



COLORADO
Department of Health Care
Policy & Financing

1570 Grant Street
Denver, CO 80203

May 2, 2022

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

Dear Representative McCluskie:

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 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."

The Department's report contains appropriate analyses, rate comparisons, and sufficiency assessments for five sets of services: Physician Services, Dialysis & Nephrology Services, Laboratory & Pathology Services, Eyeglasses & Vision Services, and Injections/Miscellaneous J-Codes. Also contained in this report are two sets of services reviewed out-of-cycle, as directed by the JBC: Physical & Occupational Therapy (PT/OT)/Speech Therapy (ST)/Home Health PT/OT/ST and Specialty Drugs.

If you require further information or have additional questions, please contact the Department's Legislative Liaison, Jo Donlin, at Jo.Donlin@state.co.us or 720-610-7795.

Sincerely,

Kim Bimestefer
Executive Director

KB/EH



Enclosure(s): 2022 Medicaid Provider Rate Review Annual Analysis Report

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Representative Leslie Herod, Joint Budget Committee
Senator Bob Rankin, Joint Budget Committee
Representative Kim Ransom, Joint Budget Committee
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Bettina Schneider, Finance Office Director, HCPF
Parrish Steinbrecher, Health Information Office Director, HCPF
Rachel Reiter, External Relations Division Director, HCPF
Jo Donlin, Legislative Liaison, HCPF



COLORADO
Department of Health Care
Policy & Financing

1570 Grant Street
Denver, CO 80203

May 2, 2022

Dixie Melton, Chair
Medicaid Provider Rate Review Advisory Committee
303 East 17th Avenue
Denver, CO 80203

Dear Ms. Melton:

Enclosed please find the Department of Health Care Policy and Financing's statutory report to the Joint Budget Committee (JBC) 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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If you require further information or have additional questions, please contact the Department's Rate Review Team at HCPF_RateReview@state.co.us.

Sincerely,

Kim Bimestefer
Executive Director



KB/EH

Enclosure(s): 2022 Medicaid Provider Rate Review Annual Analysis Report

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COLORADO

Department of Health Care
Policy & Financing

1570 Grant Street
Denver, CO 80203



2022 Medicaid Provider Rate Review Analysis Report

May 1, 2022

**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. 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 2022 Rate Review Recommendation Report on November 1, 2022. Services under review this year, Year Two of the second five-year review cycle, are listed in the table below.

Rate Review - Year Two (Cycle Two) Services	
Physician Services	<i>Primary Care/Evaluation & Management</i>
<i>Cardiology</i>	<i>Radiology</i>
<i>Cognitive Capabilities Assessment</i>	<i>Respiratory</i>
<i>Ear, Nose, and Throat</i>	<i>Vaccines & Immunizations</i>
<i>Gastroenterology</i>	<i>Vascular</i>
<i>Health Education</i>	<i>Women's Health & Family Planning</i>
<i>Ophthalmology</i>	<i>Other Physician Services</i>
Dialysis & Nephrology	Eyeglasses & Vision
Laboratory & Pathology	Injections & Miscellaneous J-Codes
Physical, Occupational, & Speech Therapy (PT/OT/ST) and Home Health PT/OT/ST	Specialty Drugs

Table 1. Rate Review Year Two (Cycle Two) Services

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.²

Physician Services Rate Benchmark Comparison Results			
Service	CO as a Percent of Benchmark	Service	CO as a Percent of Benchmark
Cardiology	90.7%	Radiology	90.6%
Cognitive Capabilities Assessment	127.2%	Respiratory	97.5%
Ear, Nose, and Throat	76.4%	Vaccines & Immunizations	107.9%
Gastroenterology	63.5%	Vascular	121.2%
Health Education	62.4%	Women's Health & Family Planning	83.4%
Ophthalmology	78.2%	Other Physician Services	83.7%
Primary Care/Evaluation & Management	84.0%		

Table 2. Physician Services Rate Benchmark Comparison Results

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

² Benchmark comparisons were calculated using total adjusted expenditures and utilization from CY 2020 administrative claims data, compared to total adjusted dollars based on benchmark rate. The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

Year Two (Cycle Two) Rate Benchmark Comparison Results (Continued) ³	
Service	CO as a Percent of Benchmark
Dialysis – Facility	78.5%
Dialysis – Professional	61.1%
Laboratory & Pathology	93.7%
Eyeglasses & Vision	57.4%
Injections & Miscellaneous J-Codes	95.6%

Table 3. Year Two (Cycle Two) Rate Benchmark Comparison Results (Cont.)

Out-of-Cycle Reviews Rate Benchmark Comparison Results ⁴	
Service	CO as a Percent of Benchmark
Physical/Occupational Therapy (PT/OT)	91.0%
Speech Therapy (ST)	79.0%
Home Health PT/OT/ST	100.2%
Specialty Drugs	72% ⁵

Table 4. Out-of-Cycle Review Rate Benchmark Comparison Results

The Department's conclusions in this analysis report for each service grouping are summarized below for consideration for the November recommendations report.

The following service groupings were determined to have rates that were sufficient for member access and provider retention:

- Cognitive Capabilities Assessment at 127.2% of the benchmark.
- Respiratory services at 97.5% of the benchmark.
- Vaccines & Immunizations at 107.9% of the benchmark
- Vascular services at 121.2% of the benchmark.
- Laboratory & Pathology services at 93.7% of the benchmark.
- Injections & Miscellaneous J-Codes at 95.6% of the benchmark.
- Home Health services at 100.2% of the benchmark.

The following service groupings were determined to have rates that fell between 80%-91% of the benchmark, and based on the accompanying access metrics, **the Department believes that ultimately rates may not be sufficient** to ensure member access and provider retention going forward:

³ Benchmark comparisons were calculated using total adjusted expenditures and utilization from CY 2020 administrative claims data, compared to total adjusted dollars based on benchmark rate. The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

⁴ Benchmark comparisons were calculated using total adjusted expenditures and utilization from CY 2020 administrative claims data, compared to total adjusted dollars based on benchmark rate. The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

⁵ The current reimbursement methodology pays 72% of the cost, as provided by provider invoicing. For more information, see the Out-of-Cycle Review – specialty drugs section on page 166.

- Cardiology at 90.7% of the benchmark.⁶
- Primary Care/Evaluation & Management (E&M) services at 84.0% of the benchmark.
- Radiology services at 90.6% of the benchmark.
- Women's health & family planning services at 83.4% of the benchmark.
- Other physician services at 83.7% of the benchmark.
- Physical and Occupational Therapy (PT/OT) services at 91.0% of the benchmark.

The following service groupings were determined to have rates below 80% of the benchmark, **which may indicate that rates may be insufficient**:

- Vision services at 57.4% of the benchmark
- Ear, nose, and throat (ENT) services at 76.4% of the benchmark.
- Gastroenterology services at 63.5% of the benchmark.
- Health education services at 62.4% of the benchmark.
- Ophthalmology services at 78.2% of the benchmark.
- Dialysis – Facility services at 78.5% of the benchmark.
- Dialysis – Professional services at 61.1% of the benchmark.
- Speech therapy services at 79.0% of the benchmark.

Analyses conducted through the rate review process are inconclusive to determine if specialty drug rates at 72% of the benchmark were sufficient for member access and provider retention. However, based on thorough financial analysis outside of the rate review process, **the Department has submitted a request to CMS to adjust this reimbursement more closely align with the net invoice total.**^{7, 8}

The Department believes the current five-year rate review cycle is insufficient for the proper and market responsive review of provider rates. Shortening the cycle to 3-years would improve the Department's ability to respond to evolving macro and micro environmental issues (like workforce shortages, inflation, budget challenges). This would require a budget increase to cover the additional staff required to meet this recommendation.

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](#).

Services reviewed this year encompass only a subset of all services reviewed over the five-year cycle.

⁶ While reimbursement rates are set within the 80%-100% if the benchmark range noted in the Payment Philosophy Section of this report (page 14), the Department will be conducting further analysis before finalizing a conclusion.

⁷ The Department will implement suggested rate changes for this category of service upon federal approval.

⁸ These services are highly specialized and thus only administered by one provider in Colorado. The Department is currently working to increase reimbursement rates for this category of service to more closely align with the net invoice total, as provided by invoice data from providers.

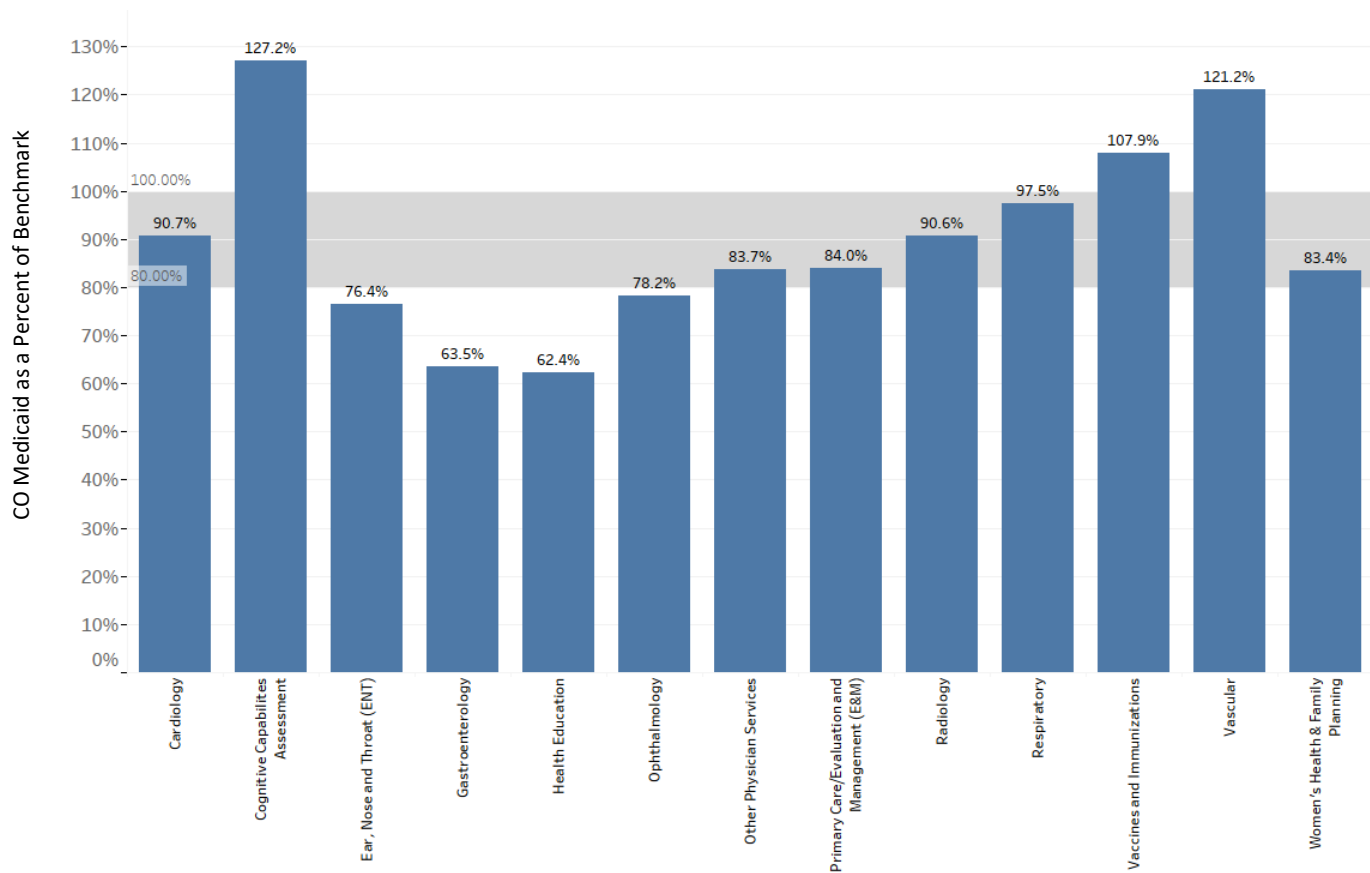


Figure 1. Colorado Medicaid rate benchmark comparison for all Year Two (Cycle 2) Physician Services Sub-groupings in CY 2020.

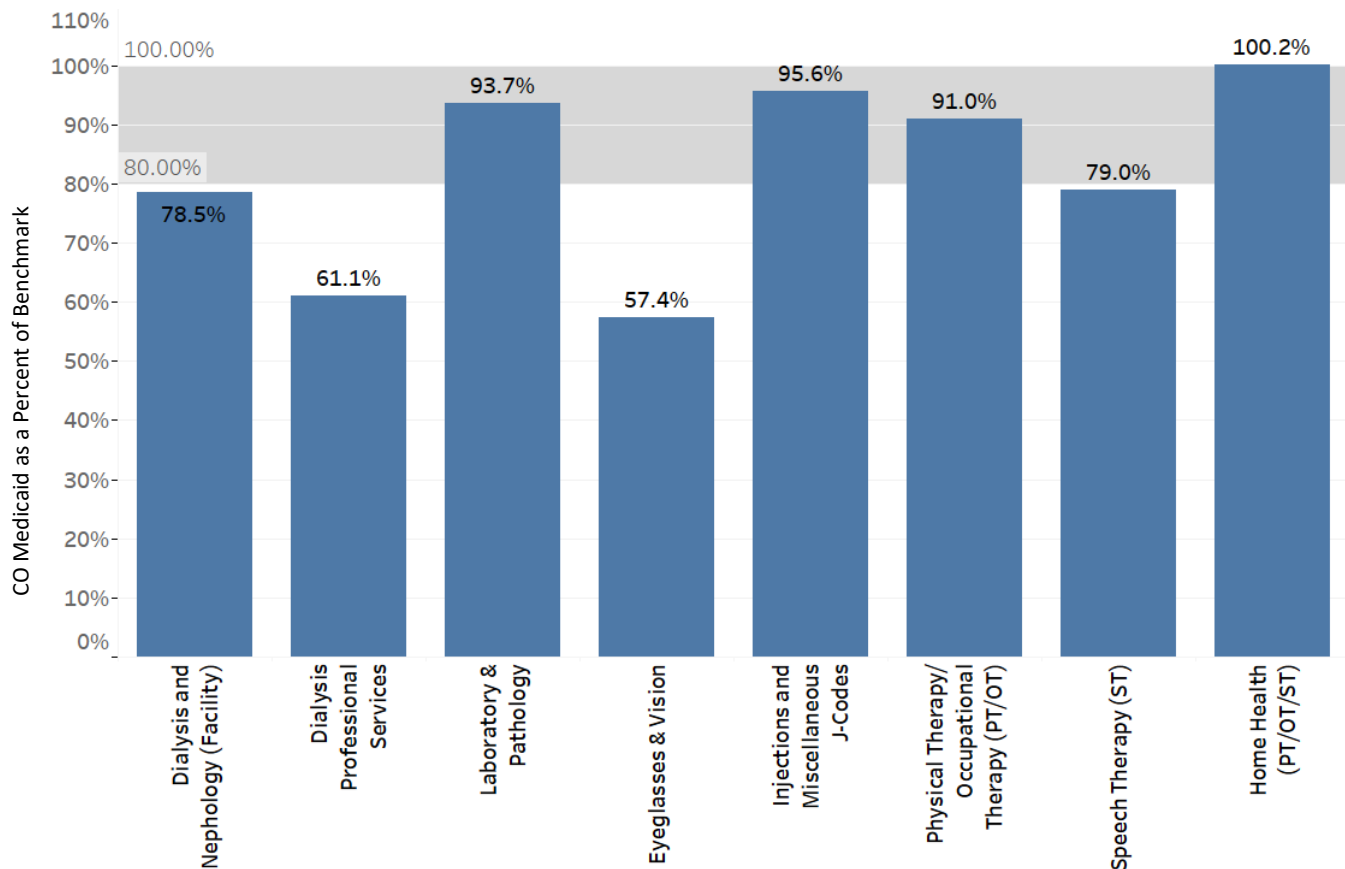


Figure 2. Colorado Medicaid rate benchmark comparison for Year Two (Cycle 2) groupings in CY 2020.

