16%.¹¹⁰ Of the 45 procedure codes analyzed in this service grouping, 39 were compared to Medicare and six were compared to an average of six other states' Medicaid rates.¹¹¹

¹⁰⁸ About 5% of PT/OT utilizers receive services in home-based settings.

¹⁰⁹ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

¹¹⁰ Individual rate ratios for each procedure code are contained in Appendix B.

¹¹¹ States used in the PT/OT rate comparison analysis were Arizona, California, Maine, Mississippi, Oklahoma, and Oregon.

Access to Care Analysis¹¹²

Utilizers per Provider (Panel Size) Summary

Statewide, utilizers per provider for PT/OT services averaged 16.94 in FY 2017-18 and decreased to 16.84 in FY 2018-19.¹¹³ Additionally:

- In urban counties, utilizers per provider averaged 10.22 in FY 2017-18 and increased to 10.33 in FY 2018-19.
- In rural counties, utilizers per provider averaged 3.70 in FY 2017-18 and decreased to 3.54 in FY 2018-19.
- In frontier counties, utilizers per provider averaged 3.01 in FY 2017-18 and decreased to 2.98 in FY 2018-19.

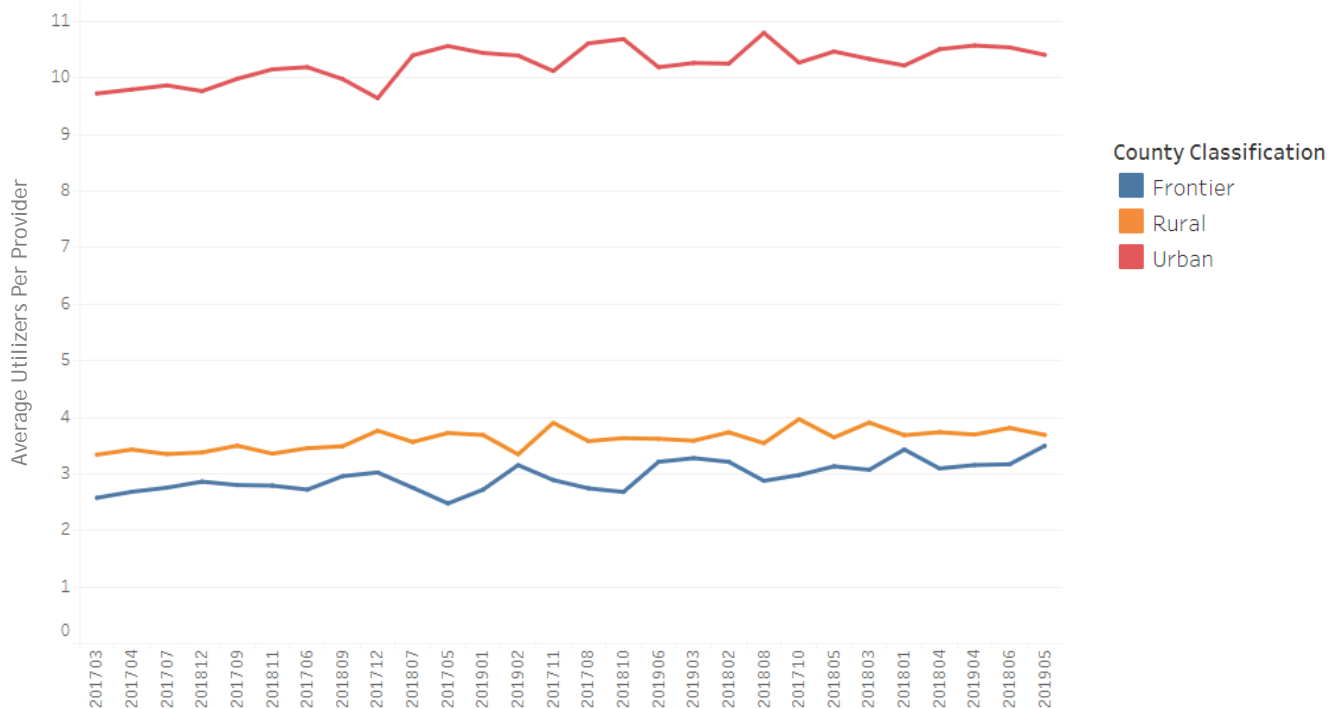


Figure 23. Utilizers per provider (panel size) for PT/OT services between March 2017 to June 2019.

Analysis indicates that there were increases in both the number of distinct utilizers and active providers over this time across urban county classifications.

The number of distinct utilizers and active providers increased at a similar rate over time, which led to a relatively stable number of utilizers per provider.¹¹⁴

¹¹² It is important to note that the access to care metrics in this report do not indicate how Colorado Medicaid members' access to services in those regions compared to access for individuals with other or no insurance.

¹¹³ Due to changes in the Medicaid Management Information System (MMIS), data is only available from March 2017 to present.

¹¹⁴ For data specific to distinct utilizer and active providers, please see Appendix C.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of PT/OT services reside throughout the state. El Paso County had the highest number of utilizers at 10,040 in FY 2018-19.

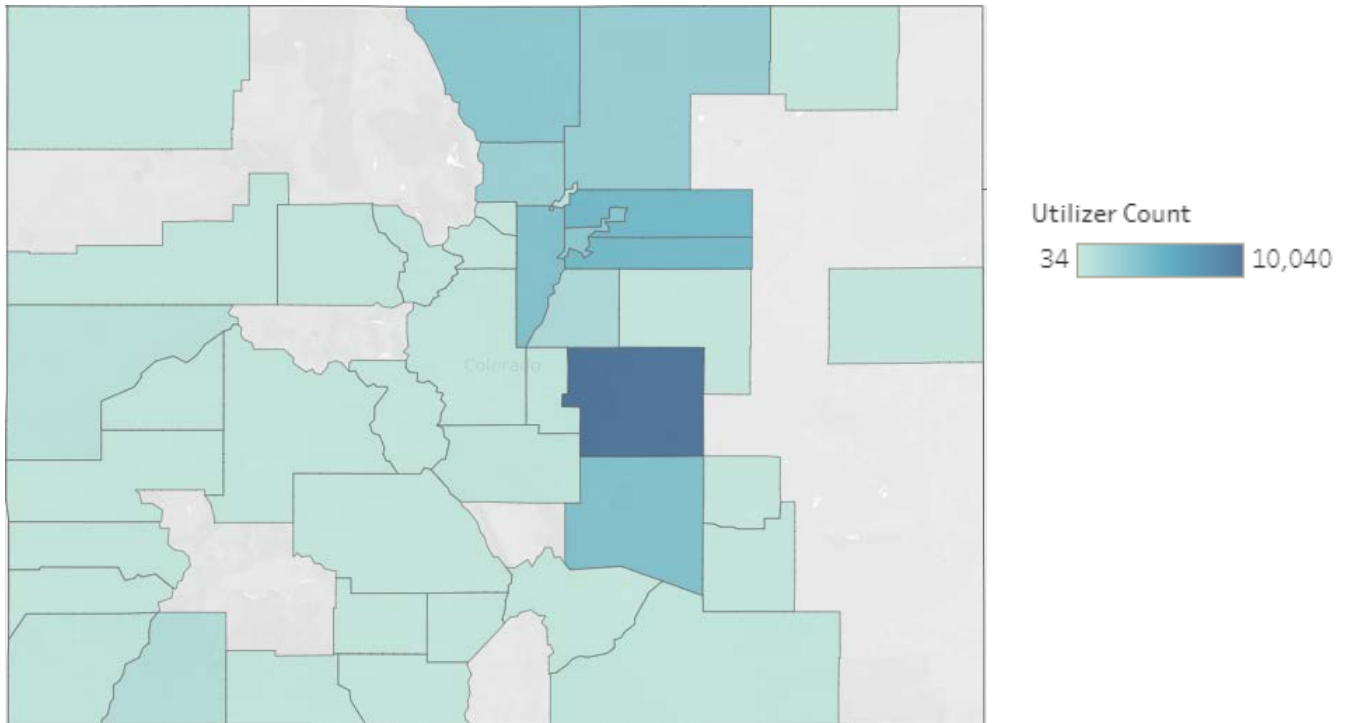


Figure 24. Utilizer density for PT/OT services by county for FY 2018-19.¹¹⁵

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

- relatively lower demand for PT/OT services, or a low number of Colorado Medicaid members utilizing PT/OT services; and
- accessing PT/OT services in other settings not included in this analysis.¹¹⁶

Additionally, 24 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.

¹¹⁵ See Figure 2. Colorado Counties and RAE County Classification on page 12 to reference Colorado counties by name.

¹¹⁶ PT/OT services provided in outpatient hospital settings were not included in this analysis.

Penetration Rate

The penetration rate estimates the share of total Colorado Medicaid members in a geographic area that received the service. Penetration rates for PT/OT services in FY 2018-19 ranged from 3.97 in Montrose County to 52.51 in La Plata County. The penetration rate in Denver county was 11.19.

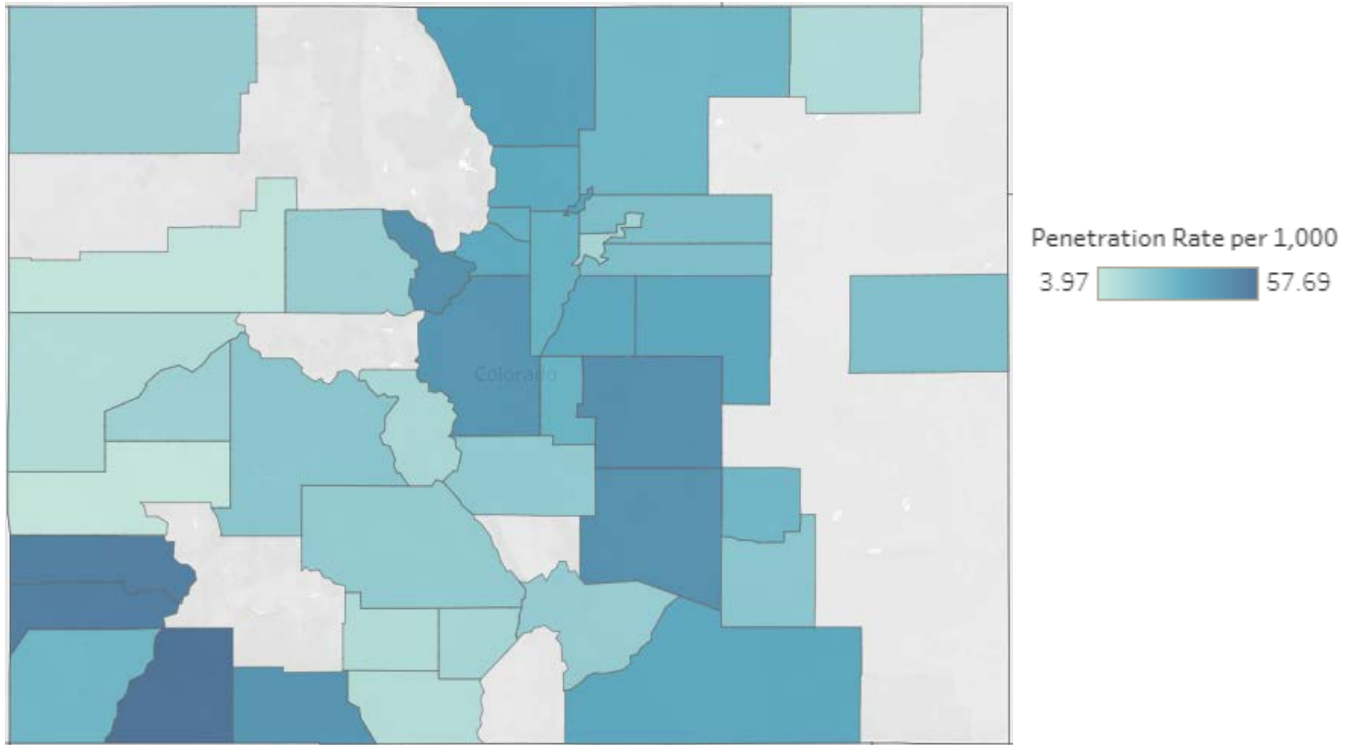


Figure 25. Penetration rates for PT/OT services by county in FY 2018-19.

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

Additionally, 24 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 PT/OT service providers relative to all Colorado Medicaid members in a geographic area. This ratio is calculated as providers per 1,000 members.

PT/OT Member-to-Provider Ratios			
Region	FY 2018-19 Providers¹¹⁷	FY 2018-19 Members	Providers per 1,000 Members
Frontier	260	45,482	5.72
Rural	562	171,787	3.27
Urban	2,296	1,304,100	1.76
Statewide	2,468	1,510,258	1.63

Table 22. Member-to-provider ratio for PT/OT services expressed as providers per 1,000 members by county classification in FY 2018-19.

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.¹¹⁸

¹¹⁷ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

¹¹⁸ Currently, the Department does not use member-to-provider ratio standards specific to PT/OT 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 PT/OT utilizers that live within certain drive time bands from where PT/OT providers are located.

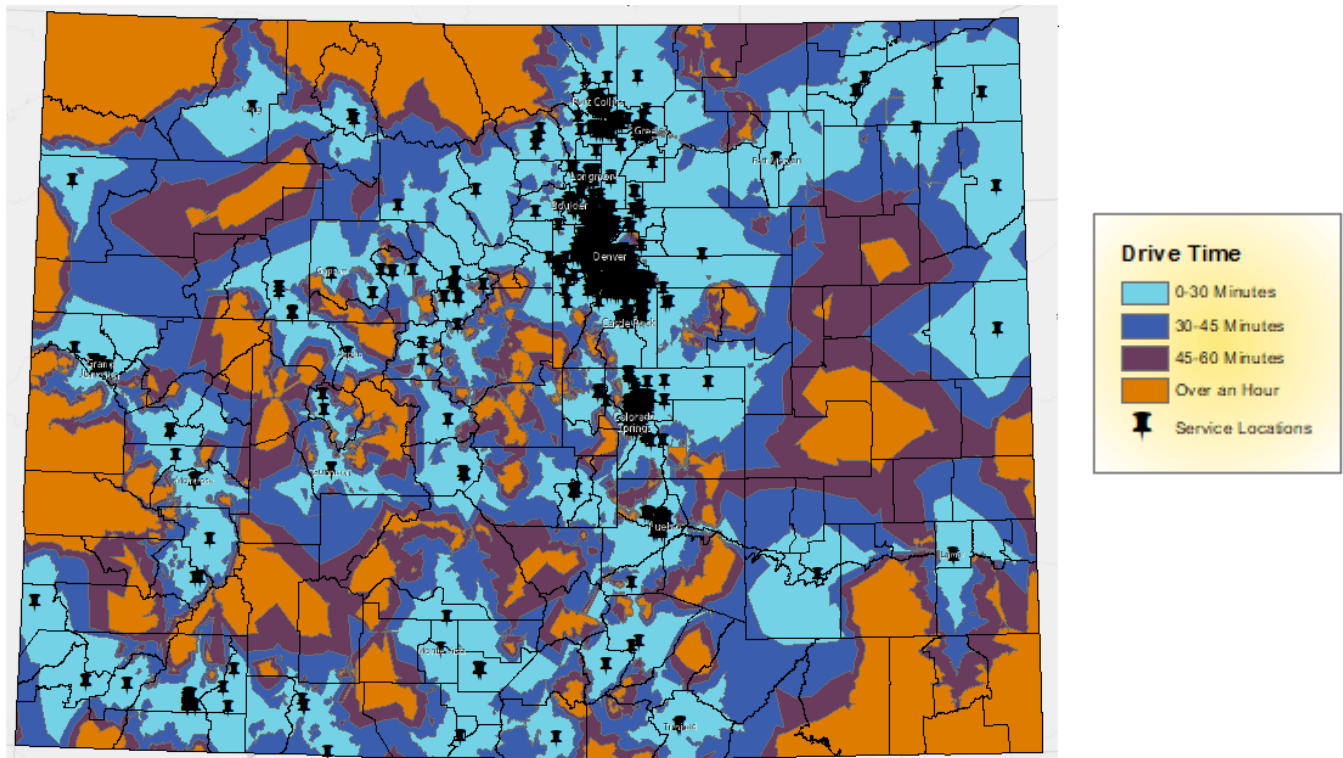


Figure 26. ArcGIS map of drive times of PT/OT provider agencies to utilizers in FY 2018-19.

Overall, 97.33% of the total utilizers of PT/OT services in FY 2018-19 resided 30 minutes or less from a PT/OT provider. Additionally, 1.67% of the total utilizers resided approximately 30-45 minutes from a PT/OT provider; 0.54% of the total utilizers resided 45-60 minutes from a PT/OT provider. Finally, 0.45% of utilizers resided over an hour from a PT/OT provider.

Stakeholder Feedback

During the MPRRAC meeting on February 21, 2020,¹¹⁹ the theme that emerged from committee discussion was interest in three codes, 97161, 97162, and 97163 (PT evaluation for low, moderate, and high complexity cases, respectively), that were implemented to cover varying degrees of complexity for the evaluation. Committee members specifically noted the absence of stakeholder feedback, which was noticeably more significant during the last review of the PT/OT service grouping in the [2018 Medicaid Provider Rate Review Analysis Report](#).

Additional Considerations

Other considerations included:

- Most visits for therapy services include more than one service;
- The three codes mentioned in the previous section represent varying degrees of complexity, including time spent performing evaluation, are compared to three Medicare codes that are all set at the same rate, accounting for the low rate ratios for the low and moderate complexity cases;
 - Colorado is the only state used in the PT/OT rate comparison analysis that differentiates the rate for each of the three codes based on level of complexity;¹²⁰ and
 - Utilization data shows an increase across all three codes, which indicates there is not an access to care issue based on the reimbursement by complexity.¹²¹

Additional Research

The Department has not identified any additional research for PT/OT services. However, the Department will evaluate additional needs, if any, as they arise.

Conclusion

Analyses suggest that PT/OT services payments at 86.41% of the benchmark were sufficient to allow for member access and provider retention.

The primary factors that led to this conclusion included:

- The increase in both PT/OT providers and utilizers over time;
- About 99% of utilizers live within 45 minutes of a PT/OT service provider; and
- An absence of stakeholder feedback compared to review of the PT/OT service grouping in the [2018 Medicaid Provider Rate Review Analysis Report](#).

¹¹⁹ The meeting recording for the MPRRAC meeting on February 21, 2020 can be found on the [MPRRAC web page](#).

¹²⁰ States used in the PT/OT rate comparison analysis include Arizona, California, Maine, Mississippi, and Oregon.

¹²¹ For more information on utilization trends of procedure codes 97161, 97162, and 97163, see Appendix D.



Prosthetics, Orthotics, and Supplies (POS)

Service Description

The Prosthetics, Orthotics, and Supplies (POS) service grouping is comprised of 717 procedure codes.

POS Statistics	
Total Adjusted Expenditures FY 2018-19	\$30,933,692
Total Members Utilizing Services in FY 2018-19	67,206
FY 2018-19 Over FY 2017-18 Change in Members Utilizing Services	(3.41%)
Total Rendering Providers FY 2018-19	3,591
FY 2018-19 Over FY 2017-18 Change in Rendering Providers	33.74%

Table 23. POS expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payment for POS services are estimated at 80.80% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.¹²²

POS Rate Benchmark Comparison		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$30,933,692	\$38,283,303	80.80%

Table 24. Comparison of Colorado Medicaid POS service payments to those of other payers, expressed as a percentage (FY 2018-19).

The estimated fiscal impact to Colorado Medicaid would be \$7,349,611 in total funds if Colorado had reimbursed at 100% of the combined benchmark in FY 2018-19. The POS individual rate ratios ranged from 4.46%-1,233.91%.¹²³ Of the 717 procedure codes analyzed in this service grouping, 688 were compared to Medicare and 29 were compared to an average of eight other states' Medicaid rates.¹²⁴

¹²² Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

¹²³ Individual rate ratios for each procedure code are contained in Appendix B.

¹²⁴ States used in the POS rate comparison analysis were Arizona, California, Louisiana, Nevada, Oklahoma, Ohio, Oregon, and Texas.

Access to Care Analysis¹²⁵

Utilizers per Provider (Panel Size) Summary

Statewide, utilizers per provider for POS services averaged 17.97 in FY 2017-18 and decreased to 17.58 in FY 2018-19.¹²⁶ Additionally:

- In urban counties, utilizers per provider averaged 9.86 in FY 2017-18 and decreased to 9.60 in FY 2018-19.
- In rural counties, utilizers per provider averaged 5.06 in FY 2017-18 and decreased to 4.88 in FY 2018-19.
- In frontier counties, utilizers per provider averaged 3.04 in FY 2017-18 and increased to 3.09 in FY 2018-19.

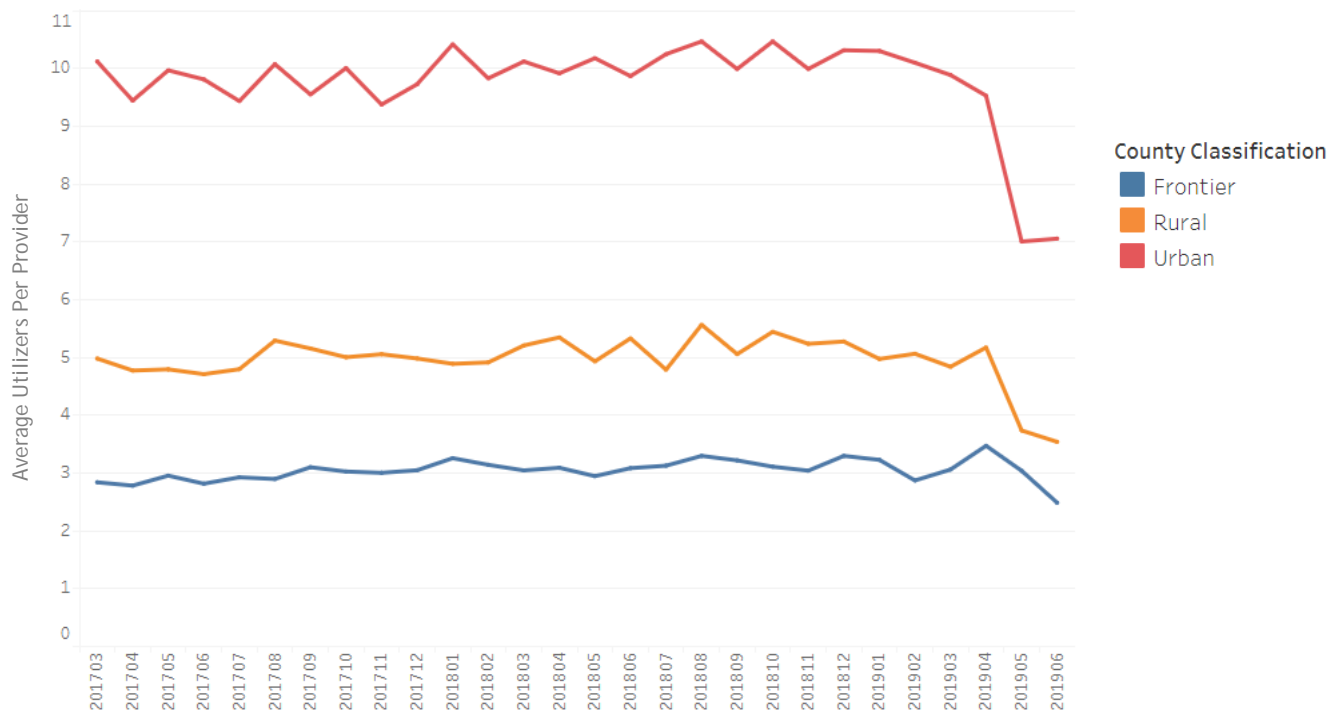


Figure 27. Utilizers per provider (panel size) for POS services between March 2017 to June 2019..

Analysis indicates that there were decreases in the number of distinct utilizers over this time across urban county classifications.

The number of distinct utilizers and active providers decreased at a similar rate over time, which led to relatively stable number of utilizers per provider.¹²⁷

¹²⁵ It is important to note that the access to care metrics in this report do not indicate how Colorado Medicaid members' access to services in those regions compared to access for individuals with other or no insurance.

¹²⁶ Due to changes in the Medicaid Management Information System (MMIS), data is only available from March 2017 to present.

¹²⁷ For data specific to distinct utilizer and active providers, please see Appendix C.

There was a noticeable change April 2019 to May 2019 that can be attributed to HB 18-1282, which required all POS provider locations to enroll for Medicaid to obtain and use a unique National Provider Identifier (NPI) for each service location and provider type.¹²⁸

Utilizer Density

The utilizer density metric provides information regarding where utilizers of POS services reside throughout the state. El Paso County had the highest number of utilizers at 11,458 in FY 2018-19.

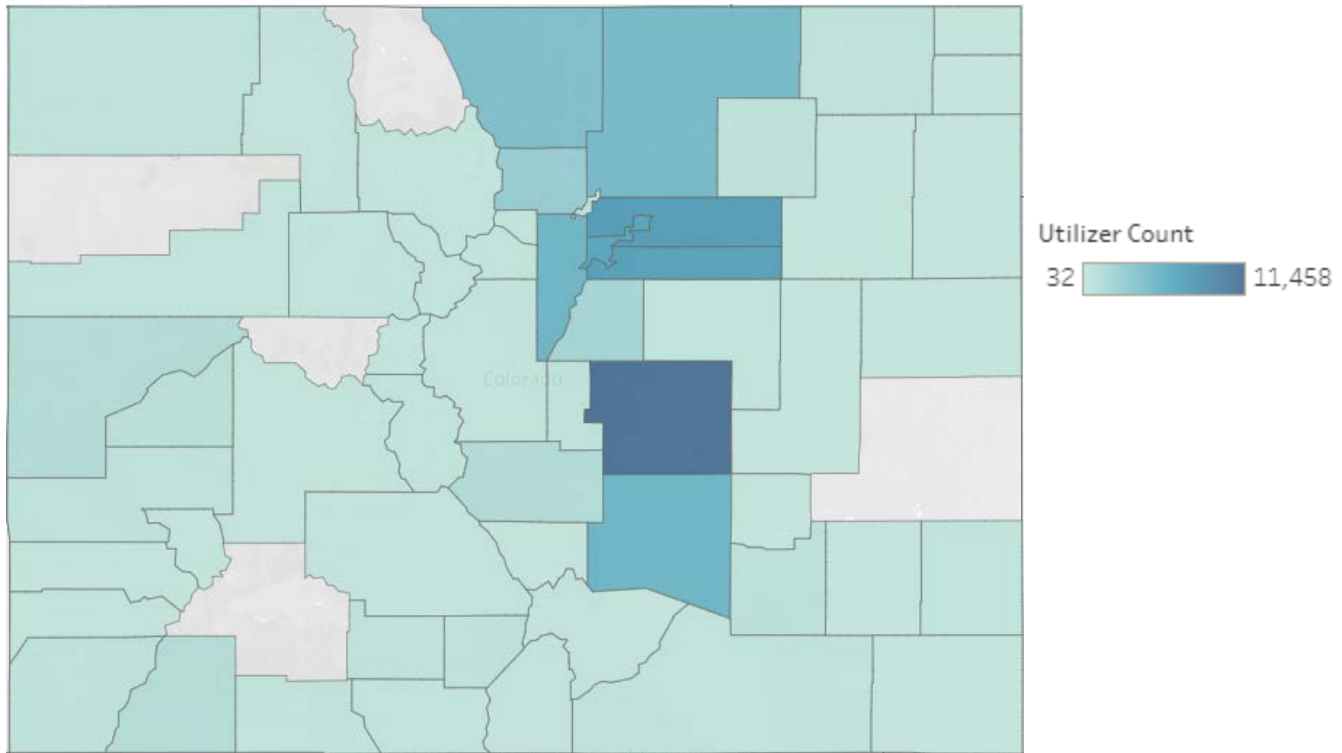


Figure 28. Utilizer density for POS services by county for FY 2018-19.¹²⁹

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

- relatively lower demand for POS services, or a low number of Colorado Medicaid members utilizing POS services; and
- accessing POS services in other settings not included in this analysis.

Additionally, five 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.

¹²⁸ [HB 18-1282](#) was approved by the legislature April 25, 2018 and required providers to enroll by January 1, 2020.

¹²⁹ See Figure 2. Colorado Counties and RAE County Classification on page 12 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 POS services in FY 2018-19 ranged from 8.06 in Garfield County to 63.52 in Moffat County. The penetration rate in Denver county was 24.65.

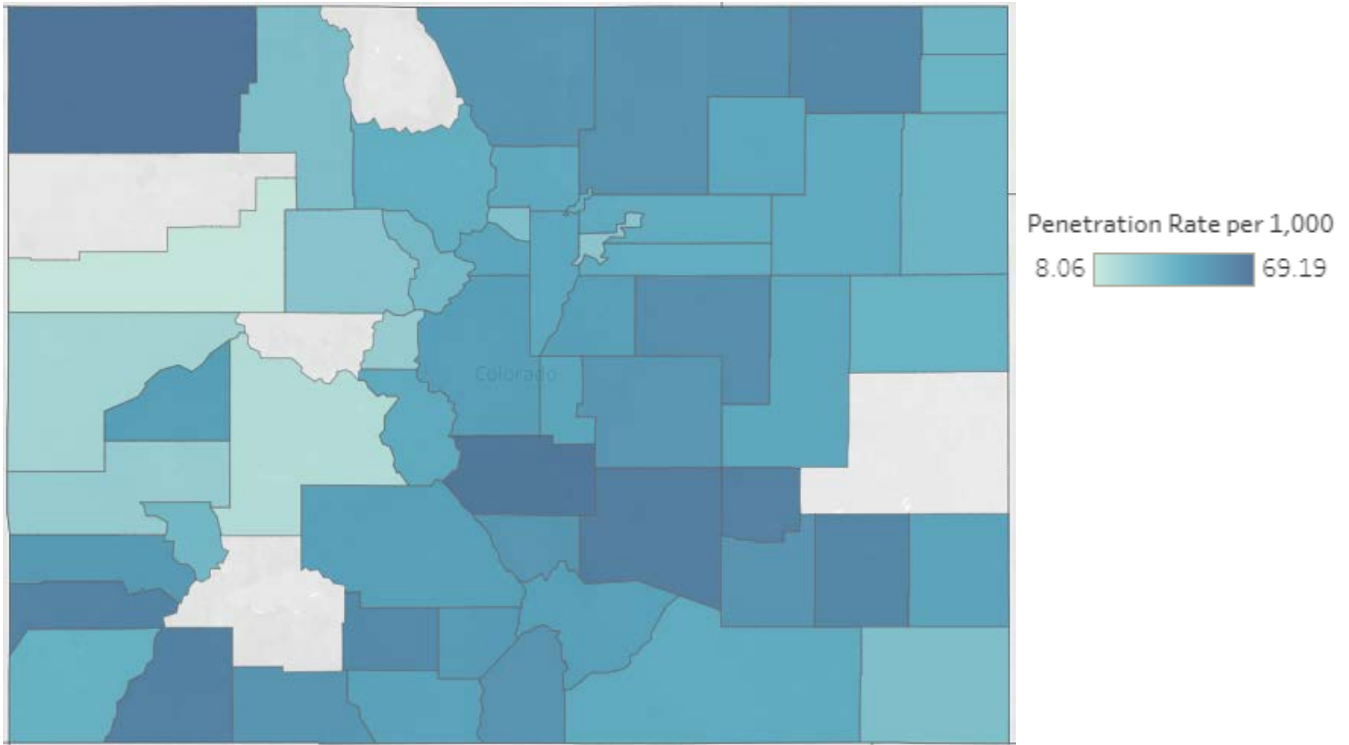


Figure 29. Penetration rates for POS services by county in FY 2018-19.

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

Additionally, five 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 POS service providers relative to all Colorado Medicaid members in a geographic area. This ratio is calculated as providers per 1,000 members.

POS Member-to-Provider Ratios			
Region	FY 2018-19 Providers¹³⁰	FY 2018-19 Members	Providers per 1,000 Members
Frontier	399	45,482	8.77
Rural	818	171,787	4.76
Urban	3,148	1,304,100	2.41
Statewide	3,591	1,510,258	2.38

Table 25. Member-to-provider ratio for POS services expressed as providers per 1,000 members by county classification in FY 2018-19.

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.¹³¹

¹³⁰ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

¹³¹ Currently, the Department does not use member-to-provider ratio standards specific to POS 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 POS utilizers that live within certain drive time bands from where POS providers are located.

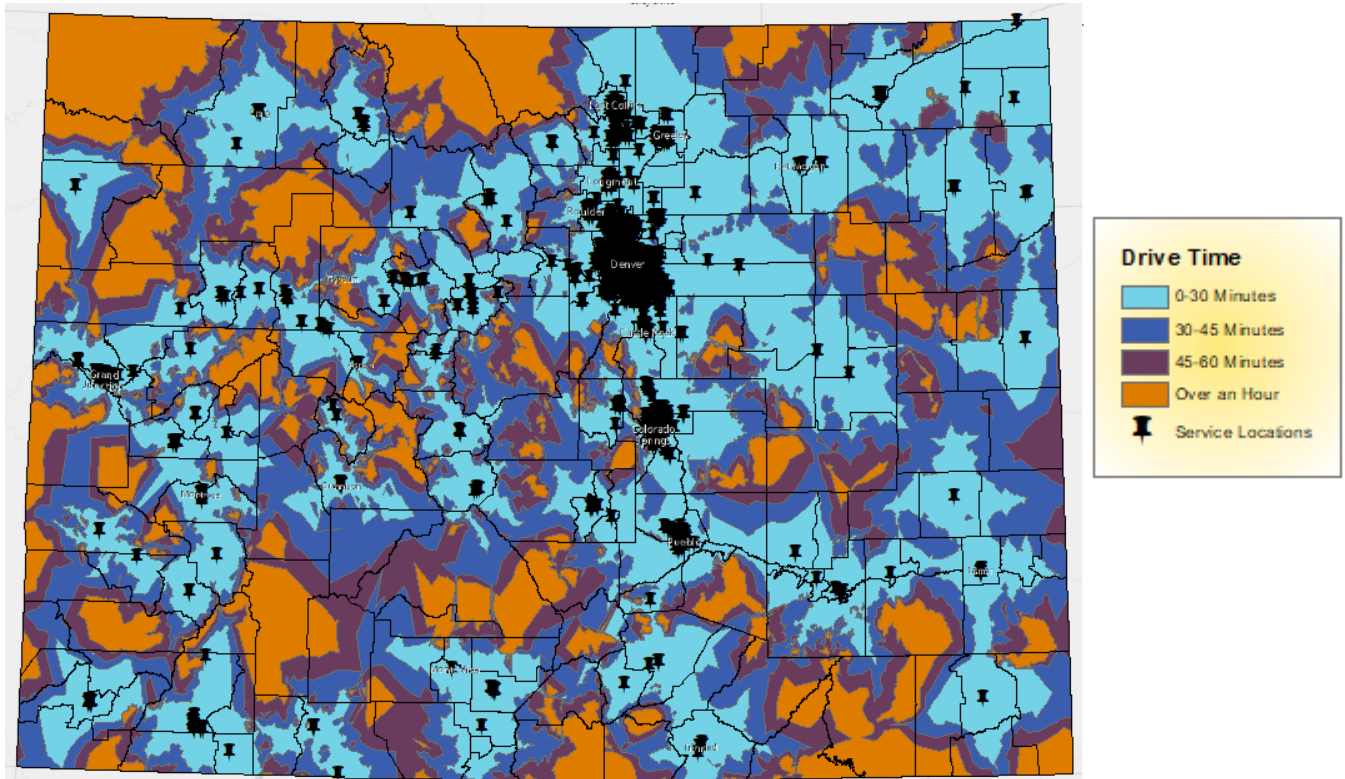


Figure 30. ArcGIS map of drive times of POS provider agencies to utilizers in FY 2018-19.

Overall, 98.10% of the total utilizers of POS services in FY 2018-19 resided 30 minutes or less from a POS provider. Additionally, 0.96% of the total utilizers resided approximately 30-45 minutes from a POS provider; 0.54% of the total utilizers resided 45-60 minutes from a POS provider. Finally, 0.40% of utilizers resided over an hour from a POS provider.

Stakeholder Feedback

The Department did not receive any stakeholder or committee member comments for POS services.

Additional Considerations

Other considerations included:

- Data analysis does not include out-of-state claims, including border towns and mail-order utilization.

Additional Research

The Department has not identified any additional research for POS services. However, the Department will evaluate additional needs, if any, as they arise.

Conclusion

Analyses suggest that POS payments at 80.80% of the benchmark were sufficient to allow for member access and provider retention.

The primary factors that led to this conclusion included:

- The decrease in panel size over time in urban and rural counties;
- Over 99% of utilizers live within 45 minutes of a POS provider; and
- Significantly high penetration rates for POS services across all county classifications.



Vision

Service Description

The vision service grouping is comprised of 109 procedure codes.

Vision Statistics	
Total Adjusted Expenditures FY 2018-19	\$57,870,999
Total Members Utilizing Services in FY 2018-19	209,019
FY 2018-19 Over FY 2017-18 Change in Members Utilizing Services	2.37%
Total Rendering Providers FY 2018-19	1,230
FY 2018-19 Over FY 2017-18 Change in Rendering Providers	(1.68%)

Table 26. Vision expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payment for vision services are estimated at 81.13% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.¹³²

Vision Rate Benchmark Comparison		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$57,870,999	\$71,328,226	81.13%

Table 27. Comparison of Colorado Medicaid Vision service payments to those of other payers, expressed as a percentage (FY 2018-19).

The estimated fiscal impact to Colorado Medicaid would be \$13,457,227 in total funds if Colorado had reimbursed at 100% of the combined benchmark in FY 2018-19. The vision individual rate ratios ranged from 25.06%-190.56%.¹³³ Of the 109 procedure codes analyzed in this service grouping, 25 were compared to Medicare and 84 were compared to an average of five other states' Medicaid rates.¹³⁴

¹³² Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

¹³³ Individual rate ratios for each procedure code are contained in Appendix B.

¹³⁴ States used in the vision rate comparison analysis were Arizona, California, Louisiana, Nevada, and Oklahoma.

Access to Care Analysis¹³⁵

Utilizers per Provider (Panel Size) Summary

Statewide, utilizers per provider for vision services averaged 42.86 in FY 2017-18 and decreased to 41.12 in FY 2018-19.¹³⁶ Additionally:

- In urban counties, utilizers per provider averaged 28.35 in FY 2017-18 and decreased to 26.96 in FY 2018-19.
- In rural counties, utilizers per provider averaged 9.74 in FY 2017-18 and decreased to 9.56 in FY 2018-19.
- In frontier counties, utilizers per provider averaged 4.77 in FY 2017-18 and decreased to 4.60 in FY 2018-19.

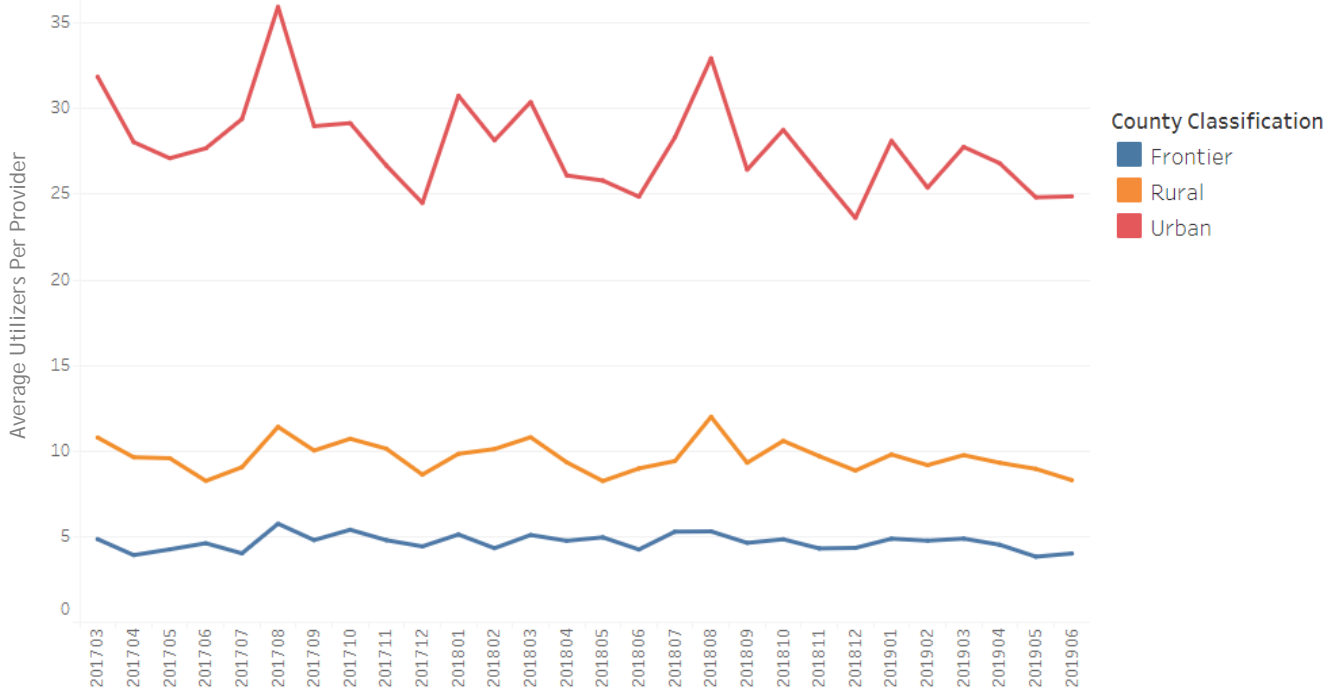


Figure 31. Utilizers per provider (panel size) for vision services between March 2017 to June 2019.

Analysis indicates that there were increases in the number of active providers over this time across all county classifications.

The number of active providers increased over time as the number of distinct utilizers remained relatively stable over time, which led to a slight decrease in the number of utilizers per provider.¹³⁷

The fluctuations in utilization correspond with school year schedules (e.g., higher utilization when children return to school in the fall and lower utilization during winter and summer breaks).

¹³⁵ It is important to note that the access to care metrics in this report do not indicate how Colorado Medicaid members' access to services in those regions compared to access for individuals with other or no insurance.

¹³⁶ Due to changes in the Medicaid Management Information System (MMIS), data is only available from March 2017 to present.

¹³⁷ For data specific to distinct utilizer and active providers, please see Appendix C.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of vision services reside throughout the state. Pitkin County had the lowest number of utilizers at 61 and El Paso County had the highest number of utilizers at 38,362 in FY 2018-19.

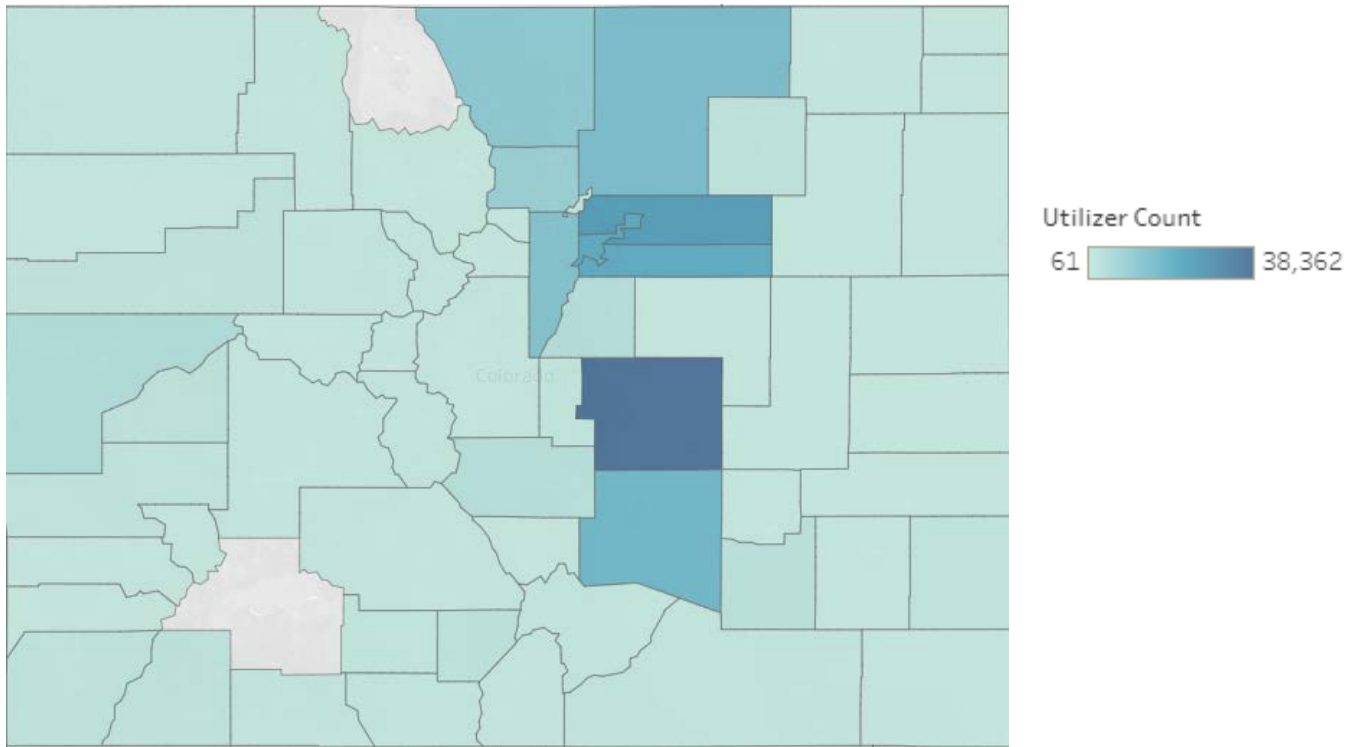


Figure 32. Utilizer density for vision services by county for FY 2018-19.¹³⁸

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

- a low number of Colorado Medicaid members utilizing vision services;
- the vision benefit scope is relatively narrow for members ages 21 and over; and
- accessing vision services in other settings not included in this analysis.