Introduction

The Colorado Department of Health Care Policy & Financing (the Department) administers the State’s public health insurance programs, including Colorado’s Medicaid, 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 improving health care equity, access and outcomes for the people we serve while saving Coloradans money on health care and driving value for Colorado.

In 2015, the Colorado General Assembly 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 [section 25.5-4-401.5, C.R.S.](#), 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 Two of the second five-year rate review cycle, began in November 2021 and included a general discussion of services under review 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, in many circumstances, 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., some vaccine & immunization services).
2. Medicare's population is different enough that services rendered do not necessarily translate to similar services covered by Colorado Medicaid.
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., some health education services).
4. There is a known issue with Medicare's rates (e.g., home health services).

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 has historically viewed 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;

- complaints received from primary care physicians (PCP) and members indicating that specialists, while enrolled in the Medicaid network, are not accepting Medicaid patients for care, impeding member access; as such, the access appears to exist measured by specialty provider enrollment but is not equally presenting via the patient or PCP experience; and
- developing systems to ensure that payments are associated with high-quality provision of services.

Going forward, the Department intends to leverage the price transparency regulations that go into effect on July 1st, 2022, if HB 22-1285 is signed into law. This bill provides commercial pricing transparency for many CPT codes. This would add a new comparison to Colorado commercial reimbursement average.

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 or 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. Summary statistics are provided for each service grouping. Those statistics and time period or calendar year (CY) they represent are:⁹

- Total Adjusted Expenditures – CY 2020¹⁰
- Total Members Utilizing Services – CY 2020
- Year-over-year Change in Members Utilizing Services – CY 2019 and CY 2020¹¹
- Total Active Providers¹² – CY 2020
- Year-over-year Change in Rendering Providers – CY 2019 and CY 2020¹³

⁹ The Department recognizes that data from CY 2020 will show the impact of the COVID-19 pandemic, including the stay-at-home order from March 26, 2020-May 1, 2020. The Department felt that CY 2019 data was not recent enough to represent valid utilization and provider claims data; CY 2020 allowed for the most recent data that also had enough claims data run-out to depict the most accurate utilization and provider data for the base data used in the rate comparison and access to care analyses.

¹⁰ Total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

¹¹ For all services, year-over-year change in members was calculated using data from CY 2019 and CY 2020.

¹² An active provider is any provider with at least one Colorado Medicaid paid claim in a given month between January 2020-December 2020.

¹³ For all services, year-over-year change in providers was calculated using data from CY 2019 and CY 2020.



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 CY 2020 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.¹⁴

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.¹⁵

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 should be noted that none of these metrics measure actual utilization compared to network enrollment, creating an opportunity going forward. Again, a provider may be enrolled in Medicaid but is not accepting patient referrals, due to Medicaid reimbursement rates. The Department is reviewing now all enrolled specialists to identify providers not seeing enough Medicaid members. For the purposes of this current report, and said another way, the current 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.¹⁶

¹⁴ Definitions for certain terms in this report, such as rate ratio and rate benchmark comparison, are contained in Appendix A.

¹⁵ 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 for a breakdown of each county classification.

¹⁶ See the Limitations section below for more information regarding this consideration.



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.¹⁷
- 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.¹⁸
- Drive times – the percentage of total Colorado Medicaid members that live within certain distances from service 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 total members residing 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 CY 2020 administrative claims data.^{19,20} 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.²¹

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:

- Stakeholder feedback provided by subject matter experts at the Department;
- Service-specific data (e.g., primary utilizer populations, billing specificities, etc.);

¹⁷ 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.

¹⁸ This metric allows for comparison across areas with large differences in population size.

¹⁹ The utilizers per provider (panel size) metric is based on monthly administrative claims data from January 2018-December 2020 for all services.

²⁰ 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.

²¹ 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 2021-April 2022. 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.

- 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 indicated a potential access issue, the Department will work to identify other data sources that may be used to conduct additional research between the release of this analysis report and when we release the November recommendations report. 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 2022 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.
- Referring to research conducted last year for the Department's [Access Monitoring Review Plan](#).
- Reviewing relevant, regional results on Key Performance Indicators (KPIs), which are tracked as a part of Colorado Medicaid's delivery system, the Accountable Care Collaborative.
- Reviewing relevant, practice-level results on quality metrics, including Health Effectiveness Data and Information Set (HEDIS) and Consumer Assessment of Healthcare Providers & Systems (CAHPS) measures.
- Working with the Department's provider relations and customer service teams to understand if there is a documented pattern of provider and member concerns.
- Examining the Department's pending analysis of specialists enrolled in the Medicaid network who are not seeing an adequate number of Medicaid members; this recognizes that the number of enrolled Medicaid providers by specialty metric may be overrepresenting actual access availability to Medicaid patients.
- Seeking information from the State Health Care Workforce Work team to determine the general impact of health care workforce burnout, inflation, and health care workforce shortages to understand how Medicaid reimbursement rates might have to be adjusted due to these COVID-19 induced factors.
- Examining regional and statewide reports and studies published by other agencies, such as the Colorado Department of Public Health and Environment (CDPHE), local public health agencies, the Center for Improving Value in Health Care (CIVHC), and the Colorado Health Institute (CHI), including the Colorado Health Access Survey (CHAS).

Conclusion

In accordance with section 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. This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be

presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022. The conclusions of this analysis are summarized below.

The following service groupings were determined to have rates that were sufficient for member access and provider retention:

- Cognitive Capabilities Assessment at 127.2% of the benchmark.
- Respiratory services at 97.5% of the benchmark.
- Vaccines & Immunizations at 107.9% of the benchmark
- Vascular services at 121.2% of the benchmark.
- Laboratory & Pathology services at 93.7% of the benchmark.
- Injections & Miscellaneous J-Codes at 95.6% of the benchmark.

The following service groupings were determined to have rates that fell between 80%-91% of the benchmark, and based on the accompanying access metrics, the Department believes that ultimately rates may not be sufficient to ensure member access and provider retention going forward:

- Cardiology at 90.7% of the benchmark.²²
- Primary Care/Evaluation & Management (E&M) services at 84.0% of the benchmark.
- Radiology services at 90.6% of the benchmark.
- Women's health & family planning services at 83.4% of the benchmark.
- Other physician services at 83.7% of the benchmark.
- Physical and Occupational Therapy (PT/OT) services at 91.0% of the benchmark.

The following service groupings were determined to have rates below 80% of the benchmark, which may indicate that rates may be insufficient:

- Vision services at 57.4% of the benchmark
- Ear, nose, and throat (ENT) services at 76.4% of the benchmark.
- Gastroenterology services at 63.5% of the benchmark.
- Health education services at 62.4% of the benchmark.
- Ophthalmology services at 78.2% of the benchmark.
- Dialysis – Facility services at 78.5% of the benchmark.
- Dialysis – Professional services at 61.1% of the benchmark.
- Speech therapy services at 79.0% of the benchmark.

²² While reimbursement rates are set within the 80%-100% if the benchmark range noted in the Payment Philosophy Section of this report (page 14), the Department will be conducting further analysis before finalizing a conclusion.

Analyses conducted through the rate review process are inconclusive to determine if specialty drug rates at 72% of the benchmark were sufficient for member access and provider retention. However, based on thorough financial analysis outside of the rate review process, the Department has submitted a request to CMS to adjust this reimbursement to more closely align with the net invoice total.^{23, 24}

Limitations

Results from this report, emerging macro and micro environmental factors (i.e.: inflation, health care workforce burnout, health care workforce shortages, etc.) 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 nor the provider enrollment versus providers seeing Medicaid patients. In addition, data analyses use active providers, which includes any provider with at least one Colorado Medicaid paid claim in a given month between January 2020 -December 2020. The Department plans to create additional internal insight reports and 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 all together, 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.²⁵ 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 section [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

²³ The Department is will implement suggested rate changes for this category of service upon federal approval.

²⁴ These services are highly specialized and thus only administered by one provider in Colorado. The Department is currently working to increase reimbursement rates for this category of service to more closely align with the net invoice total, as provided by invoice data from providers.

²⁵ 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>.

interpreted, and the increasing need to align the rate 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.

While CY 2020 allowed for the most recent data that also had enough claims data run-out to depict the most accurate utilization and provider data for the base data used in the rate comparison and access to care analyses, the Department recognizes that data from CY 2020 will show the impact of the COVID-19 pandemic, including the stay-at-home order from March 26, 2020-May 1, 2020. However, CY 2019 data was not recent enough to represent valid utilization and provider claims data because the Rate Review Process has always been based on the most recently available data, typically within the last two calendar or fiscal years. As such, the Department considered this impact as part of drawing conclusions. The Department will also continue to monitor the impact of the COVID-19 pandemic to determine if there were any residual or long-lasting effects on member access and/or provider retention and if there are any opportunities for improving member access and provider retention to ensure a return to (or to exceed) pre-pandemic levels, including, but not limited, to rate changes, policy updates, and changes to service delivery options or reimbursement methodology.



Physician Services – Cardiology

Service Description

The cardiology service grouping is comprised of 181 procedure codes. Cardiology services involve diagnostic testing of and treatment of the heart and is available to all Health First Colorado members. Cardiology services were previously reviewed in the [2017 Medicaid Provider Rate Review Analysis Report](#).

Cardiology Statistics	
Total Adjusted Expenditures CY 2020 ²⁶	\$16,065,292
Total Members Utilizing Services in CY 2020	94,372
CY 2020 Over CY 2019 Change in Members Utilizing Services	(3.19%)
Total Active Providers CY 2020	4,366
CY 2020 Over CY 2019 Change in Active Providers	(4.13%)

Table 5. Cardiology expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for cardiology services are estimated at 90.7% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.²⁷

Cardiology Rate Benchmark Comparison ²⁸		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$16,065,292	\$17,716,140	90.7%

Table 6. Comparison of Colorado Medicaid cardiology service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$1,650,848 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 181 procedure codes analyzed in this service grouping, 177 were compared to Medicare, and four were compared to an average of two other states' Medicaid rates.²⁹ Individual rate ratios for cardiology services were 35.0%-358.1%.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for cardiology services increased by 1.82% from an average of 5.49 utilizers per provider in CY 2019 to 5.59 utilizers per provider in CY 2020. Additionally:

²⁶ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

²⁷ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

²⁸ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

²⁹ States used in the cardiology rate comparison analysis were Nevada and Oregon. For more details on cardiology rate comparisons, see Appendix B.

- In urban counties, average panel size increased from 6.74 in CY 2019 to 6.97 in CY 2020.
- In rural counties, average panel size decreased from 2.30 in CY 2019 to 2.26 in CY 2020.
- In frontier counties, average panel size decreased from 1.54 in CY 2019 to 1.49 in CY 2020.

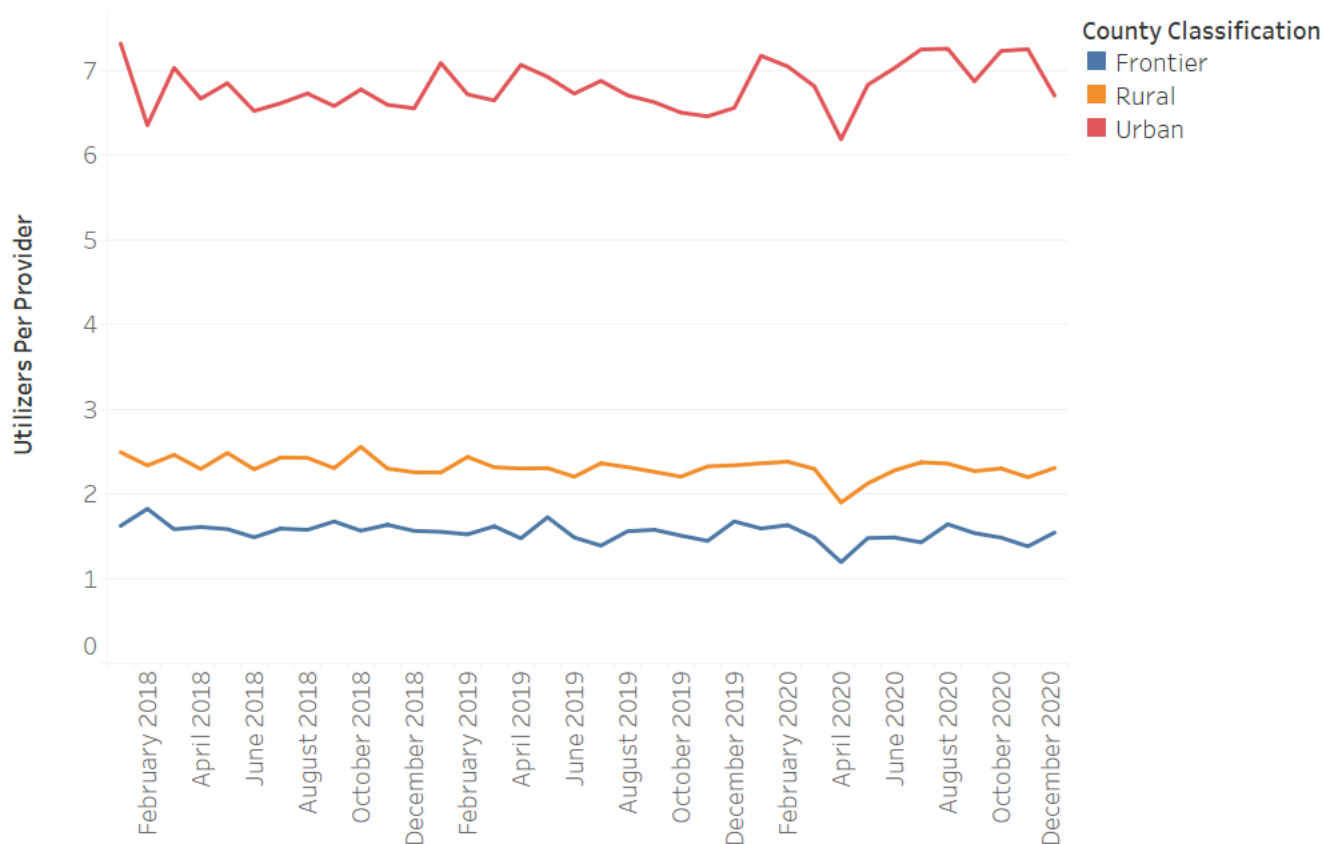


Figure 3. Utilizers per provider (panel size) for cardiology services between January 2018 and December 2020.

Analysis indicates that both the number of distinct utilizers and active providers remained relatively stable over this time across all county classifications.

The number of distinct utilizers and total active providers observed in all counties remained relatively steady, which led to consistent number of utilizers per provider from January 2018 to December 2020.³⁰

Additionally, there was a noticeable decrease in distinct utilizers and active providers in March 2020 and subsequent increase in May 2020 in all county classifications, attributed to the COVID-19 pandemic.³¹

³⁰ For data specific to distinct utilizers and active providers, see Appendix D.

³¹ See Appendix E for more information.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of cardiology services reside throughout the state. Utilizer density for cardiology services ranged from 32, in Sedgwick County, to 14,425 in El Paso County, in CY 2020.

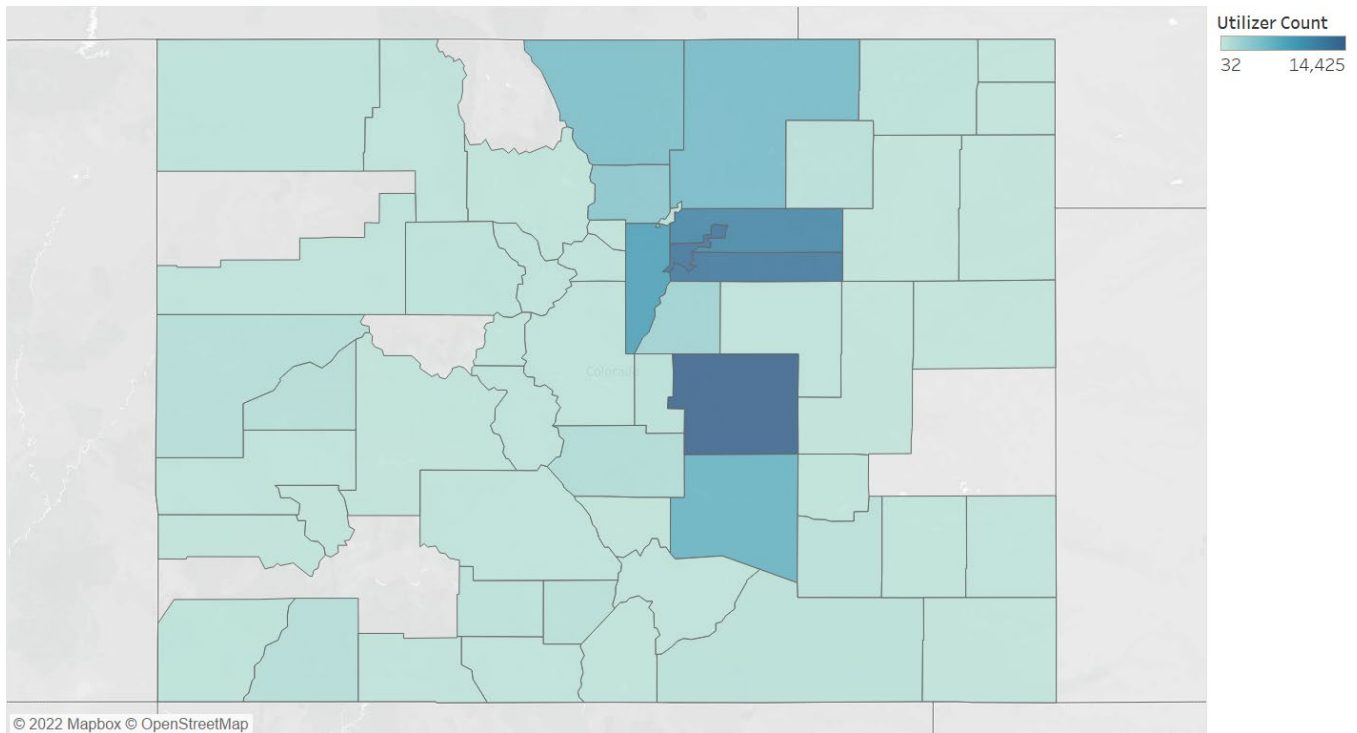


Figure 4. Utilizer density for cardiology services by county for CY 2020.³²

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

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

Additionally, nine counties³³ 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.

³² See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

³³ Due to software limitations, the nine counties blinded for PHI appear in the five grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

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. Penetration rates for cardiology services ranged from 13.95 in Montrose County, to 86.68 in Pueblo County, in CY 2020. Denver County had a penetration rate of 57.05 in CY 2020.

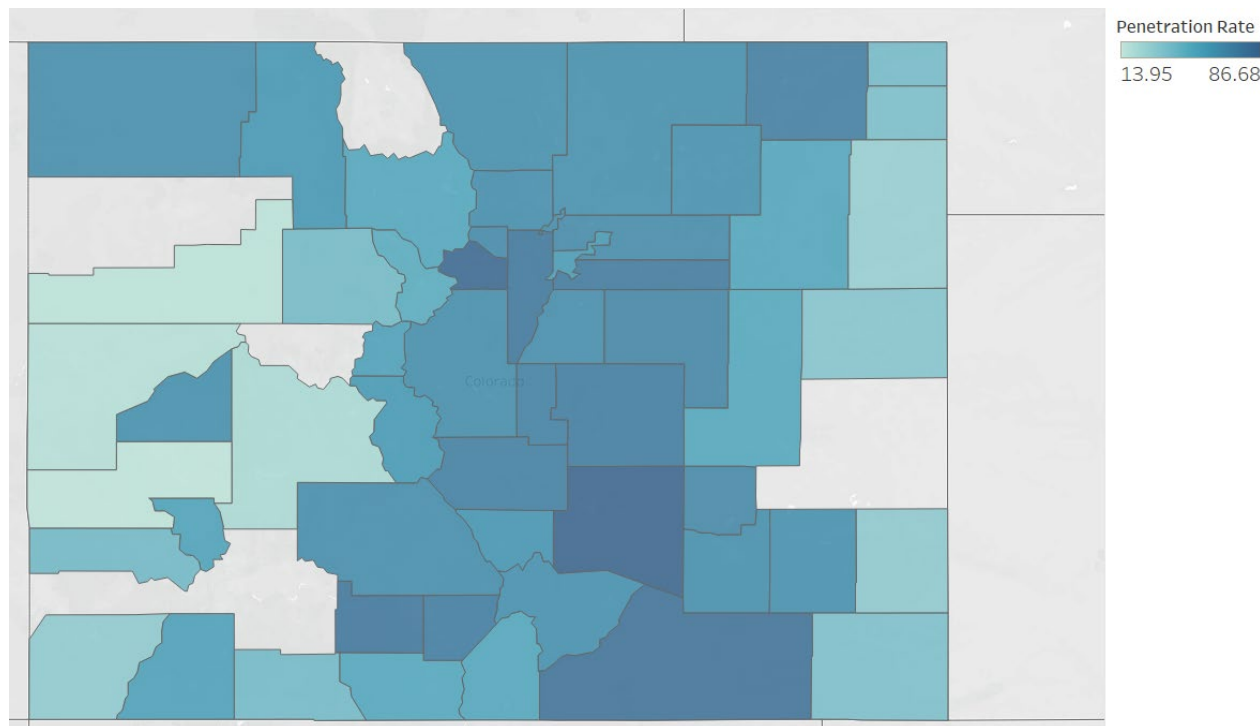


Figure 5. Penetration rates for cardiology services by county in CY 2020.

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

Additionally, nine counties³⁴ 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.

³⁴ Due to software limitations, the nine counties blinded for PHI appear in the five grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Member-to-Provider Ratios

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

Cardiology Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	712	40,376	17.63
Rural	1,226	154,309	7.95
Urban	3,945	1,187,570	3.32
Statewide	4,366	1,371,726	3.18

Table 7. Member-to-provider ratio for cardiology services expressed as providers per 1,000 members by county classification in CY 2019.³⁵

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 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.³⁶

³⁵ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

³⁶ Currently, the Department does not use member-to-provider ratio standards specific to cardiology 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 Colorado Medicaid members that live within certain drive time bands from where cardiology service providers are located.³⁷

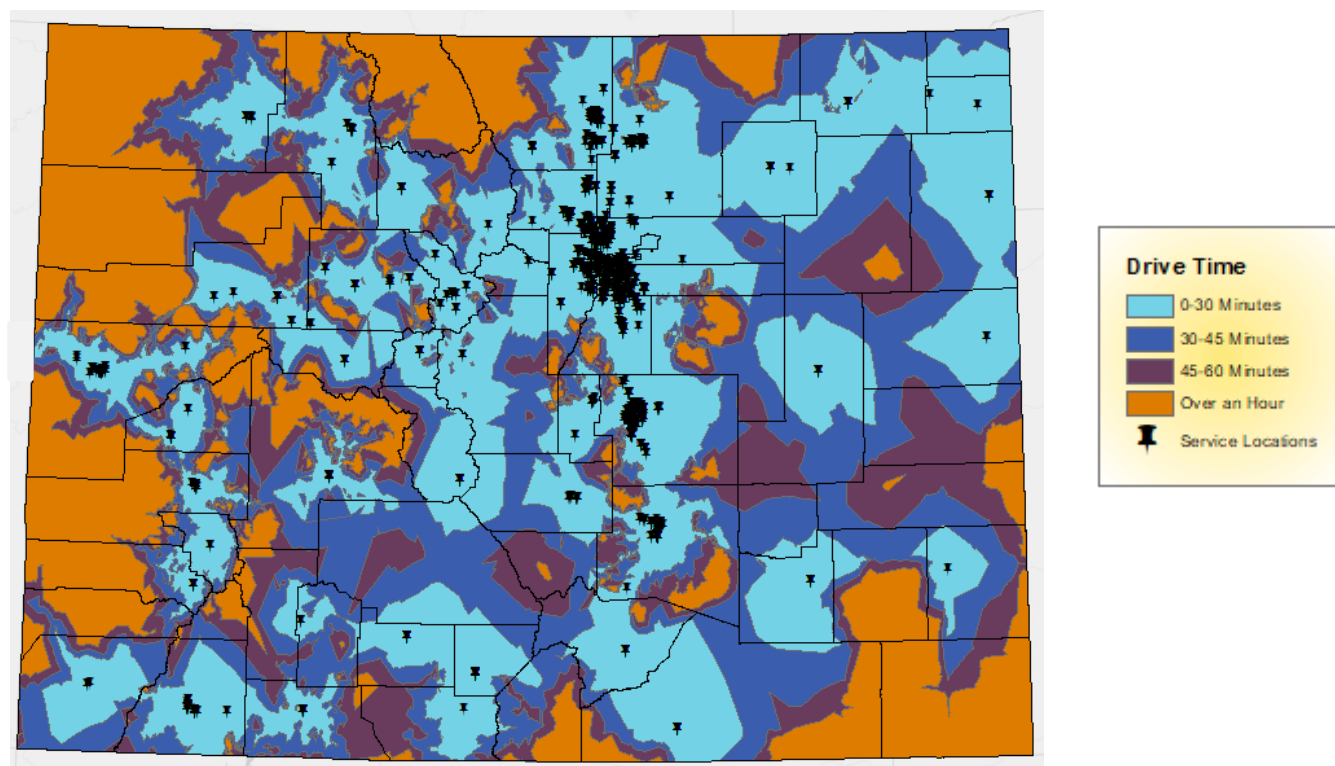


Figure 6. ArcGIS map of drive times of cardiology provider service locations to members in CY 2020.

Overall, 97.02% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a cardiology provider. Additionally, 1.58% of total members resided approximately 30-45 minutes from a cardiology provider; 0.85% of total members resided 45-60 minutes from a cardiology provider. Finally, 0.55% of total members resided over an hour from a cardiology provider.

³⁷ Due to claims data, service locations shown on the ArcGIS map may represent service delivery locations.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding cardiology services in the public meeting on March 25, 2022.³⁸

Additional Considerations

Other considerations include:

- Since cardiology services were reviewed in the [2017 Medicaid Provider Rate Review Analysis Report](#), there was an increase in total active Cardiology providers; in addition, total expenditures increased by approximately \$10 million, or 147.3%, since cardiology services were last reviewed, compared to a 4% increase in utilization.³⁹

Additional Research

The Department plans to determine the number of cardiologists who are enrolled in the Medicaid network but not seeing Medicaid patients (i.e.: zero or 1 visit). Given that no feedback was received from cardiologists during the March 25, 2022, stakeholder meeting, the Department plans to outreach to the cardiologists enrolled but not seeing Medicaid members to identify if the Medicaid reimbursement rates are a top contributing factor fueling this decision.

Conclusion

Total expenditures, distinct utilizers, and enrolled providers increased since cardiology services were previously reviewed, and over 97% of members live within 30 minutes of a cardiology provider; these factors indicate that rates may be sufficient for member access and provider retention. Given that active providers are defined as having one or more Medicaid patient visits during the analysis period, those providers may not provide adequate access to enough Medicaid members at the existing rates.

Rate benchmarking analyses have indicated that cardiology rates are at 90.7% of the benchmark.⁴⁰ The Department believes that ultimately rates may not be sufficient to ensure member access and provider retention going forward.⁴¹

While reimbursement rates are set within the 80%-100% if the benchmark range noted in the Payment Philosophy Section of this report,⁴² the Department will be conducting the analysis indicated above before finalizing a conclusion.