Additionally, two 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.

¹³⁸ See Figure 2. Colorado Counties and RAE County Classification on page 12 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 vision services in FY 2018-19 ranged from 31.11 in Pitkin County to 235.72 in Otero County. The penetration rate in Denver county was 79.95.

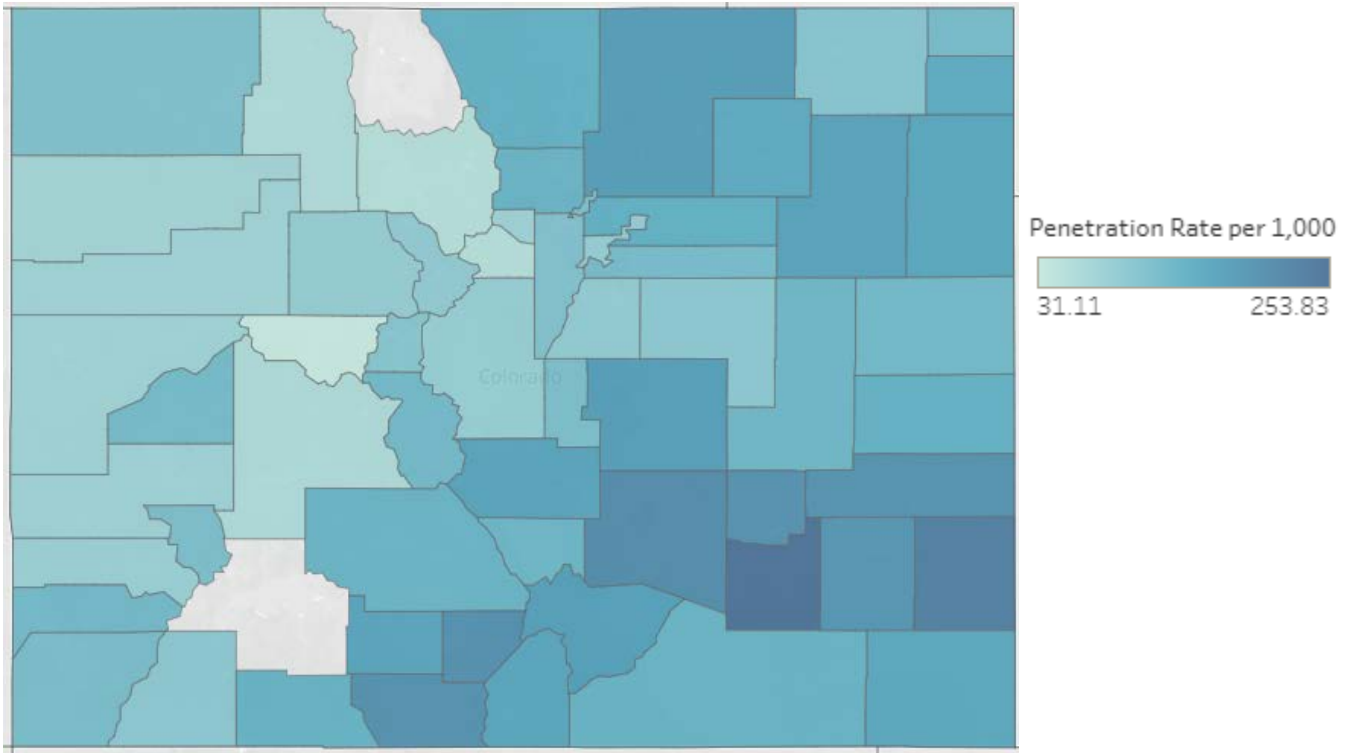


Figure 33. Penetration rates for vision services by county in FY 2018-19.

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

Additionally, two 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 vision service providers relative to all Colorado Medicaid members in a geographic area. This ratio is calculated as providers per 1,000 members.

Vision Member-to-Provider Ratios			
Region	FY 2018-19 Providers¹³⁹	FY 2018-19 Members	Providers per 1,000 Members
Frontier	437	45,482	9.61
Rural	624	171,787	3.63
Urban	1,175	1,304,100	0.90
Statewide	1,230	1,510,258	0.81

Table 28. Member-to-provider ratio for vision services expressed as providers per 1,000 members by county classification in FY 2018-19.

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.¹⁴⁰

¹³⁹ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

¹⁴⁰ Currently, the Department does not use member-to-provider ratio standards specific to vision 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 vision services utilizers that live within certain drive time bands from where vision providers are located.

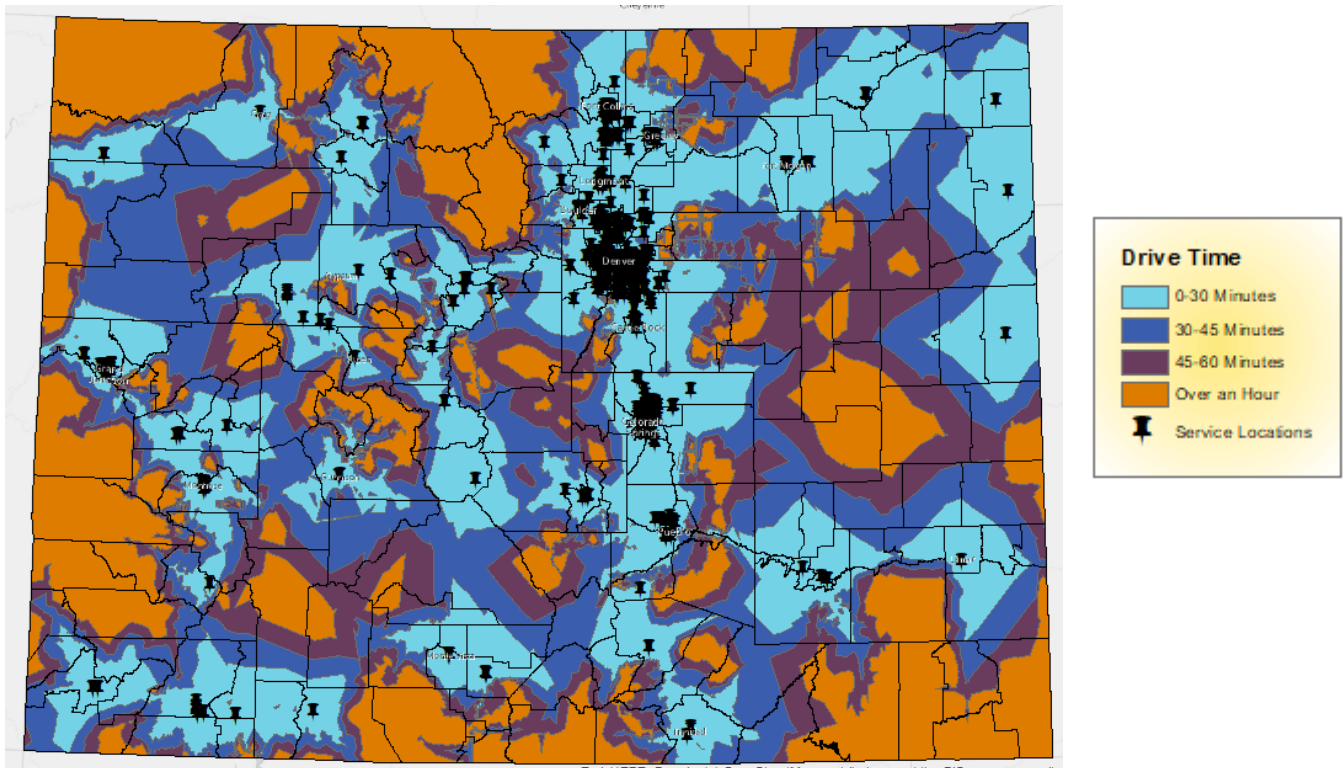


Figure 34. ArcGIS map of drive times of vision provider agencies to utilizers in FY 2018-19.

Overall, 96.14% of the total utilizers of vision services in FY 2018-19 resided 30 minutes or less from a vision services provider. Additionally, 2.01% of the total utilizers resided approximately 30-45 minutes from a vision services provider; 1.20% of the total utilizers resided 45-60 minutes from a vision services provider. Finally, 0.66% of utilizers resided over an hour from a vision services provider.

Stakeholder Feedback

The Department did not receive any stakeholder or committee comments for vision services.

Additional Considerations

The Department does not have any other considerations for vision services.

Additional Research

The Department does not have any plans for additional research for vision services.

Conclusion

Analyses suggest that vision services payments at 81.13% of the benchmark were sufficient to allow for member access and provider retention.

The primary factors that led to this conclusion included:

- The overall increase in active providers across all county classifications;
- The overall decrease in panel size over time across all county classifications;
- Over 98% of utilizers live within 45 minutes of a provider of vision services; and
- Significantly high penetration rates for vision services across all county classifications.



Appendices

Appendix A – Glossary

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

Appendix B – Data Analysis Methodology

Appendix B includes details of the benchmark creation, payment comparison methodology, and access to care analysis methodology for all services.

Appendix C – Service Grouping Data Books

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

- Top procedure or revenue codes by total paid;
- Gender and age demographics;
- Rate comparison visuals; and
- Additional access to care analysis information, including previously published access to care visuals and charts.

Appendix D – Supplemental Data Visuals

Appendix D contains supplemental data visuals created by the Department.

2020 Medicaid Provider Rate Review Analysis Report

Appendix A – Glossary

Appendix A provides explanations for common terms used throughout the 2020 Medicaid Provider Rate Review Analysis Report.

Active Provider - Any provider who billed Medicaid at least once between March 2017 and June 2019 for one of the procedure codes under review.

Benchmark Rates - Rates to which Colorado Medicaid rates are compared.

Billing Provider - Based on the billing provider ID, which is generally associated with the entity enrolled with Medicaid. This can be agencies, large provider groups, or individuals.

Colorado Repriced – This amount represents the application of current Colorado Medicaid rates (FY 2018-19) to the most recent and complete Colorado utilization data, obtained from claims data.

Comparison Repriced – This amount represents the application of comparators’ most recently-available fee schedule rates to the most recent and complete Colorado utilization data, obtained from claims data.

County Classification – Three regional descriptors applied to counties by the Regional Accountable Entities (RAEs).

Distinct Utilizers – The total number of distinct utilizers.

Drive Time - Measures the percent of Colorado Medicaid clients who traveled within four drive time bands (e.g., 0-30 minutes, 30-45 minutes, 45-60 minutes, over an hour) to receive services.

Member-to-Provider Ratio - The number of members per active rendering provider within a geographic area; calculated as providers per 1,000 members. It allows for comparison across areas with large differences in population size.

Panel Estimate - The average number of clients seen per rendering provider.

Penetration Rate - The total share of enrolled Colorado Medicaid members who utilized a service; calculated per 1,000 members.

Provider Count - A distinct count of the number of providers who billed for the service. Whether the provider is a billing provider or rendering provider is identified in the report.

Rate Benchmark Comparison – This percentage represents how Colorado Medicaid payments compare to other payers. It is calculated by dividing the Colorado Repriced amount by the Comparison Repriced amount.

Rate Ratio - For each service code, and relevant modifier, the rate ratio is the division of the corresponding Colorado rate to the Benchmark Rate. For example, if procedure code 99217 has a Colorado Medicaid rate of \$56.08 and Medicare has a rate of \$73.94 then the resulting rate ratio is $\$56.08/\$73.94 = 0.7585$, expressed as a percentage as 75.85%.

Rendering Provider - The provider who rendered the service.

Units - Quantities associated with a procedure; they may vary depending on type of service. The most common unit is one and represents the delivery of one unit of a service. Other services, such as physician- administered drugs, have a denomination reflected by the drug dosage (e.g., 1 mL, 5 mL, etc.). Some therapy and radiology services define units by time (e.g., 15 minutes). Not all payers share the same unit definitions and adjustments are sometimes incorporated to account for payer differences.

Utilizer Density – The number of distinct utilizers of a service in each county.

Utilizers per Provider – The average number of members seen per active provider, also called Panel Size.



2020 Medicaid Provider Rate Review Analysis Report

Appendix B – Rate Comparison and Access to Care Analysis Methodologies and Data

Appendix B includes details of the Year Five services benchmark creation and payment comparison methodology and data, as well as the access to care methodology and data.

Appendix B does not contain any assertions or conclusions on the sufficiency of Medicaid rates to provide adequate access to care. The Department contracted with Optumas, an actuarial firm, to provide support in comparing Colorado Medicaid rates to those of other payers and in analyzing access to care metrics. This appendix was prepared and written by Optumas.

Year Five Services

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** as part of the Year Five services:

- Pediatric Personal Care (PPC)
- Home Health (HH)
- Private Duty Nursing (PDN)
- Pediatric Behavioral Therapy (PBT)
- Speech Therapy (ST)
- Physical/Occupational Therapy (PT/OT)
- Prosthetics, Orthotics, and Disposable Supplies (POS)
- Vision

The work performed on Year Five 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 July 1, 2018 through June 30, 2019 (FY 2018-19) compares Colorado Medicaid's latest fee schedule estimated reimbursement with the estimated reimbursement of the overall benchmark(s). The rate comparison benchmark analysis for Speech Therapy (ST), Physical/Occupational Therapy (PT/OT), Prosthetics, Orthotics, and Disposable Supplies (POS), and Vision 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. Home Health (HH) and Private Duty Nursing (PDN) comprise services unique to Medicaid programs, and therefore compares Health First Colorado to other states. Paying consideration to the younger population of Pediatric Personal Care (PPC) and Pediatric Behavioral Therapy (PBT) utilizers, the Department has decided to compare Health First Colorado services to other states instead of Medicare as well.

All else being equal, if Colorado Medicaid were to reimburse at 100.00% of the overall benchmark, expenditures for FY 2018-19 would see the estimated total funds impacts summarized in **Table 1**:

Table 1. Colorado as a Percent of the Benchmark and Estimated FY 2018-19 Fund Impact

Service Group	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark	Estimated FY 2018-19 Total Fund Impact
PPC	\$1,782,986	\$1,327,092	134.35%	(\$455,894)
HH	\$405,487,149	\$398,640,813	101.72%	(\$6,846,336)
PDN	\$98,923,871	\$100,789,649	98.15%	\$1,865,778
PBT	\$52,508,317	\$56,519,880	92.90%	\$4,011,563
ST	\$20,174,700	\$27,446,109	73.51%	\$7,271,409
PT/OT	\$55,285,876	\$63,983,861	86.41%	\$8,697,985
POS	\$30,933,692	\$38,283,303	80.80%	\$7,349,611
Vision	\$57,870,999	\$71,328,226	81.13%	\$13,457,227

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 FY 2018-19 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 Definitions¹

Metric	Definition	Time Period
Utilizers	The count of distinct utilizers	July 2018 – June 2019, Monthly
Providers	The count of active providers	July 2018 – June 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 2018 – June 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	FY 2018-19
Utilizer Density Map	Utilizer count by county of residence	FY 2018-19
Penetration Rate Map	The estimated share of total Medicaid members that received the service by county of residence expressed as per 1,000 members	FY 2018-19

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

¹ The access to care analyses for some services also included drive time estimates. Drive time estimates were completed by the Department.

Data Validation

The Department provided two years and four months of fee-for-service (FFS) claims data, March 2017 through June 2019 for all services to **Optumas**, except PBT. The Department provided FFS claims data for PBT from July 2017² through June 2019. 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. Utilization reported on eight claims across PBT, POS and ST services was deemed unreasonable and specific adjustments were made to reflect billing practices that are expected going forward. Overall, results of this process suggested that the FY 2018-19 data for PPC, HH, PDN, PBT, ST, PT/OT, POS, and Vision 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 with denied status;
- Claims attributed to members with no corresponding eligibility span;
- Claims associated with members enrolled in Medicaid and Medicare (dual membership) for all services except HH and PDN⁴; and
- Claims in the capitated Child Health Plan *Plus* (CHP+) program.

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 are not covered benefits, and do not have a current Health First Colorado rate for comparison; and
- Procedure codes or revenue codes that do not have a comparable Medicare or other states' average rate.

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

² Data for PBT services through the EPSDT begins in July 2017 because PBT services were transitioned from a Waiver to a State Plan benefit in July 2017.

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

⁴ HH and PDN comprises services unique to Medicaid programs as part of the federally mandated benefit package and therefore the dual membership is not excluded from the rate comparison benchmark.

Table 3. Count of Codes*

Service Group	Manually Priced	No Health First Colorado Rate	No Comparable Rate Available
PPC	0	0	0
HH	0	0	5
PDN	0	0	0
PBT	0	0	3
ST	0	0	2
PT/OT	1	0	1
POS	16	0	0
Vision	3	0	2

*Figures represent unique combinations of codes and modifiers.

Services were priced to the Health First Colorado fee schedules at the procedure code and modifier or revenue code level. The summary of exclusions from the FY 2018-19 base data can be found in **Appendix B1**.

FY 2018-19 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 Five services was provided with four months of claims runout. While the raw claims data reflects the vast majority of FFS experience for Year Five services in FY 2018-19, 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**.

A subset of procedure codes required further adjustments to account for discontinued codes. For more information on these adjustments, please see the service-specific sections under the rate comparison benchmark analysis below.

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 Year Five 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 valid comparison.⁵ Rates were assigned by considering the combination of procedure code and modifier present on each claim. The POS service under review also include a geographic component. Zip codes, county, and place of service codes were considered in order to compare an appropriate rate.

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 January 1, 2020.

For the PPC, HH, PDN, PBT and procedure codes without a comparable Medicare rate in the remaining services, supplemental rates were drawn from other state Medicaid programs. The states included will be listed in each service specific section below.⁶ These rates were also linked to Health First Colorado’s Medicaid claims on a procedure code-modifier, revenue code, or service description basis.

This left a small portion of the data for which a comparable rate could not be found under the Year Five 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 unique procedure codes and revenue 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
PPC	n/a	1	0
HH	n/a	15	5
PDN	n/a	5	0
PBT ⁷	n/a	6	3
ST	19	1	2
PT/OT	39	6	1
POS	688	29	0
Vision	25	84	2

*The count of codes for HH and PDN claims shown here represents unique procedure code-modifiers or revenue codes, while all other services represent a unique procedure code-modifier count.

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**:

⁶ Other states selected for this analysis were provided by the Department.

⁷ Three PBT procedure codes used in the rate comparison benchmark analysis were discontinued during the FY 2018-19 time period and have transitioned to existing procedure codes. This table contains the count of codes before the transition. <https://www.colorado.gov/pacific/hcpf/pediatric-behavioral-therapies>

Table 5. Rate Ratio Ranges by Comparison Source

Service Group	Medicare	Other States
PPC	n/a	134.35%
HH ⁸	n/a	76.04% - 348.53%
PDN	n/a	74.08% - 102.03%
PBT	n/a	85.99% - 94.31%
ST	16.82% - 107.20%	62.94%
PT/OT	28.09% - 158.94%	47.26%-793.16%
POS	4.51% - 1,174.42%	33.33%-306.90%
Vision	28.57% - 144.33%	25.06% - 190.56%

As an example, the second set of figures in Table 5 can be interpreted to mean that when comparing HH services to the Other States average by revenue code description, the Health First Colorado rates were anywhere from 76.04% to 348.56% of the other states average rates. The ST service group can be interpreted to mean when comparing ST services to Medicare at the procedure code-modifier level, the Health First Colorado rates were anywhere from 16.82% to 107.20% of the Medicare rates.

The final step consisted of applying the base utilization to reprice claims at Health First Colorado’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 Five services that are common between Health First Colorado and another source. In other words, if no comparable rate could be found for a specific service offered in Health First Colorado, 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.

PPC Payment Comparison

The rate comparison analysis for Pediatric Personal Care (PPC) services assigns an average rate from a selected group of other states. The Department has decided to compare these youth-specific services to other states because of differences in the Medicare population underlying the Medicare rates.

Health First Colorado pays PPC claims based on one procedure code, T1019. The rate for T1019 is \$4.92 per 15-minutes according to Colorado Health First’s fee schedule effective July 1st, 2019.

⁸ The HH rate ratio ranges are inflated due to the methodology used to reprice the Home Health Aid (HHA) services. Colorado pays for Home Health Aide services using both a basic and an extended rate while most other states reimburse at a per visit basis, thus inflating the difference between the basic, extended and other states average rates.

A simple average of the other states rates is applied to obtain a benchmark repriced amount. Other states’ rates are matched on a service description basis, and not just on the procedure code basis. The Department has reviewed many states and found service description matches for the following: California, Florida, Idaho, Louisiana, and Texas. For PPC services, youth-specific rates in other states’ fee schedules were expressly researched to incorporate in the comparison benchmark. Florida and Texas are the only states with what appear to be youth-specific rates.

The final segment of the rate comparison analysis involved using the defined utilization to reprice claims according to Health First Colorado’s rates and those of the other five states. Colorado’s utilization was multiplied by the corresponding rates, followed by subtraction of TPL and co-payments to calculate the estimated total expenditures that would theoretically be reimbursed in each location.

PPC results are presented in **Table 6** with Colorado’s expenditures described as a percentage of each state separately.

Table 6. Benchmark Comparison Results by State

Colorado as a percent of the Benchmark					
Service	CA	FL	ID	LA	TX
PPC	135.91%	131.20%	109.58%	140.57%	166.78%

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

Table 7. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	134.35%
Colorado Repriced Amount	\$1,782,986
Benchmark Repriced Amount	\$1,327,092
Est. FY 2018-19 Total Fund Impact	(\$455,894)

Table 7 can be interpreted to mean that for PPC services under review, Health First Colorado pays an estimated 34.35% more than the other states average. Had Health First Colorado reimbursed at 100.00% of the benchmark rates in FY 2018-19, the estimated impact to the Total Fund would be \$455,894 in savings. Detailed comparison results can be found in **Appendix B3**.

HH Payment Comparison

Home Health comprises services unique to Medicaid programs as part of the federally mandated benefit package.⁹ However, each state has some flexibility with respect to design and additional coverage.¹⁰ In order to collect comparable information, it was necessary to reference the state-specific program manuals and fee schedules. The other states included in the analysis are: California, Idaho, Illinois, Louisiana, Nebraska, North Carolina, Ohio, Oregon, Washington, and Wisconsin. Once compiled, this information was used to determine the most appropriate analog for each Colorado service within the other states' respective benefit packages.¹¹ Medicare is not used as a benchmark.

Information on rates as well as relevant details on the program's services are not always compatible with those of Colorado. For example, reimbursement for Home Health services in Colorado is based on revenue codes, but this is not always the case in other states which often use procedure codes instead. Such instances were handled through a careful examination of the service descriptions. Additionally, even when states agree on what a particular service entails, they may not define a unit of that service in the same manner (i.e. one state may measure service time visits; another may use 15-minute increments). Due to these differences and others, assumptions were made to compare most services in Colorado with those of other states.

With Home Health Aide services representing over 66% of Home Health expenditures in FY 2018-19, assumptions were essential to the overall comparison of Colorado's rates for this service type. One example of these assumptions is Colorado pays for Home Health Aide (HHA) services using both a basic and an extended rate, with providers receiving reimbursement at the basic rate for the first hour and the extended rate for every 15 minutes thereafter. While Nebraska and Ohio employ a similar system with corresponding rates, the other states pay on a per visit basis. Therefore, it was necessary to assume that these other states' rates include both basic and extended utilization.

Conversely, Ohio Medicaid pays for all its home health services using an extended rate component while Colorado does not use an extended rate for all services. For example, Colorado reimburses physical, occupational, and speech/language therapy services under HH on a per visit basis, with each visit lasting up to 2.5 hours. The subsequent assumption is Ohio's basic rate (accounting for the first hour) combined with six units of the extended rate (accounting for another 1.5 hours) form an adequate estimate on a per visit basis. Similar assumptions were made for other services and for other states as well.

Lastly, Washington's HH Medicaid fee schedule is split by county. A straight average across all counties is assumed.

HH results are presented in **Table 8** with Colorado's expenditures described as a percentage of each state net of TPL and co-payments.

⁹ <https://www.medicaid.gov/medicaid/benefits/mandatory-optional-medicaid-benefits/index.html>

¹⁰ <http://kff.org/medicaid/state-indicator/home-health-services-includes-nursing-services-home-health-aides-and-medical-suppliesequipment/>

¹¹ A suitable match was not found for every service in every other state, but the other states average does account for over 99% of costs and utilization.

Table 8. Benchmark Comparison Results by State

Colorado as a percent of the Benchmark										
Service	CA	ID	IL	LA	NC	NE	OH	OR	WA	WI
HH	125.89%	119.46%	88.39%	90.80%	111.19%	72.48%	160.87%	75.21%	89.88%	131.83%

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

Table 9. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	101.72%
Colorado Repriced Amount	\$405,487,149
Benchmark Repriced Amount	\$398,640,813
Est. FY 2018-19 Total Fund Impact	(\$6,846,336)

Table 9 can be interpreted to mean that for HH services under review, Health First Colorado pays an estimated 1.72% more than the other states average. Had Health First Colorado reimbursed at 100.00% of the benchmark rates in FY 2018-19, the estimated impact to the Total Fund would be \$6,846,336 in savings. Detailed comparison results can be found in **Appendix B4**.

PDN Payment Comparison

Private Duty Nursing is an optional State Plan benefit.¹² States that choose to cover PDN services have considerable flexibility in deciding how best to design and manage the benefit. For example, states may limit the service to clients who are ventilator dependent and can determine a limit on the number of allowable service hours. In order to collect comparable information, it was necessary to reference the state-specific program manuals and fee schedules through various state Medicaid agency websites. Publicly available files were collected from the following: Arizona, California, Illinois, Indiana, Louisiana, Massachusetts, Maryland, Minnesota, Nebraska, North Carolina, Ohio, Oregon, Washington, and Wisconsin.

Similar to the HH rate comparison, information on rates as well as relevant details on the program’s services are not always comparable to those of Colorado. For example, reimbursement for PDN services in Colorado is based on revenue codes, but this is not always the case in other states which often use procedure codes. Thus, a manual service descriptions review was required to match rates across other states. Additionally, although two or more states may share one common service description, those states may not define a single unit of service in the same manner (e.g. one state may define one unit as one

¹² As of 2018, only 25 state Medicaid agencies are known to offer some form of PDN services. See

<https://www.kff.org/medicaid/state-indicator/private-duty-nursing-services/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>

hour, while another state may define one unit as 15 minutes, etc.). Due to these and other differences, assumptions were required to compare services in Colorado with those of other states.

One particular example of these assumptions requires additional explanation. Ohio Medicaid pays for PDN services using both a basic and an extended rate, with providers receiving reimbursement at the basic rate for the first hour and the extended rate for every 15 minutes thereafter. However, Colorado reimburses services on an hourly basis. The subsequent assumption is that Ohio’s basic rate (accounting for the first hour) would be combined with groups of four units of the extended rate as needed (accounting for each additional hour) to form an adequate estimate of how this service would be billed in Ohio.

Similar unit assumptions were made for other services and for other states as well.

Additionally, other states may reimburse private duty nursing registered nursing (RN) and licensed practical nurse (LPN) rates split by complexity, geographic region, weekend, night, evening, holiday, and/or overtime. A straight average is calculated across these rates, and holiday and overtime rates are excluded from the average.

PDN results are presented in **Table 10** with Colorado’s expenditures described as a percentage of each state net of TPL and co-payments.

Table 10. Benchmark Comparison Results by State

Colorado as a percent of the Benchmark							
Service	AZ	CA	IL	IN	LA	MA	MD
PDN	71.15%	66.60%	133.70%	109.73%	131.84%	71.43%	91.84%
Colorado as a percent of the Benchmark Continued							
Service	MN	NE	NC	OH	OR	WA	WI
PDN	132.14%	112.79%	109.23%	125.34%	80.72%	102.97%	144.58%

Table 11 summarizes the payment comparison and estimated fiscal impact in aggregate other states average.

Table 11. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	98.15%
Colorado Repriced Amount	\$98,923,871
Benchmark Repriced Amount	\$100,789,649
Est. FY 2018-19 Total Fund Impact	\$1,865,778

Table 11 can be interpreted to mean that for PDN services under review, Health First Colorado pays an estimated 1.85% less than the other states average. Had Health First Colorado reimbursed at 100.00% of the benchmark rates in FY 2018-19, the estimated impact to the Total Fund would be \$1,865,778. Detailed comparison results can be found in **Appendix B5**.

PBT Payment Comparison

The rate comparison analysis for Pediatric Behavioral Therapy (PBT) services assigns an average rate from a selected group of other states. Similar to PPC, the Department has decided to compare these youth-specific services to other states because of differences in the Medicare population underlying the Medicare rates.

The Health First Colorado physician fee schedule rates effective July 1, 2019 are applied to the procedure codes to obtain a Colorado Repriced amount.

Additionally, three PBT procedure code-modifiers were discontinued during the FY 2018-19 time period and have transitioned to existing procedure codes presented in **Table 12**:

Table 12. PBT Transitioned Procedure Code

Procedure Code	Replacement Procedure Code	Procedure Description
H0046	97153	ADAPTIVE BEHAVIOR TX BY TECH
H0046 TJ	97155	ADAPT BEHAVIOR TX PHYS/QHP
T1024	97151	BHV ID ASSMT BY PHYS/QHP

Note: In **Appendix B7**, which contains detailed procedure code level rate comparison results, this transitioned procedure code is shown with the Health First Colorado rate of the replacement code. For example, procedure code H0046 is compared using a Colorado rate of \$13.50, corresponding to the 97153 rate found in the Health First Colorado General Fee Schedule effective July 2019.

A simple average of the other states rates is applied to obtain a benchmark repriced amount. Other states’ rates are matched on a procedure code and modifier basis. The Department has reviewed and found matches for the following states: Connecticut, Louisiana, Minnesota, North Carolina, New Mexico, Nevada, Oregon, Utah, and Washington.

Although the PBT services are youth-specific, the other state fee schedules included by the Department do not appear to be youth-specific fees.

PBT results are presented in **Table 13** with Colorado’s expenditures described as a percentage of each state net of TPL and co-payments.

Table 13. Benchmark Comparison Results by State

Colorado as a percent of the Benchmark									
Service	CT	LA	MN	NC	NM	NV	OR	UT	WA
PBT	120.70%	121.90%	87.10%	74.36%	76.86%	50.31%	130.64%	147.37%	136.04%

Table 14 summarizes the payment comparison and estimated fiscal impact in aggregate other states average.

Table 14. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	92.90%
Colorado Repriced Amount	\$52,508,317
Benchmark Repriced Amount	\$56,519,880
Est. FY 2018-19 Total Fund Impact	\$4,011,563

Table 14 can be interpreted to mean that for PBT services under review, Health First Colorado pays an estimated 7.10% less than the other states average. Had Health First Colorado reimbursed at 100.00% of the benchmark rates in FY 2018-19, the estimated impact to the Total Fund would be \$4,011,563. Detailed comparison results can be found in **Appendix B6**.

ST Payment Comparison

The rate comparison analysis for speech therapy (ST) services first assigns Medicare’s physician fee schedule specific to Colorado to the base utilization. For services without a comparable Medicare rate, supplemental rates were drawn from other state Medicaid programs.

The Health First Colorado physician fee schedule rates effective July 1, 2019 are applied to the procedure codes to obtain a Colorado Repriced amount.

Medicare’s physician rates use a resource-based relative value system (RBRVS) that divides a service into three components: physician work, practice expense, and professional liability insurance. The ST rates are matched based on procedure code, modifier, and facility status. Over 99% of the base ST utilization is associated with a non-facility place of service.

Additionally, Medicare applies a multiple procedure payment reduction to most therapy codes. According to the American Speech-Language-Hearing Association (ASHA)¹³, the ‘Multiple Therapy Discount’ system gives full payment for the therapy service or unit with the highest practice expense value and a 50% payment reduction to each fee of the practice expense will apply for any other therapy performed for a single beneficiary on the same day in the same facility.

Overall, there is a matching Medicare rate for over 97% of the base ST utilization in FY 2018-19. For services without a comparable Medicare rate, supplemental rates were drawn from other state Medicaid programs. Other states Medicaid rates is utilized for one procedure code, 92606 ‘non-speech device service’. Arizona, California, Minnesota, Nevada, North Dakota, and South Carolina are linked to Health First Colorado claims on a procedure code basis and the simple average of all corresponding rates is used.

¹³ <https://www.asha.org/practice/reimbursement/medicare/calculating-medicare-fee-schedule-rates/>

Table 15 summarizes the ST rate benchmark by the comparison sources.

Table 15. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$361,384	\$574,446	62.91%
Medicare	\$19,813,316	\$26,871,663	73.73%
Total	\$20,174,700	\$27,446,109	73.51%

Table 16 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 16. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	73.51%
Colorado Repriced Amount	\$20,174,700
Benchmark Repriced Amount	\$27,446,109
Est. FY 2018-19 Total Fund Impact	\$7,271,409

Table 16 can be interpreted to mean that for ST services under review, Health First Colorado pays an estimated 26.49% less than the benchmark. Had Health First Colorado reimbursed at 100.00% of the benchmark rates in FY 2018-19, the estimated impact to the Total Fund would be \$7,271,409. Detailed comparison results can be found in **Appendix B7**.

PT/OT Payment Comparison

The rate comparison analysis for Physical/Occupational Therapy (PT/OT) services is a similar process to ST and first assigns Medicare’s physician fee schedule specific to Colorado to the base utilization. For services without a comparable Medicare rate, supplemental rates were drawn from other state Medicaid programs.

The Health First Colorado physician fee schedule rates effective July 1, 2019 are applied to the procedure codes to obtain a Colorado Repriced amount.

As noted above, Medicare’s physician rates use a resource-based relative value system (RBRVS) that divides a service into three components: physician work, practice expense, and professional liability insurance. The PT/OT rates are also matched based on procedure code, modifier, and facility status. 100% of the base PT/OT utilization is associated with a non-facility place of service.

Additionally, Medicare applies a multiple procedure payment reduction to most therapy codes. According to the American Speech-Language-Hearing Association (ASHA)¹⁴, the ‘Multiple Therapy Discount’ system gives full payment for the therapy service or unit with the highest practice expense value and a 50% payment reduction to each fee of the practice expense will apply for any other therapy performed for a single beneficiary on the same day in the same facility.

Overall, there is a matching Medicare rate for over 95% of the PT/OT FY 2018-19 base utilization. For services without a comparable Medicare rate, supplemental rates were drawn from other state Medicaid programs. Other states Medicaid rates include Arizona, California, Maine, Michigan, Oklahoma, and Oregon. Rates are linked to Health First Colorado claims on a procedure code basis and the simple average of all corresponding rates is used.

Table 17 summarizes the PT/OT rate benchmark by the comparison sources.

Table 17. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$1,496,325	\$1,399,796	106.90%
Medicare	\$53,789,551	\$62,584,066	85.95%
Total	\$55,285,876	\$63,983,861	86.41%

Table 18 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 18. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	86.41%
Colorado Repriced Amount	\$55,285,876
Benchmark Repriced Amount	\$63,983,861
Est. FY 2018-19 Total Fund Impact	\$8,697,985

Table 18 can be interpreted to mean that for PT/OT services under review, Health First Colorado pays an estimated 13.59% less than the benchmark. Had Health First Colorado reimbursed at 100.00% of the benchmark rates in FY 2018-19, the estimated impact to the Total Fund would be \$8,697,985. Detailed comparison results can be found in **Appendix B8**.

¹⁴ <https://www.asha.org/practice/reimbursement/medicare/calculating-medicare-fee-schedule-rates/>

POS Payment Comparison

The rate comparison analysis for Prosthetics, Orthotics, and Disposable Supplies (POS) services first assigns Medicare rates to the base utilization and in cases where Medicare rates were not available for comparison, an average rate from a selected group of other states was used.

The Health First Colorado physician fee schedule rates effective July 1, 2019 are applied to the procedure codes and modifier combinations to obtain a Colorado Repriced amount.

There are two Medicare fee schedules used in the rate comparison benchmark analysis; The January 2020 Competitive Bidding Program areas (CBA) fee schedule, and the January 2020 Medicare Durable Medical Equipment, Prosthetics, Orthotics, and Supplies (DMEPOS) fee schedule. A member’s zip code is utilized to determine the CBA as Colorado Springs or Denver, and if the zip code is not a CBA, then the zip code determines the Colorado-specific rural or non-rural rates on the DMEPOS fee schedule. The non-rural DMEPOS fee schedule is treated as a “catch-all”, and a claim will receive this rate if available regardless of the zip code.

The Medicare rate is matched at the procedure code and modifier combination, except for instances where the Medicare fee schedule uses a New Unit (NU) modifier, and the Colorado does not. We have allowed for matches to occur where Medicare contains an ‘NU’ modifier to Colorado’s claims, regardless of modifier. For example, Medicare’s DMEPOS fee schedule contains only one rate for procedure code A4253 blood glucose/reagent strips with an ‘NU’ modifier, while Colorado’s base data rarely contains a NU modifier. We have allowed for the match to occur, regardless of modifier in this instance.

Of Colorado’s repriced dollars, roughly 97% were compared against a Medicare benchmark.

For instances where there was no Medicare rate, a simple average of the other states rates is applied. Other states rates are matched on a procedure code basis and include the following: Arizona, California, Louisiana, Nevada, Oklahoma, Ohio, Oregon, and Texas.

Table 19 summarizes the POS rate benchmark by the detailed comparison sources.

Table 19. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$966,737	\$608,121	158.97%
Medicare CBA Colorado Springs	\$325,677	\$196,507	165.73%
Medicare CBA Denver	\$678,410	\$426,270	159.15%
Medicare Rural Rate	\$413,327	\$413,070	100.06%
Medicare Non-Rural Rate	\$28,549,542	\$36,639,336	77.92%
Total	\$30,933,692	\$38,283,303	80.80%

Table 20 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 20. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	80.80%
Colorado Repriced Amount	\$30,933,692
Benchmark Repriced Amount	\$38,283,303
Est. FY 2018-19 Total Fund Impact	\$7,349,611

Table 20 can be interpreted to mean that for POS services under review, Health First Colorado pays an estimated 19.20% less than the benchmark. Had Health First Colorado reimbursed at 100.00% of the benchmark rates in FY 2018-19, the estimated impact to the Total Fund would be \$7,349,611. Detailed comparison results can be found in **Appendix B9**.

Vision Payment Comparison

The rate comparison analysis for Vision services first assigns Medicare’s physician fee schedule specific to Colorado to the base utilization. For services without a comparable Medicare rate, supplemental rates were drawn from other state Medicaid programs.

The Health First Colorado physician fee schedule rates effective July 1, 2019 are applied to the procedure codes and modifiers to obtain a Colorado Repriced amount.

The January 2020 Medicare Physician Fee Schedule (PFS) lists both facility and non-facility specific rates. For Vision services, the place of service code on the claim determined whether the facility or non-facility rate was used. Of Colorado’s repriced dollars, 42.15% were compared against a Medicare benchmark.

For instances where there was no Medicare rate, a simple average of the other states rates is applied. Other states rates are matched on a procedure code basis and include the following: Arizona, California, Louisiana, Nevada, and Oklahoma.

Table 21 summarizes the vision rate benchmark by the comparison sources.

Table 21. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$33,480,795	\$41,216,125	81.23%
Medicare	\$24,390,204	\$30,112,101	81.00%
Total	\$57,870,999	\$71,328,226	81.13%

Table 22 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 22. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	81.13%
Colorado Repriced Amount	\$57,870,999
Benchmark Repriced Amount	\$71,328,226
Est. FY 2018-19 Total Fund Impact	\$13,457,227

Table 22 can be interpreted to mean that for vision services under review, Health First Colorado pays an estimated 18.87% less than the benchmark. Had Health First Colorado reimbursed at 100.00% of the benchmark rates in FY 2018-19, the estimated impact to the Total Fund would be \$13,457,227. Detailed comparison results can be found in **Appendix B10**.

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 FY 2018-19** 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 FY 2018-19** showing on a map the geographic distribution and prevalence of members utilizing each service group, and;
6. **Penetration Rates by county in FY 2018-19** 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 2020 Medicaid Provider Rate Review Analysis Report (the report).

Data Validation

All time periods deemed appropriate after the data validation are included in access to care analyses. The smoothing adjustment to utilization of specific claims in PBT, POS and ST services were made to reflect billing practices that are expected going forward is also done to mirror the adjustment made in the rate comparison benchmark analysis. No other adjustments are made to the access to care data.

Interpretation of Results

To address access to care for Year Five 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 user 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 user 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 FY 2018-19 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 users in the data. For example, if a member resided in both an urban and rural county during the FY 2018-19 time period, that member would contribute to both the urban FY 2018-19 total user counts as well as the rural FY 2018-19 total user 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.

Appendix B1: Base Data Summary | Optumas

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

	PPC	HH	PDN	PBT	ST	PT/OT	POS	Vision
FY2017-18 Raw Data	\$1,759,223	\$391,267,838	\$96,364,350	\$50,915,640	\$19,449,656	\$52,129,747	\$31,530,786	\$55,139,530
Exclusions								
No Eligibility Span	\$0	\$1,280,054	\$292,753	\$60,332	\$54,815	\$216,314	\$45,063	\$222,498
Dual Membership	\$0	\$0	\$0	\$46,621	\$23,392	\$119,295	\$413,720	\$111,657
CHP+	\$8,824	\$0	\$0	\$0	\$5,998	\$5,788	\$1,422	\$4,928
Manually Priced	\$0	\$0	\$0	\$0	\$0	\$13,839	\$316,475	\$70,538
No Colorado Rate	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
No Comparison Rate	\$0	\$3,151,518	\$0	\$780,765	\$10,236	\$2,001	\$0	\$829
Total Exclusions	\$8,824	\$4,431,572	\$292,753	\$887,718	\$94,441	\$357,236	\$776,680	\$410,459
Repricing Base								
Year Five Base Data	\$1,750,399	\$386,836,266	\$96,071,598	\$50,027,922	\$19,355,215	\$51,772,511	\$30,754,106	\$54,729,071
Percentage of Raw	99.50%	98.87%	99.70%	98.26%	99.51%	99.31%	97.54%	99.26%

Note: as an example, the PPC final figures in the above table can be interpreted to mean that 99.50% (accounting for \$1,750,399 in raw, unadjusted paid dollars) of the FY 2018-19 data provided by the Department was appropriate for use in the payment rate comparison analysis.

Appendix B2: Utilization IBNR

Service Group	Utilization Factor
PPC	0.9935
HH	0.9713
PDN	0.9817
PBT	0.9693
ST	0.9776
PT/OT	0.9509
POS	0.9680
Vision	0.9927

Note: as an example, the first figure in this table can be interpreted as an estimate that the raw utilization data for PPC represents 99.35% of the true total expected for FY 2018-19 after all claims run-out has been reported in the payment system.

Appendix B3: PPC Rate Ratio Results

These appendices show the rate ratios between Health First Colorado and other states comparison rates found in the rate comparison benchmark analysis for procedure code T1019.

The other states rates are matched by service description.

Other State	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
CA	Other States	\$4.92	\$3.62	135.91%
FL	Other States	\$4.92	\$3.75	131.20%
ID	Other States	\$4.92	\$4.49	109.58%
LA	Other States	\$4.92	\$3.50	140.57%
TX	Other States	\$4.92	\$2.95	166.78%

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Appendix B4: HH Rate Ratio Results

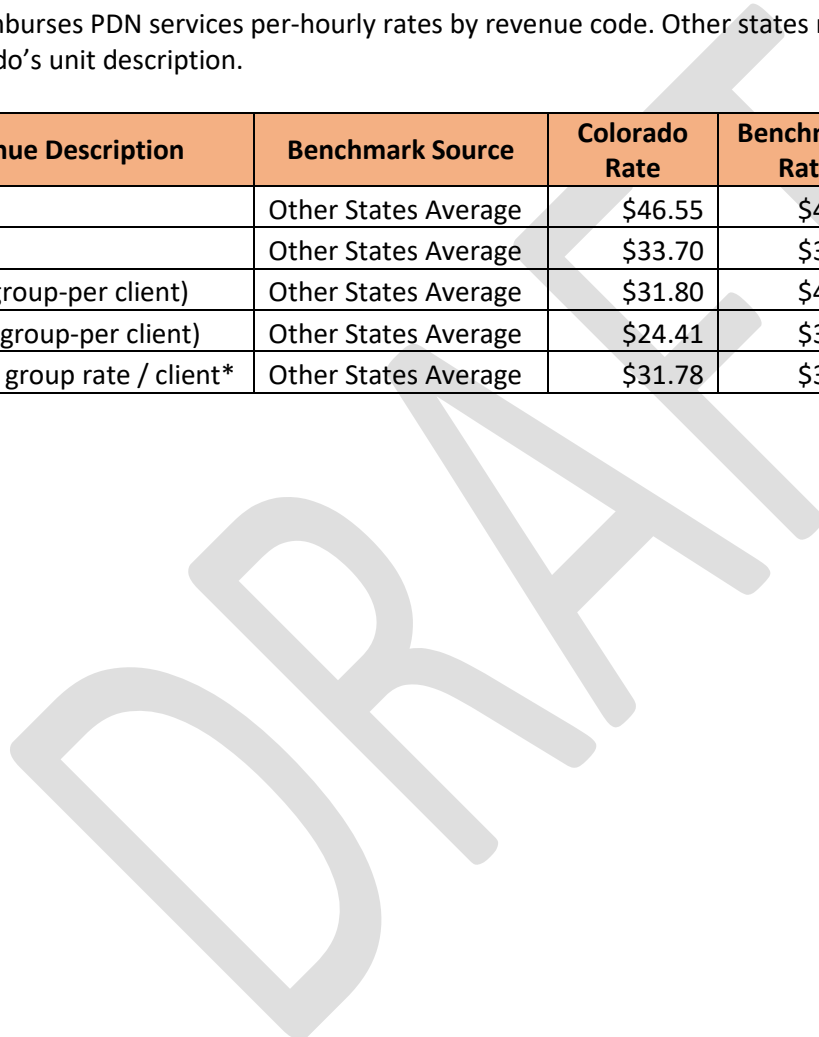
Although Health First Colorado reimburses HH services on a revenue code and a procedure code-modifier fee schedule, other states rates are matched by service description.