³⁸ See the [Rate Review Public Meetings web page](#) for meeting minutes and the meeting recording for the March 25, 2022 meeting.

³⁹ For more information, see the [2017 Medicaid Provider Rate Review Analysis Report](#).

⁴⁰ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.

⁴¹ See the Payment Philosophy section on page 14 for more information on historical Departmental standards for rate comparison data.

⁴² Rate comparison data by benchmark state for cardiology services can be found in Appendix B. See page 14 for more information on the Department's Payment Philosophy.

Physician Services – Cognitive Capabilities Assessment

Service Description

The cognitive capabilities assessment service grouping is comprised of 12 procedure codes. Cognitive capabilities assessment services involve types of depression screens, developmental testing, and screening and is available to all Health First Colorado members. Cognitive capabilities assessment services were previously reviewed in the [2017 Medicaid Provider Rate Review Analysis Report](#).

Cognitive Capabilities Assessment Statistics	
Total Adjusted Expenditures CY 2020 ⁴³	\$8,414,355
Total Members Utilizing Services in CY 2020	123,332
CY 2020 Over CY 2019 Change in Members Utilizing Services	1.27%
Total Active Providers CY 2020	2,154
CY 2020 Over CY 2019 Change in Active Providers	(1.87%)

Table 8. Cognitive capabilities assessment expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for cognitive capabilities assessment services are estimated at 127.2% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.⁴⁴

Cognitive Capabilities Assessment Rate Benchmark Comparison ⁴⁵		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$7,390,369	\$5,807,772	127.2%

Table 9. Comparison of Colorado Medicaid cognitive capabilities assessment service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$1,582,597 in savings if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 12 procedure codes analyzed in this service grouping, 11 were compared to Medicare, and one was compared to an average of six other states' Medicaid rates.⁴⁶ Individual rate ratios for cognitive capabilities assessment services were 69.0%-378.7%.

⁴³ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

⁴⁴ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

⁴⁵ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

⁴⁶ States used in the cognitive capabilities assessment rate comparison analysis were Arizona, Oklahoma, Nebraska, Utah, Nevada, and Oregon. For more details on cognitive capabilities assessment rate comparisons, see Appendix B.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for cognitive capabilities assessment services increased by 3.56% from an average of 10.67 utilizers per provider in CY 2019 to 11.05 utilizers per provider in CY 2020.

Additionally:

- In urban counties, average panel size increased from 12.19 in CY 2019 to 12.87 in CY 2020.
- In rural counties, average panel size decreased from 6.05 in CY 2019 to 5.68 in CY 2020.
- In frontier counties, average panel size increased from 1.70 in CY 2019 to 1.77 in CY 2020.

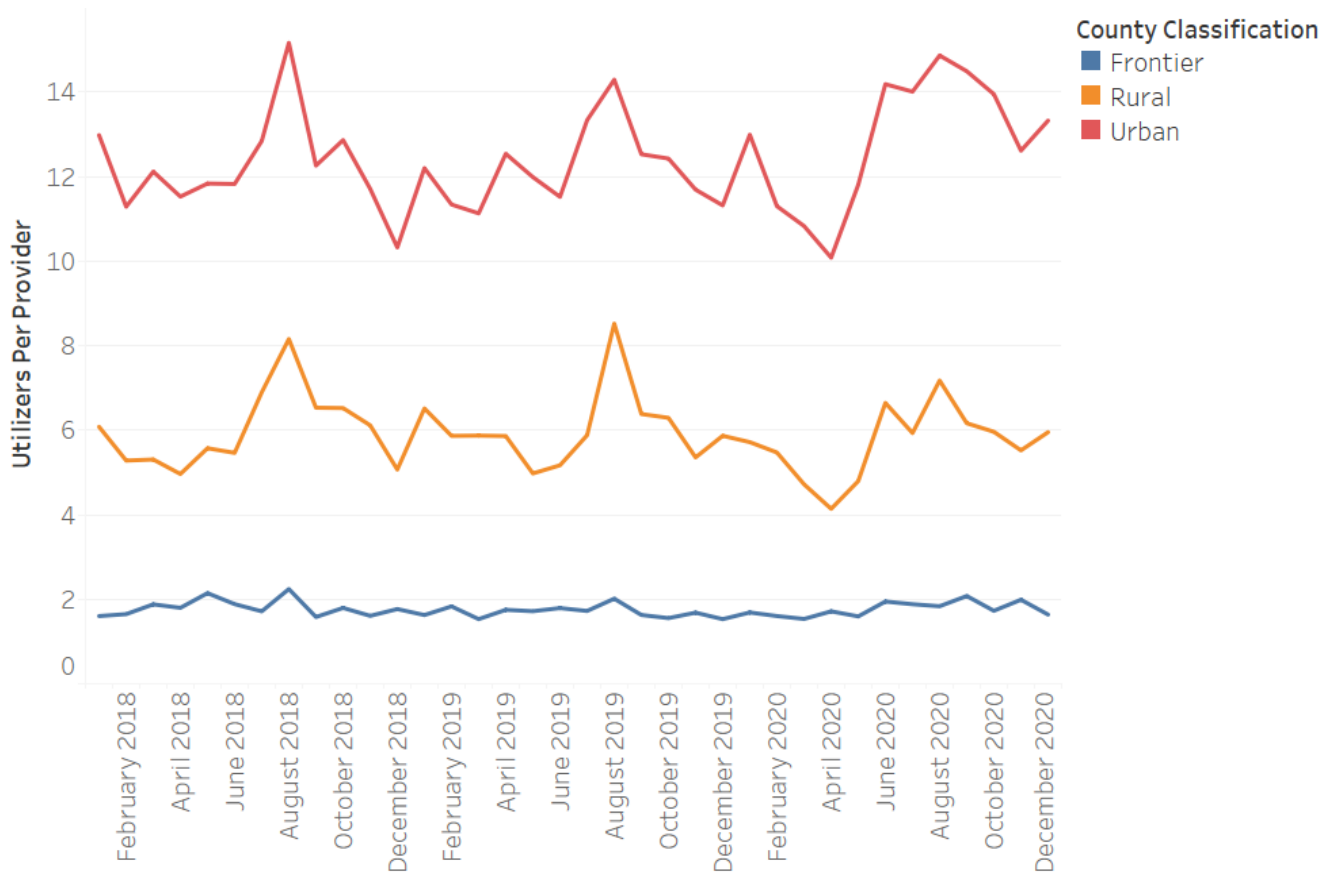


Figure 7. Utilizers per provider (panel size) for cognitive capabilities assessment services between January 2018 and December 2020.

Analysis indicates that both the number of distinct utilizers and active providers increased over time across all county classifications.

The number of distinct utilizers and total active providers observed in all counties increased at similar rates, which led to a relatively consistent number of utilizers per provider from January 2018 to December 2020.⁴⁷

⁴⁷ For data specific to distinct utilizers and active providers, see Appendix D.

Additionally, there was a noticeable change in distinct utilizers and active providers from March 2020 to May 2020 in all county classifications, attributed to the COVID-19 pandemic.⁴⁸

Utilizer Density

The utilizer density metric provides information regarding where utilizers of cognitive capabilities assessment services reside throughout the state. Utilizer density for cognitive capabilities assessment services ranged from 34, in Kit Carson County, to 21,456 in Arapahoe County, in CY 2020.

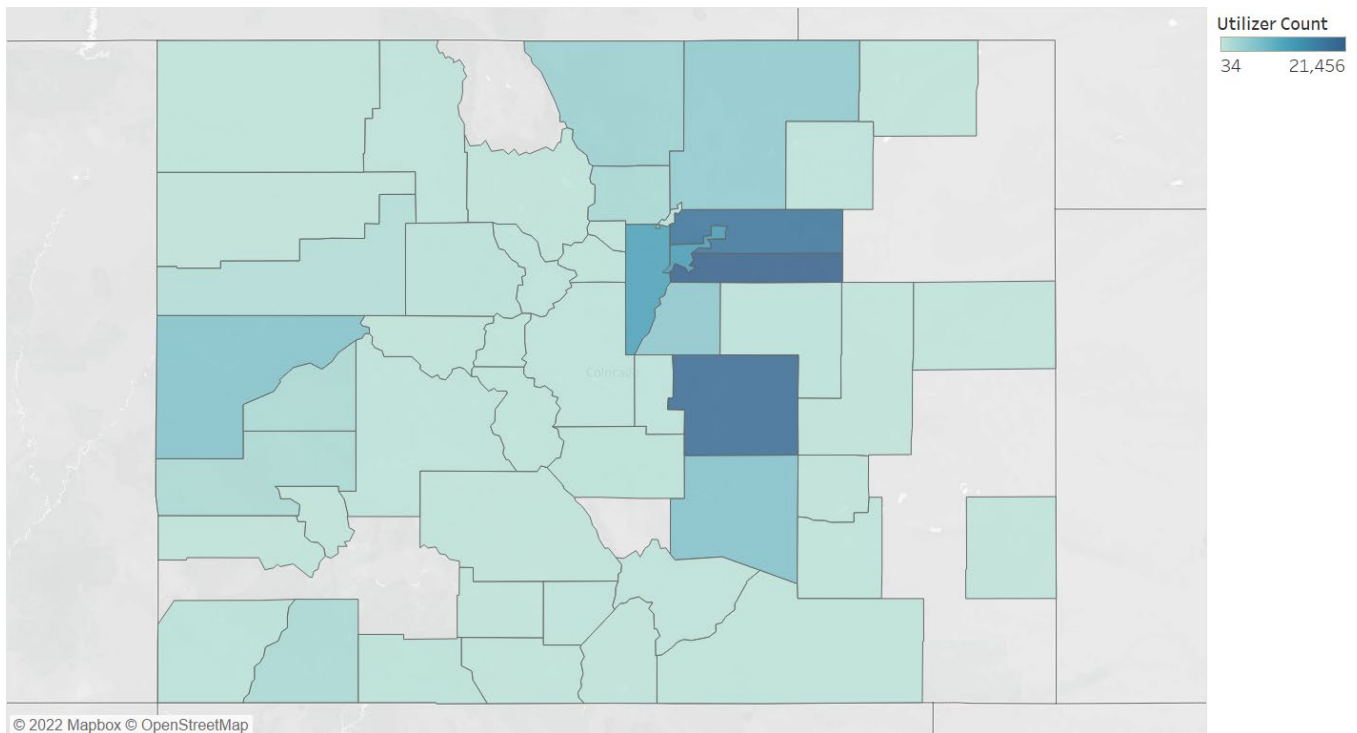


Figure 8. Utilizer density for cognitive capabilities assessment services by county for CY 2020.⁴⁹

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

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

Additionally, 14 counties⁵⁰ 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.

⁴⁸ See Appendix E for more information.

⁴⁹ See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

⁵⁰ Due to software limitations, the 14 counties blinded for PHI appear in the five grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Penetration Rate

The penetration rate estimates the share of total Colorado Medicaid members in a geographic area that received the service. Penetration rates for cognitive capabilities assessment services ranged from 9.80 in Prowers County, to 179.00 in Delta County, in CY 2020. Denver County had a penetration rate of 55.10 in CY 2020.

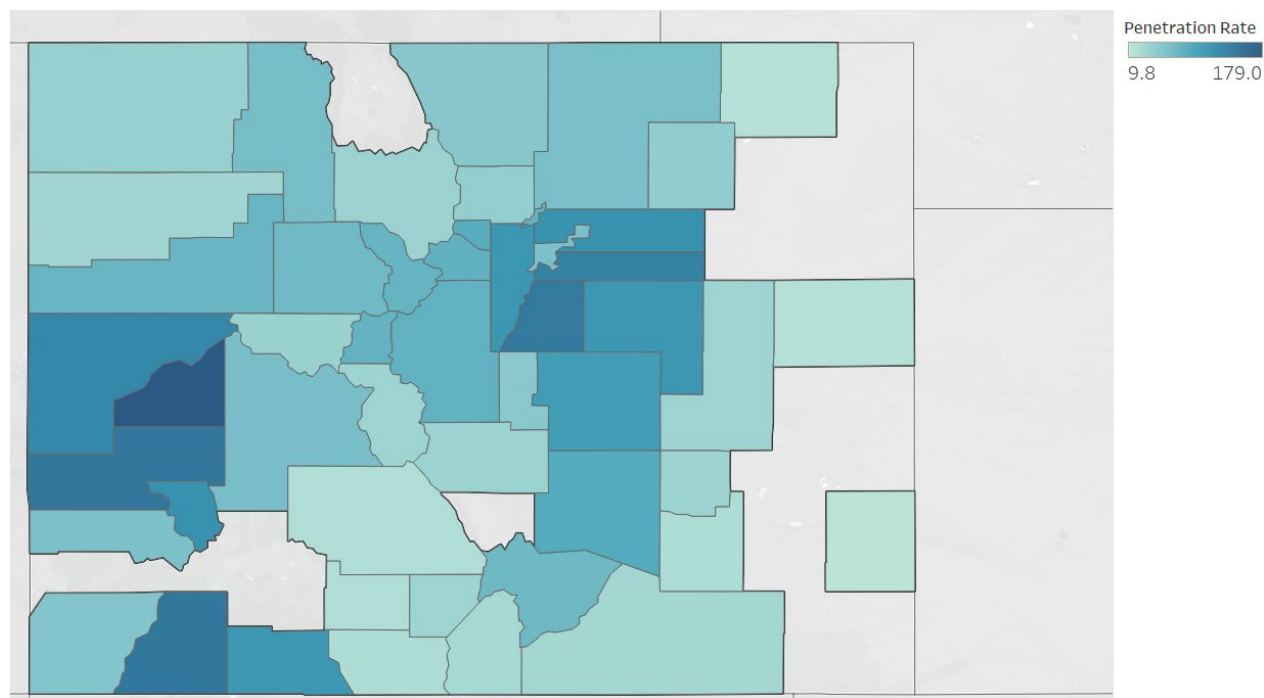


Figure 9. Penetration rates for cognitive capabilities assessment services by county in CY 2020.

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

Additionally, 14 counties⁵¹ 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.

⁵¹ Due to software limitations, the 14 counties blinded for PHI appear in the five grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Member-to-Provider Ratios

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

Cognitive Capabilities Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	358	40,376	8.87
Rural	674	154,309	4.37
Urban	2,015	1,187,570	1.70
Statewide	2,154	1,371,726	1.57

Table 10. Member-to-provider ratio for cognitive capabilities assessment services expressed as providers per 1,000 members by county classification in CY 2020.⁵²

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.⁵³

⁵² Some providers treat patients across several counties, accounting for the overlap in providers across regions.

⁵³ Currently, the Department does not use member-to-provider ratio standards specific to cognitive capabilities assessment 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 Colorado Medicaid members that live within certain drive time bands from where cognitive capabilities assessment service providers are located.⁵⁴

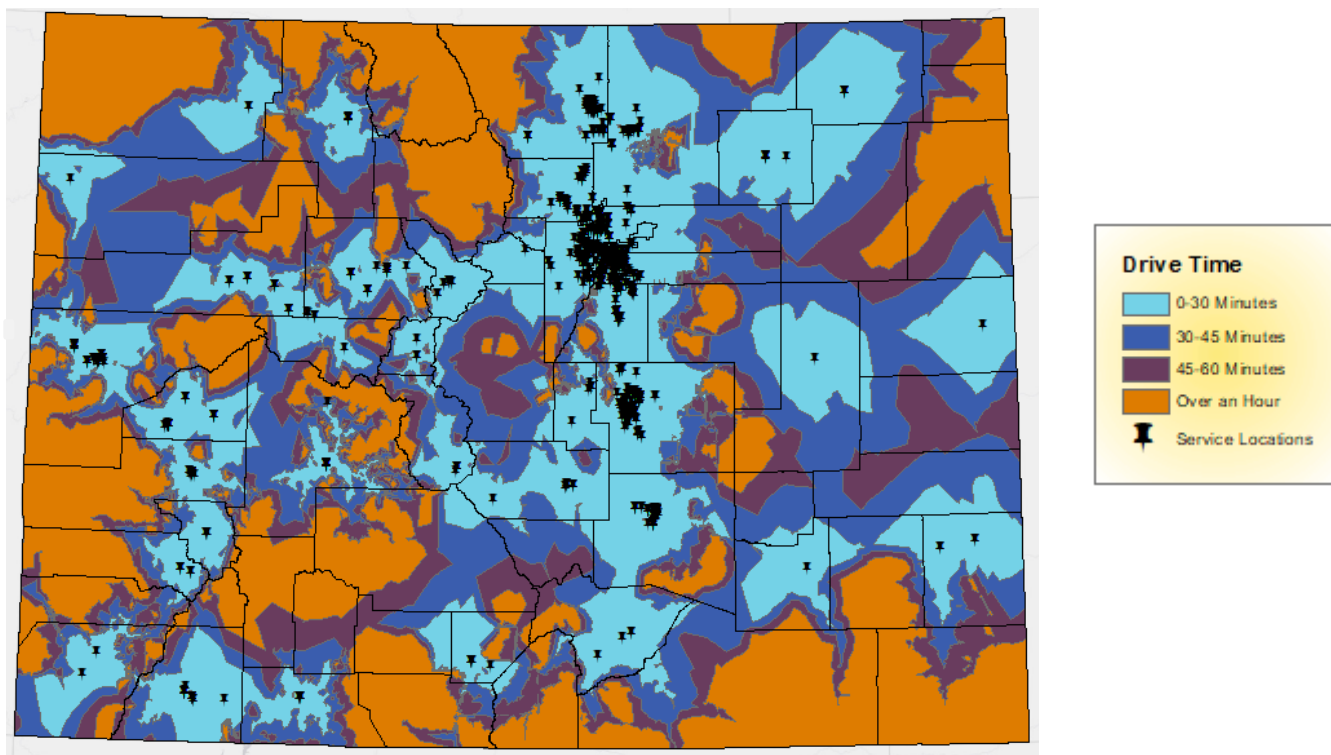


Figure 10. ArcGIS map of drive times of cognitive capabilities assessment provider service locations to members in CY 2020.

Overall, 95.66% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a cognitive capabilities assessment provider. Additionally, 2.31% of total members resided approximately 30-45 minutes from a cognitive capabilities assessment provider; 1.27% of total members resided 45-60 minutes from a cognitive capabilities assessment provider. Finally, 0.76% of total members resided over an hour from a cognitive capabilities assessment provider.

⁵⁴ Due to claims data, service locations shown on the ArcGIS map may represent service delivery locations.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding cognitive capabilities assessment services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- Since cognitive capabilities assessment services were reviewed in the [2017 Medicaid Provider Rate Review Analysis Report](#), both total members accessing cognitive capabilities assessment services and total active cognitive capabilities assessment providers increased. In addition, total expenditures increased by nearly \$5 million, an increase of 142.5%, compared to a 35.0% increase in distinct utilizers.⁵⁵

Additional Research

The Department plans to look at the utilization in counties that have a low penetration rate in both the 2017 and 2022 Medicaid Provider Rate Review Analysis Reports to identify if there is a persisting access to care issue or whether it is due to a lower need for Medicaid cognitive capabilities assessment services in those areas.⁵⁶

Conclusion

Analyses suggest that cognitive capabilities assessment rates at 127.2% of the benchmark were sufficient for member access and provider retention.⁵⁷

The primary factors that led to this conclusion included:

- Increase in total expenditures, distinct utilizers, and active providers since the previous review.
- Over 95% of members live within 30 minutes of a cognitive capabilities assessment provider.
- Reimbursement rates are set significantly above those of Medicare and six other states' Medicaid rates in the rate comparison analysis.⁵⁸

⁵⁵ For more information, see the [2017 Medicaid Provider Rate Review Analysis Report](#).

⁵⁶ Counties to review include Phillips, Sedgwick, Washington, Yuma, Baca, Bent, and Kiowa.

⁵⁷ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.

⁵⁸ Rate comparison data by benchmark state for cognitive capabilities assessment services can be found in Appendix B.

Physician Services – Ear, Nose, and Throat (ENT)

Service Description

The Ear, Nose, and Throat (ENT) service grouping is comprised of 60 procedure codes. ENT services involve treatment of the ear, nose, and throat, and generally involve hearing tests and hearing device fitting and are available to all Health First Colorado members. ENT services were previously reviewed in the [2017 Medicaid Provider Rate Review Analysis Report](#).

ENT Statistics	
Total Adjusted Expenditures CY 2020 ⁵⁹	\$1,327,668
Total Members Utilizing Services in CY 2020	43,458
CY 2020 Over CY 2019 Change in Members Utilizing Services	(4.45%)
Total Active Providers CY 2020	1,550
CY 2020 Over CY 2019 Change in Active Providers	2.31%

Table 11. ENT expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for ENT services are estimated at 76.4% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.⁶⁰

ENT Rate Benchmark Comparison ⁶¹		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$1,327,668	\$1,738,151	76.4%

Table 12. Comparison of Colorado Medicaid ENT service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$410,483 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 51 procedure codes analyzed in this service grouping, 46 were compared to Medicare, and five were compared to an average of three other states' Medicaid rates.⁶² Individual rate ratios for ENT services were 5.4%-835.4%.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for ENT services decreased by 5.29% from an average of 8.13 utilizers per provider in CY 2019 to 7.70 utilizers per provider in CY 2020. Additionally:

⁵⁹ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

⁶⁰ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

⁶¹ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

⁶² States used in the ENT rate comparison analysis were Arizona, Oklahoma, and Oregon. For more details on ENT rate comparisons, see Appendix B.

- In urban counties, average panel size decreased from 9.10 in CY 2019 to 8.67 in CY 2020.
- In rural counties, average panel size decreased from 4.27 in CY 2019 to 3.60 in CY 2020.
- In frontier counties, average panel size decreased from 2.46 in CY 2019 to 2.11 in CY 2020.

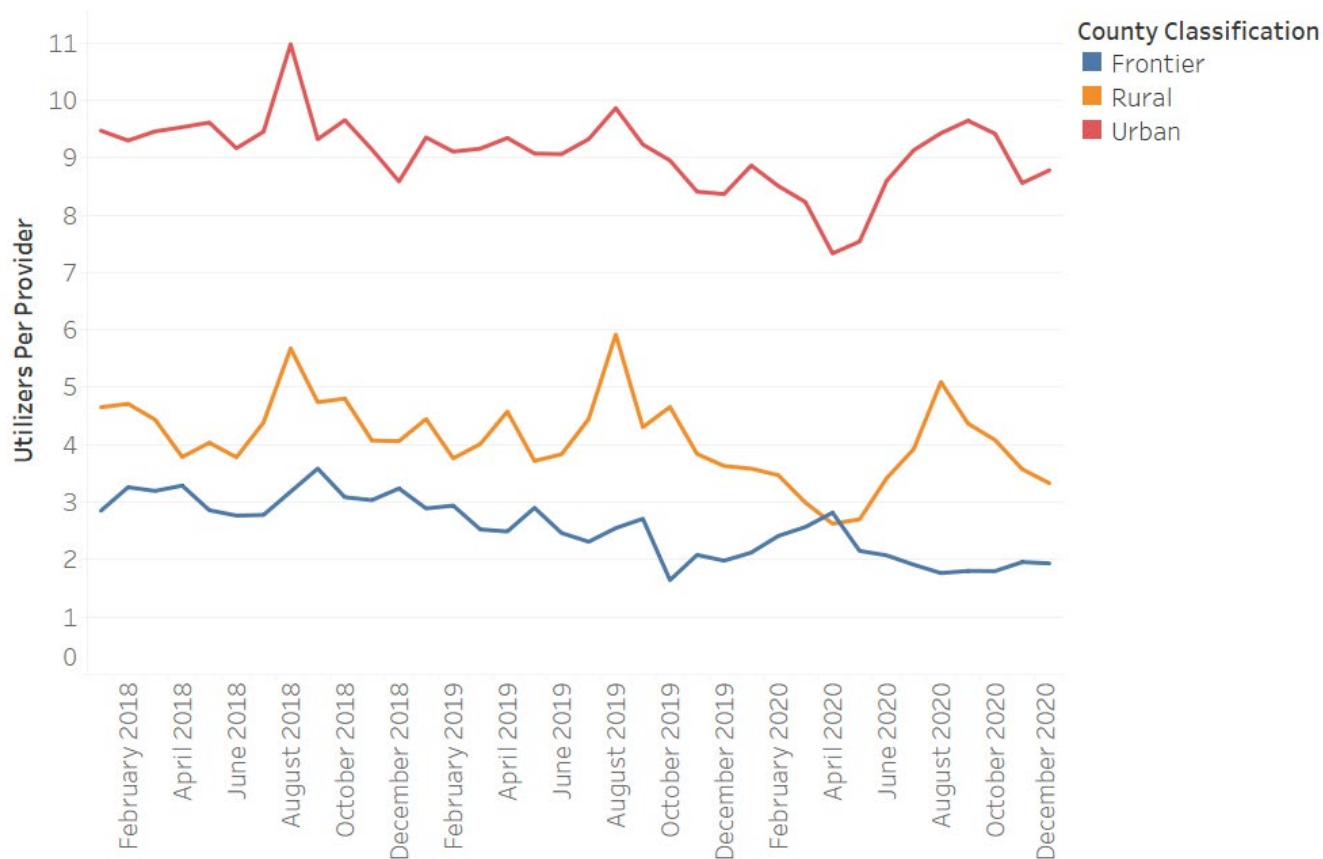


Figure 11. Utilizers per provider (panel size) for ENT services between January 2018 and December 2020.

Despite seasonal patterns of utilization, the total number of distinct utilizers remained relatively stable over time in all county classifications.

The number of total active providers observed in urban and rural county classifications was increasing over time, and there was an overall decrease in distinct utilizers in frontier counties over time, which led to an overall decrease in the number of utilizers per provider in all county classifications from January 2018 to December 2020.⁶³

There was a noticeable change in urban and rural counties from June 2018 to October 2019, as well as June 2019 to September 2019 that can be attributed to seasonal patterns of service utilization.⁶⁴ There was a significant change in urban counties from August 2019 to May 2020, which can be attributed to seasonal patterns, in addition to the COVID-19 pandemic.⁶⁵

⁶³ For data specific to distinct utilizers and active providers, see Appendix D.

⁶⁴ For ENT services, seasonal allergies can increase utilization in summer months.

⁶⁵ See Appendix E for more information.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of ENT services reside throughout the state. Utilizer density for ENT services ranged from 31, in Crowley County, to 7,383 in Arapahoe County, in CY 2020.

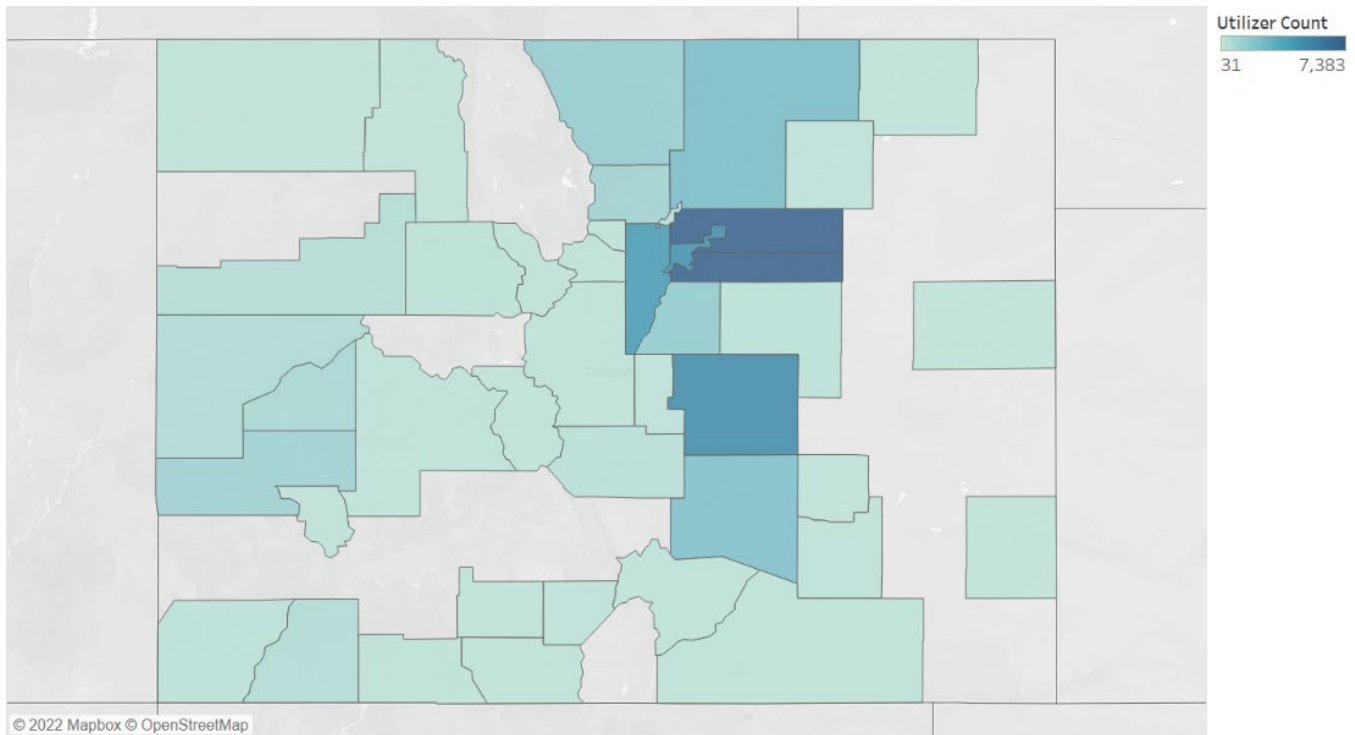


Figure 12. Utilizer density for ENT services by county for CY 2020.⁶⁶

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

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

Additionally, 21 counties⁶⁷ 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.