Revenue Code	Revenue Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
420	PT	Other States Average	\$122.56	\$118.03	103.84%
421	PT	Other States Average	\$122.56	\$118.03	103.84%
424	PT for HCBS Home Mod Evaluation	Other States Average	\$122.56	\$100.40	122.07%
430	OT	Other States Average	\$123.36	\$115.36	106.94%
431	OT	Other States Average	\$123.36	\$115.36	106.94%
434	OT for HCBS Home Mod Evaluation	Other States Average	\$123.36	\$101.10	122.01%
440	S/LT	Other States Average	\$133.19	\$121.07	110.01%
441	S/LT	Other States Average	\$133.19	\$121.07	110.01%
550	RN/LPN	Other States Average	\$112.08	\$102.00	109.89%
551	RN/LPN	Other States Average	\$112.08	\$102.00	109.89%
570	HHA Basic	Other States Average	\$38.12	\$50.13	76.04%
571	HHA Basic	Other States Average	\$38.12	\$50.13	76.04%
572	HHA Extended	Other States Average	\$11.39	\$3.27	348.53%
579	HHA Extended	Other States Average	\$11.39	\$3.27	348.53%
590	RN Brief 1st of Day	Other States Average	\$75.04	\$29.58	253.68%

Appendix B5: PDN Rate Ratio Results

Health First Colorado reimburses PDN services per-hourly rates by revenue code. Other states rates are matched by service description and are adjusted to match Colorado’s unit description.

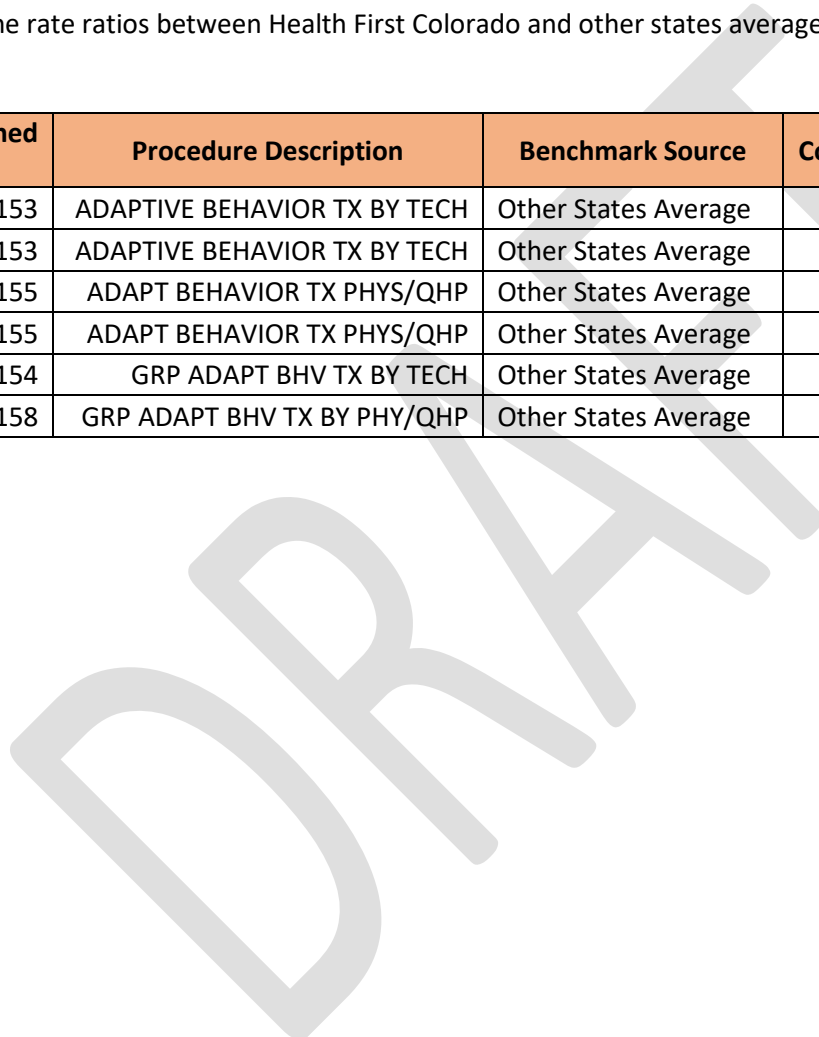
Revenue Code	Revenue Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
552	PDN-RN	Other States Average	\$46.55	\$45.62	102.03%
559	PDN-LPN	Other States Average	\$33.70	\$34.75	96.98%
580	PDN-RN (group-per client)	Other States Average	\$31.80	\$40.88	77.78%
581	PDN-LPN (group-per client)	Other States Average	\$24.41	\$32.95	74.08%
582	"Blended" group rate / client*	Other States Average	\$31.78	\$36.92	86.08%



Appendix B6: PBT Rate Ratio Results

These appendices show the rate ratios between Health First Colorado and other states average comparison rates by procedure code.

Procedure Code	Transitioned Code	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
97153	97153	ADAPTIVE BEHAVIOR TX BY TECH	Other States Average	\$13.50	\$14.60	92.45%
H0046	97153	ADAPTIVE BEHAVIOR TX BY TECH	Other States Average	\$13.50	\$14.60	92.45%
97155	97155	ADAPT BEHAVIOR TX PHYS/QHP	Other States Average	\$21.06	\$22.33	94.31%
H0046 TJ	97155	ADAPT BEHAVIOR TX PHYS/QHP	Other States Average	\$21.06	\$22.33	94.31%
97154	97154	GRP ADAPT BHV TX BY TECH	Other States Average	\$6.76	\$7.86	85.99%
97158	97158	GRP ADAPT BHV TX BY PHY/QHP	Other States Average	\$10.53	\$11.42	92.18%



Appendix B7: ST 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 the modifiers, place of service code, multiple therapy discount (MTD) or other data elements impact the Colorado Medicaid or benchmark rate that the procedure code receives.

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

- Procedure Code
- Modifiers
- Place of Service Code
- Multiple Therapy Discount (MTD)

Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
92507		SPEECH/HEARING THERAPY	Medicare PFS Non-Facility	\$62.46	\$82.10	76.08%
92507		SPEECH/HEARING THERAPY	Medicare PFS Facility	\$62.46	\$82.10	76.08%
92507		SPEECH/HEARING THERAPY	Medicare PFS Non-Facility MTD	\$62.46	\$65.33	95.61%
92507	GT	SPEECH/HEARING THERAPY	Medicare PFS Non-Facility	\$67.46	\$82.10	82.17%
92507	GT	SPEECH/HEARING THERAPY	Medicare PFS Facility	\$67.46	\$82.10	82.17%
92507	GT	SPEECH/HEARING THERAPY	Medicare PFS Non-Facility MTD	\$67.46	\$65.33	103.26%
92508		SPEECH/HEARING THERAPY	Medicare PFS Non-Facility	\$10.41	\$24.91	41.79%
92508		SPEECH/HEARING THERAPY	Medicare PFS Non-Facility MTD	\$10.41	\$18.57	56.06%
92520		LARYNGEAL FUNCTION STUDIES	Medicare PFS Non-Facility	\$62.46	\$83.88	74.46%
92521		EVALUATION OF SPEECH FLUENCY	Medicare PFS Non-Facility	\$95.03	\$117.22	81.07%
92521		EVALUATION OF SPEECH FLUENCY	Medicare PFS Non-Facility MTD	\$95.03	\$91.49	103.87%
92522		EVALUATE SPEECH PRODUCTION	Medicare PFS Non-Facility	\$77.15	\$95.52	80.77%
92522		EVALUATE SPEECH PRODUCTION	Medicare PFS Non-Facility MTD	\$77.15	\$76.13	101.34%
92523		SPEECH SOUND LANG COMPREHEN	Medicare PFS Non-Facility	\$160.29	\$200.96	79.76%

Appendix B7: ST Rate Ratio Results Optumas

92523	SPEECH SOUND LANG COMPREHEN	Medicare PFS Non-Facility MTD	\$160.29	\$156.41	102.48%
92524	BEHAVRAL QUALIT ANALYS VOICE	Medicare PFS Non-Facility	\$80.41	\$93.28	86.20%
92524	BEHAVRAL QUALIT ANALYS VOICE	Medicare PFS Non-Facility MTD	\$80.41	\$75.01	107.20%
92526	ORAL FUNCTION THERAPY	Medicare PFS Non-Facility	\$25.46	\$90.63	28.09%
92526	ORAL FUNCTION THERAPY	Medicare PFS Non-Facility MTD	\$25.46	\$70.31	36.21%
92597	ORAL SPEECH DEVICE EVAL	Medicare PFS Non-Facility	\$61.49	\$75.77	81.15%
92597	ORAL SPEECH DEVICE EVAL	Medicare PFS Non-Facility MTD	\$61.49	\$61.60	99.82%
92606	NON-SPEECH DEVICE SERVICE	Other States Average	\$39.77	\$63.19	62.94%
92607	EX FOR SPEECH DEVICE RX 1HR	Medicare PFS Non-Facility	\$98.85	\$133.87	73.84%
92607	EX FOR SPEECH DEVICE RX 1HR	Medicare PFS Non-Facility MTD	\$98.85	\$101.63	97.26%
92608	EX FOR SPEECH DEVICE RX ADDL	Medicare PFS Non-Facility	\$44.53	\$53.83	82.72%
92609	USE OF SPEECH DEVICE SERVICE	Medicare PFS Non-Facility	\$81.42	\$112.76	72.21%
92609	USE OF SPEECH DEVICE SERVICE	Medicare PFS Non-Facility MTD	\$81.42	\$84.43	96.43%
92610	EVALUATE SWALLOWING FUNCTION	Medicare PFS Non-Facility	\$29.61	\$90.26	32.81%
92611	MOTION FLUOROSCOPY/SWALLOW	Medicare PFS Non-Facility	\$35.12	\$95.66	36.71%
92612	ENDOSCOPY SWALLOW (FEES) VID	Medicare PFS Non-Facility	\$121.67	\$209.50	58.08%
92626	EVAL AUD REHAB STATUS	Medicare PFS Non-Facility	\$15.73	\$93.54	16.82%
92627	EVAL AUD STATUS REHAB ADD-ON	Medicare PFS Non-Facility	\$15.73	\$22.30	70.54%
96105	ASSESSMENT OF APHASIA	Medicare PFS Non-Facility	\$46.24	\$106.73	43.32%

Appendix B8: PT/OT 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 the modifiers, place of service code, multiple therapy discount (MTD) or other data elements impact the Colorado Medicaid or benchmark rate that the procedure code receives.

The services analyzed in the PT/OT rate comparison benchmark analysis were repriced using methodology that incorporates the following data elements:

- Procedure Code
- Modifiers
- Place of Service Code
- Multiple Therapy Discount (MTD)

Procedure Code	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
92526	ORAL FUNCTION THERAPY	Medicare PFS Non-Facility	\$25.46	\$90.63	28.09%
92526	ORAL FUNCTION THERAPY	Medicare PFS Non-Facility MTD	\$25.46	\$70.31	36.21%
96112	DEVEL TST PHYS/QHP 1ST HR	Medicare PFS Non-Facility	\$104.80	\$141.37	74.13%
96113	DEVEL TST PHYS/QHP EA ADDL	Medicare PFS Non-Facility	\$40.95	\$63.21	64.78%
97010	HOT OR COLD PACKS THERAPY	Other States Average	\$4.65	\$9.84	47.26%
97012	MECHANICAL TRACTION THERAPY	Medicare PFS Non-Facility	\$10.41	\$15.69	66.35%
97012	MECHANICAL TRACTION THERAPY	Medicare PFS Non-Facility MTD	\$10.41	\$12.52	83.15%
97014	ELECTRIC STIMULATION THERAPY	Other States Average	\$8.11	\$10.60	76.51%
97016	VASOPNEUMATIC DEVICE THERAPY	Medicare PFS Non-Facility	\$10.41	\$12.79	81.39%
97016	VASOPNEUMATIC DEVICE THERAPY	Medicare PFS Non-Facility MTD	\$10.41	\$9.81	106.12%
97018	PARAFFIN BATH THERAPY	Medicare PFS Non-Facility	\$6.93	\$6.22	111.41%
97018	PARAFFIN BATH THERAPY	Medicare PFS Non-Facility MTD	\$6.93	\$4.36	158.94%
97022	WHIRLPOOL THERAPY	Medicare PFS Non-Facility	\$10.41	\$18.76	55.49%
97022	WHIRLPOOL THERAPY	Medicare PFS Non-Facility MTD	\$10.41	\$12.61	82.55%

Appendix B8: PT/OT Rate Ratio Results Optumas

97024	DIATHERMY EG MICROWAVE	Medicare PFS Non-Facility	\$5.05	\$7.34	68.80%
97024	DIATHERMY EG MICROWAVE	Medicare PFS Non-Facility MTD	\$5.05	\$4.92	102.64%
97026	INFRARED THERAPY	Medicare PFS Non-Facility	\$4.86	\$6.59	73.75%
97026	INFRARED THERAPY	Medicare PFS Non-Facility MTD	\$4.86	\$4.54	107.05%
97032	ELECTRICAL STIMULATION	Medicare PFS Non-Facility	\$10.41	\$15.31	67.99%
97032	ELECTRICAL STIMULATION	Medicare PFS Non-Facility MTD	\$10.41	\$12.33	84.43%
97033	ELECTRIC CURRENT THERAPY	Medicare PFS Non-Facility	\$11.57	\$21.64	53.47%
97033	ELECTRIC CURRENT THERAPY	Medicare PFS Non-Facility MTD	\$11.57	\$15.67	73.84%
97035	ULTRASOUND THERAPY	Medicare PFS Non-Facility	\$9.24	\$14.99	61.64%
97035	ULTRASOUND THERAPY	Medicare PFS Non-Facility MTD	\$9.24	\$11.45	80.70%
97110	THERAPEUTIC EXERCISES	Medicare PFS Non-Facility	\$30.14	\$31.81	94.75%
97110	THERAPEUTIC EXERCISES	Medicare PFS Non-Facility MTD	\$30.14	\$24.35	123.78%
97112	NEUROMUSCULAR REEDUCATION	Medicare PFS Non-Facility	\$31.46	\$36.59	85.98%
97112	NEUROMUSCULAR REEDUCATION	Medicare PFS Non-Facility MTD	\$31.46	\$27.65	113.78%
97113	AQUATIC THERAPY/EXERCISES	Medicare PFS Non-Facility	\$37.84	\$40.34	93.80%
97113	AQUATIC THERAPY/EXERCISES	Medicare PFS Non-Facility MTD	\$37.84	\$29.16	129.77%
97116	GAIT TRAINING THERAPY	Medicare PFS Non-Facility	\$9.24	\$31.43	29.40%
97116	GAIT TRAINING THERAPY	Medicare PFS Non-Facility MTD	\$9.24	\$24.16	38.25%
97124	MASSAGE THERAPY	Medicare PFS Non-Facility	\$12.72	\$30.48	41.73%
97124	MASSAGE THERAPY	Medicare PFS Non-Facility MTD	\$12.72	\$21.72	58.56%
97140	MANUAL THERAPY 1/> REGIONS	Medicare PFS Non-Facility	\$28.11	\$29.22	96.20%
97140	MANUAL THERAPY 1/> REGIONS	Medicare PFS Non-Facility MTD	\$28.11	\$22.70	123.83%
97150	GROUP THERAPEUTIC PROCEDURES	Medicare PFS Non-Facility	\$11.57	\$18.99	60.93%
97150	GROUP THERAPEUTIC PROCEDURES	Medicare PFS Non-Facility MTD	\$11.57	\$14.89	77.70%
97161	PT EVAL LOW COMPLEX 20 MIN	Medicare PFS Non-Facility	\$29.34	\$88.93	32.99%
97161	PT EVAL LOW COMPLEX 20 MIN	Medicare PFS Non-Facility MTD	\$29.34	\$66.94	43.83%
97162	PT EVAL MOD COMPLEX 30 MIN	Medicare PFS Non-Facility	\$41.32	\$88.93	46.46%
97162	PT EVAL MOD COMPLEX 30 MIN	Medicare PFS Non-Facility MTD	\$41.32	\$66.94	61.73%
97163	PT EVAL HIGH COMPLEX 45 MIN	Medicare PFS Non-Facility	\$71.87	\$88.93	80.82%

Appendix B8: PT/OT Rate Ratio Results Optumas

97163	PT EVAL HIGH COMPLEX 45 MIN	Medicare PFS Non-Facility MTD	\$71.87	\$66.94	107.36%
97164	PT RE-EVAL EST PLAN CARE	Medicare PFS Non-Facility	\$29.34	\$61.23	47.92%
97164	PT RE-EVAL EST PLAN CARE	Medicare PFS Non-Facility MTD	\$29.34	\$44.64	65.73%
97165	OT EVAL LOW COMPLEX 30 MIN	Medicare PFS Non-Facility	\$46.95	\$94.52	49.67%
97165	OT EVAL LOW COMPLEX 30 MIN	Medicare PFS Non-Facility MTD	\$46.95	\$69.73	67.33%
97166	OT EVAL MOD COMPLEX 45 MIN	Medicare PFS Non-Facility	\$81.57	\$94.15	86.64%
97166	OT EVAL MOD COMPLEX 45 MIN	Medicare PFS Non-Facility MTD	\$81.57	\$69.55	117.28%
97167	OT EVAL HIGH COMPLEX 60 MIN	Medicare PFS Non-Facility	\$84.46	\$94.15	89.71%
97167	OT EVAL HIGH COMPLEX 60 MIN	Medicare PFS Non-Facility MTD	\$84.46	\$69.55	121.44%
97168	OT RE-EVAL EST PLAN CARE	Medicare PFS Non-Facility	\$46.95	\$65.33	71.87%
97168	OT RE-EVAL EST PLAN CARE	Medicare PFS Non-Facility MTD	\$46.95	\$46.69	100.56%
97530	THERAPEUTIC ACTIVITIES	Medicare PFS Non-Facility	\$32.80	\$41.14	79.73%
97530	THERAPEUTIC ACTIVITIES	Medicare PFS Non-Facility MTD	\$32.80	\$28.84	113.73%
97533	SENSORY INTEGRATION	Medicare PFS Non-Facility	\$22.94	\$54.14	42.37%
97533	SENSORY INTEGRATION	Medicare PFS Non-Facility MTD	\$22.94	\$36.06	63.62%
97535	SELF CARE MNGMENT TRAINING	Medicare PFS Non-Facility	\$17.38	\$35.53	48.92%
97535	SELF CARE MNGMENT TRAINING	Medicare PFS Non-Facility MTD	\$17.38	\$26.21	66.31%
97537	COMMUNITY/WORK REINTEGRATION	Medicare PFS Non-Facility	17.38	\$34.01	51.10%
97537	COMMUNITY/WORK REINTEGRATION	Medicare PFS Non-Facility MTD	17.38	\$25.99	66.87%
97542	WHEELCHAIR MNGMENT TRAINING	Medicare PFS Non-Facility	25.54	\$34.38	74.29%
97542	WHEELCHAIR MNGMENT TRAINING	Medicare PFS Non-Facility MTD	25.54	\$26.18	97.56%
97597	RMVL DEVITAL TIS 20 CM/<	Medicare PFS Non-Facility	64.88	\$100.95	64.27%
97598	RMVL DEVITAL TIS ADDL 20CM/<	Medicare PFS Non-Facility	44.39	\$47.96	92.56%
97602	WOUND(S) CARE NON-SELECTIVE	Other States Average	32.96	\$26.55	124.14%
97750	PHYSICAL PERFORMANCE TEST	Medicare PFS Non-Facility	21.97	\$36.28	60.56%
97750	PHYSICAL PERFORMANCE TEST	Medicare PFS Non-Facility MTD	21.97	\$26.59	82.63%
97755	ASSISTIVE TECHNOLOGY ASSESS	Medicare PFS Non-Facility	30.31	\$39.81	76.14%
97755	ASSISTIVE TECHNOLOGY ASSESS	Medicare PFS Non-Facility MTD	30.31	\$31.42	96.47%
97760	ORTHOTIC MGMT&TRAINJ 1ST ENC	Medicare PFS Non-Facility	23.17	\$51.50	44.99%

Appendix B8: PT/OT Rate Ratio Results Optumas

97760	ORTHOTIC MGMT&TRAINJ 1ST ENC	Medicare PFS Non-Facility MTD	23.17	\$35.10	66.01%
97761	PROSTHETIC TRAINJ 1ST ENC	Medicare PFS Non-Facility	21.22	\$43.68	48.58%
97761	PROSTHETIC TRAINJ 1ST ENC	Medicare PFS Non-Facility MTD	21.22	\$31.19	68.03%
97763	ORTHC/PROSTC MGMT SBSQ ENC	Medicare PFS Non-Facility	40.74	\$55.26	73.72%
97763	ORTHC/PROSTC MGMT SBSQ ENC	Medicare PFS Non-Facility MTD	40.74	\$36.62	111.25%
G0515	COGNITIVE SKILLS DEVELOPMENT	Other States Average	30.35	\$23.75	127.81%
Q4040	CAST SUP SHRT LEG PED FBRGLS	Other States Average	100.93	\$19.99	504.97%
Q4048	CAST SUP SHT LEG SPLNT PED F	Other States Average	100.93	\$12.73	793.16%

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Appendix B9: POS 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 the modifiers, place of service code, service county, or other data elements impact the Colorado Medicaid or benchmark rate that the procedure code receives. The services analyzed in the POS rate comparison benchmark analysis are repriced using methodology that incorporates the following data elements:

- Procedure code
- Modifiers
- Member zip code

Procedure Code	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
A4216	STERILE WATER/SALINE, 10 ML	Medicare Non Rural Rate	\$0.48	\$0.51	94.12%
A4217	STERILE WATER/SALINE, 500 ML	Medicare Non Rural Rate	\$2.94	\$3.64	80.77%
A4221	SUPP NON-INSULIN INF CATH/WK	Medicare Non Rural Rate	\$23.37	\$20.60	113.45%
A4221	SUPP NON-INSULIN INF CATH/WK	Medicare Rural Rate	\$23.37	\$23.45	99.66%
A4222	INFUSION SUPPLIES WITH PUMP	Medicare Non Rural Rate	\$33.89	\$39.07	86.74%
A4222	INFUSION SUPPLIES WITH PUMP	Medicare Rural Rate	\$33.89	\$46.69	72.59%
A4235	LITHIUM BATT FOR GLUCOSE MON	Medicare Non Rural Rate	\$1.78	\$1.00	178.00%
A4253	BLOOD GLUCOSE/REAGENT STRIPS	Medicare Non Rural Rate	\$9.30	\$8.32	111.78%
A4258	LANCET DEVICE EACH	Medicare Non Rural Rate	\$18.53	\$2.12	874.06%
A4259	LANCETS PER BOX	Medicare Non Rural Rate	\$10.47	\$1.42	737.32%
A4265	PARAFFIN	Medicare Non Rural Rate	\$3.43	\$3.96	86.62%
A4310	INSERT TRAY W/O BAG/CATH	Medicare Non Rural Rate	\$6.55	\$8.97	73.02%
A4311	CATHETER W/O BAG 2-WAY LATEX	Medicare Non Rural Rate	\$12.46	\$15.25	81.70%
A4312	CATH W/O BAG 2-WAY SILICONE	Medicare Non Rural Rate	\$15.80	\$17.82	88.66%
A4314	CATH W/DRAINAGE 2-WAY LATEX	Medicare Non Rural Rate	\$21.26	\$29.37	72.39%
A4315	CATH W/DRAINAGE 2-WAY SILCNE	Medicare Non Rural Rate	\$21.26	\$30.64	69.39%
A4320	IRRIGATION TRAY	Medicare Non Rural Rate	\$4.20	\$6.14	68.40%
A4322	IRRIGATION SYRINGE	Medicare Non Rural Rate	\$2.17	\$3.53	61.47%

Appendix B9: POS Rate Ratio Results Optumas

A4326	MALE EXTERNAL CATHETER	Medicare Non Rural Rate	\$7.05	\$11.33	62.22%
A4331	EXTENSION DRAINAGE TUBING	Medicare Non Rural Rate	\$1.96	\$3.69	53.12%
A4332	LUBE STERILE PACKET	Medicare Non Rural Rate	\$0.13	\$0.13	100.00%
A4333	URINARY CATH ANCHOR DEVICE	Medicare Non Rural Rate	\$2.22	\$2.57	86.38%
A4334	URINARY CATH LEG STRAP	Medicare Non Rural Rate	\$4.66	\$5.72	81.47%
A4338	INDWELLING CATHETER LATEX	Medicare Non Rural Rate	\$10.28	\$14.25	72.14%
A4340	INDWELLING CATHETER SPECIAL	Medicare Non Rural Rate	\$15.54	\$36.89	42.13%
A4344	CATH INDW FOLEY 2 WAY SILICN	Medicare Non Rural Rate	\$8.63	\$18.41	46.88%
A4349	DISPOSABLE MALE EXTERNAL CAT	Medicare Non Rural Rate	\$2.06	\$2.34	88.03%
A4351	STRAIGHT TIP URINE CATHETER	Medicare Non Rural Rate	\$1.31	\$1.79	73.18%
A4352	COUDE TIP URINARY CATHETER	Medicare Non Rural Rate	\$2.04	\$7.25	28.14%
A4353	INTERMITTENT URINARY CATH	Medicare Non Rural Rate	\$7.06	\$8.13	86.84%
A4354	CATH INSERTION TRAY W/BAG	Medicare Non Rural Rate	\$4.07	\$13.71	29.69%
A4356	EXT URETH CLMP OR COMPR DVC	Medicare Non Rural Rate	\$38.40	\$45.05	85.24%
A4357	BEDSIDE DRAINAGE BAG	Medicare Non Rural Rate	\$8.65	\$11.28	76.68%
A4358	URINARY LEG OR ABDOMEN BAG	Medicare Non Rural Rate	\$5.21	\$7.70	67.66%
A4362	SOLID SKIN BARRIER	Medicare Non Rural Rate	\$3.15	\$4.03	78.16%
A4363	OSTOMY CLAMP, REPLACEMENT	Medicare Non Rural Rate	\$1.79	\$2.75	65.09%
A4364	ADHESIVE, LIQUID OR EQUAL	Medicare Non Rural Rate	\$2.51	\$3.42	73.39%
A4366	OSTOMY VENT	Medicare Non Rural Rate	\$1.36	\$1.50	90.67%
A4367	OSTOMY BELT	Medicare Non Rural Rate	\$7.59	\$8.55	88.77%
A4368	OSTOMY FILTER	Medicare Non Rural Rate	\$0.29	\$0.29	100.00%
A4369	SKIN BARRIER LIQUID PER OZ	Medicare Non Rural Rate	\$1.75	\$2.82	62.06%
A4371	SKIN BARRIER POWDER PER OZ	Medicare Non Rural Rate	\$3.75	\$4.23	88.65%
A4373	SKIN BARRIER WITH FLANGE	Medicare Non Rural Rate	\$6.36	\$7.28	87.36%
A4375	DRAINABLE PLASTIC PCH W FCPL	Medicare Non Rural Rate	\$19.17	\$19.95	96.09%
A4385	OST SKN BARRIER SLD EXT WEAR	Medicare Non Rural Rate	\$4.61	\$5.92	77.87%
A4388	DRAINABLE PCH W EX WEAR BARR	Medicare Non Rural Rate	\$4.41	\$5.07	86.98%
A4389	DRAINABLE PCH W ST WEAR BARR	Medicare Non Rural Rate	\$3.34	\$7.22	46.26%

Appendix B9: POS Rate Ratio Results Optumas

A4390	DRAINABLE PCH EX WEAR CONVEX	Medicare Non Rural Rate	\$6.90	\$11.16	61.83%
A4391	URINARY POUCH W EX WEAR BARR	Medicare Non Rural Rate	\$7.90	\$8.21	96.22%
A4393	URINE PCH W EX WEAR BAR CONV	Medicare Non Rural Rate	\$8.63	\$10.50	82.19%
A4394	OSTOMY POUCH LIQ DEODORANT	Medicare Non Rural Rate	\$2.47	\$3.01	82.06%
A4395	OSTOMY POUCH SOLID DEODORANT	Medicare Non Rural Rate	\$0.07	\$0.05	140.00%
A4396	PERISTOMAL HERNIA SUPPRT BLT	Medicare Non Rural Rate	\$41.78	\$47.03	88.84%
A4397	IRRIGATION SUPPLY SLEEVE	Medicare Non Rural Rate	\$2.51	\$5.56	45.14%
A4399	OSTOMY IRRIG CONE/CATH W BRS	Medicare Non Rural Rate	\$3.55	\$14.25	24.91%
A4400	OSTOMY IRRIGATION SET	Medicare Non Rural Rate	\$22.90	\$48.26	47.45%
A4402	LUBRICANT PER OUNCE	Medicare Non Rural Rate	\$0.36	\$1.86	19.35%
A4404	OSTOMY RING EACH	Medicare Non Rural Rate	\$1.71	\$1.95	87.69%
A4405	NONPECTIN BASED OSTOMY PASTE	Medicare Non Rural Rate	\$3.45	\$3.97	86.90%
A4406	PECTIN BASED OSTOMY PASTE	Medicare Non Rural Rate	\$5.83	\$6.65	87.67%
A4407	EXT WEAR OST SKN BARR <=4SQ"	Medicare Non Rural Rate	\$8.88	\$10.18	87.23%
A4408	EXT WEAR OST SKN BARR >4SQ"	Medicare Non Rural Rate	\$10.00	\$11.47	87.18%
A4409	OST SKN BARR CONVEX <=4 SQ I	Medicare Non Rural Rate	\$6.33	\$7.22	87.67%
A4410	OST SKN BARR EXTND >4 SQ	Medicare Non Rural Rate	\$9.17	\$10.50	87.33%
A4411	OST SKN BARR EXTND =4SQ	Medicare Non Rural Rate	\$3.86	\$5.92	65.20%
A4412	OST POUCH DRAIN HIGH OUTPUT	Medicare Non Rural Rate	\$2.06	\$3.14	65.61%
A4413	2 PC DRAINABLE OST POUCH	Medicare Non Rural Rate	\$5.59	\$6.40	87.34%
A4414	OST SKNBARR W/O CONV<=4 SQ IN	Medicare Non Rural Rate	\$5.00	\$5.72	87.41%
A4415	OST SKN BARR W/O CONV >4 SQI	Medicare Non Rural Rate	\$6.06	\$6.96	87.07%
A4416	OST PCH CLSD W BARRIER/FILTR	Medicare Non Rural Rate	\$2.78	\$3.20	86.88%
A4417	OST PCH W BAR/BLTINCONV/FLTR	Medicare Non Rural Rate	\$3.77	\$4.33	87.07%
A4418	OST PCH CLSD W/O BAR W FILTR	Medicare Non Rural Rate	\$1.82	\$2.11	86.26%
A4419	OST PCH FOR BAR W FLANGE/FLT	Medicare Non Rural Rate	\$1.75	\$2.01	87.06%
A4422	OST POUCH ABSORBENT MATERIAL	Medicare Non Rural Rate	\$0.14	\$0.13	107.69%
A4423	OST PCH FOR BAR W LK FL/FLTR	Medicare Non Rural Rate	\$2.08	\$2.16	96.30%
A4424	OST PCH DRAIN W BAR & FILTER	Medicare Non Rural Rate	\$4.81	\$5.53	86.98%

Appendix B9: POS Rate Ratio Results Optumas

A4425	OST PCH DRAIN FOR BARRIER FL	Medicare Non Rural Rate	\$3.65	\$4.16	87.74%
A4426	OST PCH DRAIN 2 PIECE SYSTEM	Medicare Non Rural Rate	\$2.57	\$3.17	81.07%
A4427	OST PCH DRAIN/BARR LK FLNG/F	Medicare Non Rural Rate	\$2.57	\$3.23	79.57%
A4428	URINE OST POUCH W FAUCET/TAP	Medicare Non Rural Rate	\$6.58	\$7.57	86.92%
A4430	OST URINE PCH W B/BLTIN CONV	Medicare Non Rural Rate	\$8.60	\$9.89	86.96%
A4432	OS PCH URINE W BAR/FANGE/TAP	Medicare Non Rural Rate	\$3.65	\$4.17	87.53%
A4433	URINE OST PCH BAR W LOCK FLN	Medicare Non Rural Rate	\$3.37	\$3.89	86.63%
A4450	NON-WATERPROOF TAPE	Other States Average	\$0.14	\$0.09	159.09%
A4450	NON-WATERPROOF TAPE	Medicare Non Rural Rate	\$0.14	\$0.12	116.67%
A4450	NON-WATERPROOF TAPE	Medicare Non Rural Rate	\$0.14	\$0.09	155.56%
A4452	WATERPROOF TAPE	Medicare Non Rural Rate	\$0.47	\$0.41	114.63%
A4452	WATERPROOF TAPE	Medicare Non Rural Rate	\$0.47	\$0.45	104.44%
A4455	ADHESIVE REMOVER PER OUNCE	Medicare Non Rural Rate	\$1.46	\$1.66	87.95%
A4456	ADHESIVE REMOVER, WIPES	Medicare Non Rural Rate	\$0.22	\$0.28	78.57%
A4461	SURGICL DRESS HOLD NON-REUSE	Medicare Non Rural Rate	\$2.50	\$3.83	65.27%
A4481	TRACHEOSTOMA FILTER	Medicare Non Rural Rate	\$5.05	\$0.43	1174.42%
A4483	MOISTURE EXCHANGER	Other States Average	\$3.27	\$4.23	77.30%
A4556	ELECTRODES, PAIR	Medicare Non Rural Rate	\$8.05	\$14.11	57.05%
A4557	LEAD WIRES, PAIR	Medicare Non Rural Rate	\$21.58	\$9.60	224.79%
A4557	LEAD WIRES, PAIR	Medicare Rural Rate	\$21.58	\$17.83	121.03%
A4561	PESSARY RUBBER, ANY TYPE	Medicare Non Rural Rate	\$20.90	\$24.00	87.08%
A4562	PESSARY, NON RUBBER,ANY TYPE	Medicare Non Rural Rate	\$31.86	\$59.78	53.30%
A4565	SLINGS	Medicare Non Rural Rate	\$19.18	\$8.94	214.54%
A4595	TENS SUPPL 2 LEAD PER MONTH	Medicare Non Rural Rate	\$8.06	\$10.29	78.33%
A4595	TENS SUPPL 2 LEAD PER MONTH	Medicare Rural Rate	\$8.06	\$22.30	36.14%
A4604	TUBING WITH HEATING ELEMENT	Medicare Non Rural Rate	\$50.87	\$40.14	126.73%
A4604	TUBING WITH HEATING ELEMENT	Medicare CBA Colorado	\$50.87	\$41.26	123.29%
A4604	TUBING WITH HEATING ELEMENT	Medicare CBA Denver	\$50.87	\$41.31	123.14%
A4604	TUBING WITH HEATING ELEMENT	Medicare Rural Rate	\$50.87	\$55.44	91.76%

Appendix B9: POS Rate Ratio Results Optumas

A4605	TRACH SUCTION CATH CLOSE SYS	Medicare Non Rural Rate	\$12.48	\$19.05	65.51%
A4608	TRANSTRACHEAL OXYGEN CATH	Medicare Non Rural Rate	\$50.74	\$58.23	87.14%
A4614	HAND-HELD PEFR METER	Medicare Non Rural Rate	\$11.09	\$27.63	40.14%
A4615	CANNULA NASAL	Medicare Non Rural Rate	\$0.72	\$0.85	84.71%
A4616	TUBING (OXYGEN) PER FOOT	Medicare Non Rural Rate	\$0.09	\$0.07	128.57%
A4617	MOUTH PIECE	Medicare Non Rural Rate	\$0.55	\$3.60	15.28%
A4618	BREATHING CIRCUITS	Medicare Non Rural Rate	\$8.97	\$10.33	86.83%
A4620	VARIABLE CONCENTRATION MASK	Medicare Non Rural Rate	\$0.63	\$0.74	85.14%
A4623	TRACHEOSTOMY INNER CANNULA	Medicare Non Rural Rate	\$4.91	\$7.61	64.52%
A4624	TRACHEAL SUCTION TUBE	Medicare Non Rural Rate	\$1.27	\$3.06	41.50%
A4625	TRACH CARE KIT FOR NEW TRACH	Medicare Non Rural Rate	\$5.41	\$8.04	67.29%
A4628	OROPHARYNGEAL SUCTION CATH	Medicare Non Rural Rate	\$1.40	\$4.35	32.18%
A4629	TRACHEOSTOMY CARE KIT	Medicare Non Rural Rate	\$3.48	\$5.40	64.44%
A4630	REPL BAT T.E.N.S. OWN BY PT	Medicare Non Rural Rate	\$6.33	\$7.25	87.31%
A4637	REPL TIP CANE/CRUTCH/WALKER	Medicare Rural Rate	\$2.02	\$1.95	103.59%
A4637	REPL TIP CANE/CRUTCH/WALKER	Medicare Non Rural Rate	\$2.02	\$1.75	115.43%
A4640	ALTERNATING PRESSURE PAD	Medicare Non Rural Rate	\$55.76	\$52.66	105.89%
A5054	CLSD OSTOMY POUCH W/FLANGE	Medicare Non Rural Rate	\$1.12	\$2.09	53.59%
A5055	STOMA CAP	Medicare Non Rural Rate	\$1.23	\$1.64	75.00%
A5056	1 PC OST POUCH W FILTER	Medicare Non Rural Rate	\$4.07	\$5.43	74.95%
A5057	1 PC OST POU W BUILT-IN CONV	Medicare Non Rural Rate	\$8.33	\$11.16	74.64%
A5061	POUCH DRAINABLE W BARRIER AT	Medicare Non Rural Rate	\$3.72	\$4.10	90.73%
A5062	DRNBLE OSTOMY POUCH W/O BARR	Medicare Non Rural Rate	\$2.24	\$2.59	86.49%
A5063	DRAIN OSTOMY POUCH W/FLANGE	Medicare Non Rural Rate	\$2.41	\$3.14	76.75%
A5071	URINARY POUCH W/BARRIER	Medicare Non Rural Rate	\$3.18	\$6.98	45.56%
A5073	URINARY POUCH ON BARR W/FLNG	Medicare Non Rural Rate	\$3.07	\$3.53	86.97%
A5105	URINARY SUSPENSORY	Medicare Non Rural Rate	\$36.51	\$41.90	87.14%
A5112	URINARY LEG BAG	Medicare Non Rural Rate	\$30.30	\$34.77	87.14%
A5114	FOAM/FABRIC LEG STRAP	Medicare Non Rural Rate	\$7.02	\$10.40	67.50%

Appendix B9: POS Rate Ratio Results Optumas

A5120	SKIN BARRIER, WIPE OR SWAB	Medicare Non Rural Rate	\$0.20	\$0.26	76.92%
A5120	SKIN BARRIER, WIPE OR SWAB	Medicare Non Rural Rate	\$0.20	\$0.27	74.07%
A5121	SOLID SKIN BARRIER 6X6	Medicare Non Rural Rate	\$7.51	\$8.66	86.72%
A5131	APPLIANCE CLEANER	Medicare Non Rural Rate	\$0.83	\$18.41	4.51%
A5200	PERCUTANEOUS CATHETER ANCHOR	Medicare Non Rural Rate	\$11.68	\$13.14	88.89%
A5500	DIAB SHOE FOR DENSITY INSERT	Medicare Non Rural Rate	\$62.72	\$73.87	84.91%
A5501	DIABETIC CUSTOM MOLDED SHOE	Medicare Non Rural Rate	\$188.16	\$221.57	84.92%
A5503	DIABETIC SHOE W/ROLLER/ROCKR	Medicare Non Rural Rate	\$28.25	\$35.53	79.51%
A5504	DIABETIC SHOE WITH WEDGE	Medicare Non Rural Rate	\$28.25	\$35.53	79.51%
A5505	DIAB SHOE W/METATARSAL BAR	Medicare Non Rural Rate	\$28.25	\$35.53	79.51%
A5506	DIABETIC SHOE W/OFF SET HEEL	Medicare Non Rural Rate	\$28.25	\$35.53	79.51%
A5507	MODIFICATION DIABETIC SHOE	Medicare Non Rural Rate	\$28.81	\$35.53	81.09%
A5512	MULTI DEN INSERT DIRECT FORM	Medicare Non Rural Rate	\$18.21	\$30.13	60.44%
A5513	MULTI DEN INSERT CUSTOM MOLD	Medicare Non Rural Rate	\$27.17	\$44.96	60.43%
A6010	COLLAGEN BASED WOUND FILLER	Medicare Non Rural Rate	\$31.95	\$35.98	88.80%
A6011	COLLAGEN GEL/PASTE WOUND FIL	Medicare Non Rural Rate	\$2.33	\$2.65	87.92%
A6021	COLLAGEN DRESSING <=16 SQ IN	Medicare Non Rural Rate	\$21.36	\$24.42	87.47%
A6022	COLLAGEN DRSG >16<=48 SQ IN	Medicare Non Rural Rate	\$21.36	\$24.42	87.47%
A6154	WOUND POUCH EACH	Medicare Non Rural Rate	\$14.54	\$16.71	87.01%
A6196	ALGINATE DRESSING <=16 SQ IN	Medicare Non Rural Rate	\$4.07	\$8.55	47.60%
A6197	ALGINATE DRSG >16 <=48 SQ IN	Medicare Non Rural Rate	\$17.41	\$19.10	91.15%
A6199	ALGINATE DRSG WOUND FILLER	Medicare Non Rural Rate	\$5.60	\$6.14	91.21%
A6203	COMPOSITE DRSG <= 16 SQ IN	Medicare Non Rural Rate	\$3.38	\$3.91	86.45%
A6204	COMPOSITE DRSG >16<=48 SQ IN	Medicare Non Rural Rate	\$5.06	\$7.23	69.99%
A6207	CONTACT LAYER >16<= 48 SQ IN	Medicare Non Rural Rate	\$7.77	\$8.53	91.09%
A6209	FOAM DRSG <=16 SQ IN W/O BDR	Medicare Non Rural Rate	\$6.67	\$8.68	76.84%
A6210	FOAM DRG >16<=48 SQ IN W/O B	Medicare Non Rural Rate	\$10.94	\$23.15	47.26%
A6211	FOAM DRG > 48 SQ IN W/O BRDR	Medicare Non Rural Rate	\$32.77	\$34.12	96.04%
A6212	FOAM DRG <=16 SQ IN W/BORDER	Medicare Non Rural Rate	\$6.86	\$11.28	60.82%