⁶⁶ See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

⁶⁷ Due to software limitations, the 21 counties blinded for PHI appear in the six grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Penetration Rate

The penetration rate estimates the share of total Colorado Medicaid members in a geographic area that received the service. Penetration rates for ENT services ranged from 9.06 in Routt County, to 83.25 in Montrose County, in CY 2020. Denver County had a penetration rate of 21.41 in CY 2020.

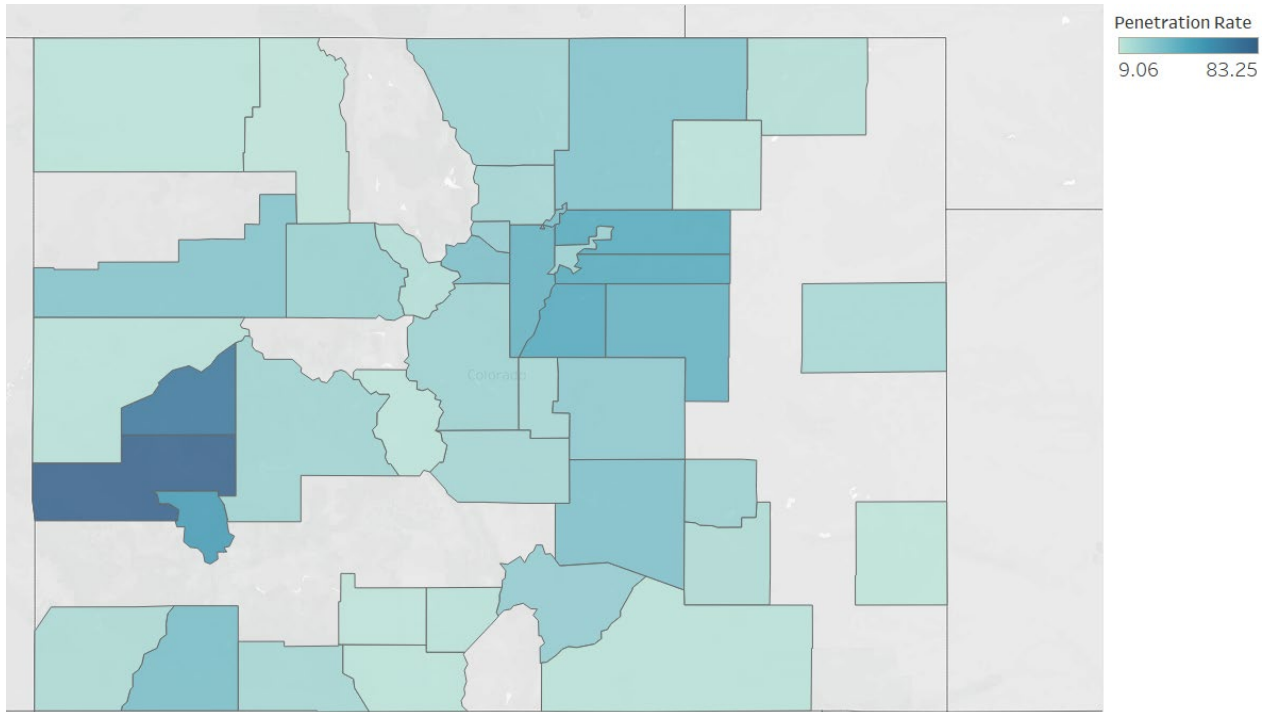


Figure 13. Penetration rates for ENT services by county in CY 2020.

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

Additionally, 21 counties⁶⁸ 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 Due to software limitations, the 21 counties blinded for PHI appear in the six grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Member-to-Provider Ratios

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

ENT Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	191	40,376	4.73
Rural	381	154,309	2.47
Urban	1,447	1,187,570	1.22
Statewide	1,550	1,371,726	1.13

Table 13. Member-to-provider ratio for ENT services expressed as providers per 1,000 members by county classification in CY 2020.⁶⁹

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.⁷⁰

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

⁷⁰ Currently, the Department does not use member-to-provider ratio standards specific to ENT 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 Colorado Medicaid members that live within certain drive time bands from where ENT service providers are located.⁷¹

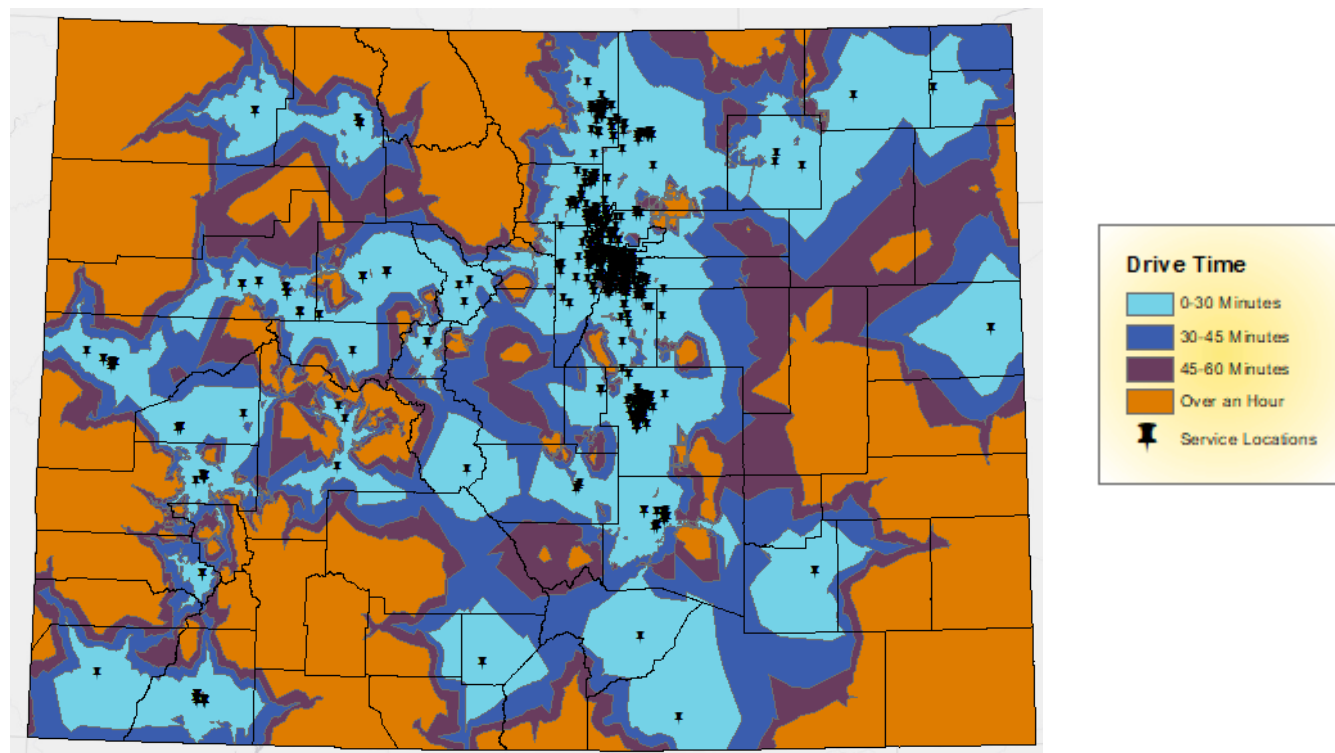


Figure 14. ArcGIS map of drive times of ENT provider service locations to members in CY 2020.

Overall, 94.81% of total Health First Colorado members in CY 2020 resided 30 minutes or less from an ENT provider. Additionally, 2.57% of total members resided approximately 30-45 minutes from an ENT provider; 1.24% of total members resided 45-60 minutes from an ENT provider. Finally, 1.39% of total members resided over an hour from an ENT provider.

⁷¹ Due to claims data, service locations shown on the ArcGIS map may represent service delivery locations.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding ENT services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- Since ENT services were reviewed in the [2017 Medicaid Provider Rate Review Analysis Report](#), both total members accessing ENT services and total active ENT providers increased. In addition, total expenditures increased by over \$375,000, or 39.5%, compared to a 12.14% increase in distinct utilizers.⁷²

Additional Research

The Department plans to look at the utilization in counties that have a low penetration rate and/or long drive time in both the 2017 and 2022 Medicaid Provider Rate Review Analysis Reports to identify if there is a persisting access to care issue or whether it is due to a lower need for Medicaid ENT services in those areas.⁷³ The Department also plans to determine the number of ENT providers who are enrolled in the Medicaid network but not seeing Medicaid patients (i.e.: zero or 1 visit). Given that no feedback was received from cardiologists during the March 25, 2022 stakeholder meeting, the Department plans to outreach to the ENT providers enrolled but not seeing Medicaid members to identify if the Medicaid reimbursement rates are a top contributing factor fueling this decision.

Conclusion

Total expenditures, distinct utilizers, and active providers increased since ENT was previously reviewed, and nearly 95% of members live within 30 minutes of an active ENT provider, these factors indicate that rates may be sufficient for member access and provider retention.⁷⁴ Given that active providers are defined as having one or more Medicaid patient visits during the analysis period, those providers may not provide adequate access to enough Medicaid members at the existing rates.

Rate benchmarking analyses have indicated that ENT rates are at 76.4% of the benchmark.⁷⁵ Given that ENT rates are below 80% of the benchmark, the Department believes that ultimately rates may not be sufficient to ensure member access and provider retention going forward.⁷⁶

⁷² For more information, see the [2017 Medicaid Provider Rate Review Analysis Report](#).

⁷³ Counties to review include Baca, Prowers, Kiowa, and Bent counties.

⁷⁴ The Department recognizes that, while rates may be sufficient, there may be other opportunities to improve access to care and provider retention.

⁷⁵ Rate comparison data by benchmark state for ENT services can be found in Appendix B.

⁷⁶ See the Payment Philosophy section on page 14 for more information on historical Departmental standards for rate comparison data.

Physician Services – Gastroenterology

Service Description

The gastroenterology service grouping is comprised of 19 procedure codes. Gastroenterology services involve diagnosing and treating conditions and diseases of the digestive system and are available to all Health First Colorado members. Gastroenterology services were previously reviewed in the [2017 Medicaid Provider Rate Review Analysis Report](#).

Gastroenterology Statistics	
Total Adjusted Expenditures CY 2020 ⁷⁷	\$162,160
Total Members Utilizing Services in CY 2020	1,696
CY 2020 Over CY 2019 Change in Members Utilizing Services	9.42%
Total Active Providers CY 2020	162
CY 2020 Over CY 2019 Change in Active Providers	(5.81%)

Table 14. Gastroenterology expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for gastroenterology services are estimated at 63.5% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.⁷⁸

Gastroenterology Rate Benchmark Comparison ⁷⁹		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$162,160	\$255,495	63.5%

Table 15. Comparison of Colorado Medicaid gastroenterology service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$93,335 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. All 19 procedure codes analyzed in this service grouping were compared to Medicare. Individual rate ratios for gastroenterology services were 20.6%-107.9%.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for gastroenterology services increased by 4.90% from an average of 2.04 utilizers per provider in CY 2019 to 2.14 utilizers per provider in CY 2020. Additionally:

- In urban counties, average panel size increased from 2.15 in CY 2019 to 2.31 in CY 2020.

⁷⁷ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

⁷⁸ Detailed information regarding the gastroenterology services rate comparison analysis methodology is contained in Appendix B.

⁷⁹ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

- In rural counties, average panel size increased from 1.53 in CY 2019 to 1.58 in CY 2020.
- In frontier counties, average panel size slightly decreased from 1.02 in CY 2019 to 1.01 in CY 2020.

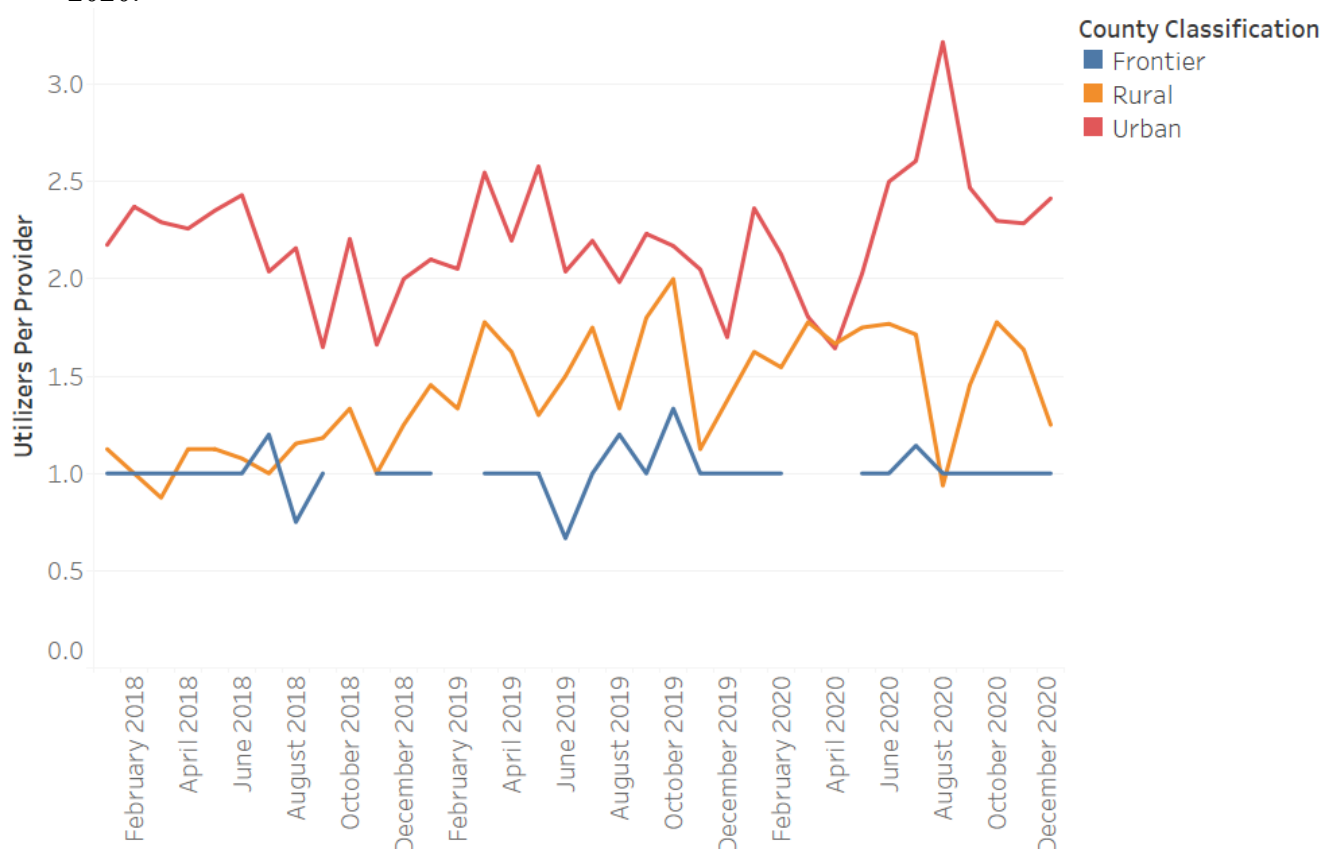


Figure 15. Utilizers per provider (panel size) for gastroenterology services between January 2018 and December 2020.⁸⁰

Analysis indicates that both the number of distinct utilizers and active providers increased over this time in urban and rural county classifications.⁸¹

The number of distinct utilizers observed in urban and rural counties increased at a higher rate than active providers, which led to a slight increase in distinct utilizers per provider in those counties from January 2018 to December 2020. Panel size remained relatively stable over time in frontier counties.

Additionally, there was a noticeable decrease in distinct utilizers and active providers in March 2020 and subsequent increase in May 2020 in urban counties, attributed to the COVID-19 pandemic.⁸²

⁸⁰ Some data has been blinded for PHI.

⁸¹ For data specific to distinct utilizers and active providers, see Appendix D.

⁸² See Appendix E for more information.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of gastroenterology services reside throughout the state. Utilizer density for gastroenterology services ranged from 32, in Boulder County, to 332 in El Paso County, in CY 2020.

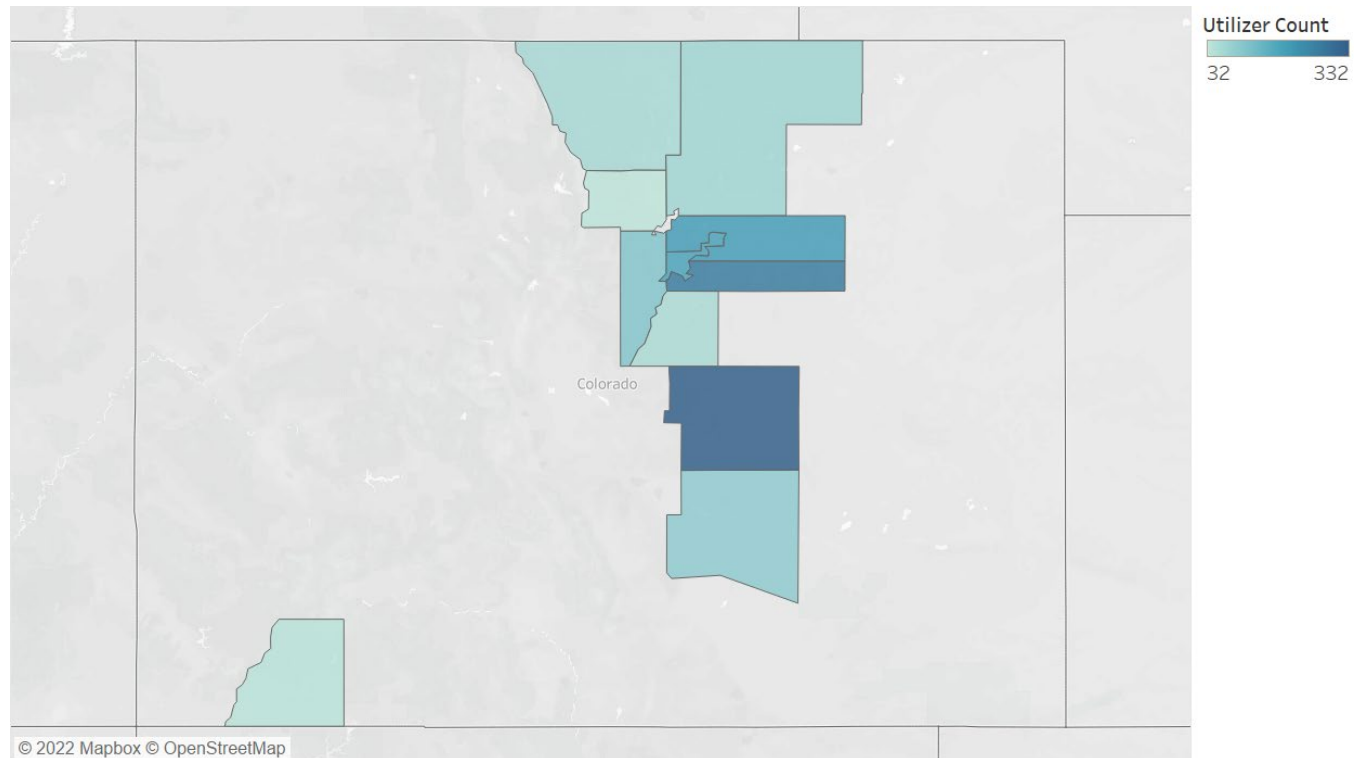


Figure 16. Utilizer density for gastroenterology services by county for CY 2020.⁸³

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

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

Additionally, 42 counties⁸⁴ 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.

⁸³ See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

⁸⁴ Due to software limitations, the 42 counties blinded for PHI appear in the grey area shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Penetration Rate

The penetration rate estimates the share of total Colorado Medicaid members in a geographic area that received the service. Penetration rates for gastroenterology services ranged from 0.56 in Boulder County, to 2.59 in La Plata County, in CY 2020. Denver County had a penetration rate of 0.83 in CY 2020.

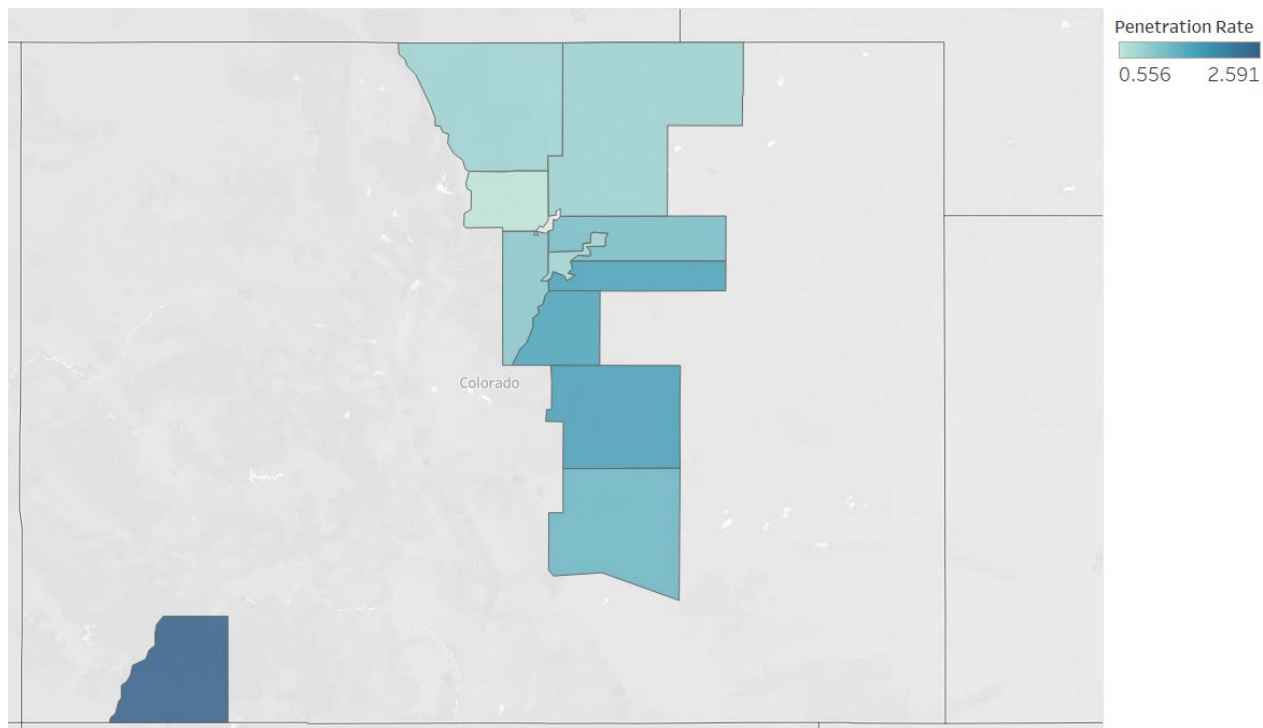


Figure 17. Penetration rates for gastroenterology services by county in CY 2020.

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

Additionally, 42 counties⁸⁵ 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.

⁸⁵ Due to software limitations, the 42 counties blinded for PHI appear in the grey area shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Member-to-Provider Ratios

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

Gastroenterology Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	27	40,376	0.67
Rural	58	154,309	0.38
Urban	153	1,187,570	0.13
Statewide	162	1,371,726	0.12

Table 16. Member-to-provider ratio for gastroenterology services expressed as providers per 1,000 members by county classification in CY 2020.⁸⁶

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.⁸⁷

⁸⁶ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

⁸⁷ Currently, the Department does not use member-to-provider ratio standards specific to gastroenterology 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 Colorado Medicaid members that live within certain drive time bands from where gastroenterology service providers are located.⁸⁸

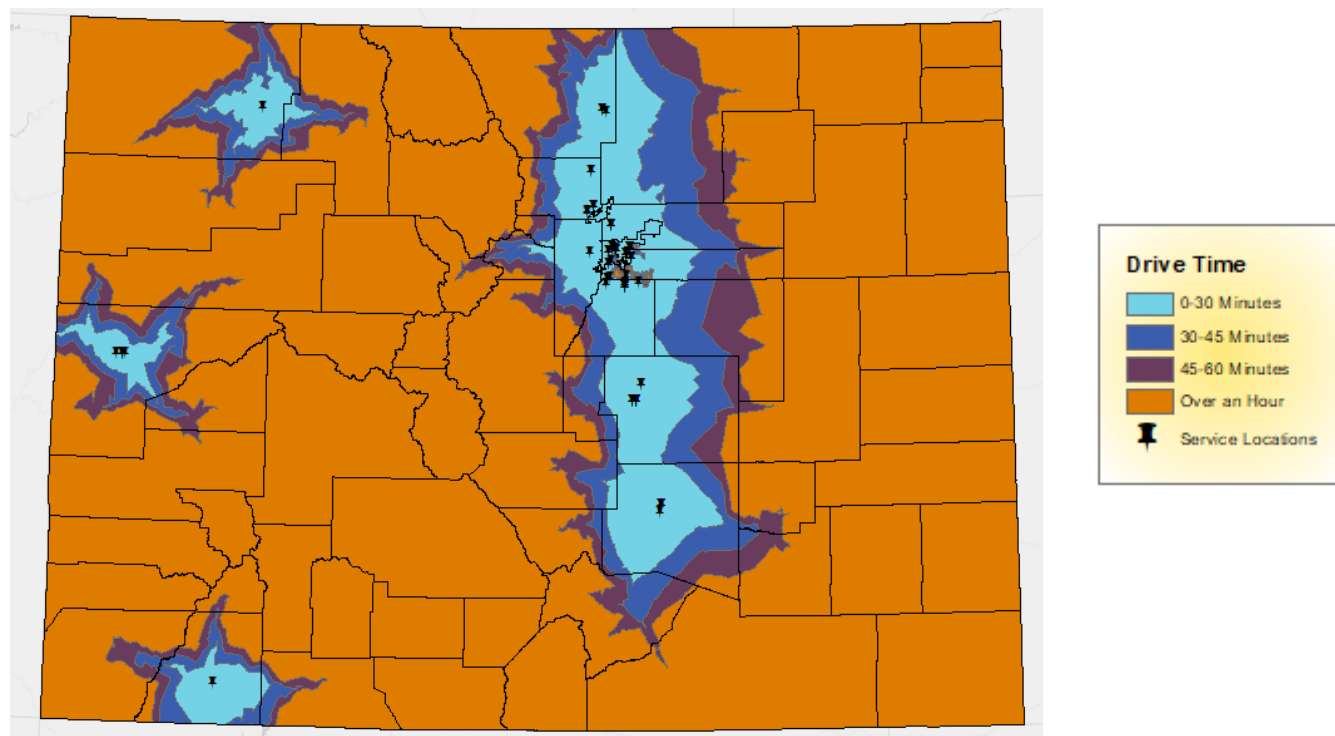


Figure 18. ArcGIS map of drive times of gastroenterology provider service locations to members in CY 2020.

Overall, 83.01% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a gastroenterology provider. Additionally, 3.79% of total members resided approximately 30-45 minutes from a gastroenterology provider; 3.38% of total members resided 45-60 minutes from a gastroenterology provider. Finally, 9.82% of total members resided over an hour from a gastroenterology provider.

⁸⁸ Due to claims data, service locations shown on the ArcGIS map may represent service delivery locations.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding gastroenterology services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- Since gastroenterology services were reviewed in the [2017 Medicaid Provider Rate Review Analysis Report](#), both total members accessing gastroenterology services and total active gastroenterology providers increased. In addition, total expenditures increased by approximately \$35,000, or 30.0%, compared to a 1,094.4% increase in distinct utilizers.⁸⁹

Additional Research

The Department plans to look at the utilization in counties that have a low penetration rate in both the 2017 and 2022 Medicaid Provider Rate Review Analysis Reports to identify if there is a persisting access to care issue or whether it is due to a lower need for Medicaid gastroenterology services in those areas.⁹⁰ The Department also plans to determine the number of gastroenterologist providers who are enrolled in the Medicaid network but not seeing Medicaid patients (i.e.: zero or 1 visit). Given that no feedback was received from cardiologists during the March 25, 2022 stakeholder meeting, the Department plans to outreach to these providers enrolled but not seeing Medicaid members to identify if the Medicaid reimbursement rates are a top contributing factor fueling this decision.