Appendix B9: POS Rate Ratio Results Optumas

A6214	FOAM DRG > 48 SQ IN W/BORDER	Medicare Non Rural Rate	\$10.62	\$11.96	88.80%
A6216	NON-STERILE GAUZE<=16 SQ IN	Medicare Non Rural Rate	\$0.07	\$0.05	140.00%
A6217	NON-STERILE GAUZE>16<=48 SQ	Other States Average	\$0.10	\$0.30	33.33%
A6219	GAUZE <= 16 SQ IN W/BORDER	Medicare Non Rural Rate	\$1.01	\$1.11	90.99%
A6220	GAUZE >16 <=48 SQ IN W/BORDR	Medicare Non Rural Rate	\$2.75	\$3.01	91.36%
A6222	GAUZE <=16 IN NO W/SAL W/O B	Medicare Non Rural Rate	\$1.22	\$2.48	49.19%
A6223	GAUZE >16<=48 NO W/SAL W/O B	Medicare Non Rural Rate	\$1.59	\$2.82	56.38%
A6224	GAUZE > 48 IN NO W/SAL W/O B	Medicare Non Rural Rate	\$1.37	\$4.19	32.70%
A6229	GAUZE >16<=48 SQ IN WATR/SAL	Medicare Non Rural Rate	\$2.13	\$4.19	50.84%
A6231	HYDROGEL DSG<=16 SQ IN	Medicare Non Rural Rate	\$5.20	\$5.45	95.41%
A6234	HYDROCOLLD DRG <=16 W/O BDR	Medicare Non Rural Rate	\$6.40	\$7.60	84.21%
A6235	HYDROCOLLD DRG >16<=48 W/O B	Medicare Non Rural Rate	\$10.39	\$19.54	53.17%
A6237	HYDROCOLLD DRG <=16 IN W/BDR	Medicare Non Rural Rate	\$5.27	\$9.19	57.34%
A6238	HYDROCOLLD DRG >16<=48 W/BDR	Medicare Non Rural Rate	\$17.41	\$26.49	65.72%
A6240	HYDROCOLLD DRG FILLER PASTE	Medicare Non Rural Rate	\$10.26	\$14.23	72.10%
A6242	HYDROGEL DRG <=16 IN W/O BDR	Medicare Non Rural Rate	\$6.13	\$7.04	87.07%
A6243	HYDROGEL DRG >16<=48 W/O BDR	Medicare Non Rural Rate	\$9.86	\$14.32	68.85%
A6244	HYDROGEL DRG >48 IN W/O BDR	Medicare Non Rural Rate	\$40.55	\$45.64	88.85%
A6245	HYDROGEL DRG <= 16 IN W/BDR	Medicare Non Rural Rate	\$7.68	\$8.45	90.89%
A6246	HYDROGEL DRG >16<=48 IN W/B	Medicare Non Rural Rate	\$10.50	\$11.54	90.99%
A6248	HYDROGEL DRSG GEL FILLER	Medicare Non Rural Rate	\$10.50	\$18.88	55.61%
A6251	ABSORPT DRG <=16 SQ IN W/O B	Medicare Non Rural Rate	\$2.03	\$2.31	87.88%
A6252	ABSORPT DRG >16 <=48 W/O BDR	Medicare Non Rural Rate	\$3.29	\$3.78	87.04%
A6253	ABSORPT DRG > 48 SQ IN W/O B	Medicare Non Rural Rate	\$6.42	\$7.36	87.23%
A6254	ABSORPT DRG <=16 SQ IN W/BDR	Medicare Non Rural Rate	\$1.22	\$1.39	87.77%
A6257	TRANSPARENT FILM <= 16 SQ IN	Medicare Non Rural Rate	\$1.43	\$1.79	79.89%
A6258	TRANSPARENT FILM >16<=48 IN	Medicare Non Rural Rate	\$2.69	\$5.00	53.80%
A6259	TRANSPARENT FILM > 48 SQ IN	Medicare Non Rural Rate	\$12.16	\$12.70	95.75%
A6266	IMPREG GAUZE NO H2O/SAL/YARD	Medicare Non Rural Rate	\$2.03	\$2.23	91.03%

Appendix B9: POS Rate Ratio Results Optumas

A6402	STERILE GAUZE <= 16 SQ IN	Medicare Non Rural Rate	\$0.15	\$0.13	115.38%
A6403	STERILE GAUZE>16 <= 48 SQ IN	Medicare Non Rural Rate	\$0.48	\$0.49	97.96%
A6407	PACKING STRIPS, NON-IMPREG	Medicare Non Rural Rate	\$1.92	\$2.18	88.07%
A6411	NON-STERILE EYE PAD	Other States Average	\$0.29	\$0.29	101.75%
A6441	PAD BAND W>=3" <5"/YD	Medicare Non Rural Rate	\$0.74	\$0.80	92.50%
A6442	CONFORM BAND N/S W<3"/YD	Medicare Non Rural Rate	\$0.20	\$0.18	111.11%
A6443	CONFORM BAND N/S W>=3"<5"/YD	Medicare Non Rural Rate	\$0.34	\$0.32	106.25%
A6444	CONFORM BAND N/S W>=5"/YD	Medicare Non Rural Rate	\$0.64	\$0.65	98.46%
A6445	CONFORM BAND S W <3"/YD	Medicare Non Rural Rate	\$0.35	\$0.37	94.59%
A6446	CONFORM BAND S W>=3" <5"/YD	Medicare Non Rural Rate	\$0.48	\$0.46	104.35%
A6447	CONFORM BAND S W >=5"/YD	Medicare Non Rural Rate	\$0.74	\$0.80	92.50%
A6448	LT COMPRES BAND <3"/YD	Medicare Non Rural Rate	\$1.29	\$1.34	96.27%
A6449	LT COMPRES BAND >=3" <5"/YD	Medicare Non Rural Rate	\$1.97	\$2.04	96.57%
A6450	LT COMPRES BAND >=5"/YD	Medicare Non Rural Rate	\$1.40	\$2.04	68.63%
A6452	HIGH COMPRES BAND W>=3"<5"YD	Medicare Non Rural Rate	\$6.57	\$6.86	95.77%
A6453	SELF-ADHER BAND W <3"/YD	Medicare Non Rural Rate	\$0.69	\$0.73	94.52%
A6454	SELF-ADHER BAND W>=3" <5"/YD	Medicare Non Rural Rate	\$0.87	\$0.91	95.60%
A6455	SELF-ADHER BAND >=5"/YD	Medicare Non Rural Rate	\$1.57	\$1.62	96.91%
A6456	ZINC PASTE BAND W >=3"<5"/YD	Medicare Non Rural Rate	\$1.43	\$1.47	97.28%
A6457	TUBULAR DRESSING	Medicare Non Rural Rate	\$0.88	\$1.32	66.67%
A6504	CMPRSBURNGARMENT GLOVE-WRIST	Other States Average	\$93.54	\$78.77	118.75%
A6506	CMPRSBURNGRMNT GLOVE-AXILLA	Other States Average	\$57.56	\$98.29	58.56%
A6507	CMPRS BURNGARMENT FOOT-KNEE	Other States Average	\$102.15	\$98.29	103.93%
A6509	COMPRES BURN GARMENT JACKET	Other States Average	\$173.42	\$274.67	63.14%
A6531	COMPRESSION STOCKING BK30-40	Other States Average	\$32.95	\$34.89	94.44%
A6531	COMPRESSION STOCKING BK30-40	Medicare Non Rural Rate	\$32.95	\$50.26	65.56%
A6532	COMPRESSION STOCKING BK40-50	Medicare Non Rural Rate	\$46.43	\$70.82	65.56%
A6545	GRAD COMP NON-ELASTIC BK	Other States Average	\$87.93	\$71.73	122.59%
A6545	GRAD COMP NON-ELASTIC BK	Medicare Non Rural Rate	\$87.93	\$98.96	88.85%

Appendix B9: POS Rate Ratio Results Optumas

A7000	DISPOSABLE CANISTER FOR PUMP	Medicare Non Rural Rate	\$0.55	\$8.67	6.34%
A7000	DISPOSABLE CANISTER FOR PUMP	Medicare Rural Rate	\$0.55	\$9.32	5.90%
A7001	NONDISPOSABLE PUMP CANISTER	Medicare Non Rural Rate	\$22.60	\$34.45	65.60%
A7002	TUBING USED W SUCTION PUMP	Medicare Non Rural Rate	\$3.02	\$3.78	79.89%
A7003	NEBULIZER ADMINISTRATION SET	Medicare Non Rural Rate	\$2.10	\$1.48	141.89%
A7003	NEBULIZER ADMINISTRATION SET	Medicare Rural Rate	\$2.10	\$2.42	86.78%
A7003	NEBULIZER ADMINISTRATION SET	Medicare CBA Colorado	\$2.10	\$1.37	153.28%
A7003	NEBULIZER ADMINISTRATION SET	Medicare CBA Denver	\$2.10	\$1.43	146.85%
A7004	DISPOSABLE NEBULIZER SML VOL	Medicare Non Rural Rate	\$1.61	\$1.20	134.17%
A7004	DISPOSABLE NEBULIZER SML VOL	Medicare Rural Rate	\$1.61	\$1.58	101.90%
A7004	DISPOSABLE NEBULIZER SML VOL	Medicare CBA Colorado	\$1.61	\$1.15	140.00%
A7005	NONDISPOSABLE NEBULIZER SET	Medicare Non Rural Rate	\$19.88	\$12.95	153.51%
A7005	NONDISPOSABLE NEBULIZER SET	Medicare Rural Rate	\$19.88	\$21.70	91.61%
A7006	FILTERED NEBULIZER ADMIN SET	Medicare Rural Rate	\$5.03	\$9.48	53.06%
A7006	FILTERED NEBULIZER ADMIN SET	Medicare CBA Denver	\$5.03	\$7.81	64.40%
A7006	FILTERED NEBULIZER ADMIN SET	Medicare Non Rural Rate	\$5.03	\$7.61	66.10%
A7010	DISPOSABLE CORRUGATED TUBING	Medicare Non Rural Rate	\$3.55	\$15.78	22.50%
A7010	DISPOSABLE CORRUGATED TUBING	Medicare Rural Rate	\$3.55	\$20.04	17.71%
A7010	DISPOSABLE CORRUGATED TUBING	Medicare CBA Colorado	\$3.55	\$15.99	22.20%
A7010	DISPOSABLE CORRUGATED TUBING	Medicare CBA Denver	\$3.55	\$15.58	22.79%
A7012	NEBULIZER WATER COLLEC DEVIC	Medicare Non Rural Rate	\$1.75	\$2.85	61.40%
A7012	NEBULIZER WATER COLLEC DEVIC	Medicare Rural Rate	\$1.75	\$3.73	46.92%
A7012	NEBULIZER WATER COLLEC DEVIC	Medicare CBA Colorado	\$1.75	\$2.89	60.55%
A7012	NEBULIZER WATER COLLEC DEVIC	Medicare CBA Denver	\$1.75	\$2.88	60.76%
A7013	DISPOSABLE COMPRESSOR FILTER	Medicare Non Rural Rate	\$0.72	\$0.53	135.85%
A7013	DISPOSABLE COMPRESSOR FILTER	Medicare Rural Rate	\$0.72	\$0.71	101.41%
A7013	DISPOSABLE COMPRESSOR FILTER	Medicare CBA Denver	\$0.72	\$0.52	138.46%
A7013	DISPOSABLE COMPRESSOR FILTER	Medicare CBA Colorado	\$0.72	\$0.52	138.46%
A7015	AEROSOL MASK USED W NEBULIZE	Medicare Non Rural Rate	\$1.01	\$1.31	77.10%

Appendix B9: POS Rate Ratio Results Optumas

A7015	AEROSOL MASK USED W NEBULIZE	Medicare Rural Rate	\$1.01	\$1.78	56.74%
A7015	AEROSOL MASK USED W NEBULIZE	Medicare CBA Denver	\$1.01	\$1.30	77.69%
A7015	AEROSOL MASK USED W NEBULIZE	Medicare CBA Colorado	\$1.01	\$1.31	77.10%
A7016	NEBULIZER DOME & MOUTHPIECE	Medicare Non Rural Rate	\$6.98	\$8.04	86.82%
A7018	WATER DISTILLED W/NEBULIZER	Medicare Non Rural Rate	\$0.36	\$0.31	116.13%
A7018	WATER DISTILLED W/NEBULIZER	Medicare CBA Colorado	\$0.36	\$0.31	116.13%
A7018	WATER DISTILLED W/NEBULIZER	Medicare CBA Denver	\$0.36	\$0.31	116.13%
A7018	WATER DISTILLED W/NEBULIZER	Medicare Rural Rate	\$0.36	\$0.37	97.30%
A7027	COMBINATION ORAL/NASAL MASK	Medicare CBA Denver	\$142.11	\$120.91	117.53%
A7027	COMBINATION ORAL/NASAL MASK	Medicare CBA Colorado	\$142.11	\$117.35	121.10%
A7028	REPL ORAL CUSHION COMBO MASK	Medicare CBA Denver	\$37.74	\$32.75	115.24%
A7030	CPAP FULL FACE MASK	Medicare Non Rural Rate	\$150.36	\$89.63	167.76%
A7030	CPAP FULL FACE MASK	Medicare CBA Colorado	\$150.36	\$94.46	159.18%
A7030	CPAP FULL FACE MASK	Medicare CBA Denver	\$150.36	\$91.19	164.89%
A7030	CPAP FULL FACE MASK	Medicare Rural Rate	\$150.36	\$143.64	104.68%
A7031	REPLACEMENT FACEMASK INTERFA	Medicare Non Rural Rate	\$62.07	\$34.14	181.81%
A7031	REPLACEMENT FACEMASK INTERFA	Medicare CBA Colorado	\$62.07	\$35.69	173.91%
A7031	REPLACEMENT FACEMASK INTERFA	Medicare CBA Denver	\$62.07	\$34.85	178.11%
A7031	REPLACEMENT FACEMASK INTERFA	Medicare Rural Rate	\$62.07	\$53.63	115.74%
A7032	REPLACEMENT NASAL CUSHION	Medicare Non Rural Rate	\$25.22	\$18.99	132.81%
A7032	REPLACEMENT NASAL CUSHION	Medicare CBA Colorado	\$25.22	\$20.02	125.97%
A7032	REPLACEMENT NASAL CUSHION	Medicare CBA Denver	\$25.22	\$19.46	129.60%
A7032	REPLACEMENT NASAL CUSHION	Medicare Rural Rate	\$25.22	\$30.75	82.02%
A7033	REPLACEMENT NASAL PILLOWS	Medicare Non Rural Rate	\$25.22	\$15.60	161.67%
A7033	REPLACEMENT NASAL PILLOWS	Medicare CBA Colorado	\$25.22	\$15.95	158.12%
A7033	REPLACEMENT NASAL PILLOWS	Medicare CBA Denver	\$25.22	\$15.95	158.12%
A7033	REPLACEMENT NASAL PILLOWS	Medicare Rural Rate	\$25.22	\$22.79	110.66%
A7034	NASAL APPLICATION DEVICE	Medicare Non Rural Rate	\$75.66	\$57.10	132.50%
A7034	NASAL APPLICATION DEVICE	Medicare CBA Colorado	\$75.66	\$58.78	128.72%

Appendix B9: POS Rate Ratio Results Optumas

A7034	NASAL APPLICATION DEVICE	Medicare CBA Denver	\$75.66	\$58.67	128.96%
A7034	NASAL APPLICATION DEVICE	Medicare Rural Rate	\$75.66	\$89.67	84.38%
A7035	POS AIRWAY PRESS HEADGEAR	Medicare Non Rural Rate	\$32.22	\$18.54	173.79%
A7035	POS AIRWAY PRESS HEADGEAR	Medicare CBA Colorado	\$32.22	\$18.89	170.57%
A7035	POS AIRWAY PRESS HEADGEAR	Medicare CBA Denver	\$32.22	\$18.88	170.66%
A7035	POS AIRWAY PRESS HEADGEAR	Medicare Rural Rate	\$32.22	\$28.66	112.42%
A7036	POS AIRWAY PRESS CHINSTRAP	Medicare Non Rural Rate	\$13.83	\$10.38	133.24%
A7036	POS AIRWAY PRESS CHINSTRAP	Medicare CBA Colorado	\$13.83	\$10.61	130.35%
A7036	POS AIRWAY PRESS CHINSTRAP	Medicare CBA Denver	\$13.83	\$10.58	130.72%
A7036	POS AIRWAY PRESS CHINSTRAP	Medicare Rural Rate	\$13.83	\$13.76	100.51%
A7037	POS AIRWAY PRESSURE TUBING	Medicare Non Rural Rate	\$32.29	\$12.36	261.25%
A7037	POS AIRWAY PRESSURE TUBING	Medicare Rural Rate	\$32.29	\$27.05	119.37%
A7037	POS AIRWAY PRESSURE TUBING	Medicare CBA Colorado	\$32.29	\$12.68	254.65%
A7037	POS AIRWAY PRESSURE TUBING	Medicare CBA Denver	\$32.29	\$12.64	255.46%
A7038	POS AIRWAY PRESSURE FILTER	Medicare Non Rural Rate	\$4.79	\$2.12	225.94%
A7038	POS AIRWAY PRESSURE FILTER	Medicare CBA Colorado	\$4.79	\$2.10	228.10%
A7038	POS AIRWAY PRESSURE FILTER	Medicare CBA Denver	\$4.79	\$2.14	223.83%
A7038	POS AIRWAY PRESSURE FILTER	Medicare Rural Rate	\$4.79	\$3.86	124.09%
A7039	FILTER, NON DISPOSABLE W PAP	Medicare Non Rural Rate	\$11.59	\$6.13	189.07%
A7039	FILTER, NON DISPOSABLE W PAP	Medicare CBA Colorado	\$11.59	\$6.33	183.10%
A7039	FILTER, NON DISPOSABLE W PAP	Medicare CBA Denver	\$11.59	\$6.25	185.44%
A7039	FILTER, NON DISPOSABLE W PAP	Medicare Rural Rate	\$11.59	\$9.87	117.43%
A7045	REPL EXHALATION PORT FOR PAP	Medicare CBA Colorado	\$17.32	\$10.94	158.32%
A7045	REPL EXHALATION PORT FOR PAP	Medicare CBA Denver	\$17.32	\$10.91	158.75%
A7045	REPL EXHALATION PORT FOR PAP	Medicare Non Rural Rate	\$17.32	\$11.19	154.78%
A7045	REPL EXHALATION PORT FOR PAP	Medicare Rural Rate	\$17.32	\$16.40	105.61%
A7046	REPL WATER CHAMBER, PAP DEV	Medicare Non Rural Rate	\$17.37	\$13.40	129.63%
A7046	REPL WATER CHAMBER, PAP DEV	Medicare CBA Colorado	\$17.37	\$13.60	127.72%
A7046	REPL WATER CHAMBER, PAP DEV	Medicare CBA Denver	\$17.37	\$13.41	129.53%

Appendix B9: POS Rate Ratio Results Optumas

A7046	REPL WATER CHAMBER, PAP DEV	Medicare Rural Rate	\$17.37	\$17.11	101.52%
A7501	TRACHEOSTOMA VALVE W DIAPHRA	Medicare Non Rural Rate	\$108.39	\$122.01	88.84%
A7504	TRACHEOSTOMA HMES FILTER	Medicare Non Rural Rate	\$0.70	\$0.80	87.50%
A7506	HMES/TRACHVALVE ADHESIVEDISK	Medicare Non Rural Rate	\$0.36	\$0.38	94.74%
A7507	INTEGRATED FILTER & HOLDER	Medicare Non Rural Rate	\$2.57	\$2.89	88.93%
A7508	HOUSING & INTEGRATED ADHESIV	Medicare Non Rural Rate	\$2.95	\$3.33	88.59%
A7509	HEAT & MOISTURE EXCHANGE SYS	Medicare Non Rural Rate	\$1.46	\$1.64	89.02%
A7522	TRACH/LARYN TUBE STAINLESS	Medicare Non Rural Rate	\$46.60	\$52.47	88.81%
A7524	TRACHEOSTOMA STENT/STUD/BTTN	Medicare Non Rural Rate	\$79.88	\$89.93	88.82%
A7525	TRACHEOSTOMY MASK	Medicare Non Rural Rate	\$2.10	\$2.40	87.50%
A7526	TRACHEOSTOMY TUBE COLLAR	Medicare Non Rural Rate	\$3.47	\$3.94	88.07%
A7527	TRACH/LARYN TUBE PLUG/STOP	Medicare Non Rural Rate	\$3.70	\$4.16	88.94%
A8000	SOFT PROTECT HELMET PREFAB	Medicare Non Rural Rate	\$115.30	\$178.17	64.71%
A8001	HARD PROTECT HELMET PREFAB	Medicare Non Rural Rate	\$115.30	\$178.17	64.71%
A8002	SOFT PROTECT HELMET CUSTOM	Other States Average	\$368.29	\$433.63	84.93%
A8003	HARD PROTECT HELMET CUSTOM	Other States Average	\$524.44	\$437.45	119.89%
L0113	CRANIAL CERVICAL TORTICOLLIS	Medicare Non Rural Rate	\$253.28	\$288.84	87.69%
L0120	CERV FLEX N/ADJ FOAM PRE OTS	Medicare Non Rural Rate	\$16.51	\$24.86	66.41%
L0140	CERVICAL SEMI-RIGID ADJUSTAB	Medicare Non Rural Rate	\$45.62	\$67.70	67.39%
L0150	CERV SEMI-RIG ADJ MOLDED CHN	Medicare Non Rural Rate	\$70.81	\$101.23	69.95%
L0160	CERV SR WIRE OCC/MAN PRE OTS	Medicare Non Rural Rate	\$83.84	\$146.71	57.15%
L0172	CERV COL SR FOAM 2PC PRE OTS	Medicare Non Rural Rate	\$82.16	\$123.54	66.50%
L0174	CERV SR 2PC THOR EXT PRE OTS	Medicare Non Rural Rate	\$200.10	\$300.98	66.48%
L0180	CER POST COL OCC/MAN SUP ADJ	Medicare Non Rural Rate	\$230.77	\$347.08	66.49%
L0190	CERV COLLAR SUPP ADJ CERV BA	Medicare Non Rural Rate	\$320.34	\$481.82	66.49%
L0200	CERV COL SUPP ADJ BAR & THOR	Medicare Non Rural Rate	\$352.20	\$523.26	67.31%
L0450	TLSO FLEX TRUNK/THOR PRE OTS	Medicare Non Rural Rate	\$142.74	\$162.80	87.68%
L0454	TLSO TRNK SJ-T9 PRE CST	Medicare Non Rural Rate	\$308.01	\$351.26	87.69%
L0456	TLSO FLEX TRNK SJ-SS PRE CST	Medicare Non Rural Rate	\$883.31	\$1,007.33	87.69%

Appendix B9: POS Rate Ratio Results Optumas

L0457	TLSO FLEX TRNK SJ-SS PRE OTS	Medicare Non Rural Rate	\$754.07	\$1,007.33	74.86%
L0460	TLSO 2 SHL SYMPHYS-STERN CST	Medicare Non Rural Rate	\$891.53	\$1,016.70	87.69%
L0464	TLSO 4MOD SACRO-SCAP PRE	Medicare Non Rural Rate	\$1,320.09	\$1,505.47	87.69%
L0467	TLSO R FRAM SOFT PRE OTS	Medicare Non Rural Rate	\$273.74	\$365.67	74.86%
L0472	TLSO RIGID FRAME HYPEREX PRE	Medicare Non Rural Rate	\$332.10	\$378.77	87.68%
L0480	TLSO RIGID PLASTIC CUSTOM FA	Medicare Non Rural Rate	\$1,453.43	\$1,657.50	87.69%
L0482	TLSO RIGID LINED CUSTOM FAB	Medicare Non Rural Rate	\$1,625.21	\$1,853.38	87.69%
L0486	TLSO RIGIDLINED CUST FAB TWO	Medicare Non Rural Rate	\$1,777.24	\$2,026.76	87.69%
L0488	TLSO RIGID LINED PRE ONE PIE	Medicare Non Rural Rate	\$903.30	\$1,016.70	88.85%
L0621	SIO FLEX PELVIC/SACR PRE OTS	Medicare Non Rural Rate	\$64.52	\$106.87	60.37%
L0625	LO FLEX L1-BELOW L5 PRE OTS	Medicare Non Rural Rate	\$33.75	\$55.92	60.35%
L0626	LO SAG RIG PNL STAYS PRE CST	Medicare Non Rural Rate	\$47.78	\$79.09	60.41%
L0627	LO SAG RI AN/POS PNL PRE CST	Medicare Non Rural Rate	\$251.93	\$417.14	60.39%
L0628	LSO FLEX NO RI STAYS PRE OTS	Medicare Non Rural Rate	\$51.40	\$85.12	60.39%
L0630	LSO R POST PNL SJ-T9 PRE CST	Medicare Non Rural Rate	\$99.25	\$164.33	60.40%
L0631	LSO SAG R AN/POS PNL PRE CST	Medicare Non Rural Rate	\$629.18	\$1,041.80	60.39%
L0632	LSO SAG RIGID FRAME CUST	Other States Average	\$1,041.47	\$396.25	262.83%
L0635	LSO SAGIT RIGID PANEL PREFAB	Medicare Non Rural Rate	\$548.69	\$896.64	61.19%
L0636	LSO SAGITTAL RIGID PANEL CUS	Medicare Non Rural Rate	\$954.79	\$1,560.32	61.19%
L0637	LSO SC R ANT/POS PNL PRE CST	Medicare Non Rural Rate	\$634.42	\$1,050.44	60.40%
L0638	LSO SAG-CORONAL PANEL CUSTOM	Medicare Non Rural Rate	\$806.78	\$1,335.83	60.40%
L0640	LSO S/C SHELL/PANEL CUSTOM	Medicare Non Rural Rate	\$640.05	\$1,059.78	60.39%
L0641	LO RIG POS PNL L1-L5 PRE OTS	Medicare Non Rural Rate	\$59.20	\$79.09	74.85%
L0642	LO SAG RI AN/POS PNL PRE OTS	Medicare Non Rural Rate	\$312.26	\$417.14	74.86%
L0643	LSO SAG CTR RIGI POS PRE OTS	Medicare Non Rural Rate	\$123.03	\$164.33	74.87%
L0648	LSO SAG R AN/POS PNL PRE OTS	Medicare Non Rural Rate	\$779.89	\$1,041.80	74.86%
L0650	LSO SC R ANT/POS PNL PRE OTS	Medicare Non Rural Rate	\$786.36	\$1,050.44	74.86%
L0710	CTLSO A-P-L CONTROL W/ INTER	Medicare Non Rural Rate	\$1,486.41	\$2,235.65	66.49%
L0861	HALO REPL LINER/INTERFACE	Medicare Non Rural Rate	\$193.95	\$218.29	88.85%

Appendix B9: POS Rate Ratio Results Optumas

L0976	LSO FULL CORSET	Medicare Non Rural Rate	\$151.22	\$190.04	79.57%
L0984	PROTECT BODY SOCK EA PRE OTS	Medicare Non Rural Rate	\$42.04	\$62.42	67.35%
L1005	TENSION BASED SCOLIOSIS ORTH	Medicare Non Rural Rate	\$2,880.11	\$3,241.64	88.85%
L1010	CTLSO AXILLA SLING	Medicare Non Rural Rate	\$30.63	\$62.87	48.72%
L1020	KYPHOSIS PAD	Medicare Non Rural Rate	\$59.16	\$80.97	73.06%
L1030	LUMBAR BOLSTER PAD	Medicare Non Rural Rate	\$39.60	\$59.59	66.45%
L1040	LUMBAR OR LUMBAR RIB PAD	Medicare Non Rural Rate	\$44.86	\$73.08	61.38%
L1050	STERNAL PAD	Medicare Non Rural Rate	\$51.86	\$77.99	66.50%
L1060	THORACIC PAD	Medicare Non Rural Rate	\$59.58	\$89.58	66.51%
L1080	OUTRIGGER	Medicare Non Rural Rate	\$53.19	\$66.61	79.85%
L1090	LUMBAR SLING	Medicare Non Rural Rate	\$55.36	\$92.74	59.69%
L1200	FURNISH INITIAL ORTHOSIS ONLY	Medicare Non Rural Rate	\$1,170.22	\$1,760.07	66.49%
L1210	LATERAL THORACIC EXTENSION	Medicare Non Rural Rate	\$197.55	\$326.81	60.45%
L1220	ANTERIOR THORACIC EXTENSION	Medicare Non Rural Rate	\$143.86	\$216.38	66.48%
L1240	LUMBAR DEROTATION PAD	Medicare Non Rural Rate	\$48.37	\$72.74	66.50%
L1250	ANTERIOR ASIS PAD	Medicare Non Rural Rate	\$29.80	\$67.68	44.03%
L1260	ANTERIOR THORACIC DEROTATION	Medicare Non Rural Rate	\$47.12	\$70.86	66.50%
L1270	ABDOMINAL PAD	Medicare Non Rural Rate	\$40.15	\$72.58	55.32%
L1280	RIB GUSSET (ELASTIC) EACH	Medicare Non Rural Rate	\$53.72	\$80.81	66.48%
L1290	LATERAL TROCHANTERIC PAD	Medicare Non Rural Rate	\$48.94	\$73.63	66.47%
L1300	BODY JACKET MOLD TO PATIENT	Medicare Non Rural Rate	\$1,292.88	\$1,944.58	66.49%
L1620	HO FLEX PAVLIK HARNS PRE CST	Medicare Non Rural Rate	\$83.44	\$125.51	66.48%
L1630	ABDUCT CONTROL HIP SEMI-FLEX	Medicare Non Rural Rate	\$141.02	\$158.73	88.84%
L1650	HO ABDUCTION HIP ADJUSTABLE	Medicare Non Rural Rate	\$162.47	\$244.40	66.48%
L1652	HO BI THIGHCUFFS W SPRDR BAR	Medicare Non Rural Rate	\$316.59	\$361.03	87.69%
L1686	HO POST-OP HIP ABDUCTION	Medicare Non Rural Rate	\$640.32	\$963.08	66.49%
L1690	COMBINATION BILATERAL HO	Medicare Non Rural Rate	\$1,302.13	\$1,958.49	66.49%
L1810	KO ELASTIC WITH JOINTS	Medicare Non Rural Rate	\$62.85	\$94.58	66.45%
L1812	KO ELASTIC W/JOINTS PRE OTS	Medicare Non Rural Rate	\$70.80	\$94.58	74.86%

Appendix B9: POS Rate Ratio Results Optumas

L1820	KO ELAS W/ CONDYLE PADS & JO	Medicare Non Rural Rate	\$88.29	\$132.83	66.47%
L1830	KO IMMOB CANVAS LONG PRE OTS	Medicare Non Rural Rate	\$57.54	\$86.54	66.49%
L1831	KNEE ORTH POS LOCKING JOINT	Medicare Non Rural Rate	\$261.39	\$298.09	87.69%
L1832	KO ADJ JNT POS R SUP PRE CST	Medicare Non Rural Rate	\$344.23	\$569.51	60.44%
L1833	KO ADJ JNT POS R SUP PRE OTS	Medicare Non Rural Rate	\$426.33	\$569.51	74.86%
L1834	KO W/O JOINT RIGID MOLDED TO	Medicare Non Rural Rate	\$673.54	\$768.12	87.69%
L1836	KO RIGID W/O JOINTS PRE OTS	Medicare Non Rural Rate	\$118.51	\$135.16	87.68%
L1843	KO SINGLE UPRIGHT PRE CST	Medicare Non Rural Rate	\$622.48	\$908.77	68.50%
L1844	KO W/ADJ JT ROT CNTRL MOLDED	Medicare Non Rural Rate	\$1,016.27	\$1,681.43	60.44%
L1845	KO DOUBLE UPRIGHT PRE CST	Medicare Non Rural Rate	\$541.66	\$790.77	68.50%
L1846	KO W ADJ FLEX/EXT ROTAT MOLD	Medicare Non Rural Rate	\$934.11	\$1,051.37	88.85%
L1848	KO DBL UPRIGHT W/AIR PRE OTS	Medicare Non Rural Rate	\$436.08	\$582.52	74.86%
L1850	KO SWEDISH TYPE PRE OTS	Medicare Non Rural Rate	\$231.01	\$307.07	75.23%
L1851	KO SINGLE UPRIGHT PREFAB OTS	Medicare Non Rural Rate	\$676.96	\$908.77	74.49%
L1852	KO DOUBLE UPRIGHT PREFAB OTS	Medicare Non Rural Rate	\$589.04	\$790.77	74.49%
L1902	AFO ANKLE GAUNTLET PRE OTS	Medicare Non Rural Rate	\$49.72	\$74.78	66.49%
L1904	AFO MOLDED ANKLE GAUNTLET	Medicare Non Rural Rate	\$345.19	\$440.49	78.37%
L1906	AFO MULTILIG ANK SUP PRE OTS	Medicare Non Rural Rate	\$99.86	\$150.21	66.48%
L1907	AFO SUPRAMALLEOLAR CUSTOM	Medicare Non Rural Rate	\$499.72	\$569.89	87.69%
L1930	AFO PLASTIC	Medicare Non Rural Rate	\$165.67	\$241.86	68.50%
L1932	AFO RIG ANT TIB PREFAB TCF/=	Medicare Non Rural Rate	\$792.49	\$903.75	87.69%
L1940	AFO MOLDED TO PATIENT PLASTI	Medicare Non Rural Rate	\$317.32	\$463.26	68.50%
L1945	AFO MOLDED PLAS RIG ANT TIB	Medicare Non Rural Rate	\$566.26	\$892.22	63.47%
L1950	AFO SPIRAL MOLDED TO PT PLAS	Medicare Non Rural Rate	\$501.88	\$754.89	66.48%
L1951	AFO SPIRAL PREFABRICATED	Medicare Non Rural Rate	\$745.86	\$850.59	87.69%
L1960	AFO POS SOLID ANK PLASTIC MO	Medicare Non Rural Rate	\$355.66	\$519.23	68.50%
L1970	AFO PLASTIC MOLDED W/ANKLE J	Medicare Non Rural Rate	\$479.67	\$700.26	68.50%
L1971	AFO W/ANKLE JOINT, PREFAB	Medicare Non Rural Rate	\$416.26	\$474.71	87.69%
L1990	AFO DOUB SOLID STIRRUP CALF	Medicare Non Rural Rate	\$286.02	\$417.55	68.50%

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L2005	KAFO SNG/DBL MECHANICAL ACT	Medicare Non Rural Rate	\$3,646.55	\$4,158.52	87.69%
L2020	KAFO DBL SOLID STIRRUP BAND/	Medicare Non Rural Rate	\$661.10	\$1,093.78	60.44%
L2034	KAFO PLA SIN UP W/WO K/A CUS	Medicare Non Rural Rate	\$1,848.39	\$2,107.90	87.69%
L2036	KAFO PLAS DOUB FREE KNEE MOL	Medicare Non Rural Rate	\$1,306.79	\$1,907.77	68.50%
L2037	KAFO PLAS SING FREE KNEE MOL	Medicare Non Rural Rate	\$1,037.35	\$1,560.23	66.49%
L2040	HKAFO TORSION BIL ROT STRAPS	Medicare Non Rural Rate	\$143.68	\$216.11	66.48%
L2060	HKAFO TORSION BALL BEARING J	Medicare Non Rural Rate	\$452.96	\$554.41	81.70%
L2070	HKAFO TORSION UNILAT ROT STR	Medicare Non Rural Rate	\$78.68	\$125.98	62.45%
L2112	AFO TIBIAL FRACTURE SOFT	Medicare Non Rural Rate	\$294.42	\$437.04	67.37%
L2114	AFO TIB FX SEMI-RIGID	Medicare Non Rural Rate	\$364.47	\$548.17	66.49%
L2134	KAFO FEM FX CAST SEMI-RIGID	Medicare Non Rural Rate	\$655.42	\$905.99	72.34%
L2184	LIMITED MOTION KNEE JOINT	Medicare Non Rural Rate	\$75.95	\$127.11	59.75%
L2192	PELVIC BAND & BELT THIGH FLA	Medicare Non Rural Rate	\$239.18	\$334.00	71.61%
L2200	LIMITED ANKLE MOTION EA JNT	Medicare Non Rural Rate	\$35.90	\$59.38	60.46%
L2210	DORSIFLEXION ASSIST EACH JOI	Medicare Non Rural Rate	\$55.82	\$83.96	66.48%
L2220	DORSI & PLANTAR FLEX ASS/RES	Medicare Non Rural Rate	\$66.07	\$99.39	66.48%
L2232	ROCKER BOTTOM, CONTACT AFO	Medicare Non Rural Rate	\$85.35	\$97.32	87.70%
L2250	FOOT PLATE MOLDED STIRRUP AT	Medicare Non Rural Rate	\$261.99	\$394.02	66.49%
L2260	REINFORCED SOLID STIRRUP	Medicare Non Rural Rate	\$144.67	\$214.73	67.37%
L2265	LONG TONGUE STIRRUP	Medicare Non Rural Rate	\$73.33	\$110.32	66.47%
L2270	VARUS/VALGUS STRAP PADDED/LI	Medicare Non Rural Rate	\$36.75	\$55.24	66.53%
L2275	PLASTIC MOD LOW EXT PAD/LINE	Medicare Non Rural Rate	\$92.78	\$139.54	66.49%
L2280	MOLDED INNER BOOT	Medicare Non Rural Rate	\$256.36	\$424.16	60.44%
L2300	ABDUCTION BAR JOINTED ADJUST	Medicare Non Rural Rate	\$167.67	\$252.21	66.48%
L2320	NON-MOLDED LACER	Medicare Non Rural Rate	\$165.69	\$245.96	67.36%
L2330	LACER MOLDED TO PATIENT MODE	Medicare Non Rural Rate	\$277.70	\$405.41	68.50%
L2340	PRE-TIBIAL SHELL MOLDED TO P	Medicare Non Rural Rate	\$278.36	\$418.66	66.49%
L2350	PROSTHETIC TYPE SOCKET MOLDE	Medicare Non Rural Rate	\$648.18	\$974.91	66.49%
L2360	EXTENDED STEEL SHANK	Medicare Non Rural Rate	\$35.81	\$53.86	66.49%

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L2370	PATTEN BOTTOM	Medicare Non Rural Rate	\$159.29	\$240.46	66.24%
L2380	TORSION STRAIGHT KNEE JOINT	Medicare Non Rural Rate	\$132.20	\$153.76	85.98%
L2385	STRAIGHT KNEE JOINT HEAVY DU	Medicare Non Rural Rate	\$111.20	\$167.29	66.47%
L2387	ADD LE POLY KNEE CUSTOM KAFO	Medicare Non Rural Rate	\$135.94	\$155.03	87.69%
L2390	OFFSET KNEE JOINT EACH	Medicare Non Rural Rate	\$90.88	\$136.72	66.47%
L2395	OFFSET KNEE JOINT HEAVY DUTY	Medicare Non Rural Rate	\$115.80	\$174.14	66.50%
L2397	SUSPENSION SLEEVE LOWER EXT	Medicare Non Rural Rate	\$80.20	\$120.63	66.48%
L2405	KNEE JOINT DROP LOCK EA JNT	Medicare Non Rural Rate	\$42.26	\$88.29	47.86%
L2415	KNEE JOINT CAM LOCK EACH JOI	Medicare Non Rural Rate	\$105.79	\$123.07	85.96%
L2425	KNEE DISC/DIAL LOCK/ADJ FLEX	Medicare Non Rural Rate	\$124.83	\$145.21	85.97%
L2430	KNEE JNT RATCHET LOCK EA JNT	Medicare Non Rural Rate	\$127.34	\$145.21	87.69%
L2492	KNEE LIFT LOOP DROP LOCK RIN	Medicare Non Rural Rate	\$70.17	\$119.61	58.67%
L2510	TH/WGHT BEAR QUAD-LAT BRIM M	Medicare Non Rural Rate	\$427.64	\$680.43	62.85%
L2525	TH/WGHT BEAR NAR M-L BRIM MO	Medicare Non Rural Rate	\$771.55	\$1,283.88	60.10%
L2530	THIGH/WGHT BEAR LACER NON-MO	Medicare Non Rural Rate	\$159.55	\$293.46	54.37%
L2540	THIGH/WGHT BEAR LACER MOLDED	Medicare Non Rural Rate	\$275.14	\$449.51	61.21%
L2550	THIGH/WGHT BEAR HIGH ROLL CU	Medicare Non Rural Rate	\$319.47	\$358.72	89.06%
L2570	HIP CLEVIS TYPE 2 POSIT JNT	Medicare Non Rural Rate	\$300.57	\$446.18	67.37%
L2620	PELVIC CONTROL HIP HEAVY DUT	Medicare Non Rural Rate	\$193.21	\$250.46	77.14%
L2622	HIP JOINT ADJUSTABLE FLEXION	Medicare Non Rural Rate	\$193.21	\$287.26	67.26%
L2624	HIP ADJ FLEX EXT ABDUCT CONT	Medicare Non Rural Rate	\$206.22	\$310.19	66.48%
L2628	METAL FRAME RECIPRO HIP & CA	Medicare Non Rural Rate	\$1,264.77	\$2,092.54	60.44%
L2630	PELVIC CONTROL BAND & BELT U	Medicare Non Rural Rate	\$208.32	\$309.28	67.36%
L2660	THORACIC CONTROL THORACIC BA	Medicare Non Rural Rate	\$202.77	\$232.78	87.11%
L2750	PLATING CHROME/NICKEL PR BAR	Medicare Non Rural Rate	\$34.73	\$78.30	44.36%
L2755	CARBON GRAPHITE LAMINATION	Medicare Non Rural Rate	\$87.95	\$132.30	66.48%
L2760	EXTENSION PER EXTENSION PER	Medicare Non Rural Rate	\$50.44	\$75.89	66.46%
L2768	ORTHO SIDEBAR DISCONNECT	Medicare Non Rural Rate	\$115.72	\$131.97	87.69%
L2780	NON-CORROSIVE FINISH	Medicare Non Rural Rate	\$42.14	\$63.40	66.47%

Appendix B9: POS Rate Ratio Results Optumas

L2785	DROP LOCK RETAINER EACH	Medicare Non Rural Rate	\$19.74	\$29.69	66.49%
L2795	KNEE CONTROL FULL KNEECAP	Medicare Non Rural Rate	\$52.91	\$79.60	66.47%
L2800	KNEE CAP MEDIAL OR LATERAL P	Medicare Non Rural Rate	\$72.86	\$109.59	66.48%
L2810	KNEE CONTROL CONDYLAR PAD	Medicare Non Rural Rate	\$48.65	\$73.16	66.50%
L2820	SOFT INTERFACE BELOW KNEE SE	Medicare Non Rural Rate	\$65.57	\$108.46	60.46%
L2830	SOFT INTERFACE ABOVE KNEE SE	Medicare Non Rural Rate	\$78.04	\$117.34	66.51%
L2840	TIBIAL LENGTH SOCK FX OR EQU	Medicare Non Rural Rate	\$18.42	\$40.93	45.00%
L2850	FEMORAL LGTH SOCK FX OR EQUA	Medicare Non Rural Rate	\$49.52	\$74.48	66.49%
L3000	FT INSERT UCB BERKELEY SHELL	Medicare Non Rural Rate	\$236.61	\$318.11	74.38%
L3002	FOOT INSERT PLASTAZOTE OR EQ	Medicare Non Rural Rate	\$120.08	\$163.55	73.42%
L3010	FOOT LONGITUDINAL ARCH SUPPO	Medicare Non Rural Rate	\$129.53	\$176.47	73.40%
L3020	FOOT LONGITUD/METATARSAL SUP	Medicare Non Rural Rate	\$147.48	\$200.93	73.40%
L3030	FOOT ARCH SUPPORT REMOV PREM	Medicare Non Rural Rate	\$56.73	\$77.26	73.43%
L3031	FOOT LAMIN/PREPREG COMPOSITE	Medicare Non Rural Rate	\$178.32	\$124.06	143.74%
L3040	FT ARCH SUPRT PREMOLD LONGIT	Medicare Non Rural Rate	\$34.97	\$47.67	73.36%
L3050	FOOT ARCH SUPP PREMOLD METAT	Medicare Non Rural Rate	\$34.97	\$47.67	73.36%
L3060	FOOT ARCH SUPP LONGITUD/META	Medicare Non Rural Rate	\$54.85	\$74.71	73.42%
L3100	HALLUS-VALGUS NT DYN PRE OTS	Medicare Non Rural Rate	\$32.16	\$43.78	73.46%
L3150	ABDUCT ROTATION BAR W/O SHOE	Medicare Non Rural Rate	\$60.50	\$82.44	73.39%
L3160	SHOE STYLED POSITIONING DEV	Other States Average	\$138.14	\$54.36	254.14%
L3170	FOOT PLAS HEEL STABI PRE OTS	Medicare Non Rural Rate	\$44.31	\$51.54	85.97%
L3215	ORTHOPEDIC FTWEAR LADIES OXF	Other States Average	\$119.45	\$72.49	164.78%
L3216	ORTHOPED LADIES SHOES DPTH I	Other States Average	\$119.45	\$89.53	133.42%
L3217	LADIES SHOES HIGHTOP DEPTH I	Other States Average	\$124.98	\$87.58	142.71%
L3219	ORTHOPEDIC MENS SHOES OXFORD	Other States Average	\$96.17	\$81.71	117.70%
L3221	ORTHOPEDIC MENS SHOES DPTH I	Other States Average	\$100.62	\$98.75	101.89%
L3222	MENS SHOES HIGHTOP DEPTH INL	Other States Average	\$143.68	\$94.57	151.94%
L3224	WOMAN'S SHOE OXFORD BRACE	Medicare Non Rural Rate	\$39.83	\$57.28	69.54%
L3225	MAN'S SHOE OXFORD BRACE	Medicare Non Rural Rate	\$67.03	\$76.44	87.69%

Appendix B9: POS Rate Ratio Results Optumas

L3230	CUSTOM SHOES DEPTH INLAY	Other States Average	\$248.88	\$221.18	112.52%
L3250	CUSTOM MOLD SHOE REMOV PROST	Other States Average	\$383.11	\$190.36	201.25%
L3254	ORTH FOOT NON-STANDARD SIZE/W	Other States Average	\$19.52	\$31.33	62.30%
L3257	ORTH FOOT ADD CHARGE SPLIT S	Other States Average	\$111.52	\$57.96	192.42%
L3260	AMBULATORY SURGICAL BOOT EAC	Other States Average	\$159.29	\$51.90	306.90%
L3265	PLASTAZOTE SANDAL EACH	Other States Average	\$109.28	\$52.59	207.80%
L3300	SHO LIFT TAPER TO METATARSAL	Medicare Non Rural Rate	\$38.79	\$52.81	73.45%
L3310	SHOE LIFT ELEV HEEL/SOLE NEO	Medicare Non Rural Rate	\$60.50	\$82.44	73.39%
L3320	SHOE LIFT ELEV HEEL/SOLE COR	Other States Average	\$63.64	\$71.72	88.74%
L3332	SHOE LIFTS TAPERED TO ONE-HA	Medicare Non Rural Rate	\$54.85	\$74.71	73.42%
L3334	SHOE LIFTS ELEVATION HEEL /I	Medicare Non Rural Rate	\$33.90	\$38.66	87.69%
L3340	SHOE WEDGE SACH	Medicare Non Rural Rate	\$75.67	\$86.29	87.69%
L3350	SHOE HEEL WEDGE	Medicare Non Rural Rate	\$17.04	\$23.15	73.61%
L3360	SHOE SOLE WEDGE OUTSIDE SOLE	Medicare Non Rural Rate	\$26.48	\$36.06	73.43%
L3370	SHOE SOLE WEDGE BETWEEN SOLE	Medicare Non Rural Rate	\$36.89	\$50.24	73.43%
L3380	SHOE CLUBFOOT WEDGE	Medicare Non Rural Rate	\$36.89	\$50.24	73.43%
L3390	SHOE OUTFLARE WEDGE	Medicare Non Rural Rate	\$44.06	\$50.24	87.70%
L3400	SHOE METATARSAL BAR WEDGE RO	Medicare Non Rural Rate	\$30.27	\$41.19	73.49%
L3420	FULL SOLE/HEEL WEDGE BTWEEN	Medicare Non Rural Rate	\$48.58	\$55.38	87.72%
L3480	SHOE HEEL PAD & DEPRESS FOR	Medicare Non Rural Rate	\$55.36	\$63.14	87.68%
L3530	ORTHO SHOE ADD HALF SOLE	Medicare Non Rural Rate	\$28.61	\$32.20	88.85%
L3540	ORTHO SHOE ADD FULL SOLE	Medicare Non Rural Rate	\$45.21	\$51.54	87.72%
L3620	TRANS SHOE SOLID STIRRUP EXI	Medicare Non Rural Rate	\$67.76	\$77.26	87.70%
L3650	SO 8 ABD RESTRAINT PRE OTS	Medicare Non Rural Rate	\$17.89	\$54.37	32.90%
L3660	SO 8 AB RSTR CAN/WEB PRE OTS	Medicare Non Rural Rate	\$81.73	\$122.97	66.46%
L3675	SO VEST CANVAS/WEB PRE OTS	Medicare Non Rural Rate	\$141.84	\$161.73	87.70%
L3702	EO W/O JOINTS CF	Medicare Non Rural Rate	\$233.38	\$266.16	87.68%
L3710	EO ELAS W/METAL JNTS PRE OTS	Medicare Non Rural Rate	\$75.34	\$113.31	66.49%
L3720	FOREARM/ARM CUFFS FREE MOTIO	Medicare Non Rural Rate	\$525.76	\$599.55	87.69%

Appendix B9: POS Rate Ratio Results Optumas

L3730	FOREARM/ARM CUFFS EXT/FLEX A	Medicare Non Rural Rate	\$499.46	\$826.31	60.44%
L3740	CUFFS ADJ LOCK W/ ACTIVE CON	Medicare Non Rural Rate	\$651.32	\$979.66	66.48%
L3760	EO ADJ JT PREFAB CUSTOM FIT	Medicare Non Rural Rate	\$404.20	\$460.96	87.69%
L3761	EO, ADJ LOCK JOINT PREFAB OT	Medicare Non Rural Rate	\$455.56	\$460.96	98.83%
L3762	EO RIGID W/O JOINTS PRE OTS	Medicare Non Rural Rate	\$86.90	\$99.09	87.70%
L3763	EWHO RIGID W/O JNTS CF	Medicare Non Rural Rate	\$542.93	\$619.15	87.69%
L3764	EWHO W/JOINT(S) CF	Medicare Non Rural Rate	\$620.60	\$707.76	87.69%
L3765	EWHFO RIGID W/O JNTS CF	Medicare Non Rural Rate	\$1,050.09	\$1,181.91	88.85%
L3766	EWHFO W/JOINT(S) CF	Medicare Non Rural Rate	\$1,097.47	\$1,251.55	87.69%
L3806	WHFO W/JOINT(S) CUSTOM FAB	Medicare Non Rural Rate	\$263.89	\$418.69	63.03%
L3807	WHFO W/O JOINTS PRE CST	Medicare Non Rural Rate	\$202.08	\$230.45	87.69%
L3808	WHFO, RIGID W/O JOINTS	Medicare Non Rural Rate	\$163.96	\$334.50	49.02%
L3809	WHFO W/O JOINTS PRE OTS	Medicare Non Rural Rate	\$172.51	\$230.45	74.86%
L3900	HINGE EXTENSION/FLEX WRIST/F	Medicare Non Rural Rate	\$788.60	\$1,186.09	66.49%
L3905	WHO W/NONTORSION JNT(S) CF	Medicare Non Rural Rate	\$801.57	\$914.10	87.69%
L3906	WHO W/O JOINTS CF	Medicare Non Rural Rate	\$256.12	\$374.85	68.33%
L3908	WHO COCK-UP NONMOLDE PRE OTS	Medicare Non Rural Rate	\$33.19	\$54.92	60.43%
L3912	HFO FLEXION GLOVE PRE OTS	Medicare Non Rural Rate	\$77.61	\$86.93	89.28%
L3913	HFO W/O JOINTS CF	Medicare Non Rural Rate	\$218.91	\$249.64	87.69%
L3915	WHO NONTORSION JNTS PRE CST	Medicare Non Rural Rate	\$335.63	\$489.99	68.50%
L3917	METACARP FX ORTHOSIS PRE CST	Medicare Non Rural Rate	\$85.38	\$97.35	87.70%
L3918	METACARP FX ORTHOSIS PRE OTS	Medicare Non Rural Rate	\$71.08	\$97.35	73.01%
L3919	HO W/O JOINTS CF	Medicare Non Rural Rate	\$221.80	\$249.64	88.85%
L3921	HFO W/JOINT(S) CF	Medicare Non Rural Rate	\$259.59	\$296.05	87.68%
L3923	HFO WITHOUT JOINTS PRE CST	Medicare Non Rural Rate	\$69.93	\$79.73	87.71%
L3924	HFO WITHOUT JOINTS PRE OTS	Medicare Non Rural Rate	\$58.24	\$79.73	73.05%
L3925	FO PIP DIP JNT/SPRNG PRE OTS	Medicare Non Rural Rate	\$29.66	\$45.25	65.55%
L3927	FO PIP DIP NO JT SPR PRE OTS	Medicare Non Rural Rate	\$28.27	\$32.25	87.66%
L3929	HFO NONTORSION JNTS PRE CST	Medicare Non Rural Rate	\$46.38	\$71.66	64.72%

Appendix B9: POS Rate Ratio Results Optumas

L3931	WHFO NONTORSION JOINT PREFAB	Medicare Non Rural Rate	\$114.57	\$177.01	64.73%
L3933	FO W/O JOINTS CF	Medicare Non Rural Rate	\$172.48	\$196.67	87.70%
L3935	FO NONTORSION JOINT CF	Medicare Non Rural Rate	\$180.95	\$203.69	88.84%
L3960	SEWHO AIRPLAN DESIG ABDU POS	Medicare Non Rural Rate	\$447.90	\$673.67	66.49%
L3973	SEWHO AIRPLANE W/JNT(S) CF	Medicare Non Rural Rate	\$1,603.31	\$1,828.42	87.69%
L3980	UP EXT FX ORTHOS HUMERAL NOS	Medicare Non Rural Rate	\$188.42	\$283.38	66.49%
L3981	UE FX ORTH SHOUL CAP FOREARM	Medicare Non Rural Rate	\$692.54	\$929.68	74.49%
L3982	UPPER EXT FX ORTHOSIS RAD/UL	Medicare Non Rural Rate	\$232.94	\$350.38	66.48%
L3984	UPPER EXT FX ORTHOSIS WRIST	Medicare Non Rural Rate	\$259.39	\$362.52	71.55%
L3995	SOCK FRACTURE OR EQUAL EACH	Medicare Non Rural Rate	\$19.95	\$29.97	66.57%
L4002	REPLACE STRAP, ANY ORTHOSIS	Other States Average	\$26.45	\$15.60	169.58%
L4110	REPL LEATH CUFF KAFO-AFO CAL	Medicare Non Rural Rate	\$56.97	\$80.49	70.78%
L4130	REPLACE PRETIBIAL SHELL	Medicare Non Rural Rate	\$263.94	\$534.11	49.42%
L4350	ANKLE CONTROL ORTHO PRE OTS	Medicare Non Rural Rate	\$50.62	\$83.74	60.45%
L4360	PNEUMAT WALKING BOOT PRE CST	Medicare Non Rural Rate	\$171.41	\$279.90	61.24%
L4361	PNEUMA/VAC WALK BOOT PRE OTS	Medicare Non Rural Rate	\$209.52	\$279.90	74.86%
L4370	PNEUM FULL LEG SPLINT PRE OTS	Medicare Non Rural Rate	\$128.98	\$193.97	66.49%
L4386	NON-PNEUM WALK BOOT PRE CST	Medicare Non Rural Rate	\$140.80	\$160.57	87.69%
L4387	NON-PNEUM WALK BOOT PRE OTS	Medicare Non Rural Rate	\$120.20	\$160.57	74.86%
L4392	REPLACE AFO SOFT INTERFACE	Medicare Non Rural Rate	\$20.77	\$23.41	88.72%
L4396	STATIC OR DYNAMI AFO PRE CST	Medicare Non Rural Rate	\$110.95	\$166.91	66.47%
L4398	FOOT DROP SPLINT PRE OTS	Medicare Non Rural Rate	\$67.38	\$76.87	87.65%
L4631	AFO, WALK BOOT TYPE, CUS FAB	Medicare Non Rural Rate	\$1,000.13	\$1,393.99	71.75%
L5000	SHO INSERT W ARCH TOE FILLER	Medicare Non Rural Rate	\$335.23	\$504.24	66.48%
L5010	MOLD SOCKET ANK HGT W/ TOE F	Medicare Non Rural Rate	\$886.18	\$1,332.90	66.49%
L5020	TIBIAL TUBERCLE HGT W/ TOE F	Medicare Non Rural Rate	\$1,554.84	\$2,338.62	66.49%
L5050	ANK SYMES MOLD SCKT SACH FT	Medicare Non Rural Rate	\$1,651.92	\$2,484.58	66.49%
L5100	MOLDED SOCKET SHIN SACH FOOT	Medicare Non Rural Rate	\$1,542.11	\$2,319.46	66.49%
L5160	MOLD SOCKET BENT KNEE SHIN S	Medicare Non Rural Rate	\$2,763.98	\$4,274.84	64.66%

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L5210	NO KNEE/ANKLE JOINTS W/ FT B	Medicare Non Rural Rate	\$1,832.87	\$2,610.25	70.22%
L5301	BK MOLD SOCKET SACH FT ENDO	Medicare Non Rural Rate	\$1,753.57	\$2,310.27	75.90%
L5312	KNEE DISART, SACH FT, ENDO	Medicare Non Rural Rate	\$2,694.20	\$3,639.70	74.02%
L5321	AK OPEN END SACH	Medicare Non Rural Rate	\$2,813.31	\$3,280.06	85.77%
L5331	HIP DISART CANADIAN SACH FT	Medicare Non Rural Rate	\$4,491.00	\$5,590.98	80.33%
L5450	POSTOP APP NON-WGT BEAR DSG	Medicare Non Rural Rate	\$420.36	\$488.97	85.97%
L5460	POSTOP APP NON-WGT BEAR DSG	Medicare Non Rural Rate	\$498.85	\$572.69	87.11%
L5530	PREP BK PTB THERMOPLS MOLDED	Medicare Non Rural Rate	\$1,585.01	\$1,888.68	83.92%
L5540	PREP BK PTB LAMINATED SOCKET	Medicare Non Rural Rate	\$1,347.82	\$2,027.21	66.49%
L5590	PREP AK ISCHIAL LAMINATED	Medicare Non Rural Rate	\$2,037.09	\$3,063.92	66.49%
L5611	AK 4 BAR LINK W/FRIC SWING	Medicare Non Rural Rate	\$1,425.40	\$2,143.89	66.49%
L5617	AK/BK SELF-ALIGNING UNIT EA	Medicare Non Rural Rate	\$502.90	\$566.03	88.85%
L5618	TEST SOCKET SYMES	Medicare Non Rural Rate	\$186.60	\$280.67	66.48%
L5620	TEST SOCKET BELOW KNEE	Medicare Non Rural Rate	\$184.47	\$277.45	66.49%
L5622	TEST SOCKET KNEE DISARTICULA	Medicare Non Rural Rate	\$240.54	\$361.79	66.49%
L5624	TEST SOCKET ABOVE KNEE	Medicare Non Rural Rate	\$241.98	\$363.95	66.49%
L5626	TEST SOCKET HIP DISARTICULAT	Medicare Non Rural Rate	\$260.50	\$475.82	54.75%
L5629	BELOW KNEE ACRYLIC SOCKET	Medicare Non Rural Rate	\$210.88	\$317.16	66.49%
L5630	SYME TYP EXPANDABL WALL SCKT	Medicare Non Rural Rate	\$264.30	\$489.13	54.03%
L5631	AK/KNEE DISARTIC ACRYLIC SOC	Medicare Non Rural Rate	\$291.54	\$438.49	66.49%
L5632	SYMES TYPE PTB BRIM DESIGN S	Medicare Non Rural Rate	\$181.12	\$272.40	66.49%
L5634	SYMES TYPE POSTER OPENING SO	Medicare Non Rural Rate	\$365.65	\$404.76	90.34%
L5636	SYMES TYPE MEDIAL OPENING SO	Medicare Non Rural Rate	\$225.39	\$339.05	66.48%
L5637	BELOW KNEE TOTAL CONTACT	Medicare Non Rural Rate	\$191.67	\$288.30	66.48%
L5643	HIP FLEX INNER SOCKET EXT FR	Medicare Non Rural Rate	\$948.92	\$2,071.06	45.82%
L5645	BK FLEX INNER SOCKET EXT FRA	Medicare Non Rural Rate	\$705.89	\$1,061.70	66.49%
L5647	BELOW KNEE SUCTION SOCKET	Medicare Non Rural Rate	\$644.43	\$969.28	66.49%
L5649	ISCH CONTAINMT/NARROW M-L SO	Medicare Non Rural Rate	\$1,449.23	\$2,115.70	68.50%
L5650	TOT CONTACT AK/KNEE DISART S	Medicare Non Rural Rate	\$431.88	\$649.60	66.48%

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L5651	AK FLEX INNER SOCKET EXT FRA	Medicare Non Rural Rate	\$1,062.44	\$1,597.99	66.49%
L5652	SUCTION SUSP AK/KNEE DISART	Medicare Non Rural Rate	\$385.72	\$580.13	66.49%
L5653	KNEE DISART EXPAND WALL SOCK	Medicare Non Rural Rate	\$688.06	\$774.43	88.85%
L5654	SOCKET INSERT SYMES	Medicare Non Rural Rate	\$221.24	\$332.75	66.49%
L5655	SOCKET INSERT BELOW KNEE	Medicare Non Rural Rate	\$175.99	\$264.71	66.48%
L5656	SOCKET INSERT KNEE ARTICULAT	Medicare Non Rural Rate	\$334.99	\$382.02	87.69%
L5658	SOCKET INSERT ABOVE KNEE	Medicare Non Rural Rate	\$276.53	\$415.92	66.49%
L5661	MULTI-DUROMETER SYMES	Medicare Non Rural Rate	\$532.54	\$607.32	87.69%
L5665	MULTI-DUROMETER BELOW KNEE	Medicare Non Rural Rate	\$270.24	\$510.99	52.89%
L5666	BELOW KNEE CUFF SUSPENSION	Medicare Non Rural Rate	\$46.47	\$69.86	66.52%
L5668	BK MOLDED DISTAL CUSHION	Medicare Non Rural Rate	\$67.00	\$100.78	66.48%
L5670	BK MOLDED SUPRACONDYLAR SUSP	Medicare Non Rural Rate	\$218.25	\$361.07	60.45%
L5671	BK/AK LOCKING MECHANISM	Medicare Non Rural Rate	\$580.39	\$661.88	87.69%
L5673	SOCKET INSERT W LOCK MECH	Medicare Non Rural Rate	\$663.04	\$756.15	87.69%
L5676	BK KNEE JOINTS SINGLE AXIS P	Medicare Non Rural Rate	\$297.36	\$447.26	66.48%
L5678	BK JOINT COVERS PAIR	Medicare Non Rural Rate	\$34.29	\$51.57	66.49%
L5679	SOCKET INSERT W/O LOCK MECH	Medicare Non Rural Rate	\$552.53	\$630.09	87.69%
L5681	INTL CUSTM CONG/LATYP INSERT	Medicare Non Rural Rate	\$1,172.85	\$1,337.52	87.69%
L5682	BK THIGH LACER GLUT/ISCHIA M	Medicare Non Rural Rate	\$547.27	\$624.12	87.69%
L5683	INITIAL CUSTOM SOCKET INSERT	Medicare Non Rural Rate	\$1,172.85	\$1,337.52	87.69%
L5684	BK FORK STRAP	Medicare Non Rural Rate	\$35.14	\$48.98	71.74%
L5685	BELOW KNEE SUS/SEAL SLEEVE	Medicare Non Rural Rate	\$89.04	\$129.99	68.50%
L5688	BK WAIST BELT WEBBING	Medicare Non Rural Rate	\$53.45	\$60.96	87.68%
L5694	AK PELVIC CONTROL BELT PAD/L	Medicare Non Rural Rate	\$134.20	\$201.84	66.49%
L5695	AK SLEEVE SUSP NEOPRENE/EQUA	Medicare Non Rural Rate	\$131.53	\$197.86	66.48%
L5696	AK/KNEE DISARTIC PELVIC JOIN	Medicare Non Rural Rate	\$120.51	\$184.65	65.26%
L5698	AK/KNEE DISARTIC SILESIA BA	Medicare Non Rural Rate	\$69.21	\$104.10	66.48%
L5700	REPLACE SOCKET BELOW KNEE	Medicare Non Rural Rate	\$1,882.83	\$2,831.89	66.49%
L5701	REPLACE SOCKET ABOVE KNEE	Medicare Non Rural Rate	\$2,513.02	\$3,779.76	66.49%

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L5703	SYMES ANKLE W/O (SACH) FOOT	Medicare Non Rural Rate	\$2,006.15	\$2,257.97	88.85%
L5704	CUSTOM SHAPE COVER BK	Medicare Non Rural Rate	\$392.91	\$590.96	66.49%
L5705	CUSTOM SHAPE COVER AK	Medicare Non Rural Rate	\$667.13	\$1,003.42	66.49%
L5707	CUSTOM SHAPE CVR HIP DISART	Medicare Non Rural Rate	\$1,213.65	\$1,366.00	88.85%
L5781	LOWER LIMB PROS VACUUM PUMP	Medicare Non Rural Rate	\$3,607.48	\$4,060.33	88.85%
L5782	HD LOW LIMB PROS VACUUM PUMP	Medicare Non Rural Rate	\$3,803.10	\$4,280.50	88.85%
L5785	EXOSKELETAL BK ULTRALT MATER	Medicare Non Rural Rate	\$349.28	\$518.50	67.36%
L5790	EXOSKELETAL AK ULTRA-LIGHT M	Medicare Non Rural Rate	\$637.55	\$717.57	88.85%
L5812	ENDO KNEE-SHIN FRCT SWG & ST	Medicare Non Rural Rate	\$461.39	\$693.98	66.48%
L5814	ENDO KNEE-SHIN HYDRAL SWG PH	Medicare Non Rural Rate	\$2,505.70	\$3,768.78	66.49%
L5828	ENDO KNEE-SHIN FLUID SWG/STA	Medicare Non Rural Rate	\$2,107.02	\$3,169.14	66.49%
L5840	MULTI-AXIAL KNEE/SHIN SYSTEM	Medicare Non Rural Rate	\$2,589.39	\$3,894.67	66.49%
L5845	KNEE-SHIN SYS STANCE FLEXION	Medicare Non Rural Rate	\$1,209.29	\$1,818.85	66.49%
L5848	KNEE-SHIN SYS HYDRAUL STANCE	Medicare Non Rural Rate	\$956.86	\$1,091.19	87.69%
L5850	ENDO AK/HIP KNEE EXTENS ASSI	Medicare Non Rural Rate	\$113.17	\$170.22	66.48%
L5855	MECH HIP EXTENSION ASSIST	Medicare Non Rural Rate	\$358.28	\$408.59	87.69%
L5856	ELEC KNEE-SHIN SWING/STANCE	Medicare Non Rural Rate	\$21,346.50	\$24,343.56	87.69%
L5910	ENDO BELOW KNEE ALIGNABLE SY	Medicare Non Rural Rate	\$320.39	\$481.92	66.48%
L5920	ENDO AK/HIP ALIGNABLE SYSTEM	Medicare Non Rural Rate	\$466.19	\$701.17	66.49%
L5925	ABOVE KNEE MANUAL LOCK	Medicare Non Rural Rate	\$392.05	\$447.10	87.69%
L5930	HIGH ACTIVITY KNEE FRAME	Medicare Non Rural Rate	\$2,985.80	\$3,405.01	87.69%
L5940	ENDO BK ULTRA-LIGHT MATERIAL	Medicare Non Rural Rate	\$403.39	\$667.46	60.44%
L5950	ENDO AK ULTRA-LIGHT MATERIAL	Medicare Non Rural Rate	\$487.61	\$806.74	60.44%
L5960	ENDO HIP ULTRA-LIGHT MATERIA	Medicare Non Rural Rate	\$428.87	\$962.09	44.58%
L5962	BELOW KNEE FLEX COVER SYSTEM	Medicare Non Rural Rate	\$496.86	\$747.29	66.49%
L5964	ABOVE KNEE FLEX COVER SYSTEM	Medicare Non Rural Rate	\$702.16	\$1,056.07	66.49%
L5966	HIP FLEXIBLE COVER SYSTEM	Medicare Non Rural Rate	\$1,193.18	\$1,342.97	88.85%
L5968	MULTIAXIAL ANKLE W DORSIFLEX	Medicare Non Rural Rate	\$3,233.62	\$3,687.63	87.69%
L5970	FOOT EXTERNAL KEEL SACH FOOT	Medicare Non Rural Rate	\$150.63	\$226.60	66.47%

Appendix B9: POS Rate Ratio Results Optumas

L5972	FLEXIBLE KEEL FOOT	Medicare Non Rural Rate	\$232.36	\$439.36	52.89%
L5976	ENERGY STORING FOOT	Medicare Non Rural Rate	\$401.22	\$603.43	66.49%
L5979	MULTI-AXIAL ANKLE/FT PROSTH	Medicare Non Rural Rate	\$1,832.66	\$2,756.46	66.49%
L5980	FLEX FOOT SYSTEM	Medicare Non Rural Rate	\$3,280.19	\$4,933.62	66.49%
L5981	FLEX-WALK SYS LOW EXT PROSTH	Medicare Non Rural Rate	\$2,143.50	\$3,224.01	66.49%
L5984	ENDOSKELETAL AXIAL ROTATION	Medicare Non Rural Rate	\$400.23	\$601.97	66.49%
L5986	MULTI-AXIAL ROTATION UNIT	Medicare Non Rural Rate	\$560.62	\$843.21	66.49%
L5987	SHANK FT W VERT LOAD PYLON	Medicare Non Rural Rate	\$4,853.56	\$7,300.08	66.49%
L5988	VERTICAL SHOCK REDUCING PYLO	Medicare Non Rural Rate	\$1,347.80	\$2,027.18	66.49%
L5990	USER ADJUSTABLE HEEL HEIGHT	Medicare Non Rural Rate	\$1,614.37	\$1,841.02	87.69%
L6020	PART HAND NO FINGERS	Medicare Non Rural Rate	\$949.89	\$1,398.60	67.92%
L6026	PART HAND MYO EXCLU TERM DEV	Medicare Non Rural Rate	\$3,540.94	\$4,753.46	74.49%
L6100	ELB MOLD SOCK FLEX HINGE PAD	Medicare Non Rural Rate	\$1,342.58	\$2,019.34	66.49%
L6110	ELBOW MOLD SOCK SUSPENSION T	Medicare Non Rural Rate	\$1,403.91	\$2,084.04	67.36%
L6205	ELBOW MOLDED W/ EXPAND INTER	Medicare Non Rural Rate	\$2,309.41	\$3,727.08	61.96%
L6250	ELBOW INTER LOC ELBOW FORARM	Medicare Non Rural Rate	\$1,825.20	\$2,709.42	67.36%
L6300	SHLDER DISART INT LOCK ELBOW	Medicare Non Rural Rate	\$2,525.00	\$3,972.86	63.56%
L6320	SHOULDER PASSIVE RESTOR CAP	Medicare Non Rural Rate	\$1,181.11	\$1,818.21	64.96%
L6615	DISCONNECT LOCKING WRIST UNI	Medicare Non Rural Rate	\$129.54	\$194.84	66.49%
L6616	DISCONNECT INSERT LOCKING WR	Medicare Non Rural Rate	\$43.05	\$64.73	66.51%
L6621	FLEX/EXT WRIST W/WO FRICTION	Medicare Non Rural Rate	\$2,035.36	\$2,321.13	87.69%
L6624	FLEX/EXT/ROTATION WRIST UNIT	Medicare Non Rural Rate	\$2,408.78	\$3,821.79	63.03%
L6628	QUICK DISCONN HOOK ADAPTER O	Medicare Non Rural Rate	\$423.81	\$637.44	66.49%
L6629	LAMINATION COLLAR W/ COUPLIN	Medicare Non Rural Rate	\$129.41	\$182.92	70.75%
L6635	LIFT ASSIST FOR ELBOW	Medicare Non Rural Rate	\$150.22	\$206.74	72.66%
L6646	MULTIPO LOCKING SHOULDER JNT	Medicare Non Rural Rate	\$2,843.66	\$3,200.63	88.85%
L6647	SHOULDER LOCK ACTUATOR	Medicare Non Rural Rate	\$468.21	\$526.97	88.85%
L6655	STANDARD CONTROL CABLE EXTRA	Medicare Non Rural Rate	\$50.47	\$74.97	67.32%
L6660	HEAVY DUTY CONTROL CABLE	Medicare Non Rural Rate	\$62.40	\$93.81	66.52%

Appendix B9: POS Rate Ratio Results Optumas

L6665	TEFLON OR EQUAL CABLE LINING	Medicare Non Rural Rate	\$30.56	\$45.96	66.49%
L6670	HOOK TO HAND CABLE ADAPTER	Medicare Non Rural Rate	\$31.80	\$47.86	66.44%
L6672	HARNESS CHEST/SHLDER SADDLE	Medicare Non Rural Rate	\$166.82	\$201.82	82.66%
L6675	HARNESS FIGURE OF 8 SING CON	Medicare Non Rural Rate	\$79.67	\$119.85	66.47%
L6676	HARNESS FIGURE OF 8 DUAL CON	Medicare Non Rural Rate	\$93.92	\$141.30	66.47%
L6677	UE TRIPLE CONTROL HARNESS	Medicare Non Rural Rate	\$267.44	\$301.04	88.84%
L6680	TEST SOCK WRIST DISART/BEL E	Medicare Non Rural Rate	\$163.06	\$245.21	66.50%
L6682	TEST SOCK ELBW DISART/ABOVE	Medicare Non Rural Rate	\$177.72	\$267.32	66.48%
L6684	TEST SOCKET SHLDR DISART/THO	Medicare Non Rural Rate	\$227.94	\$380.00	59.98%
L6686	SUCTION SOCKET	Medicare Non Rural Rate	\$391.74	\$589.17	66.49%
L6687	FRAME TYP SOCKET BEL ELBOW/W	Medicare Non Rural Rate	\$510.30	\$767.53	66.49%
L6688	FRAME TYP SOCK ABOVE ELB/DIS	Medicare Non Rural Rate	\$265.91	\$528.67	50.30%
L6689	FRAME TYP SOCKET SHOULDER DI	Medicare Non Rural Rate	\$347.33	\$896.59	38.74%
L6691	REMOVABLE INSERT EACH	Medicare Non Rural Rate	\$229.04	\$344.49	66.49%
L6693	LOCKINGELBOW FOREARM CNTRBAL	Medicare Non Rural Rate	\$2,426.14	\$2,880.97	84.21%
L6694	ELBOW SOCKET INS USE W/LOCK	Medicare Non Rural Rate	\$663.04	\$756.15	87.69%
L6696	CUS ELBO SKT IN FOR CON/ATYP	Medicare Non Rural Rate	\$1,172.85	\$1,337.52	87.69%
L6697	CUS ELBO SKT IN NOT CON/ATYP	Medicare Non Rural Rate	\$1,172.85	\$1,337.52	87.69%
L6698	BELOW/ABOVE ELBOW LOCK MECH	Medicare Non Rural Rate	\$580.39	\$661.88	87.69%
L6703	TERM DEV, PASSIVE HAND MITT	Medicare Non Rural Rate	\$235.70	\$369.10	63.86%
L6704	TERM DEV, SPORT/REC/WORK ATT	Medicare Non Rural Rate	\$452.84	\$718.48	63.03%
L6706	TERM DEV MECH HOOK VOL OPEN	Medicare Non Rural Rate	\$294.92	\$461.84	63.86%
L6708	TERM DEV MECH HAND VOL OPEN	Medicare Non Rural Rate	\$626.43	\$993.90	63.03%
L6713	PED TERM DEV, HAND, VOL OPEN	Medicare Non Rural Rate	\$1,091.77	\$1,585.41	68.86%
L6721	HOOK/HAND, HVY DTY, VOL OPEN	Medicare Non Rural Rate	\$1,643.61	\$2,386.73	68.86%
L6881	TERM DEV AUTO GRASP FEATURE	Medicare Non Rural Rate	\$3,637.90	\$4,148.64	87.69%
L6882	MICROPROCESSOR CONTROL UPLMB	Medicare Non Rural Rate	\$2,759.55	\$3,147.00	87.69%
L6883	REPLC SOCKT BELOW E/W DISA	Medicare Non Rural Rate	\$1,512.83	\$1,710.39	88.45%
L6890	PREFAB GLOVE FOR TERM DEVICE	Medicare Non Rural Rate	\$120.55	\$181.37	66.47%

Appendix B9: POS Rate Ratio Results Optumas

L6935	BELOW ELBOW MYOELECTRONIC CT	Medicare Non Rural Rate	\$5,539.61	\$9,132.74	60.66%
L7007	ADULT ELECTRIC HAND	Medicare Non Rural Rate	\$2,164.46	\$3,434.11	63.03%
L7009	ADULT ELECTRIC HOOK	Medicare Non Rural Rate	\$2,266.42	\$3,595.88	63.03%
L7259	ELECTRONIC WRIST ROTATOR ANY	Medicare Non Rural Rate	\$2,866.75	\$3,848.40	74.49%
L7367	REPLACEMNT LITHIUM IONBATTER	Medicare Non Rural Rate	\$346.46	\$395.06	87.70%
L7368	LITHIUM ION BATTERY CHARGER	Medicare Non Rural Rate	\$449.11	\$512.16	87.69%
L7400	ADD UE PROST BE/WD, ULTLITE	Medicare Non Rural Rate	\$272.75	\$311.03	87.69%
L7401	ADD UE PROST A/E ULTLITE MAT	Medicare Non Rural Rate	\$305.31	\$348.21	87.68%
L7402	ADD UE PROST S/D ULTLITE MAT	Medicare Non Rural Rate	\$329.74	\$376.01	87.69%
L7403	ADD UE PROST B/E ACRYLIC	Medicare Non Rural Rate	\$327.70	\$373.70	87.69%
L7404	ADD UE PROST A/E ACRYLIC	Medicare Non Rural Rate	\$494.61	\$564.04	87.69%
L7405	ADD UE PROST S/D ACRYLIC	Medicare Non Rural Rate	\$646.83	\$737.65	87.69%
L7700	PROS SOC INSERT GASKET/SEAL	Medicare Non Rural Rate	\$117.93	\$119.32	98.84%
L8000	MASTECTOMY BRA	Medicare Non Rural Rate	\$24.93	\$37.54	66.41%
L8015	EXT BREASTPROSTHESIS GARMENT	Medicare Non Rural Rate	\$51.23	\$60.85	84.19%
L8030	BREAST PROSTHES W/O ADHESIVE	Medicare Non Rural Rate	\$236.23	\$355.28	66.49%
L8035	CUSTOM BREAST PROSTHESIS	Medicare Non Rural Rate	\$3,260.07	\$3,717.76	87.69%
L8042	ORBITAL PROSTHESIS	Medicare Non Rural Rate	\$2,820.53	\$3,174.58	88.85%
L8045	AURICULAR PROSTHESIS	Medicare Non Rural Rate	\$2,189.88	\$2,464.79	88.85%
L8300	TRUSS SINGLE W/ STANDARD PAD	Medicare Non Rural Rate	\$67.28	\$96.05	70.05%
L8310	TRUSS DOUBLE W/ STANDARD PAD	Medicare Non Rural Rate	\$109.81	\$154.92	70.88%
L8400	SHEATH BELOW KNEE	Medicare Non Rural Rate	\$9.49	\$15.71	60.41%
L8410	SHEATH ABOVE KNEE	Medicare Non Rural Rate	\$14.73	\$21.85	67.41%
L8415	SHEATH UPPER LIMB	Medicare Non Rural Rate	\$15.69	\$23.62	66.43%
L8417	PROS SHEATH/SOCK W GEL CUSHN	Medicare Non Rural Rate	\$50.73	\$76.30	66.49%
L8420	PROSTHETIC SOCK MULTI PLY BK	Medicare Non Rural Rate	\$11.44	\$19.41	58.94%
L8430	PROSTHETIC SOCK MULTI PLY AK	Medicare Non Rural Rate	\$14.45	\$24.51	58.96%
L8435	PROS SOCK MULTI PLY UPPER LM	Medicare Non Rural Rate	\$13.99	\$20.98	66.68%
L8440	SHRINKER BELOW KNEE	Medicare Non Rural Rate	\$27.74	\$41.74	66.46%

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L8460	SHRINKER ABOVE KNEE	Medicare Non Rural Rate	\$44.22	\$66.51	66.49%
L8465	SHRINKER UPPER LIMB	Medicare Non Rural Rate	\$35.90	\$48.68	73.75%
L8470	PROS SOCK SINGLE PLY BK	Medicare Non Rural Rate	\$6.08	\$8.88	68.47%
L8480	PROS SOCK SINGLE PLY AK	Medicare Non Rural Rate	\$8.38	\$12.25	68.41%
L8485	PROS SOCK SINGLE PLY UPPER L	Medicare Non Rural Rate	\$8.87	\$13.30	66.69%
L8500	ARTIFICIAL LARYNX	Medicare Non Rural Rate	\$464.91	\$658.63	70.59%
L8501	TRACHEOSTOMY SPEAKING VALVE	Medicare Non Rural Rate	\$64.60	\$120.56	53.58%
L8615	COCH IMPLANT HEADSET REPLACE	Medicare Non Rural Rate	\$407.45	\$458.61	88.84%
L8616	COCH IMPLANT MICROPHONE REPL	Medicare Non Rural Rate	\$94.89	\$106.79	88.86%
L8617	COCH IMPLANT TRANS COIL REPL	Medicare Non Rural Rate	\$82.86	\$93.27	88.84%
L8618	COCH IMPLANT TRAN CABLE REPL	Medicare Non Rural Rate	\$23.67	\$26.67	88.75%
L8619	COCH IMP EXT PROC/CONTR RPLC	Medicare Non Rural Rate	\$7,390.07	\$8,317.75	88.85%
L8621	REPL ZINC AIR BATTERY	Medicare Non Rural Rate	\$0.59	\$0.64	92.19%
L8624	LITH ION BATT CID, EAR LEVEL	Medicare Non Rural Rate	\$100.32	\$163.94	61.19%
L8625	CHARGER COCH IMPL/AOI BATTRY	Medicare Non Rural Rate	\$189.80	\$192.05	98.83%
L8629	CID TRANSMIT COIL AND CABLE	Medicare Non Rural Rate	\$132.48	\$182.06	72.77%
S1040	CRANIAL REMOLDING ORTHOSIS	Other States Average	\$2,623.50	\$1,432.27	183.17%

Appendix B10: Vision 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 and modifier level. Procedure codes are duplicated to the extent that the modifiers, place of service code, or other data elements impact the Colorado Medicaid or benchmark rate that the procedure code receives.

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

- Procedure Code
- Modifiers
- Place of Service Code

Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
70030		X-RAY EYE FOR FOREIGN BODY	Medicare PFS Facility	\$24.03	\$32.14	74.77%
70030	26	X-RAY EYE FOR FOREIGN BODY	Medicare PFS Facility	\$8.01	\$8.70	92.07%
70030		X-RAY EYE FOR FOREIGN BODY	Medicare PFS Non-Facility	\$24.03	\$32.14	74.77%
70030	26	X-RAY EYE FOR FOREIGN BODY	Medicare PFS Non-Facility	\$8.01	\$8.70	92.07%
70030	TC	X-RAY EYE FOR FOREIGN BODY	Medicare PFS Non-Facility	\$16.02	\$23.44	68.34%
92002		EYE EXAM NEW PATIENT	Medicare PFS Facility	\$68.74	\$48.82	140.80%
92002		EYE EXAM NEW PATIENT	Medicare PFS Non-Facility	\$68.74	\$87.21	78.82%
92004		EYE EXAM NEW PATIENT	Medicare PFS Facility	\$125.37	\$100.87	124.29%
92004		EYE EXAM NEW PATIENT	Medicare PFS Non-Facility	\$125.37	\$155.30	80.73%
92012		EYE EXAM ESTABLISH PATIENT	Medicare PFS Facility	\$72.41	\$53.57	135.17%
92012		EYE EXAM ESTABLISH PATIENT	Medicare PFS Non-Facility	\$72.41	\$91.59	79.06%
92014		EYE EXAM&TX ESTAB PT 1/>VST	Medicare PFS Facility	\$104.52	\$81.21	128.70%
92014		EYE EXAM&TX ESTAB PT 1/>VST	Medicare PFS Non-Facility	\$104.52	\$130.42	80.14%
92015		DETERMINE REFRACTIVE STATE	Other States Average	\$9.90	\$15.37	64.43%
92018		NEW EYE EXAM & TREATMENT	Medicare PFS Facility	\$118.64	\$147.87	80.23%
92018		NEW EYE EXAM & TREATMENT	Medicare PFS Non-Facility	\$118.64	\$147.87	80.23%

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92019		EYE EXAM & TREATMENT	Medicare PFS Facility	\$57.64	\$75.38	76.47%
92019		EYE EXAM & TREATMENT	Medicare PFS Non-Facility	\$57.64	\$75.38	76.47%
92065		ORTHOPTIC/PLEOPTIC TRAINING	Medicare PFS Non-Facility	\$61.22	\$55.01	111.29%
92071		CONTACT LENS FITTING FOR TX	Medicare PFS Facility	\$30.19	\$34.22	88.22%
92071		CONTACT LENS FITTING FOR TX	Medicare PFS Non-Facility	\$30.19	\$38.70	78.01%
92072		FIT CONTAC LENS FOR MANAGMNT	Medicare PFS Facility	\$96.24	\$100.41	95.85%
92072		FIT CONTAC LENS FOR MANAGMNT	Medicare PFS Non-Facility	\$96.24	\$132.47	72.65%
92081	26	VISUAL FIELD EXAMINATION(S)	Medicare PFS Facility	\$13.78	\$16.75	82.27%
92081		VISUAL FIELD EXAMINATION(S)	Medicare PFS Non-Facility	\$26.49	\$34.97	75.75%
92081	26	VISUAL FIELD EXAMINATION(S)	Medicare PFS Non-Facility	\$13.78	\$16.75	82.27%
92082	26	VISUAL FIELD EXAMINATION(S)	Medicare PFS Facility	\$19.31	\$22.22	86.90%
92082		VISUAL FIELD EXAMINATION(S)	Medicare PFS Non-Facility	\$41.94	\$49.39	84.92%
92082	26	VISUAL FIELD EXAMINATION(S)	Medicare PFS Non-Facility	\$19.31	\$22.22	86.90%
92082	TC	VISUAL FIELD EXAMINATION(S)	Medicare PFS Non-Facility	\$22.62	\$27.17	83.25%
92083	26	VISUAL FIELD EXAMINATION(S)	Medicare PFS Facility	\$24.02	\$28.44	84.46%
92083		VISUAL FIELD EXAMINATION(S)	Medicare PFS Non-Facility	\$42.08	\$65.67	64.08%
92083	26	VISUAL FIELD EXAMINATION(S)	Medicare PFS Non-Facility	\$24.02	\$28.44	84.46%
92083	TC	VISUAL FIELD EXAMINATION(S)	Medicare PFS Non-Facility	\$14.14	\$37.23	37.98%
92310		CONTACT LENS FITTING	Other States Average	\$141.42	\$74.21	190.56%
92311		CONTACT LENS FITTING	Medicare PFS Facility	\$80.87	\$56.03	144.33%
92311		CONTACT LENS FITTING	Medicare PFS Non-Facility	\$80.87	\$108.60	74.47%
92313		CONTACT LENS FITTING	Medicare PFS Non-Facility	\$77.86	\$102.13	76.24%
92314		PRESCRIPTION OF CONTACT LENS	Other States Average	\$93.34	\$63.36	147.32%
92315		RX CNTACT LENS APHAKIA 1 EYE	Medicare PFS Non-Facility	\$56.25	\$82.18	68.45%
92325		MODIFICATION OF CONTACT LENS	Medicare PFS Non-Facility	\$13.30	\$46.55	28.57%
92326		REPLACEMENT OF CONTACT LENS	Medicare PFS Non-Facility	\$24.30	\$39.47	61.57%
92340		FIT SPECTACLES MONOFOCAL	Other States Average	\$16.98	\$26.07	65.14%
92341		FIT SPECTACLES BIFOCAL	Other States Average	\$20.96	\$30.85	67.95%
92342		FIT SPECTACLES MULTIFOCAL	Other States Average	\$23.78	\$34.49	68.96%

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92352		FIT APHAKIA SPECTCL MONOFOCL	Other States Average	\$10.47	\$29.89	35.03%
92370		REPAIR & ADJUST SPECTACLES	Other States Average	\$14.14	\$22.18	63.76%
92371		REPAIR & ADJUST SPECTACLES	Other States Average	\$14.14	\$9.17	154.20%
V2020		VISION SVCS FRAMES PURCHASES	Other States Average	\$36.03	\$38.35	93.95%
V2025		EYEGASSES DELUX FRAMES	Other States Average	\$122.41	\$104.39	117.27%
V2100		LENS SPHER SINGLE PLANO 4.00	Other States Average	\$23.50	\$20.01	117.42%
V2101		SINGLE VISN SPHERE 4.12-7.00	Other States Average	\$23.50	\$25.19	93.30%
V2102		SINGL VISN SPHERE 7.12-20.00	Other States Average	\$23.50	\$34.48	68.15%
V2103		SPHEROCYLINDR 4.00D/12-2.00D	Other States Average	\$23.50	\$19.40	121.13%
V2104		SPHEROCYLINDR 4.00D/2.12-4D	Other States Average	\$29.59	\$20.15	146.86%
V2105		SPHEROCYLINDER 4.00D/4.25-6D	Other States Average	\$37.29	\$21.48	173.62%
V2106		SPHEROCYLINDER 4.00D/>6.00D	Other States Average	\$41.43	\$29.29	141.46%
V2107		SPHEROCYLINDER 4.25D/12-2D	Other States Average	\$29.59	\$26.36	112.25%
V2108		SPHEROCYLINDER 4.25D/2.12-4D	Other States Average	\$35.73	\$25.40	140.67%
V2109		SPHEROCYLINDER 4.25D/4.25-6D	Other States Average	\$41.46	\$27.69	149.72%
V2110		SPHEROCYLINDER 4.25D/OVER 6D	Other States Average	\$47.49	\$29.63	160.28%
V2111		SPHEROCYLINDR 7.25D/.25-2.25	Other States Average	\$35.73	\$29.03	123.10%
V2112		SPHEROCYLINDR 7.25D/2.25-4D	Other States Average	\$41.43	\$30.06	137.82%
V2113		SPHEROCYLINDR 7.25D/4.25-6D	Other States Average	\$47.49	\$29.88	158.94%
V2114		SPHEROCYLINDER OVER 12.00D	Other States Average	\$53.65	\$37.07	144.73%
V2115		LENS LENTICULAR BIFOCAL	Other States Average	\$73.70	\$57.79	127.54%
V2118		LENS ANISEIKONIC SINGLE	Other States Average	\$63.74	\$65.75	96.95%
V2121		LENTICULAR LENS, SINGLE	Other States Average	\$65.55	\$60.52	108.31%
V2200		LENS SPHER BIFOC PLANO 4.00D	Other States Average	\$29.73	\$32.12	92.56%
V2201		LENS SPHERE BIFOCAL 4.12-7.0	Other States Average	\$29.73	\$37.49	79.30%
V2202		LENS SPHERE BIFOCAL 7.12-20.	Other States Average	\$29.73	\$37.07	80.19%
V2203		LENS SPHCYL BIFOCAL 4.00D/.1	Other States Average	\$29.73	\$34.36	86.53%
V2204		LENS SPHCY BIFOCAL 4.00D/2.1	Other States Average	\$33.84	\$34.89	96.99%
V2205		LENS SPHCY BIFOCAL 4.00D/4.2	Other States Average	\$37.95	\$34.81	109.03%

Appendix B10: Vision Rate Ratio Results Optumas

V2206		LENS SPHCY BIFOCAL 4.00D/OVE	Other States Average	\$41.78	\$37.82	110.46%
V2207		LENS SPHCY BIFOCAL 4.25-7D/.	Other States Average	\$33.84	\$37.26	90.82%
V2208		LENS SPHCY BIFOCAL 4.25-7/2.	Other States Average	\$37.95	\$39.83	95.29%
V2209		LENS SPHCY BIFOCAL 4.25-7/4.	Other States Average	\$41.78	\$38.35	108.94%
V2210		LENS SPHCY BIFOCAL 4.25-7/OV	Other States Average	\$45.88	\$40.41	113.55%
V2211		LENS SPHCY BIFO 7.25-12/.	Other States Average	\$37.95	\$46.32	81.93%
V2212		LENS SPHCYL BIFO 7.25-12/2.2	Other States Average	\$41.78	\$44.98	92.89%
V2213		LENS SPHCYL BIFO 7.25-12/4.2	Other States Average	\$45.88	\$43.11	106.42%
V2214		LENS SPHCYL BIFOCAL OVER 12.	Other States Average	\$49.97	\$47.19	105.88%
V2215		LENS LENTICULAR BIFOCAL	Other States Average	\$75.61	\$69.62	108.61%
V2218		LENS ANISEIKONIC BIFOCAL	Other States Average	\$87.93	\$77.40	113.60%
V2219		LENS BIFOCAL SEG WIDTH OVER	Other States Average	\$51.60	\$31.93	161.63%
V2220		LENS BIFOCAL ADD OVER 3.25D	Other States Average	\$32.45	\$25.43	127.59%
V2221		LENTICULAR LENS, BIFOCAL	Other States Average	\$80.06	\$71.95	111.28%
V2300		LENS SPHERE TRIFOCAL 4.00D	Other States Average	\$37.35	\$45.40	82.27%
V2301		LENS SPHERE TRIFOCAL 4.12-7.	Other States Average	\$43.33	\$54.04	80.18%
V2303		LENS SPHCY TRIFOCAL 4.0/.	Other States Average	\$41.44	\$48.15	86.06%
V2304		LENS SPHCY TRIFOCAL 4.0/2.25	Other States Average	\$43.97	\$49.64	88.57%
V2305		LENS SPHCY TRIFOCAL 4.0/4.25	Other States Average	\$48.08	\$50.07	96.04%
V2307		LENS SPHCY TRIFOCAL 4.25-7/.	Other States Average	\$47.47	\$53.36	88.97%
V2312		LENS SPHC TRIFO 7.25-12/2.25	Other States Average	\$55.35	\$70.42	78.61%
V2314		LENS SPHCYL TRIFOCAL OVER 12	Other States Average	\$59.46	\$72.96	81.49%
V2410		LENS VARIAB ASPHERICITY SING	Other States Average	\$73.70	\$78.49	93.90%
V2430		LENS VARIABLE ASPHERICITY BI	Other States Average	\$80.06	\$116.15	68.93%
V2500		CONTACT LENS PMMA SPHERICAL	Other States Average	\$40.32	\$79.15	50.94%
V2501		CNTCT LENS PMMA-TORIC/PRISM	Other States Average	\$80.60	\$114.96	70.11%
V2510		CNTCT GAS PERMEABLE SPHERICL	Other States Average	\$40.32	\$98.36	40.99%
V2511		CNTCT TORIC PRISM BALLAST	Other States Average	\$138.58	\$146.18	94.80%
V2512		CNTCT LENS GAS PERMBL BIFOCL	Other States Average	\$146.97	\$165.32	88.90%

Appendix B10: Vision Rate Ratio Results Optumas

V2513		CONTACT LENS EXTENDED WEAR	Other States Average	\$80.60	\$152.20	52.96%
V2520		CONTACT LENS HYDROPHILIC	Other States Average	\$40.32	\$90.50	44.55%
V2521		CNTCT LENS HYDROPHILIC TORIC	Other States Average	\$80.60	\$144.53	55.77%
V2522		CNTCT LENS HYDROPHIL BIFOCL	Other States Average	\$80.60	\$169.29	47.61%
V2523		CNTCT LENS HYDROPHIL EXTEND	Other States Average	\$130.91	\$124.80	104.90%
V2530		CONTACT LENS GAS IMPERMEABLE	Other States Average	\$211.01	\$163.40	129.14%
V2531		CONTACT LENS GAS PERMEABLE	Other States Average	\$342.27	\$338.37	101.15%
V2700		BALANCE LENS	Other States Average	\$26.84	\$44.02	60.97%
V2710		GLASS/PLASTIC SLAB OFF PRISM	Other States Average	\$29.17	\$49.03	59.50%
V2715		PRISM LENS/ES	Other States Average	\$9.48	\$9.01	105.24%
V2718		FRESNELL PRISM PRESS-ON LENS	Other States Average	\$9.48	\$24.29	39.04%
V2730		SPECIAL BASE CURVE	Other States Average	\$17.75	\$18.44	96.28%
V2744		TINT PHOTOCHROMATIC LENS/ES	Other States Average	\$5.28	\$12.77	41.33%
V2745		TINT, ANY COLOR/SOLID/GRAD	Other States Average	\$5.28	\$6.15	85.81%
V2750		ANTI-REFLECTIVE COATING	Other States Average	\$11.91	\$18.98	62.76%
V2755		UV LENS/ES	Other States Average	\$15.54	\$10.81	143.71%
V2770		OCCLUDER LENS/ES	Other States Average	\$12.44	\$17.66	70.45%
V2780		OVERSIZE LENS/ES	Other States Average	\$10.90	\$10.96	99.50%
V2781		PROGRESSIVE LENS PER LENS	Other States Average	\$61.43	\$67.41	91.13%
V2784		LENS POLYCARB OR EQUAL	Other States Average	\$7.07	\$28.21	25.06%

2020 Medicaid Provider Rate Review Analysis Report

Appendix C – Service Grouping Data Book

Appendix C contains, for each service grouping, the following information:

- Top procedure or revenue codes by total paid.
- Distinct utilizers over time.
- Active providers over time.
- Population age and gender.
- Rate comparison visuals.

Appendix C does not contain any assertions or conclusions on the sufficiency of Medicaid rates to provide adequate access to care. Refer to Appendix B – Rate Comparison and Access to Care Analysis Methodologies and Data for a complete list of individual procedure or revenue codes reviewed in this report.



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Policy & Financing

Data Book Instructions

For each service grouping Appendix C contains additional, detailed information regarding rate comparison and access to care analyses.

Top 10 Procedure or Revenue Codes by Total Paid

The Top Procedure or Revenue Codes by Total Paid table displays the top 10 codes, in descending order, by total expenditures (also referred to as total paid). This table includes:

- Procedure or revenue code information
- Procedure description
- Benchmark source
- Paid dollars
- Colorado Medicaid rates
- Rate comparison by total paid units and dollars
- Benchmark rates

Distinct Utilizers Over Time by Month

The Distinct Utilizers Over Time by Month line graph displays changes in the number of distinct members utilizing services.

Active Providers Over Time by Month

The Active Providers Over Time by Month line graph displays changes in the number of providers actively providing services.

Population Age and Gender

The Population Age and Gender Stacked-band bar graph displays the age and gender of members utilizing services.

Rate Comparison Visuals

Rate Comparison by Total Paid Units and Dollars scatterplots display the rate ratio, utilization, and total paid amount for procedure code-modifier or revenue codes, specifically:

- Vertical axis (y-axis) – the rate ratio of Colorado Medicaid rates to the benchmark rates. The dark horizontal line represents the rate benchmark comparison percentage for the service grouping.
- Horizontal axis (x-axis) – the total paid amount.
- Circles – The size of the circle indicates the total paid units, which is a proxy for utilization.

Rate comparison bar graphs display Colorado's repriced rates as a percentage of the rate comparison benchmark by State for Pediatric Personal Care (PPC), Home Health (HH), Private Duty Nursing (PDN), and Pediatric Behavioral Therapy (PBT) services.



Pediatric Personal Care (PPC)

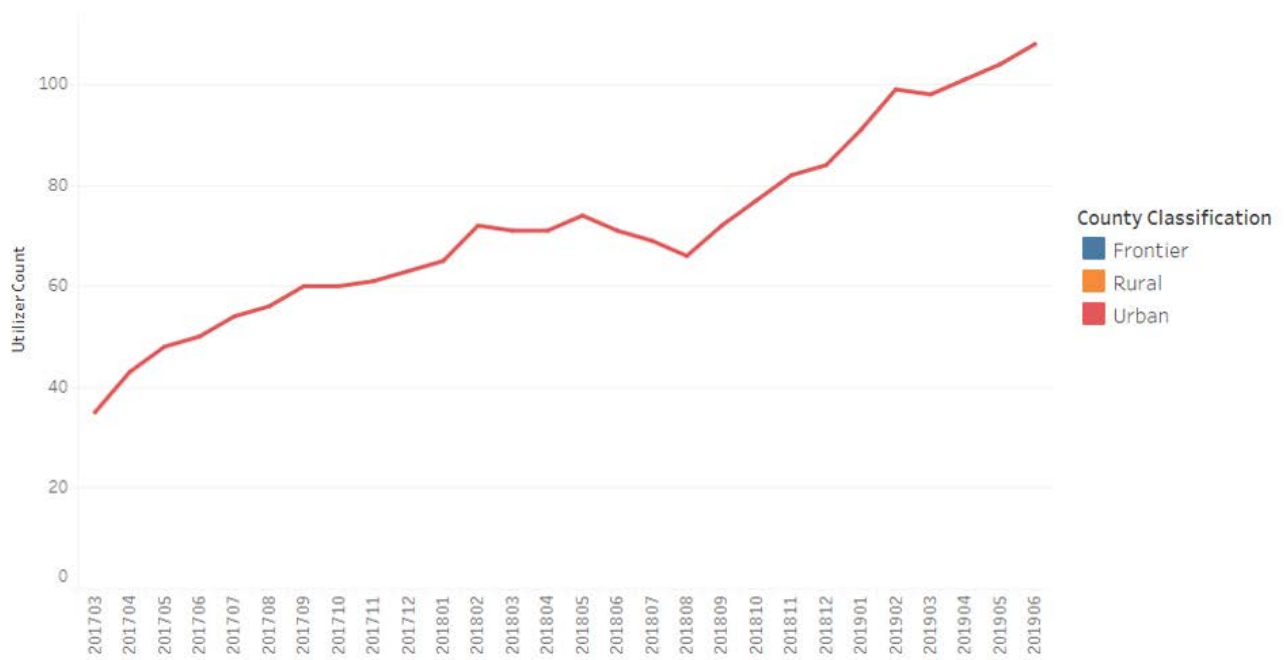
All Procedure Codes by Total Paid

Procedure Code	Procedure Description	FY 2018-19 Paid Amount*	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
T1019	PERSONAL CARE SER PER 15 MIN	\$1,761,789	Other States Average	\$4.92	\$3.66	134.35%

*Adjusted for claims incurred but not reported

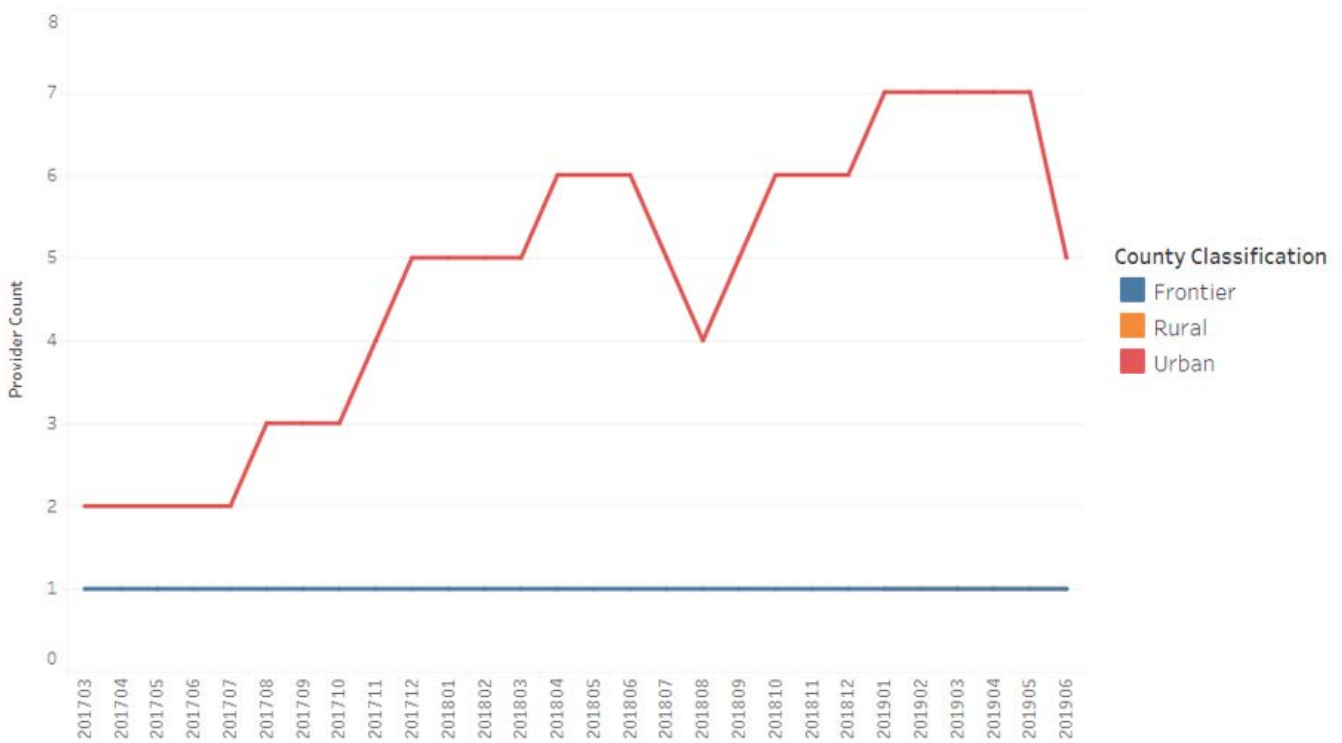


Distinct Utilizers Over Time by Month

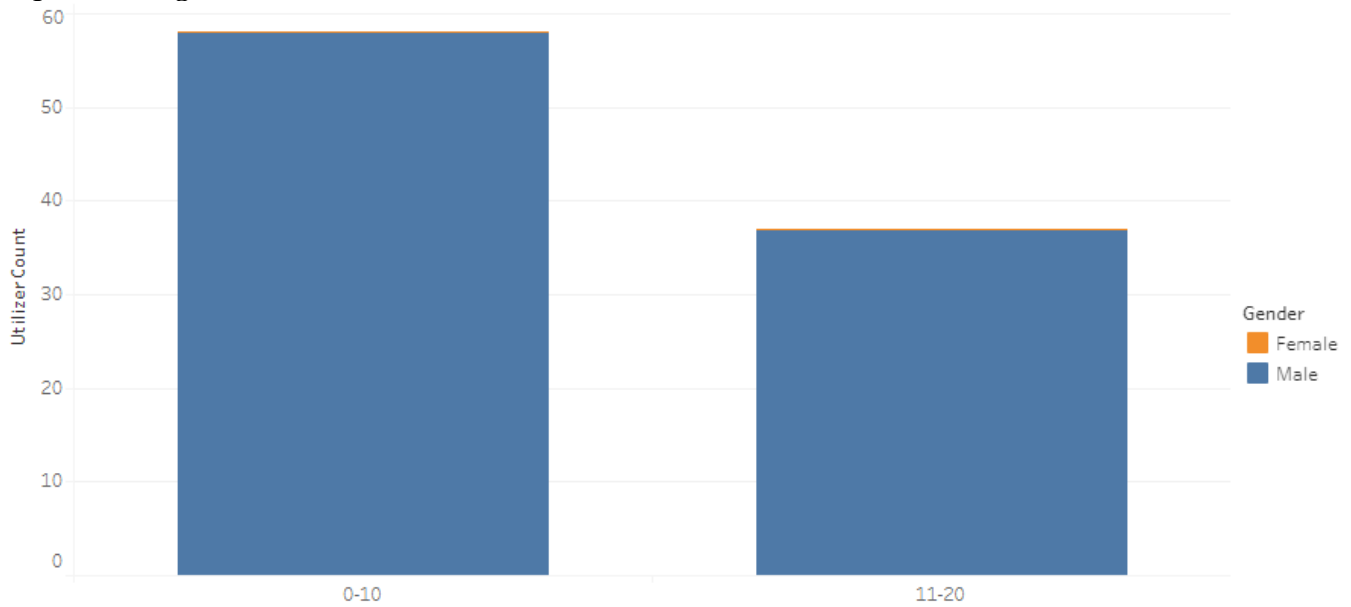


*Frontier and Rural data has been blinded for PHI.

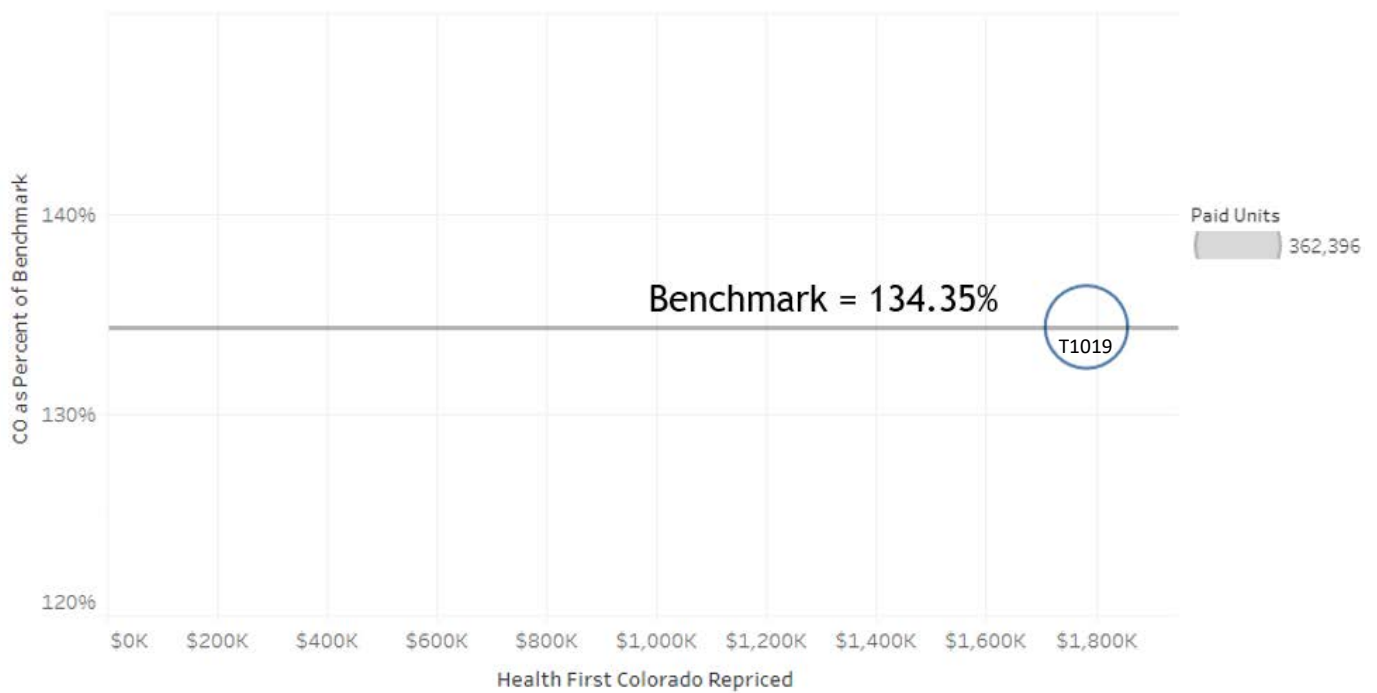
Active Providers Over Time by Month



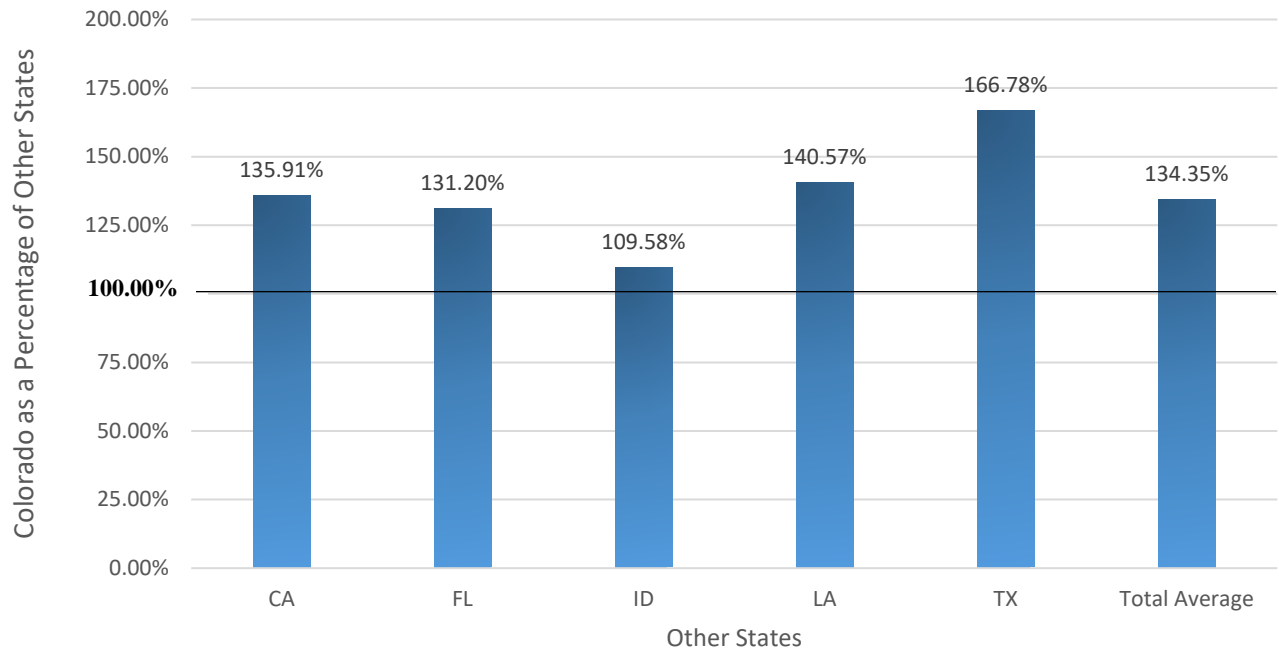
Population Age and Gender



Rate Comparison by Total Paid Units and Dollars



Rate Comparison by Benchmark State



Home Health (HH)

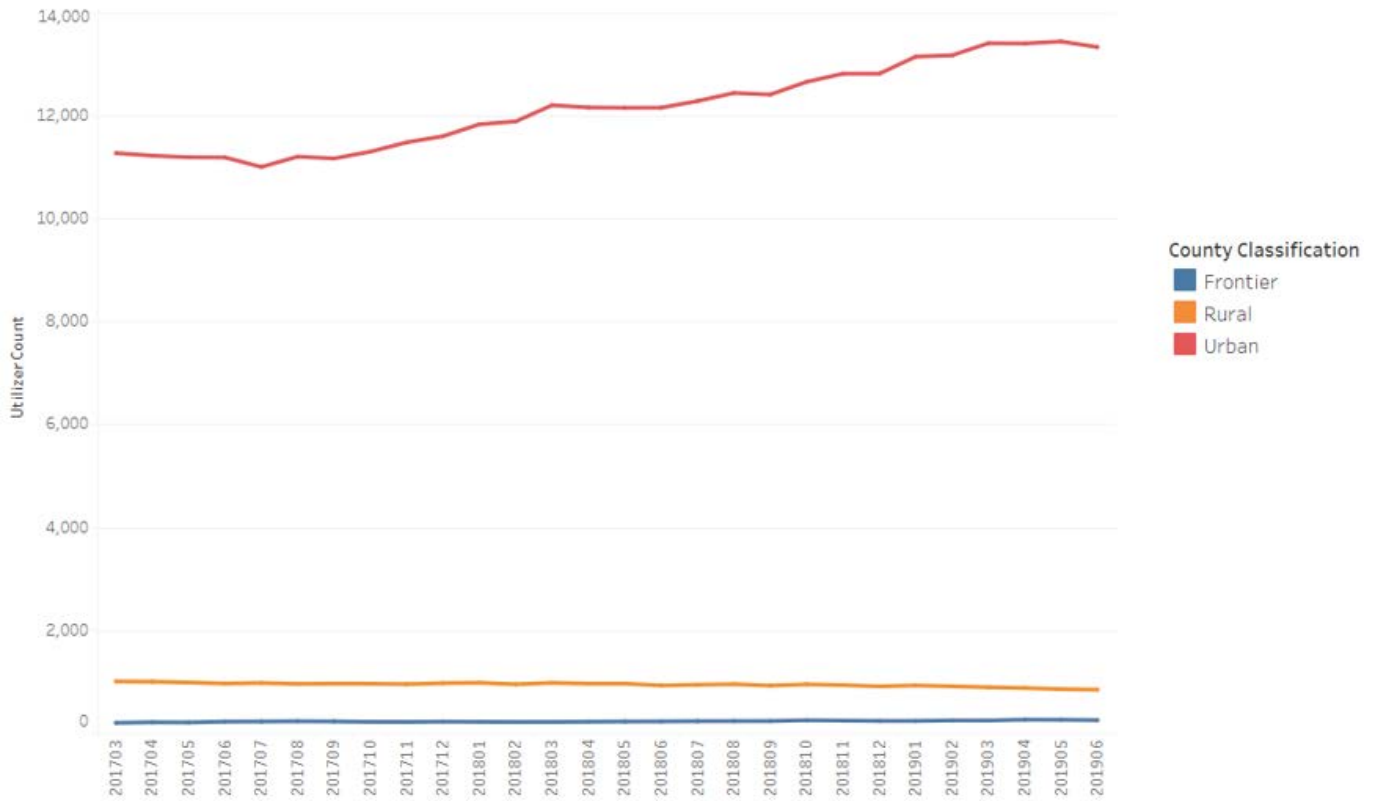
Top 10 Revenue Codes by Total Paid

Revenue Code	Revenue Description	FY 2018-19 Paid Amount*	Benchmark Source	Colorado Rate	Benchmark Rate Average	Rate Ratio
571	HHA Basic	\$188,640,400	Other States Average	\$38.12	\$50.13	76.04%
579	HHA Extended	\$71,145,050	Other States Average	\$11.39	\$3.27	348.53%
551	RN/LPN	\$46,671,158	Other States Average	\$112.08	\$102.00	109.89%
441	S/LT	\$25,716,396	Other States Average	\$133.19	\$121.07	110.01%
431	OT	\$15,155,434	Other States Average	\$123.36	\$115.36	106.94%
550	RN/LPN	\$11,974,731	Other States Average	\$112.08	\$102.00	109.89%
590	RN Brief 1st of Day	\$10,987,046	Other States Average	\$75.04	\$29.58	253.68%
421	PT	\$10,730,483	Other States Average	\$122.56	\$118.03	103.84%
570	HHA Basic	\$6,494,419	Other States Average	\$38.12	\$50.13	76.04%
420	PT	\$5,484,664	Other States Average	\$122.56	\$118.03	103.84%

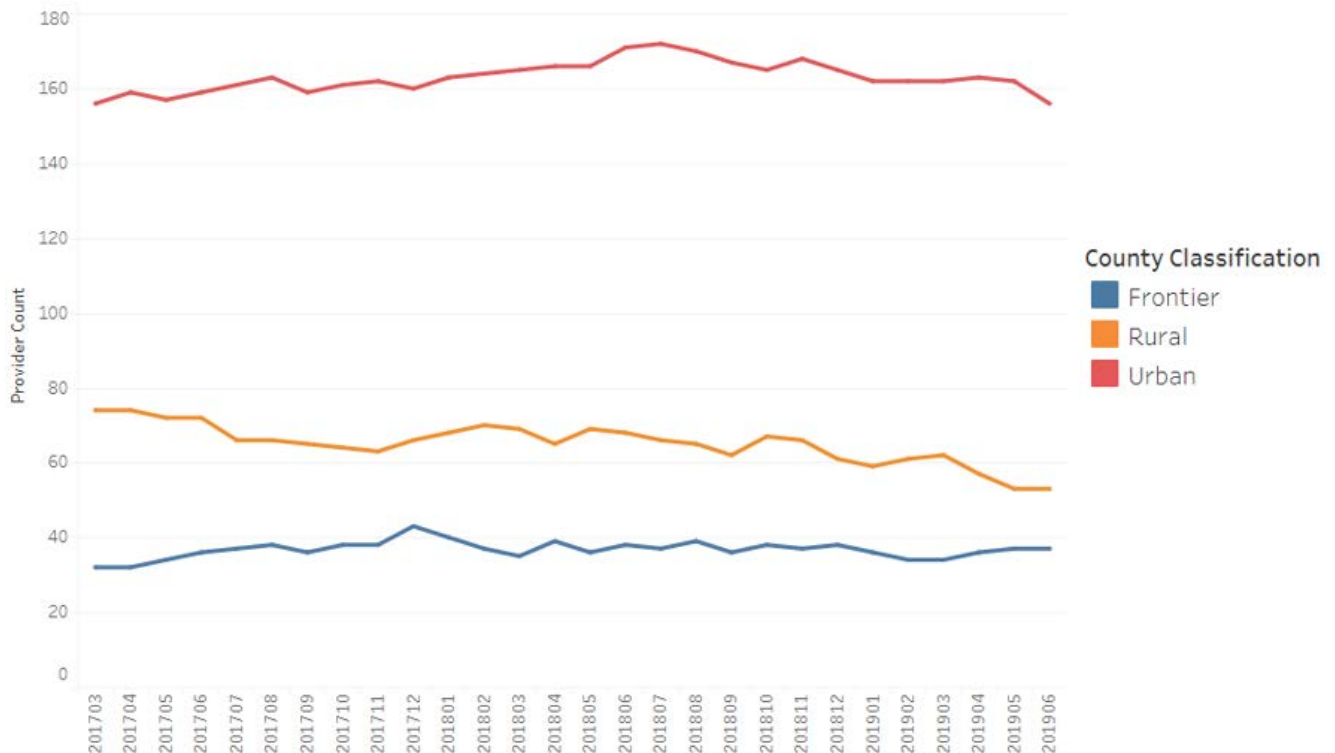
*Adjusted for claims incurred but not reported



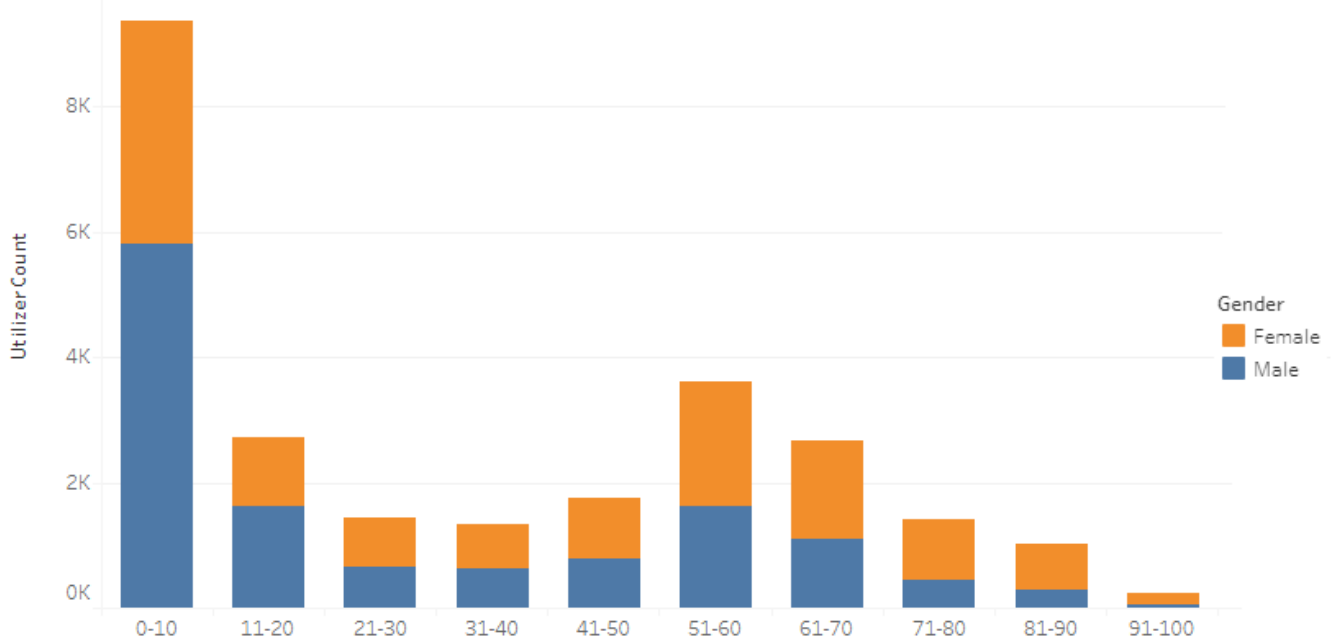
Distinct Utilizers Over Time by Month



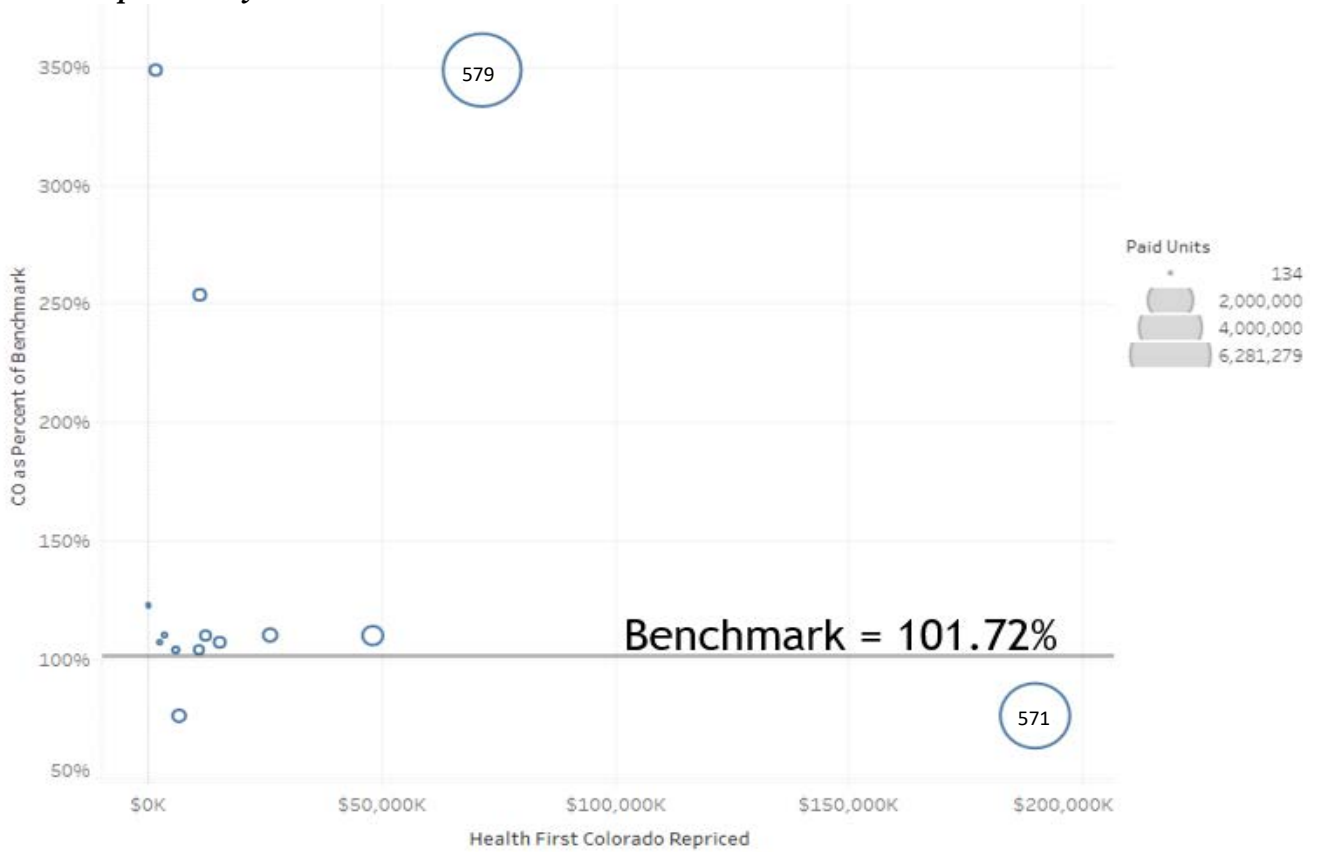
Active Providers Over Time by Month



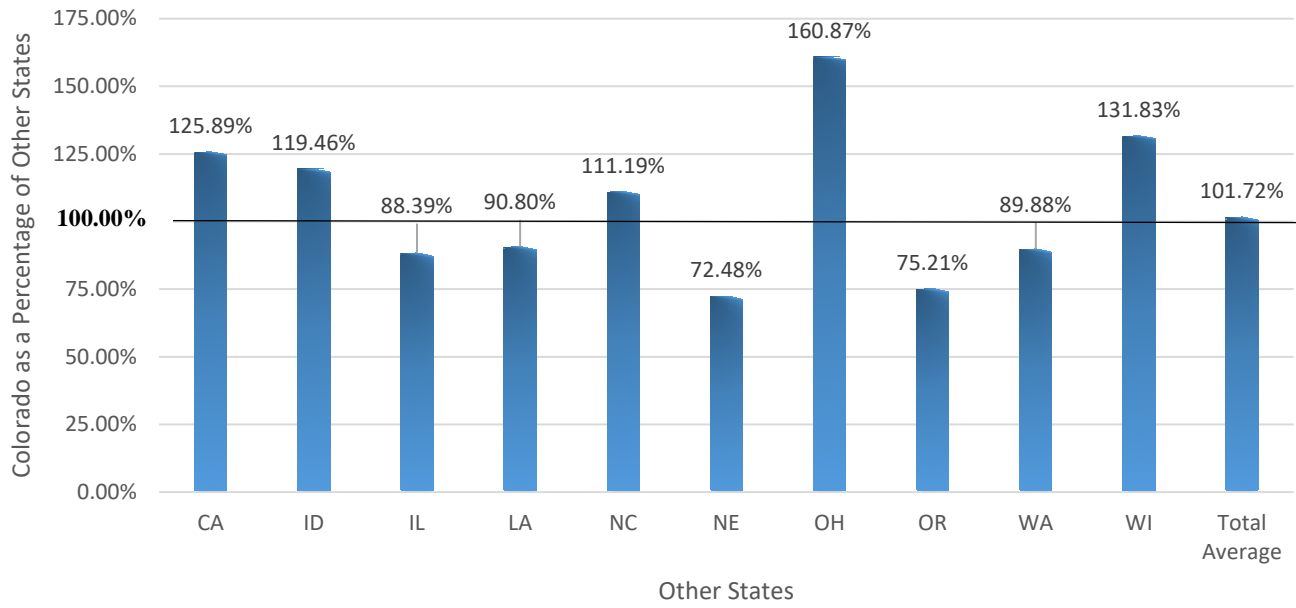
Population Age and Gender



Rate Comparison by Total Paid Units and Dollars



Rate Comparison by Benchmark State



Private Duty Nursing (PDN)

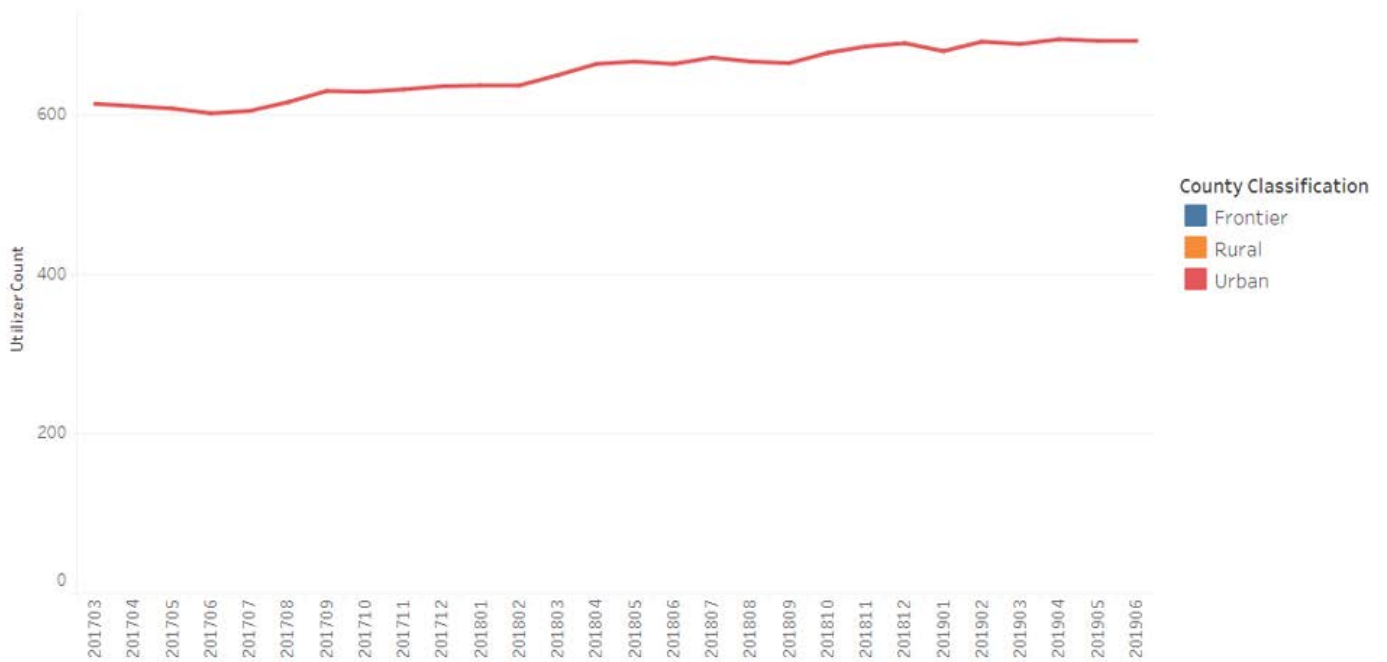
All Revenue Codes by Total Paid

Revenue Code	Revenue Description	FY 2018-19 Paid Amount*	Benchmark Source	Colorado Rate	Benchmark Rate Average	Rate Ratio
552	PDN-RN	\$67,684,895	Other States Average	\$46.55	\$45.62	102.03%
559	PDN-LPN	\$15,520,098	Other States Average	\$33.70	\$34.75	96.98%
582	"Blended" group rate/client	\$12,433,609	Other States Average	\$31.78	\$36.92	86.08%
580	PDN-RN (group-per client)	\$1,916,901	Other States Average	\$31.80	\$40.88	77.78%
581	PDN-LPN (group-per client)	\$275,222	Other States Average	\$24.41	\$32.95	74.08%

*Adjusted for claims incurred but not reported

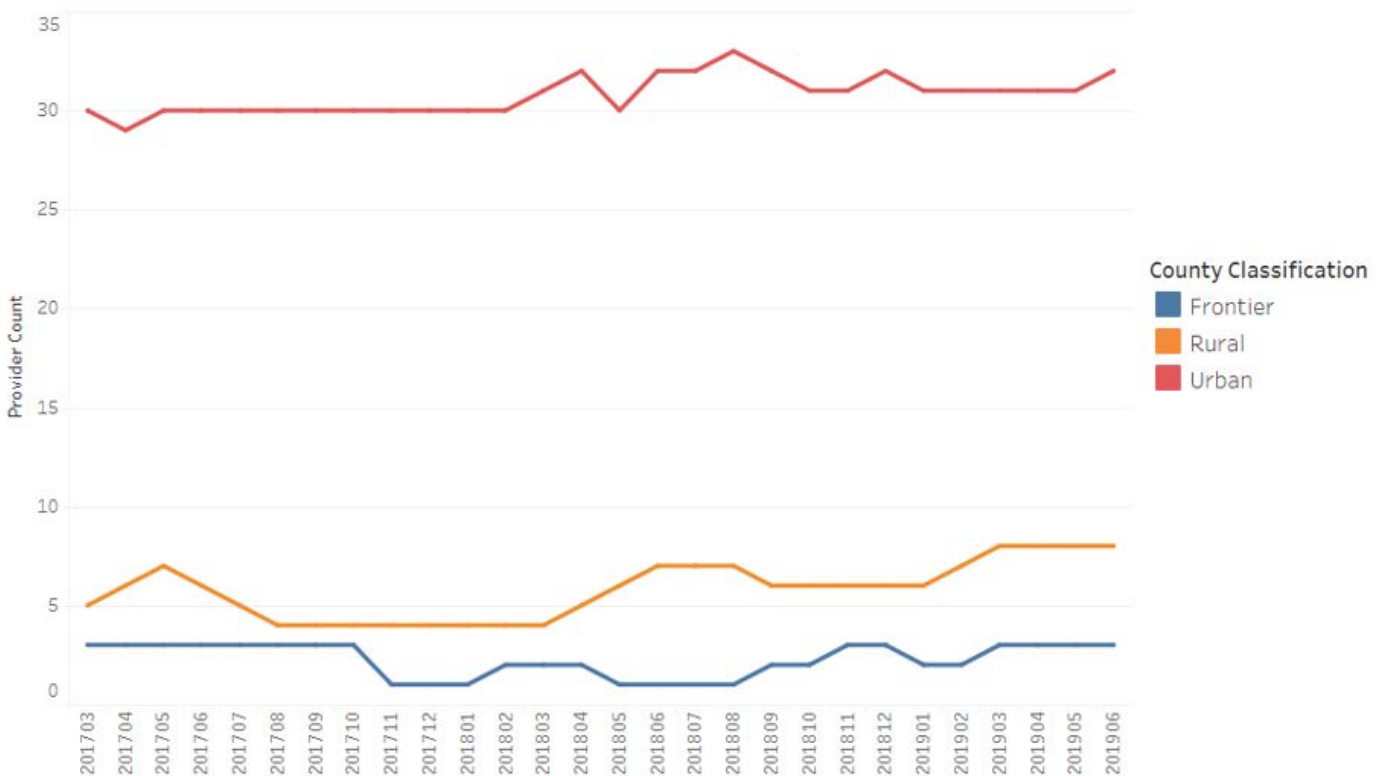


Distinct Utilizers Over Time by Month

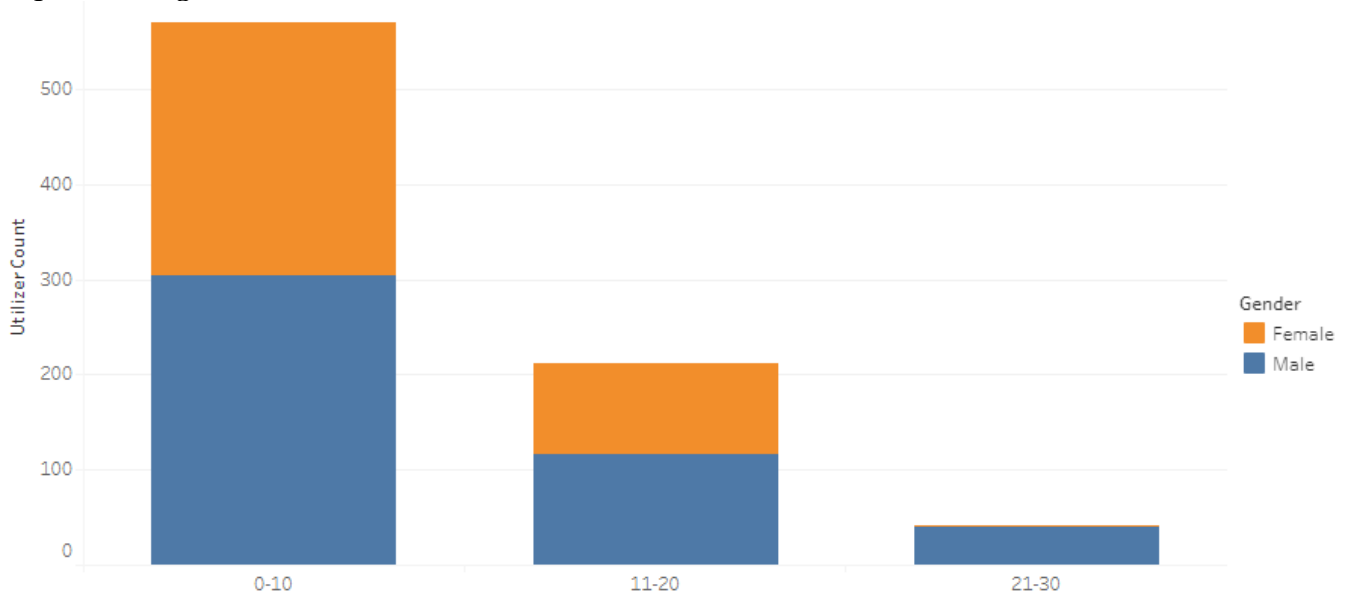


*Frontier and Rural data has been blinded for PHI.

Active Providers Over Time by Month

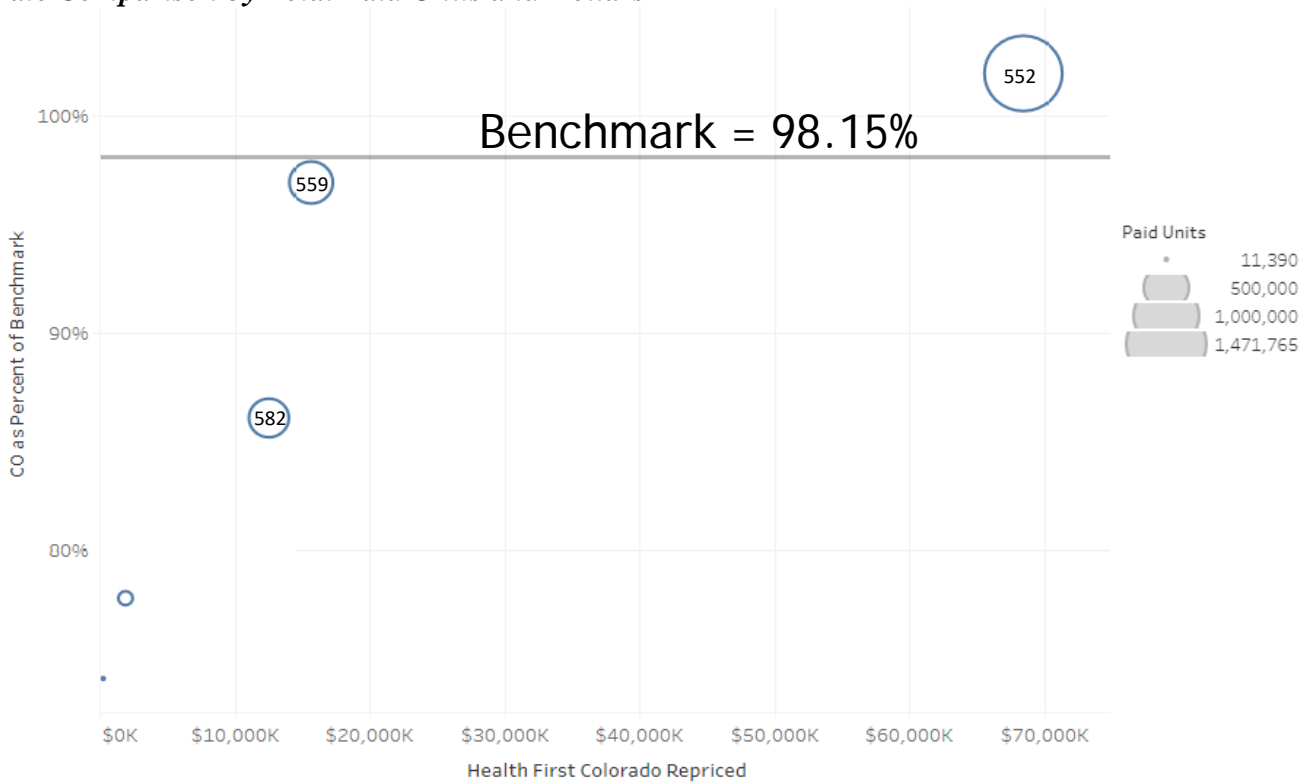


Population Age and Gender

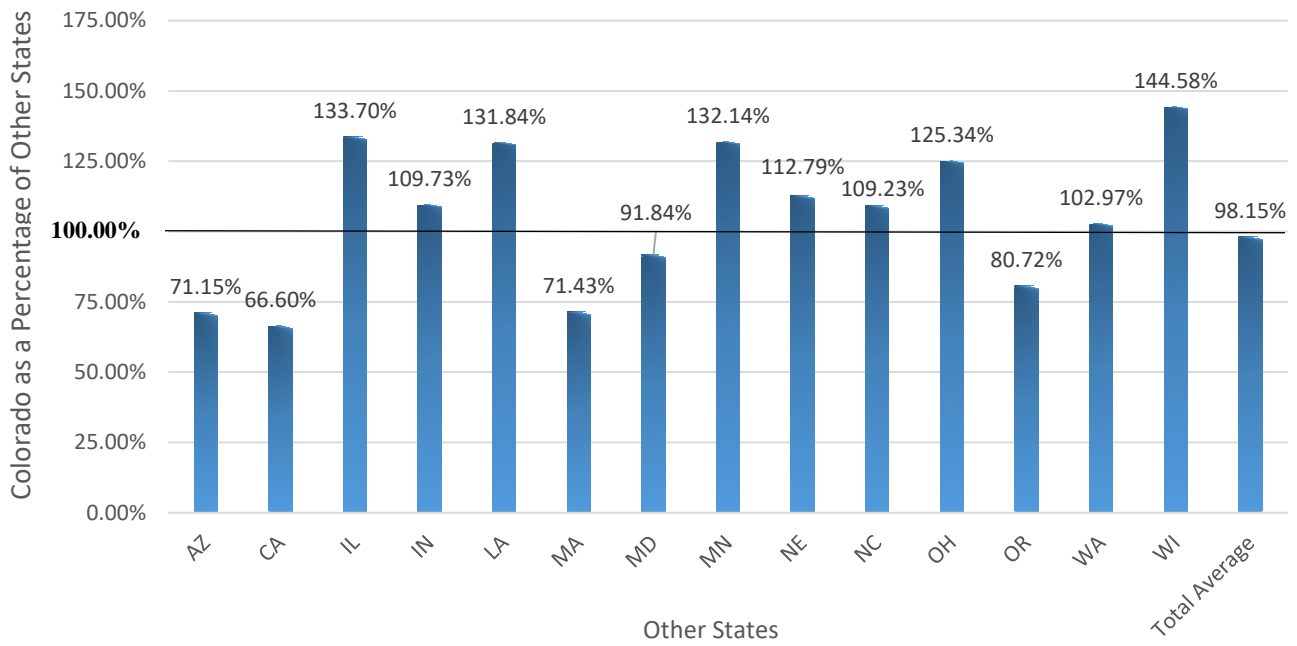


*Some data has been blinded for PHI.

Rate Comparison by Total Paid Units and Dollars



Rate Comparison by Benchmark State



Pediatric Behavioral Therapy (PBT)

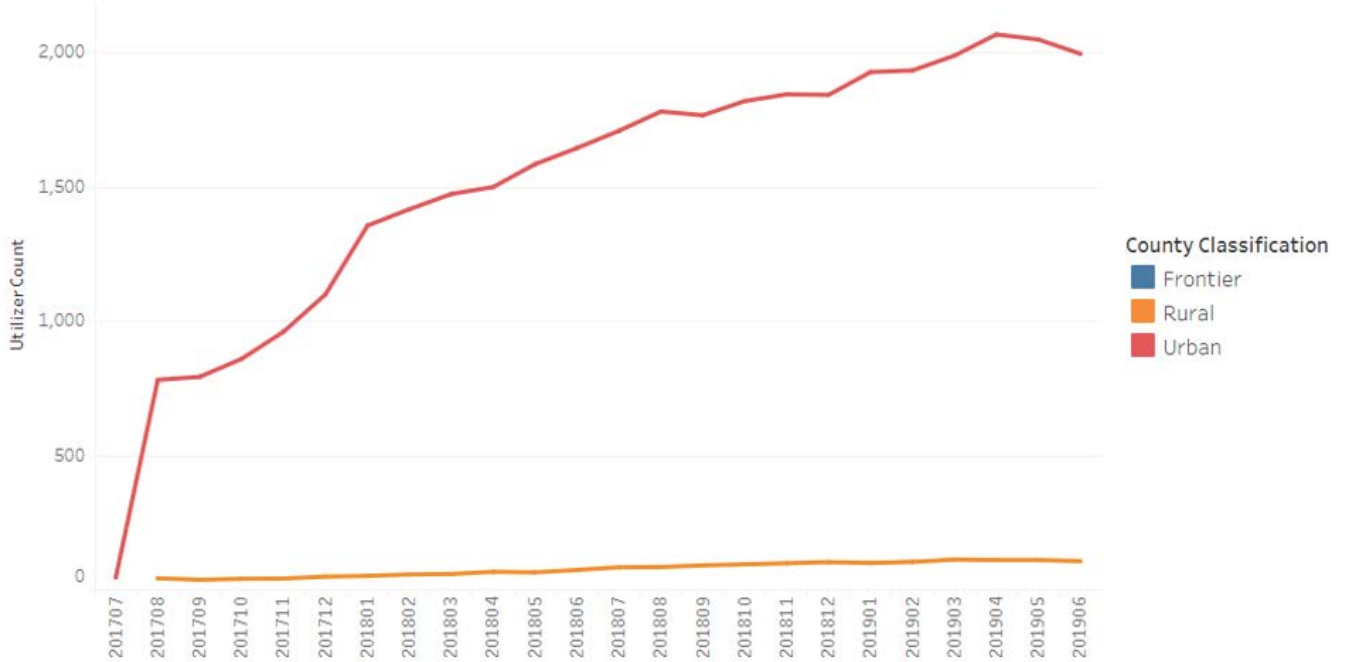
All Procedure Codes by Total Paid

Procedure Code	Transitioned Code	Procedure Description	FY 2018-19 Paid Amount*	Benchmark Source	Colorado Rate	Benchmark Rate Average	Rate Ratio
97153	97153	ADAPTIVE BEHAVIOR TX BY TECH	\$19,448,864	Other States Average	\$13.50	\$14.60	92.45%
H0046	97153	ADAPTIVE BEHAVIOR TX BY TECH	\$14,736,411	Other States Average	\$13.50	\$14.60	92.45%
97155	97155	ADAPT BEHAVIOR TX PHYS/QHP	\$9,286,322	Other States Average	\$21.06	\$22.33	94.31%
H0046 TJ	97155	ADAPT BEHAVIOR TX PHYS/QHP	\$7,871,644	Other States Average	\$21.06	\$22.33	94.31%
97154	97154	GRP ADAPT BHV TX BY TECH	\$54	Other States Average	\$6.76	\$7.86	85.99%
97158	97158	GRP ADAPT BHV TX BY PHY/QHP	\$21	Other States Average	\$10.53	\$11.42	92.18%

*Adjusted for claims incurred but not reported

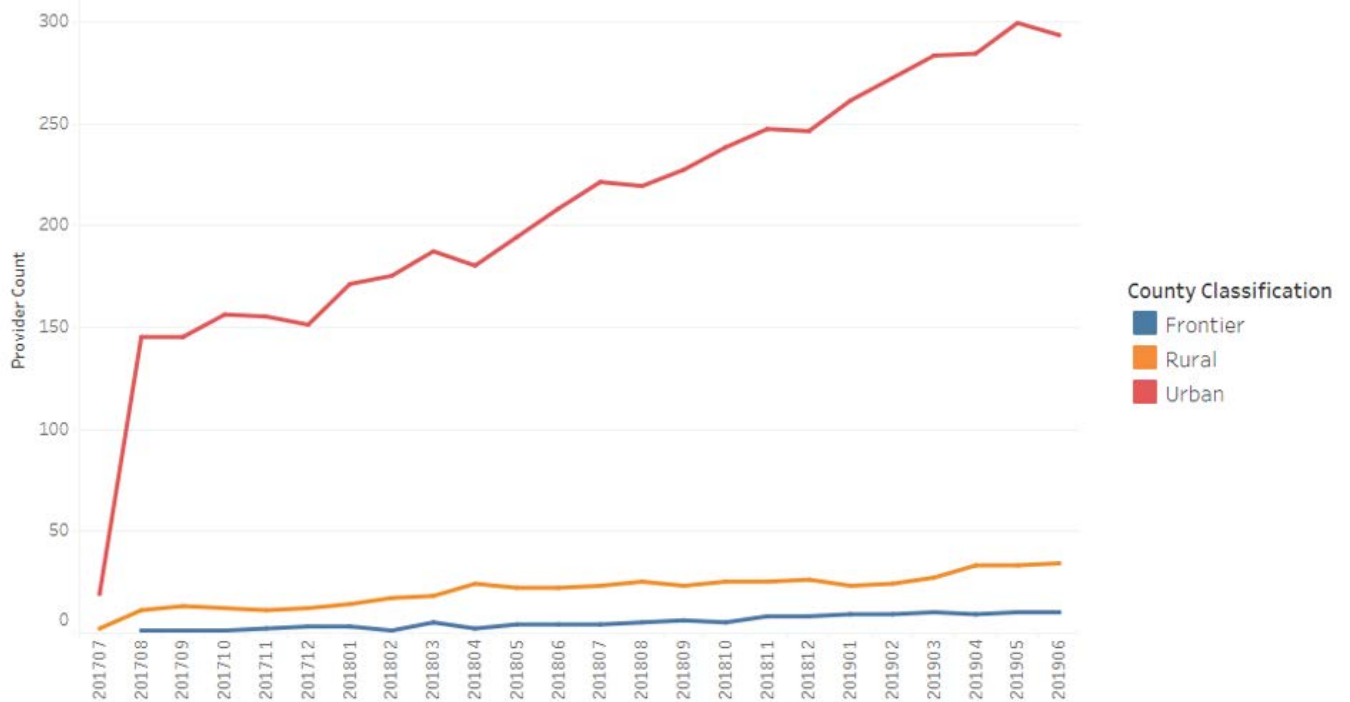


Distinct Utilizers Over Time by Month

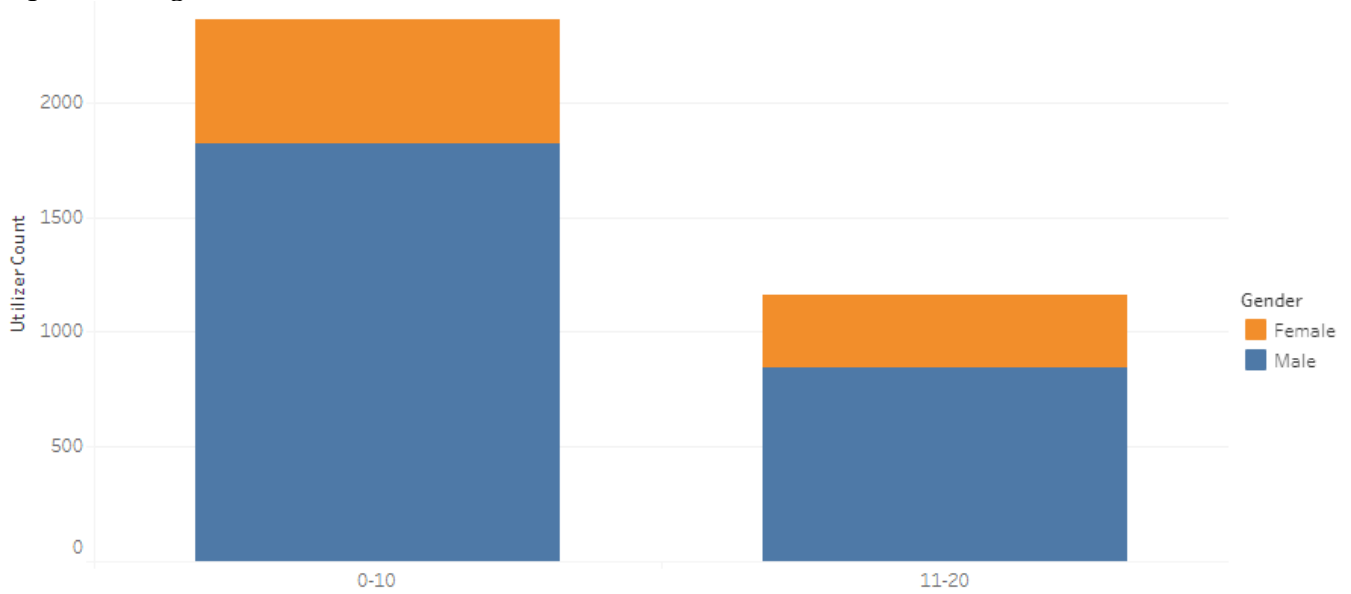


*Frontier data has been blinded for PHI.

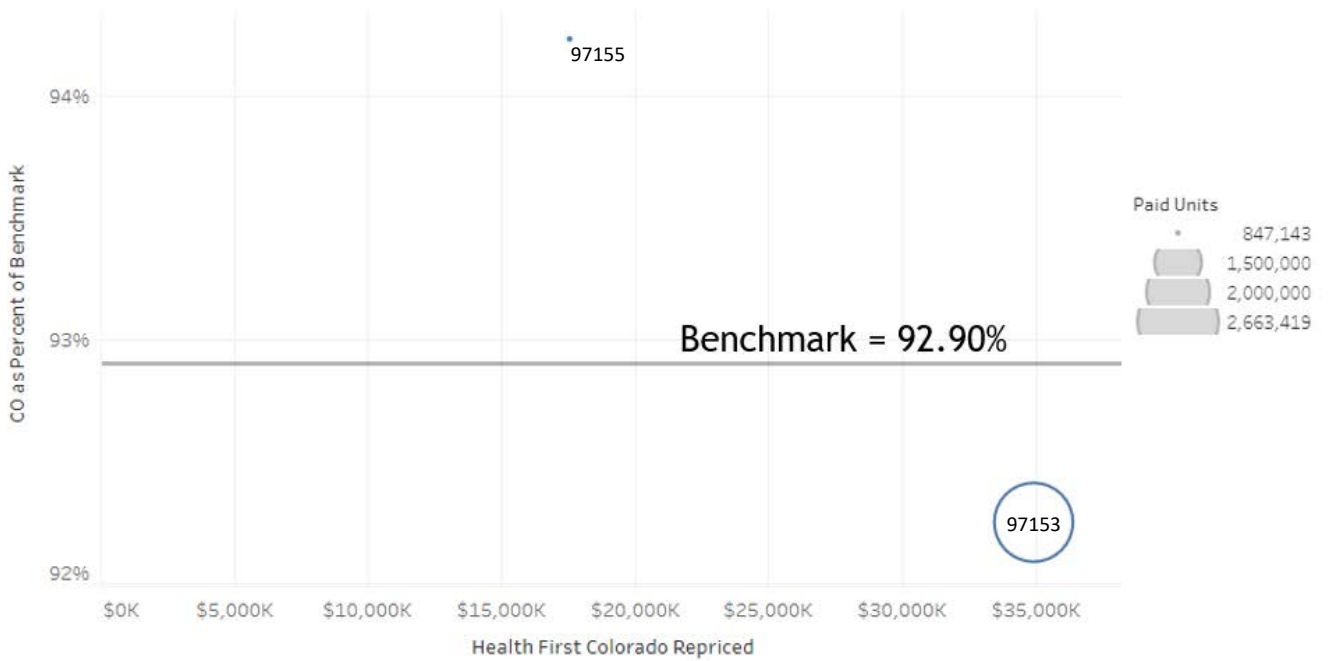
Active Providers Over Time by Month



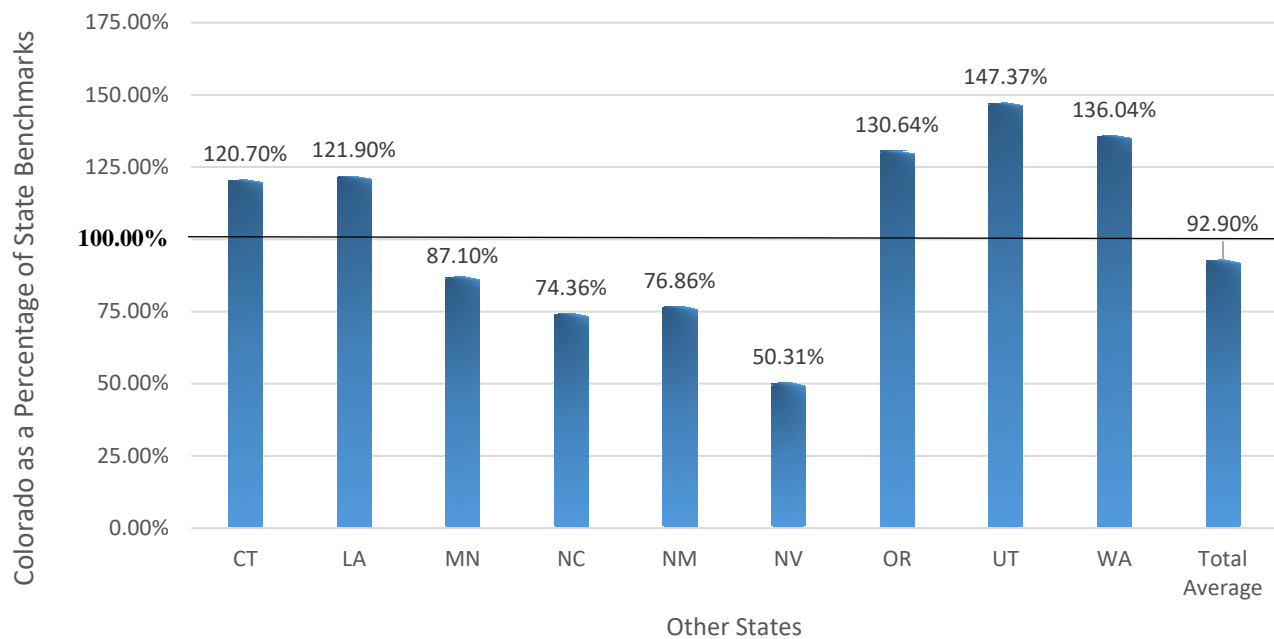
Population Age and Gender



Rate Comparison by Total Paid Units and Dollars



Rate Comparison by Benchmark State¹



¹ Other states do not have pediatric-specific rates.
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Speech Therapy (ST)

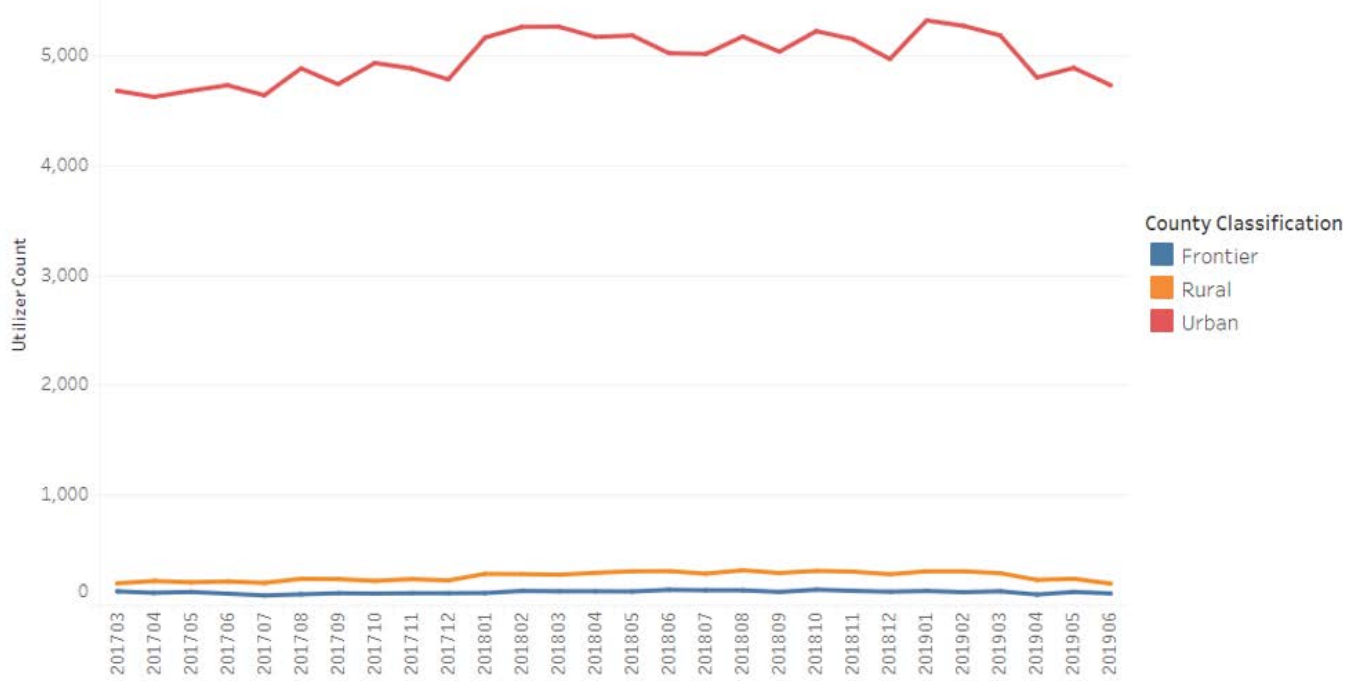
Top 10 Procedure Codes by Total Paid

Procedure Code	Mod	Procedure Description	FY 2018-19 Paid Amount*	Benchmark Source	Colorado Rate	Benchmark Rate Average	Rate Ratio
92507		SPEECH/HEARING THERAPY	\$14,752,804	Medicare PFS Non-Facility	\$62.46	\$82.10	76.08%
92609		USE OF SPEECH DEVICE SERVICE	\$2,163,110	Medicare PFS Non-Facility	\$81.42	\$112.76	72.21%
92523		SPEECH SOUND LANG COMPREHEN	\$1,387,472	Medicare PFS Non-Facility	\$160.29	\$200.96	79.76%
92526		ORAL FUNCTION THERAPY	\$593,235	Medicare PFS Non-Facility	\$25.46	\$90.63	28.09%
92606		NON-SPEECH DEVICE SERVICE	\$358,913	Other States Average	\$39.77	\$63.19	62.94%
92508		SPEECH/HEARING THERAPY	\$221,833	Medicare PFS Non-Facility	\$10.41	\$24.91	41.79%
92524		BEHAVRAL QUALIT ANALYS VOICE	\$189,148	Medicare PFS Non-Facility	\$80.41	\$93.28	86.20%
92507	GT	SPEECH/HEARING THERAPY	\$74,266	Medicare PFS Non-Facility	\$67.46	\$82.10	82.17%
92607		EX FOR SPEECH DEVICE RX 1HR	\$31,958	Medicare PFS Non-Facility	\$98.85	\$133.87	73.84%
92610		EVALUATE SWALLOWING FUNCTION	\$31,834	Medicare PFS Non-Facility	\$29.61	\$90.26	32.81%

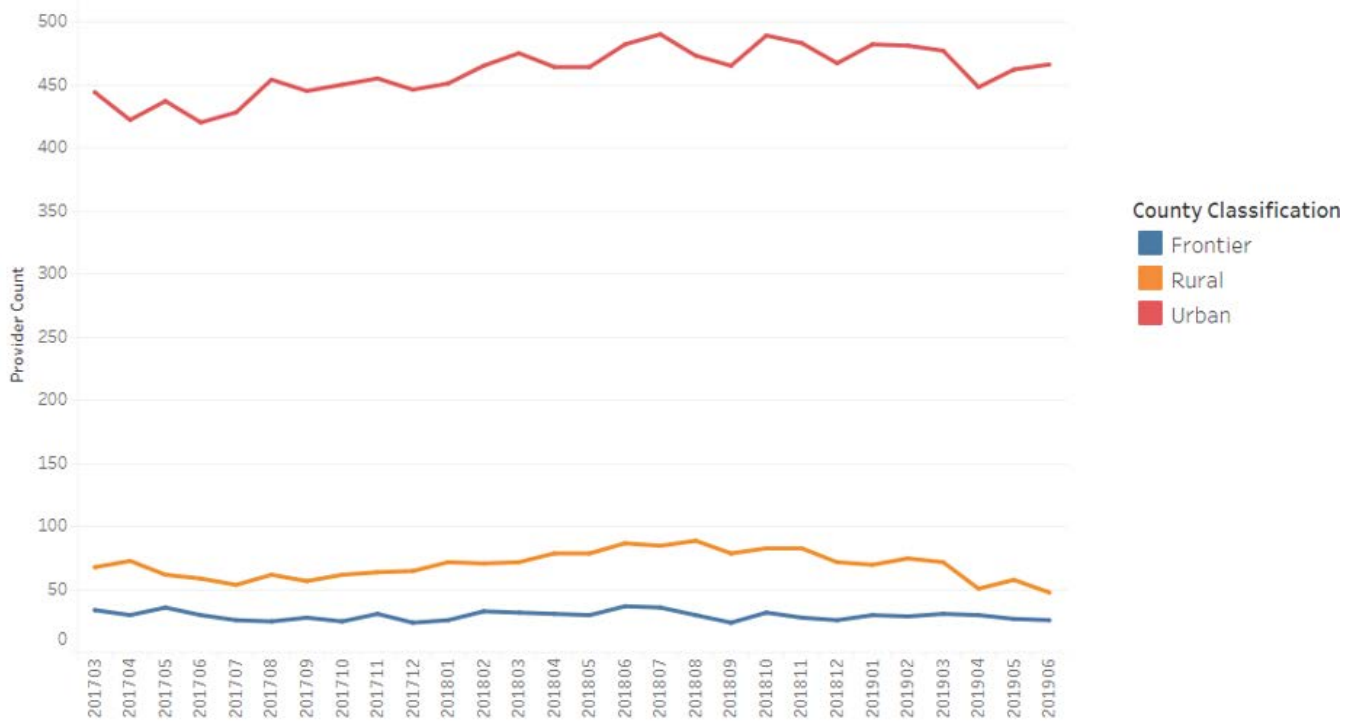
*Adjusted for claims incurred but not reported



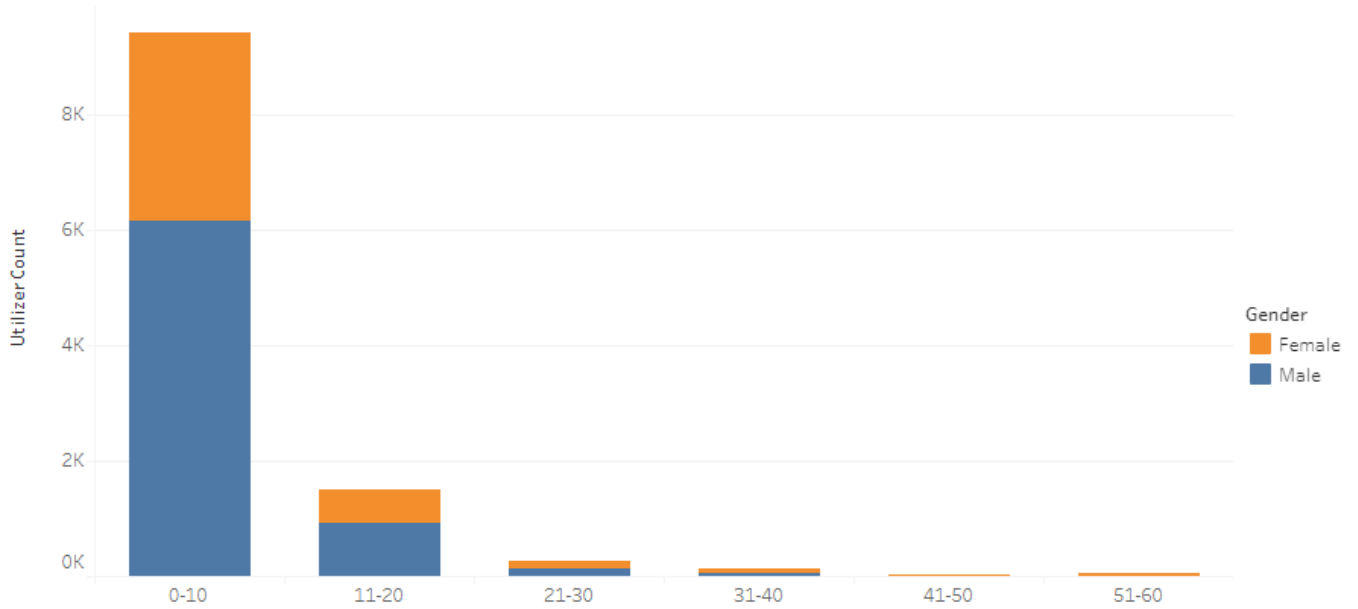
Distinct Utilizers Over Time by Month



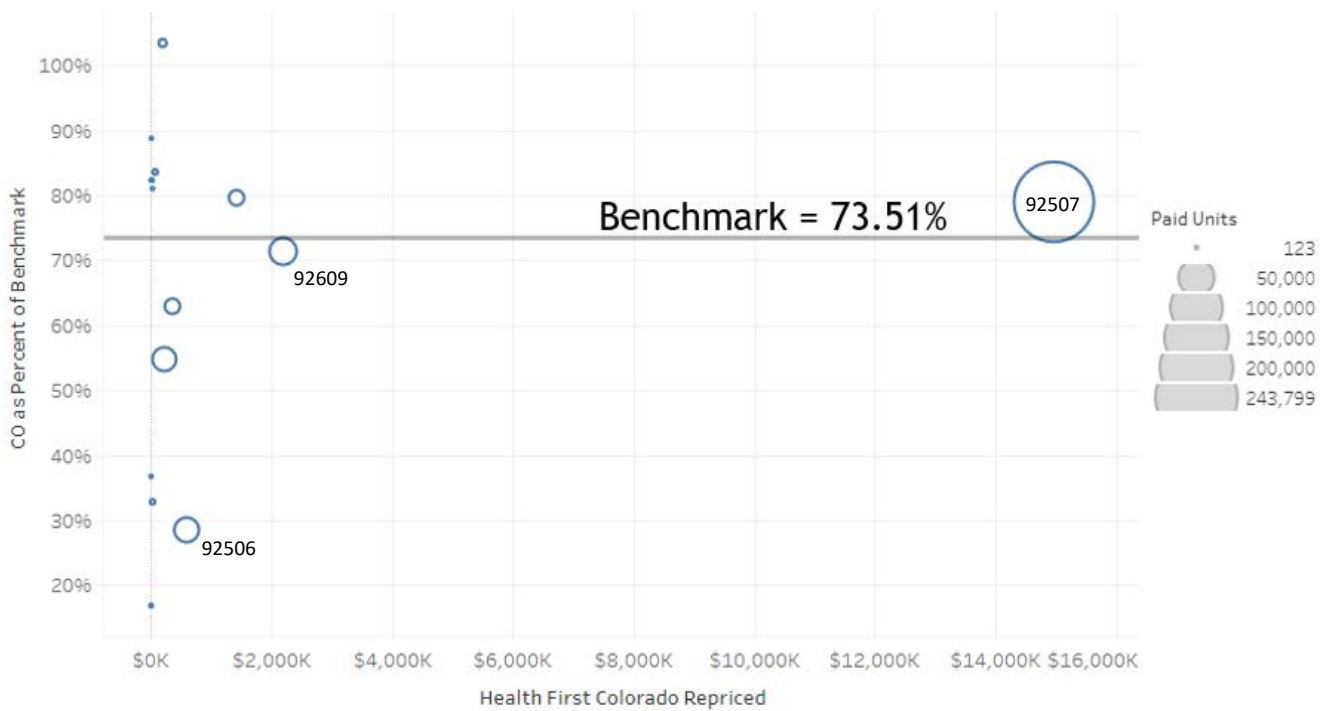
Active Providers Over Time by Month



Population Age and Gender



Rate Comparison by Total Paid Units and Dollars



Physical/Occupational Therapy (PT/OT)

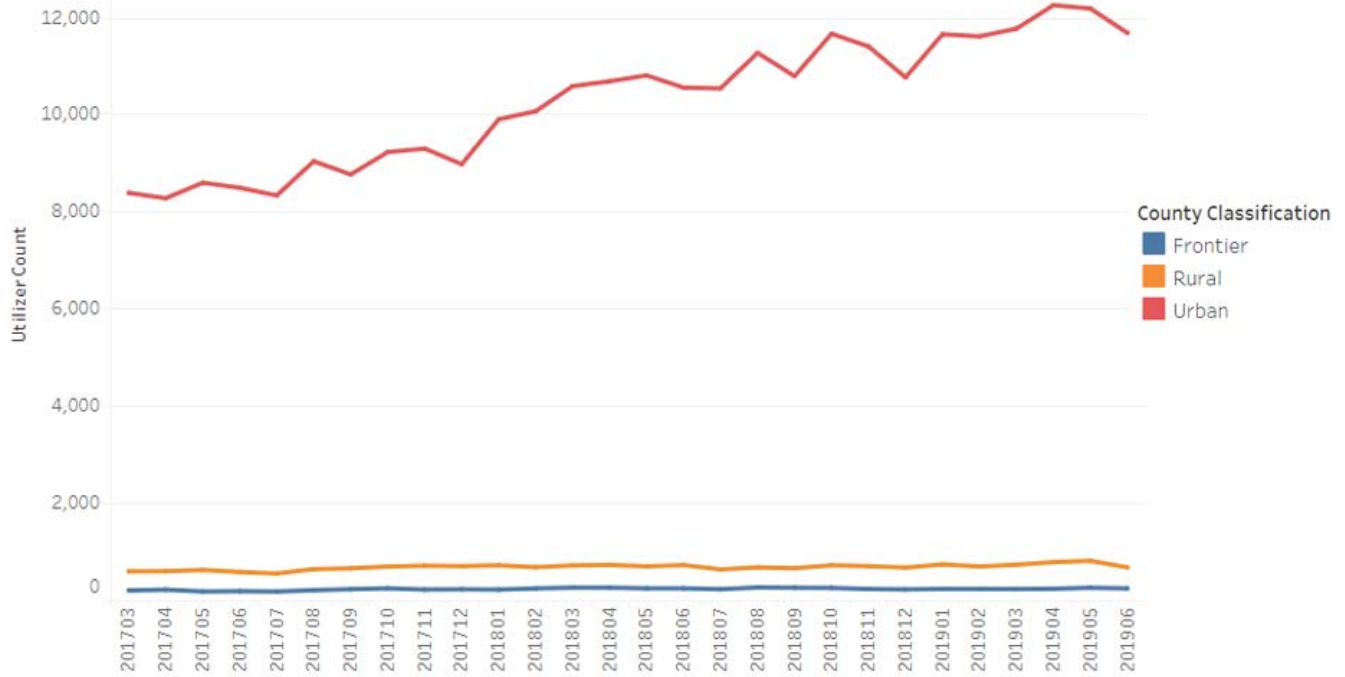
Top 10 Procedure Codes by Total Paid

Procedure Code	Procedure Description	FY 2018-19 Paid Amount*	Benchmark Source	Colorado Rate	Benchmark Rate Average	Rate Ratio
97530	THERAPEUTIC ACTIVITIES	\$20,528,701	Medicare PFS Non-Facility	\$32.80	\$41.14	79.73%
97110	THERAPEUTIC EXERCISES	\$12,524,705	Medicare PFS Non-Facility	\$30.14	\$31.81	94.75%
97112	NEUROMUSCULAR REEDUCATION	\$7,850,155	Medicare PFS Non-Facility	\$31.46	\$36.59	85.98%
97140	MANUAL THERAPY 1/> REGIONS	\$6,984,829	Medicare PFS Non-Facility	\$28.11	\$29.22	96.20%
G0515	COGNITIVE SKILLS DEVELOPMENT	\$1,138,140	Other States Average	\$30.35	\$23.75	127.81%
97533	SENSORY INTEGRATION	\$1,046,589	Medicare PFS Non-Facility	\$22.94	\$54.14	42.37%
92526	ORAL FUNCTION THERAPY	\$617,482	Medicare PFS Non-Facility	\$25.46	\$90.63	28.09%
97162	PT EVAL MOD COMPLEX 30 MIN	\$569,095	Medicare PFS Non-Facility	\$41.32	\$88.93	46.46%
97535	SELF CARE MNGMENT TRAINING	\$499,773	Medicare PFS Non-Facility	\$17.38	\$35.53	48.92%
97161	PT EVAL LOW COMPLEX 20 MIN	\$387,698	Medicare PFS Non-Facility	\$29.34	\$88.93	32.99%

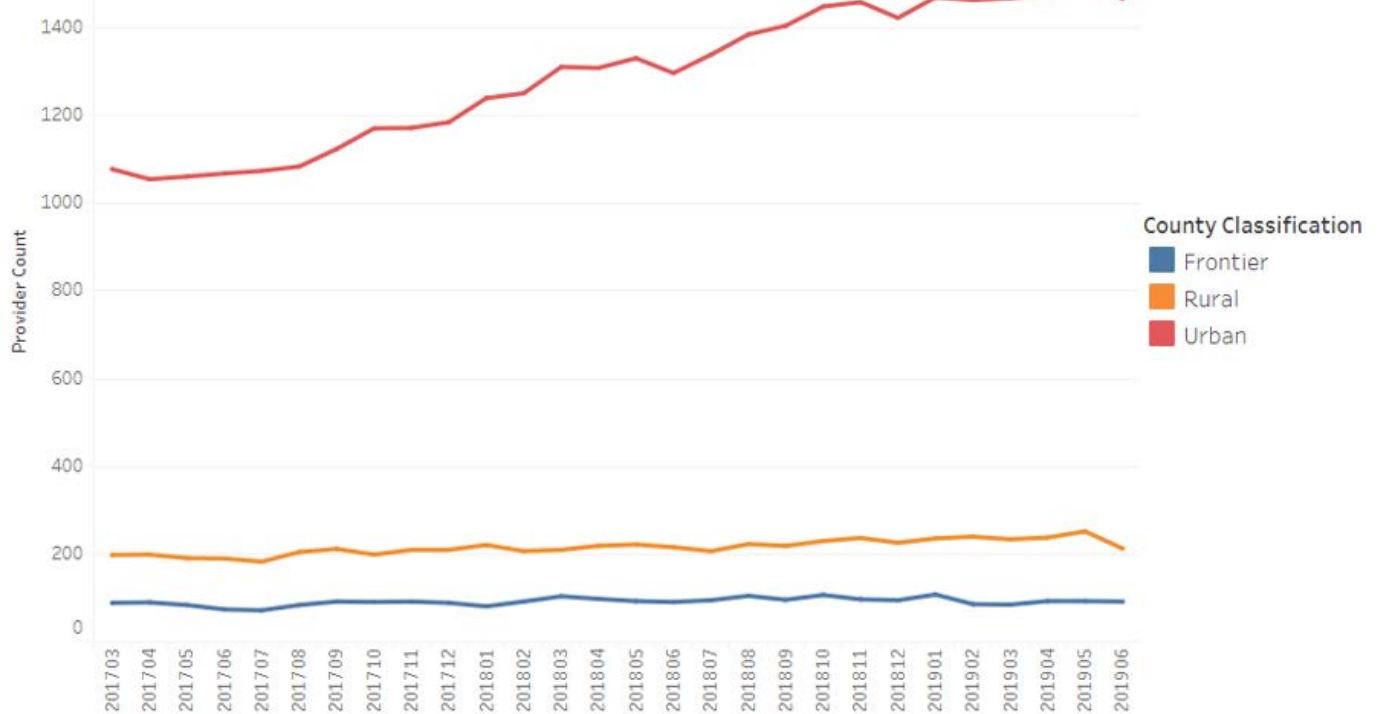
*Adjusted for claims incurred but not reported



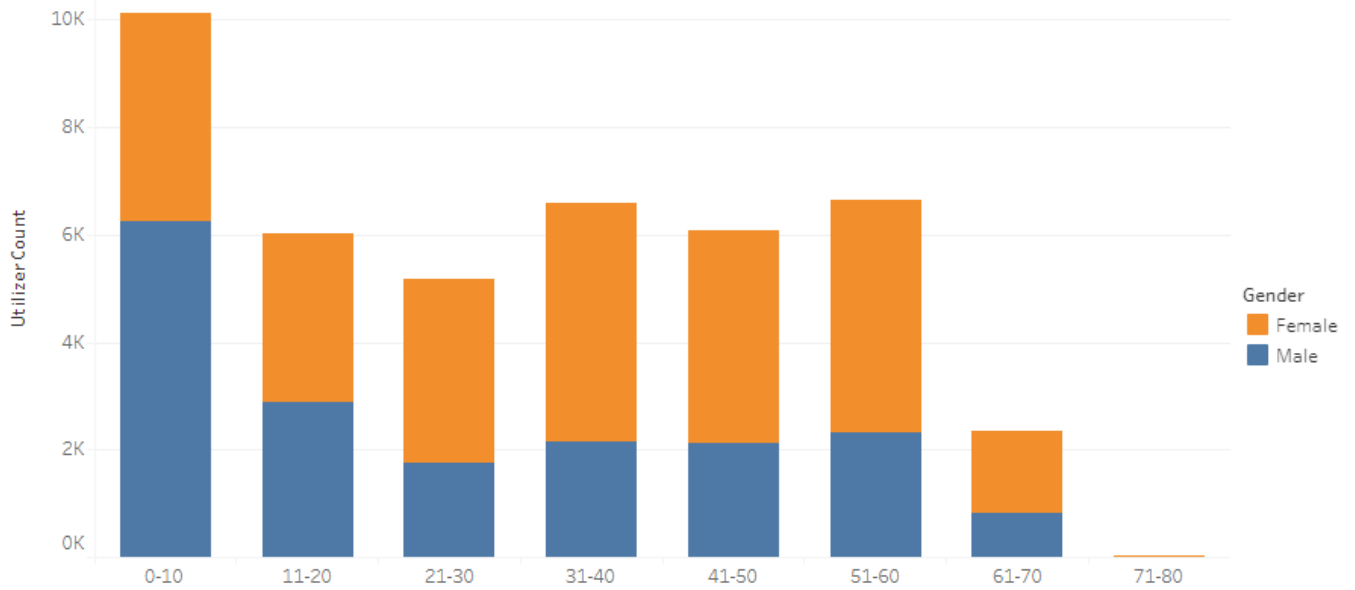
Distinct Utilizers Over Time by Month



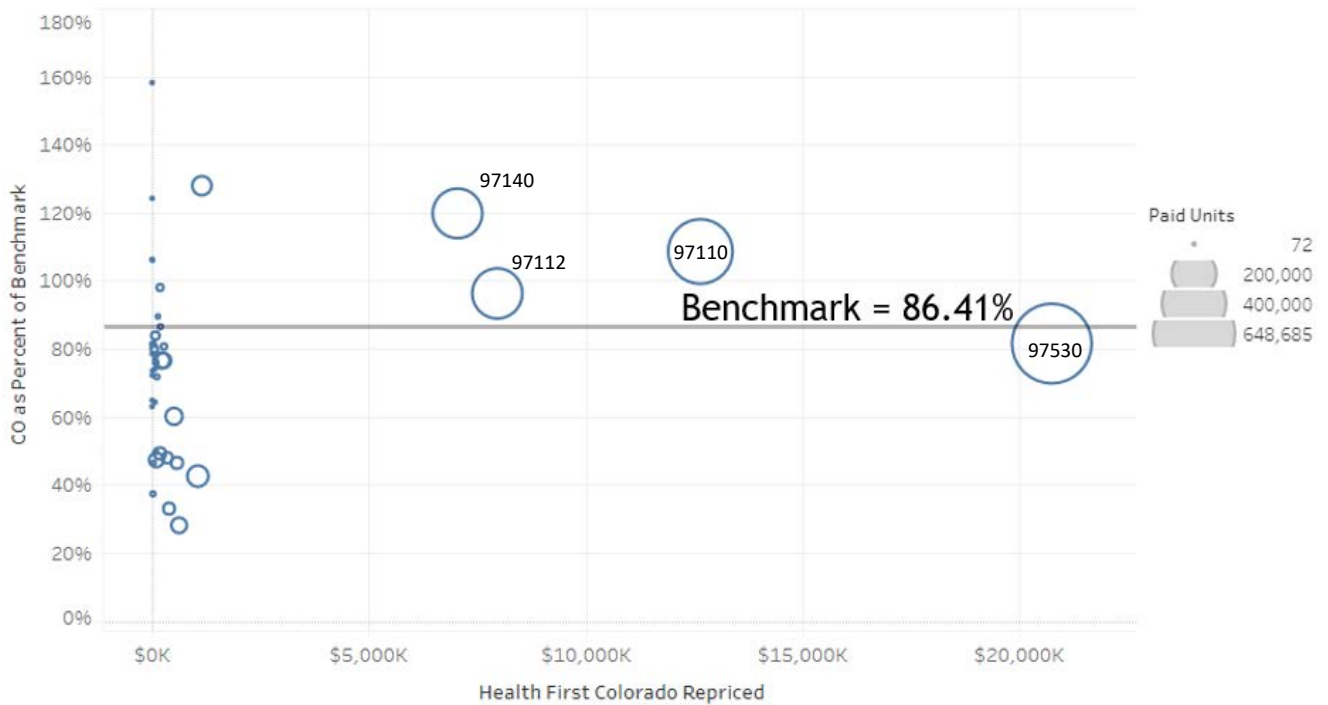
Active Providers Over Time by Month



Population Age and Gender



Rate Comparison by Total Paid Units and Dollars



Prosthetics, Orthotics, and Disposable Supplies (POS)

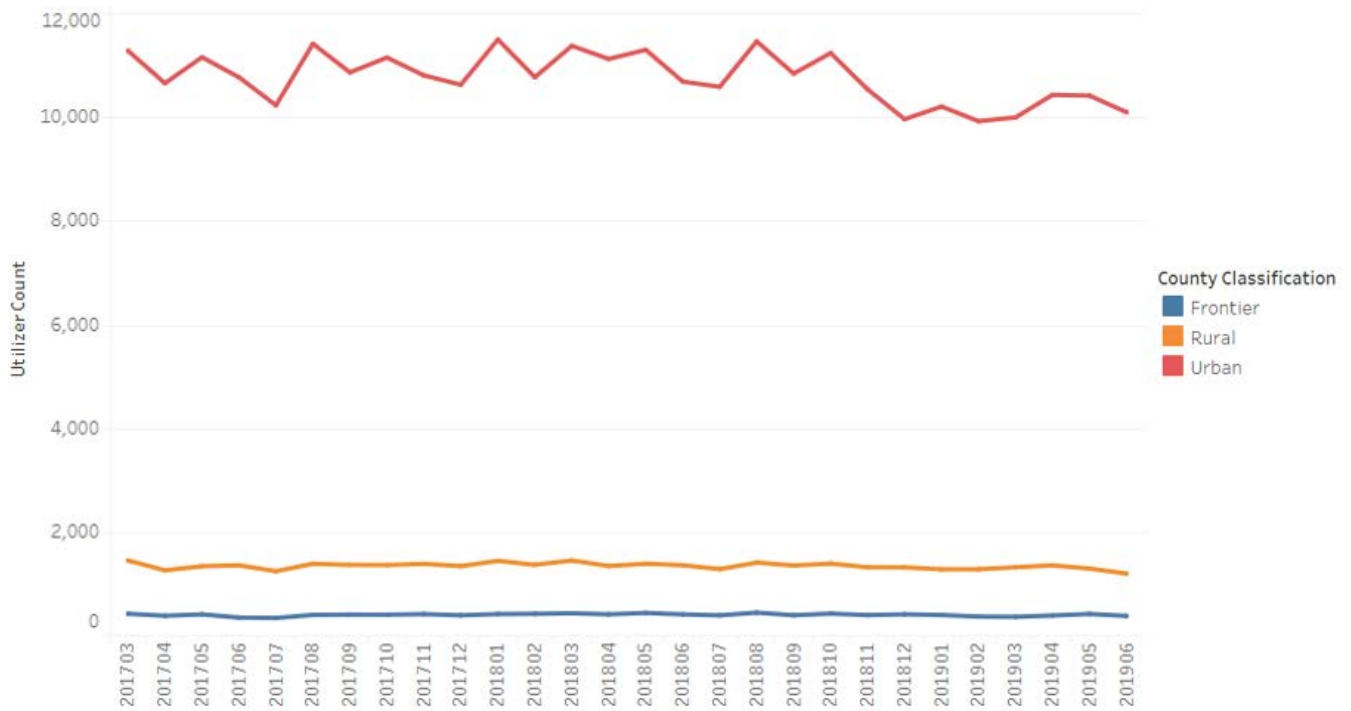
Top 10 Procedure Codes by Total Paid

Procedure Code	Procedure Description	FY 2018-19 Paid Amount*	Benchmark Source	Colorado Rate	Benchmark Rate Average	Rate Ratio
L3000	FT INSERT UCB BERKELEY SHELL	\$3,424,582	Medicare Non Rural Rate	\$236.61	\$318.11	74.38%
A4253	BLOOD GLUCOSE/REAGENT STRIPS	\$3,127,110	Medicare Non Rural Rate	\$9.30	\$8.32	111.78%
A4353	INTERMITTENT URINARY CATH	\$2,758,459	Medicare Non Rural Rate	\$7.06	\$8.13	86.84%
L4361	PNEUMA/VAC WALK BOOT PRE OTS	\$751,681	Medicare Non Rural Rate	\$209.52	\$279.90	74.86%
L1907	AFO SUPRAMALLEOLAR CUSTOM	\$735,265	Medicare Non Rural Rate	\$499.72	\$569.89	87.69%
S1040	CRANIAL REMOLDING ORTHOSIS	\$628,247	Other States Average	\$2,623.50	\$1,432.27	183.17%
A6211	FOAM DRG > 48 SQ IN W/O BRDR	\$558,522	Medicare Non Rural Rate	\$32.77	\$34.12	96.04%
L1833	KO ADJ JNT POS R SUP PRE OTS	\$537,499	Medicare Non Rural Rate	\$426.33	\$569.51	74.86%
L5856	ELEC KNEE-SHIN SWING/STANCE	\$531,233	Medicare Non Rural Rate	\$21,346.50	\$24,343.56	87.69%
L1960	AFO POS SOLID ANK PLASTIC MO	\$468,982	Medicare Non Rural Rate	\$355.66	\$519.23	68.50%

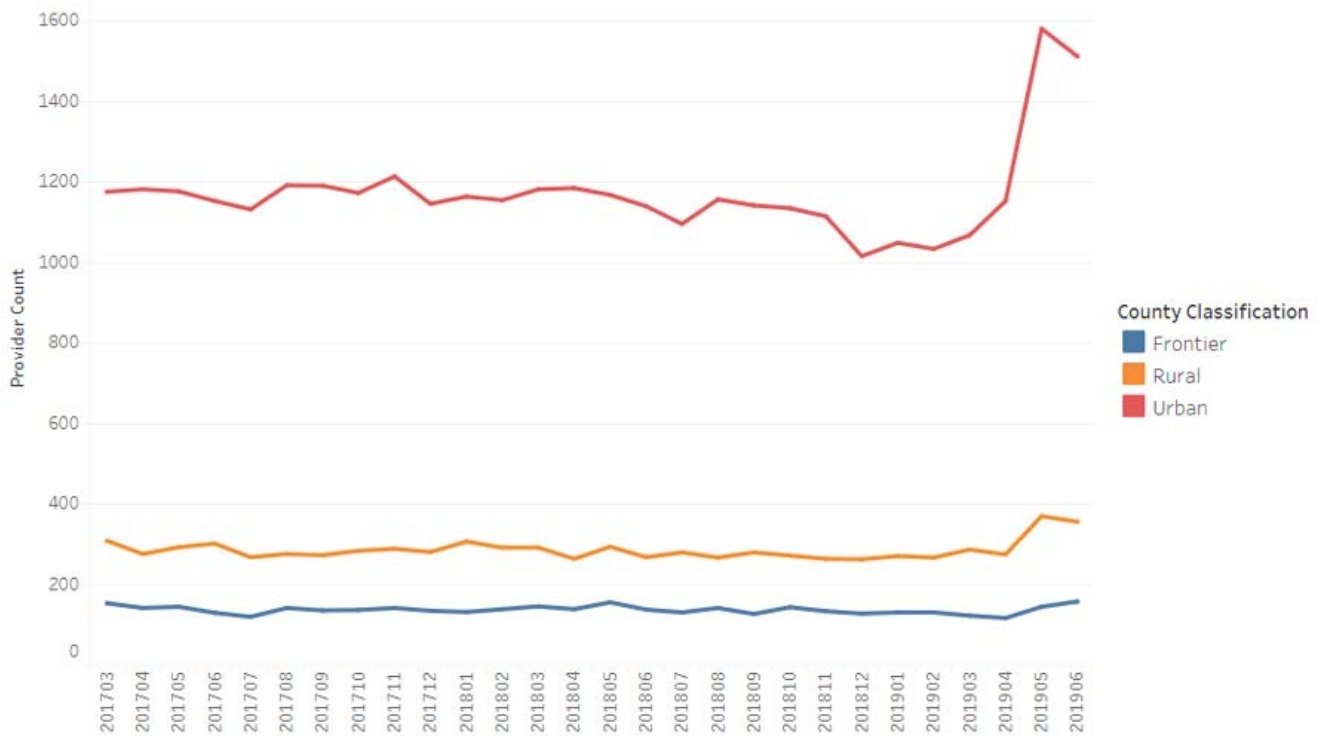
*Adjusted for claims incurred but not reported



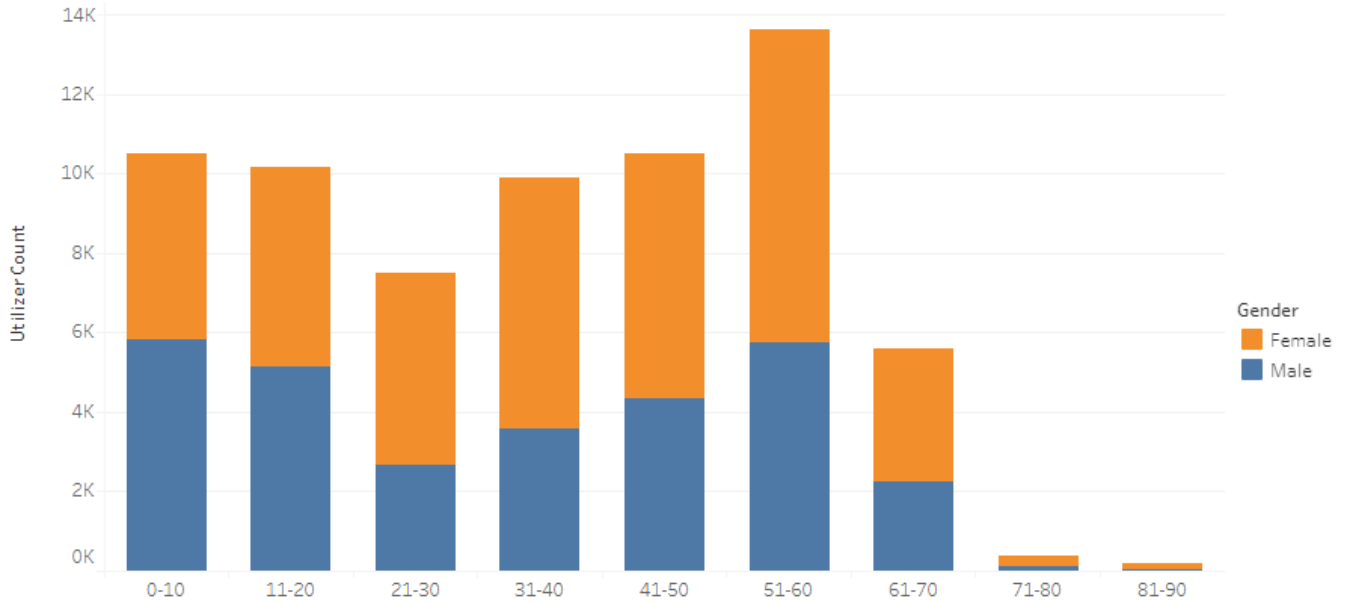
Distinct Utilizers Over Time by Month



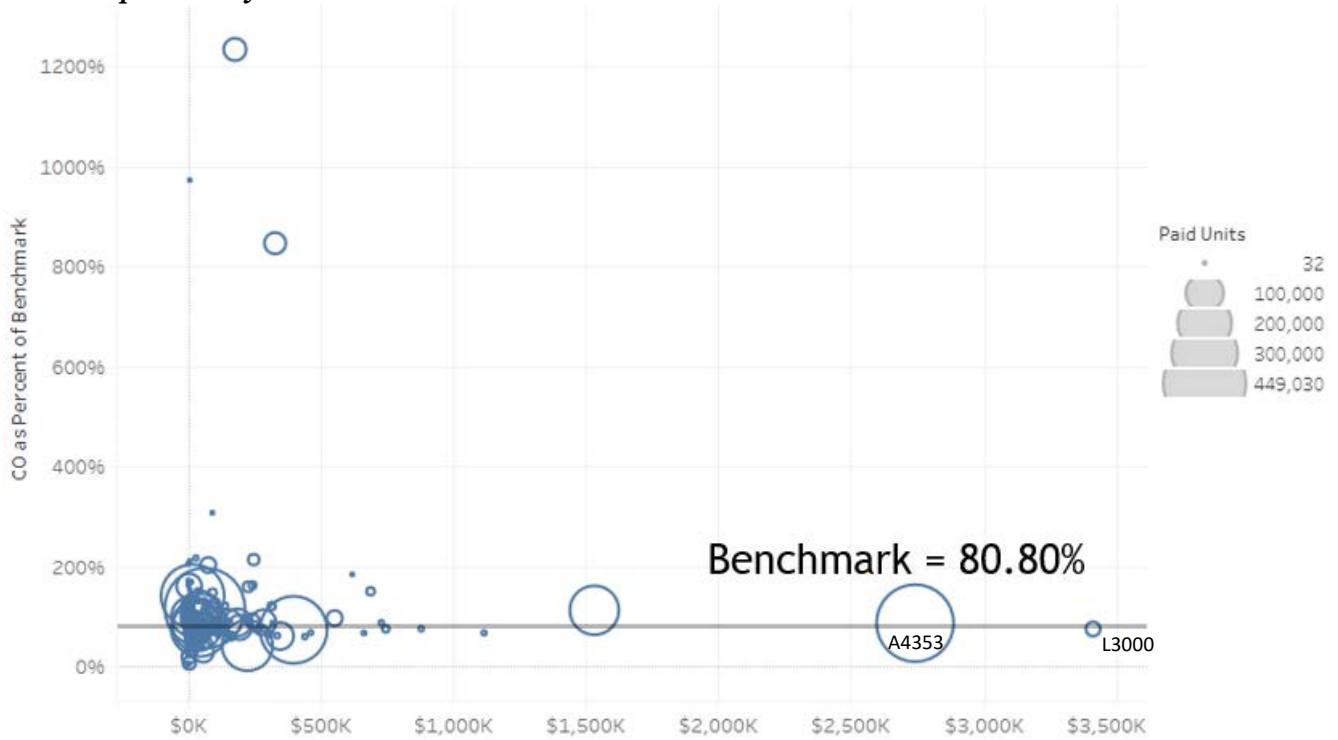
Active Providers Over Time by Month



Population Age and Gender



Rate Comparison by Total Paid Units and Dollars



Vision

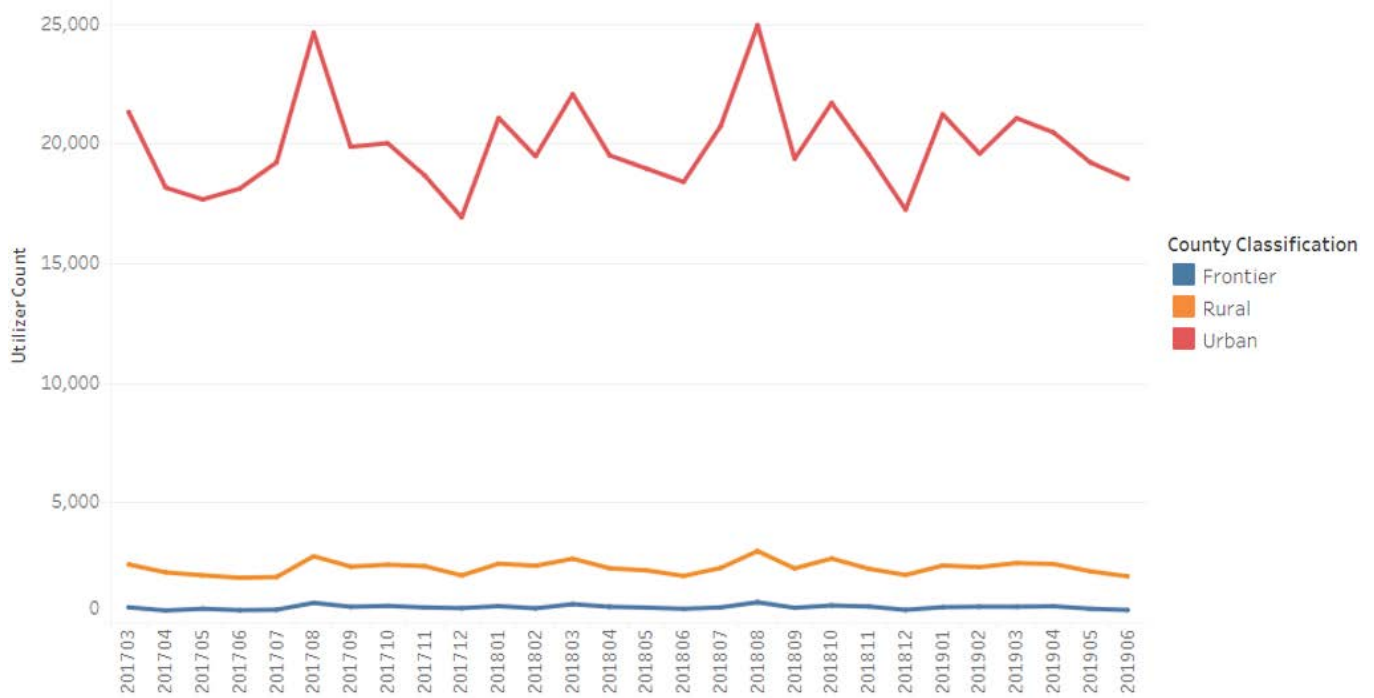
Top 10 Procedure Codes by Total Paid

Procedure Code	Description	FY 2018-19 Paid Amount*	Benchmark Source	Colorado Rate	Benchmark Rate Average	Rate Ratio
V2410	LENS VARIAB ASPHERICITY SING	\$11,482,967	Other States Average	\$73.70	\$78.49	93.90%
92014	EYE EXAM&TX ESTAB PT 1/>VST	\$11,201,246	Medicare PFS Non-Facility	\$104.52	\$130.42	80.14%
92004	EYE EXAM NEW PATIENT	\$10,288,158	Medicare PFS Non-Facility	\$125.37	\$155.30	80.73%
V2020	VISION SVCS FRAMES PURCHASES	\$5,648,010	Other States Average	\$36.03	\$38.35	93.95%
V2103	SPHEROCYLINDR 4.00D/12-2.00D	\$3,317,316	Other States Average	\$23.50	\$19.40	121.13%
92340	FIT SPECTACLES MONOFOCAL	\$2,646,789	Other States Average	\$16.98	\$26.07	65.14%
V2784	LENS POLYCARB OR EQUAL	\$1,944,773	Other States Average	\$7.07	\$28.21	25.06%
V2100	LENS SPHER SINGLE PLANO 4.00	\$1,368,089	Other States Average	\$23.50	\$20.01	117.42%
V2104	SPHEROCYLINDR 4.00D/2.12-4D	\$1,194,044	Other States Average	\$29.59	\$20.15	146.86%
92012	EYE EXAM ESTABLISH PATIENT	\$1,131,683	Medicare PFS Non-Facility	\$72.41	\$91.59	79.06%

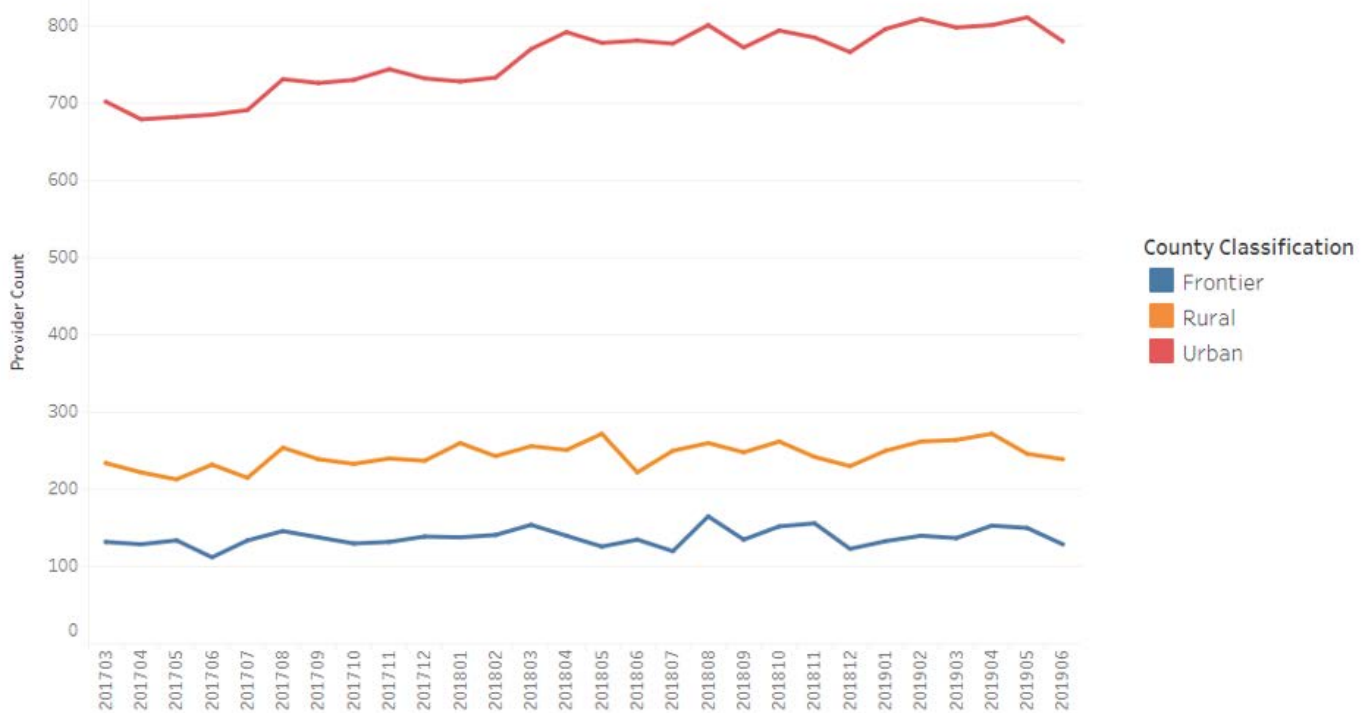
*Adjusted for claims incurred but not reported



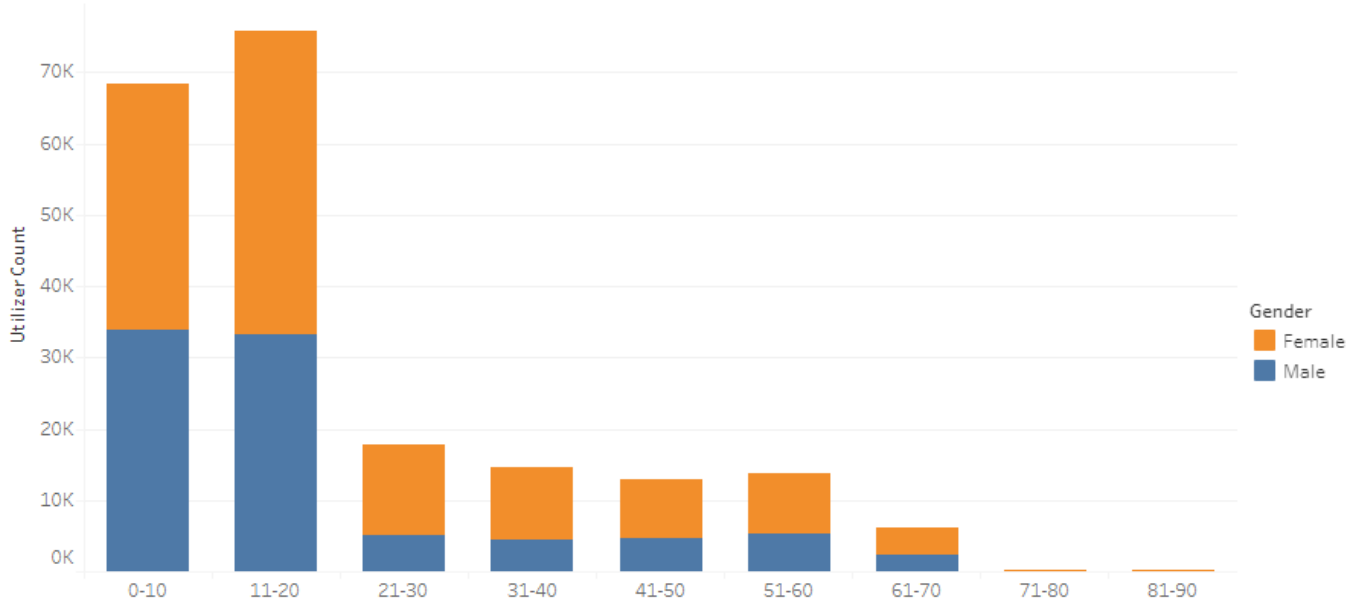
Distinct Utilizers Over Time by Month



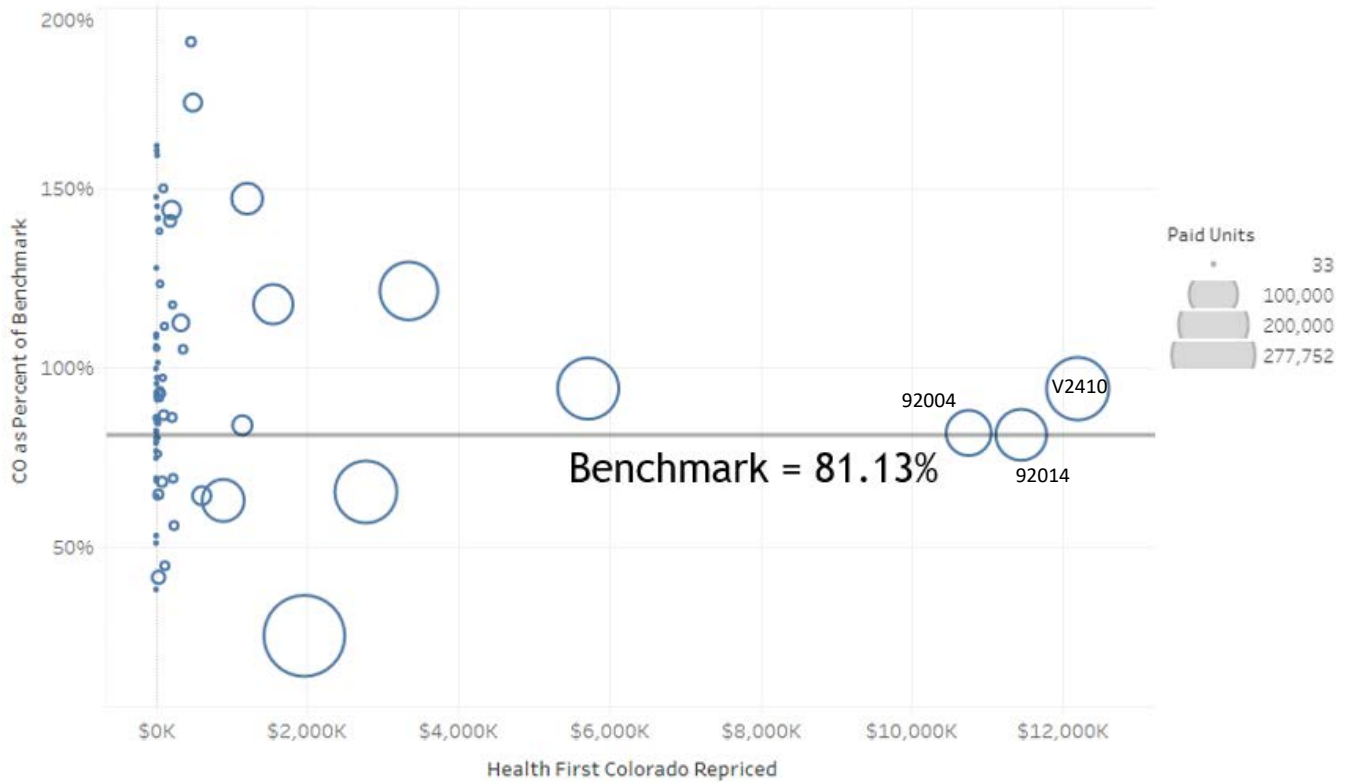
Active Providers Over Time by Month



Population Age and Gender



Rate Comparison by Total Paid Units and Dollars

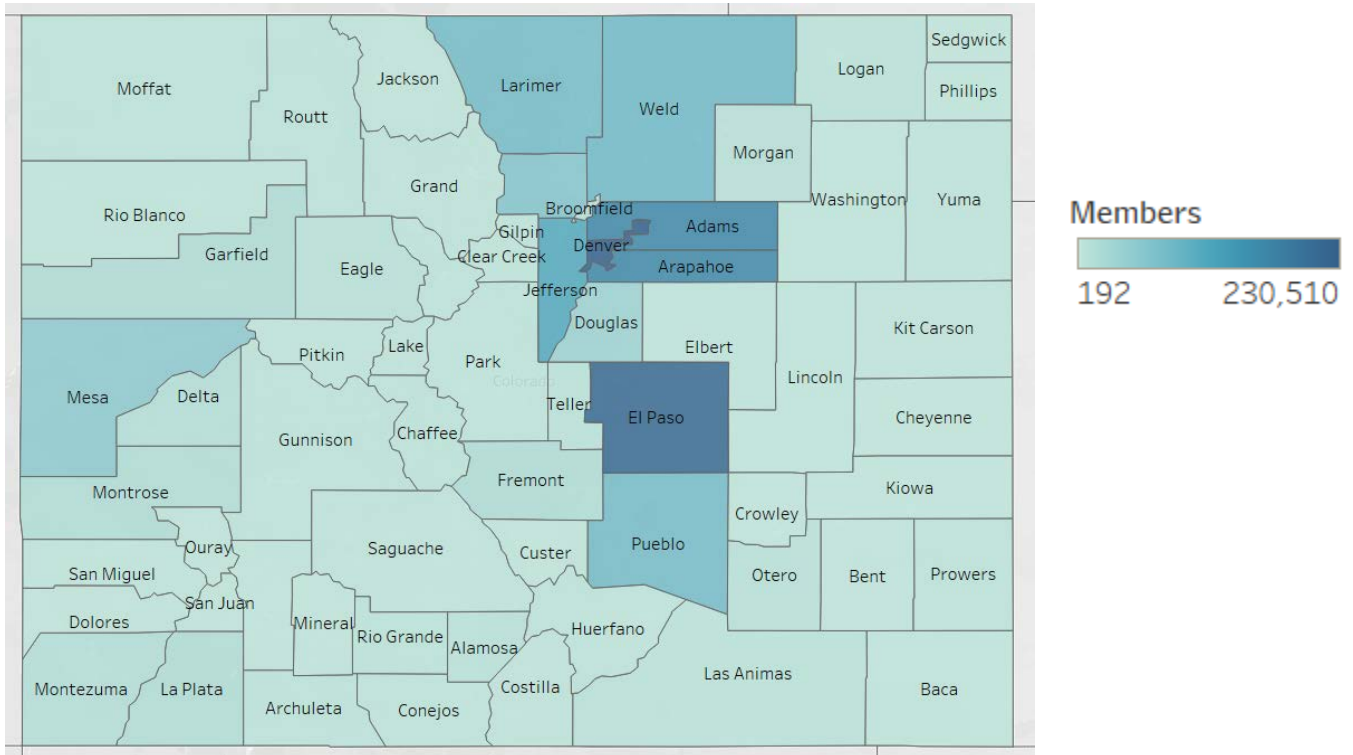


2020 Medicaid Provider Rate Review Analysis Report

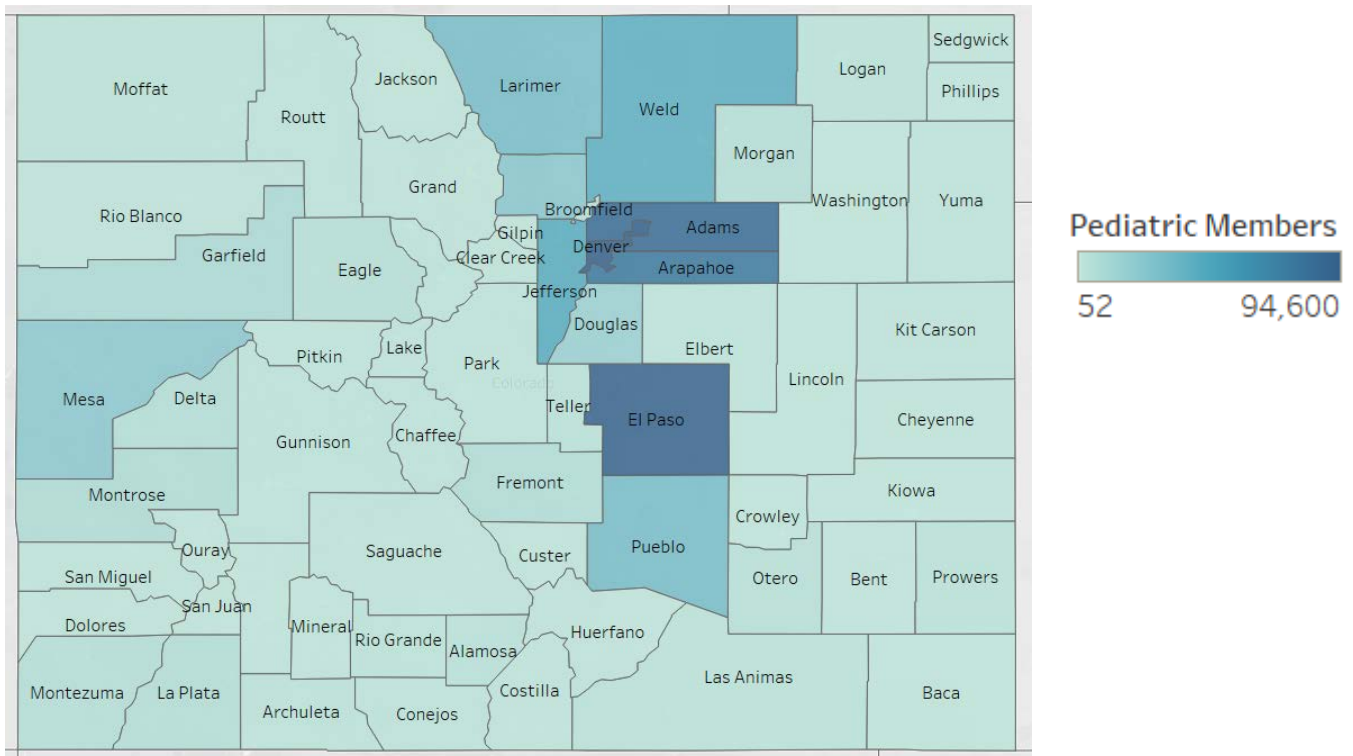
Appendix D – Supplemental Data Visuals

Appendix D provides supplemental visuals to provide context for information in the 2020 Medicaid Provider Rate Review Analysis Report.

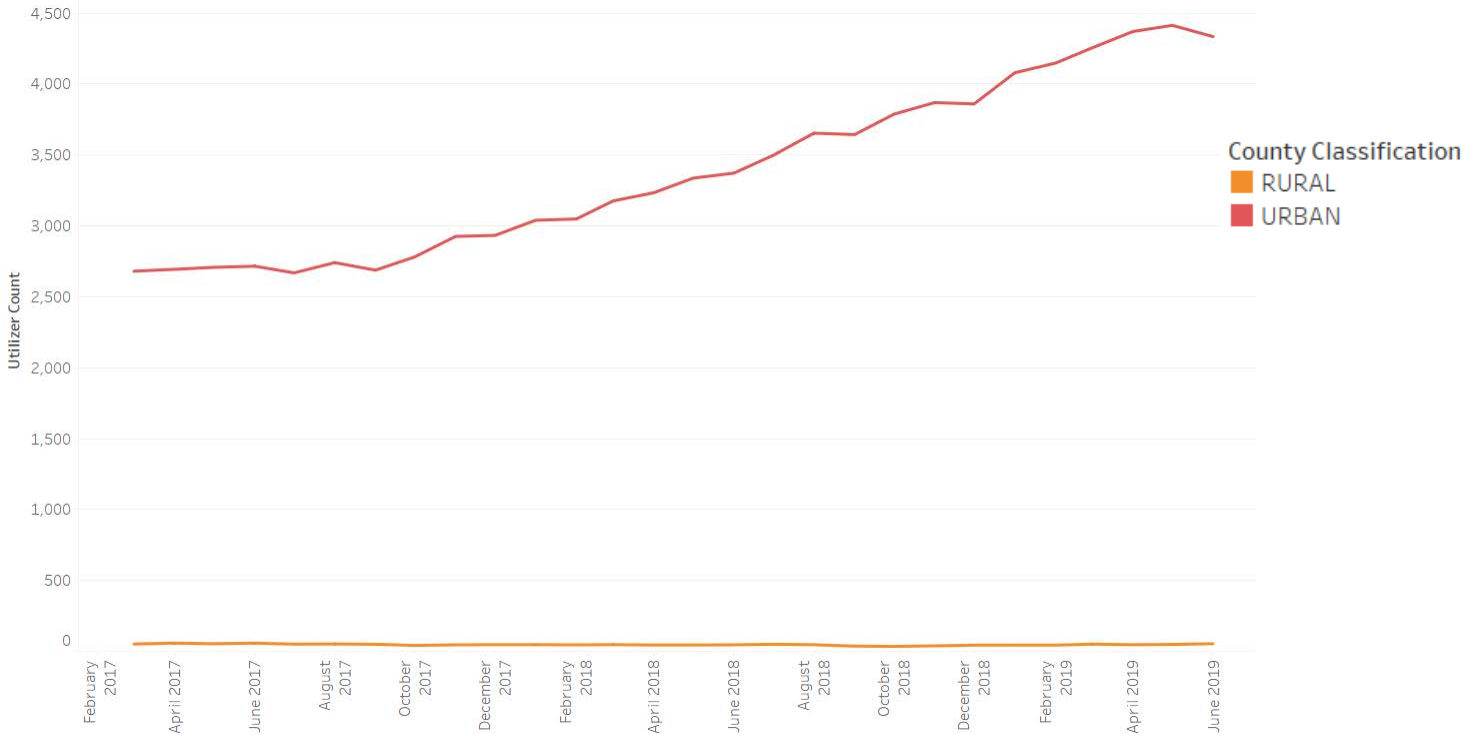
Total Members per County – FY 2018-19



Pediatric Members per County – FY 2018-19



Home Health Speech Therapy Utilizers Over Time



Physical and Occupational Therapy Utilizers Over Time – Procedure Codes 97161, 97162, and 97163