Conclusion

Total expenditures, distinct utilizers, and active providers increased since gastroenterology was previously reviewed; these factors indicate that rates may be sufficient for member access and provider retention.⁹¹ Given that active providers are defined as having one or more Medicaid patient visits during the analysis period, those providers may not provide adequate access to enough Medicaid members at the existing rates.

Rate benchmarking analyses have indicated that gastroenterology rates are at 63.5% of the benchmark. Given that gastroenterology⁹² are below 80% of the benchmark, the Department believes that ultimately rates may not be sufficient to ensure member access and provider retention going forward.⁹³⁹⁴

⁸⁹ For more information, see the [2017 Medicaid Provider Rate Review Analysis Report](#).

⁹⁰ Counties to review include Dolores, Delta, Gunnison, Hinsdale, Ouray, Montrose, and San Miguel.

⁹¹ The Department recognizes that, while rates may be sufficient, there may be other opportunities to improve access to care and provider retention.

⁹³ See the Payment Philosophy section on page 14 for more information on historical Departmental standards for rate comparison data.

⁹⁴ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.

However, the Department will be conducting the outreach identified above regarding enrolled providers not seeing Medicaid members and will also utilize the learnings from the state's Workforce Workteam to determine how this initial inconclusive finding might change given workforce shortages, inflation, workforce burnout and the 63.5% metric against benchmark.

Physician Services – Health Education

Service Description

The health education service grouping is comprised of nine procedure codes. Health education services refers to services designed to improve health literacy, including improving knowledge and developing life skills which are conducive to individual and/or community health and are available to all Health First Colorado members. Health education services were previously reviewed in the [2018 Medicaid Provider Rate Review Analysis Report](#), under the Primary Care/E&M category of Physician Services.

Health Education Statistics	
Total Adjusted Expenditures CY 2020 ⁹⁵	\$688,008
Total Members Utilizing Services in CY 2020	3,486
CY 2020 Over CY 2019 Change in Members Utilizing Services	(9.81%)
Total Active Providers CY 2020	537
CY 2020 Over CY 2019 Change in Active Providers	2.09%

Table 17. Health education expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for health education services are estimated at 62.4% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.⁹⁶

Health Education Rate Benchmark Comparison ⁹⁷		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$687,240	\$1,102,081	62.4%

Table 18. Comparison of Colorado Medicaid health education service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$414,842 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 9 procedure codes analyzed in this service

⁹⁵ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

⁹⁶ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

⁹⁷ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

grouping, two were compared to Medicare, and seven were compared to an average of five other states' Medicaid rates.⁹⁸ Individual rate ratios for health education services were 51.3%-1,058.2%.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for health education services decreased by 17.56% from an average of 3.93 utilizers per provider in CY 2019 to 3.24 utilizers per provider in CY 2020. Additionally:

- In urban counties, average panel size decreased from 4.14 in CY 2019 to 3.41 in CY 2020.
- In rural counties, average panel size decreased from 1.96 in CY 2019 to 1.65 in CY 2020.
- In frontier counties, average panel size increased from 1.05 in CY 2019 to 1.46 in CY 2020.

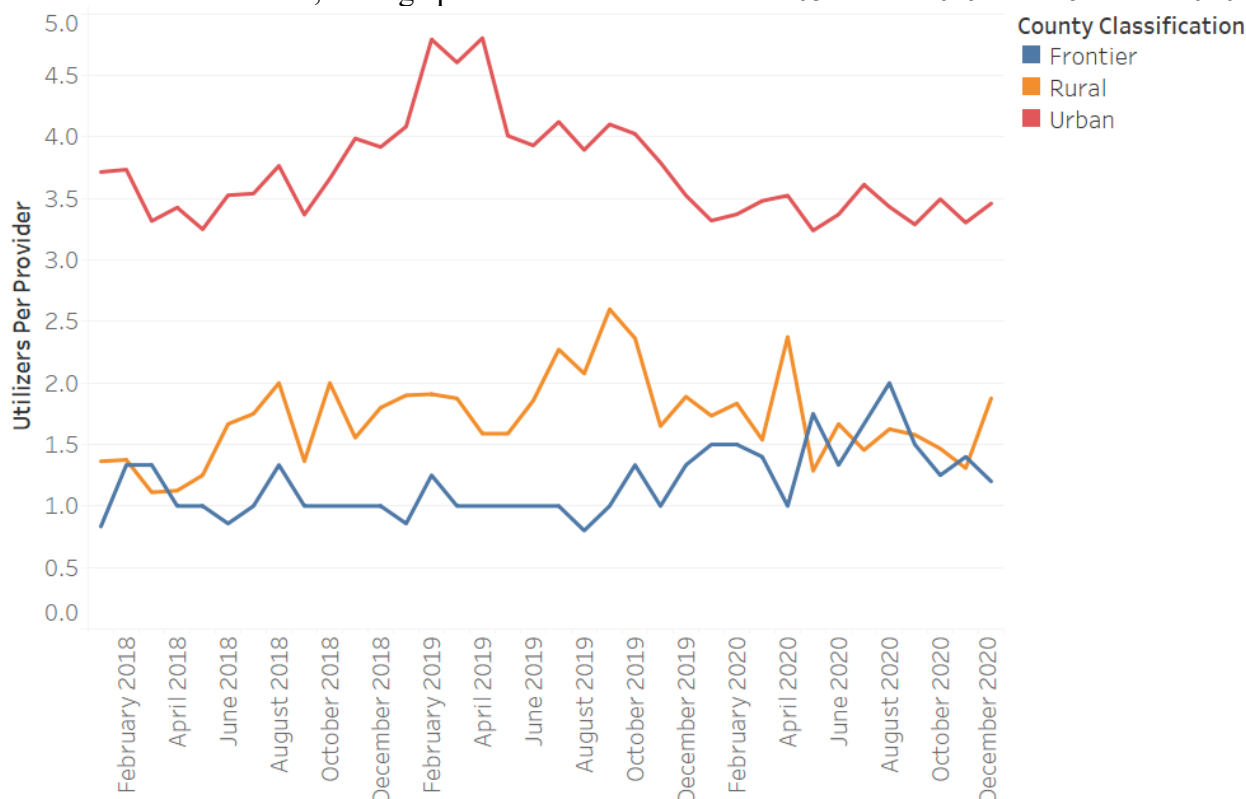


Figure 19. Utilizers per provider (panel size) for health education services between January 2018 and December 2020.

Analysis indicates that both the number of distinct utilizers and active providers decreased slightly over this time in rural and urban county classifications. Additionally, active providers remained relatively stable over this time in frontier counties.

The number of distinct utilizers and total active providers observed in urban counties decreased at a similar rate, which led to a relatively consistent number of utilizers per provider from January 2018 through December 2020.⁹⁹ The number of active providers remained relatively steady in rural and

⁹⁸ States used in the health education rate comparison analysis were Arizona, Oklahoma, Utah, Nevada, and Oregon. For more details on health education rate comparisons, see Appendix B.

⁹⁹ For data specific to distinct utilizers and active providers, see Appendix D.

frontier counties, compared to a slight decrease in utilizers in these counties, which led to a slight increase in panel size from January 2018 through December 2020.

There was a noticeable change in urban counties from October 2018 to June 2019, during which panel size increased in urban counties; however, this change was not permanent. Additionally, there was a noticeable decrease in distinct utilizers and active providers in March 2020 and subsequent increase in May 2020 in urban counties, attributed to the COVID-19 pandemic.¹⁰⁰

Utilizer Density

The utilizer density metric provides information regarding where utilizers of health education services reside throughout the state. Utilizer density for health education services ranged from 31, in Montezuma County, to 553 in El Paso County, in CY 2020.

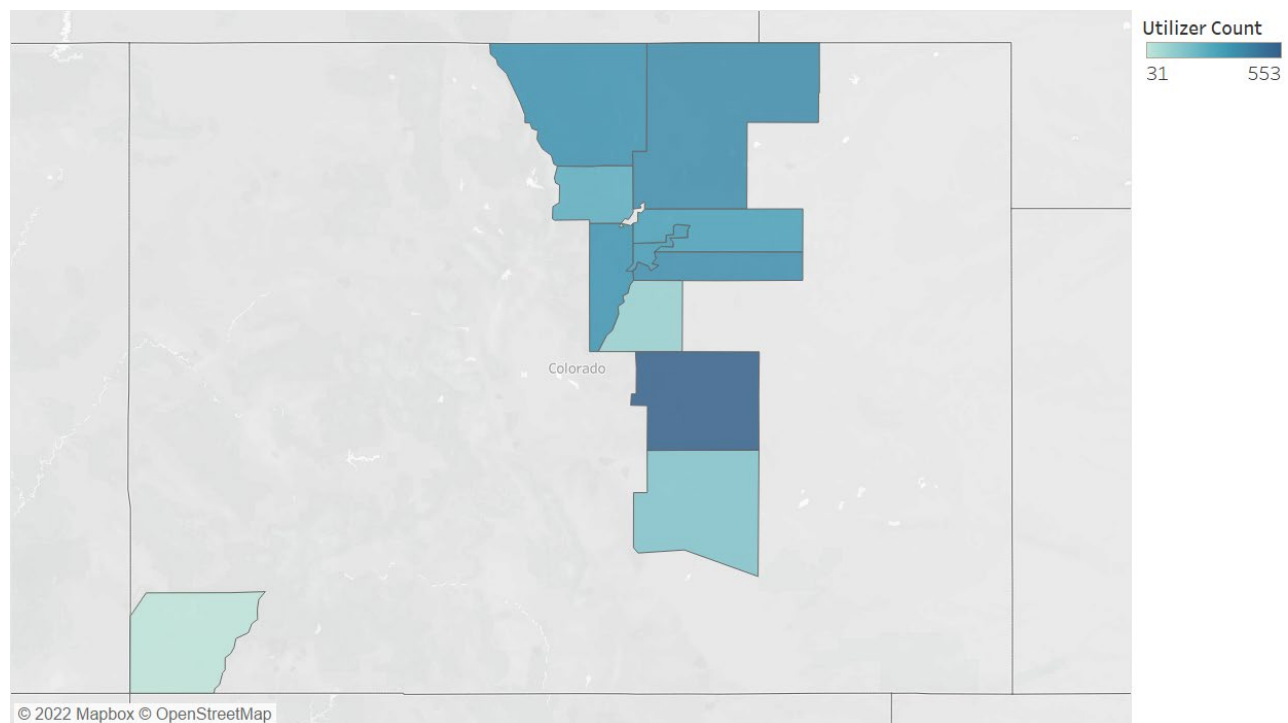


Figure 20. Utilizer density for health education services by county for CY 2020.¹⁰¹

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

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

Additionally, 39 counties¹⁰² 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.

¹⁰⁰ See Appendix E for more information.

¹⁰¹ See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

¹⁰² Due to software limitations, the 39 counties blinded for PHI appear in the grey spaces shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Penetration Rate

The penetration rate estimates the share of total Colorado Medicaid members in a geographic area that received the service. Penetration rates for health education services ranged from 1.50 in Denver County, to 5.03 in Larimer County, in CY 2020.

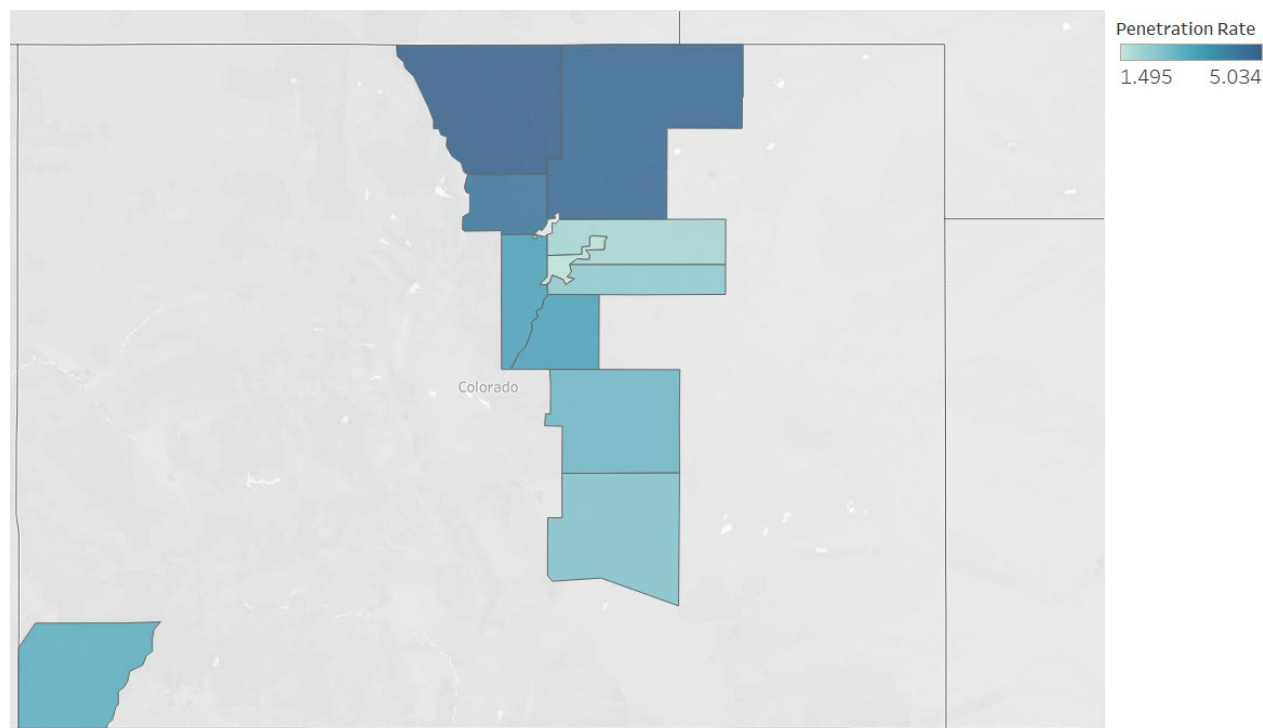


Figure 21. Penetration rates for health education services by county in CY 2020.

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

Additionally, 39 counties¹⁰³ 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.

¹⁰³ Due to software limitations, the 39 counties blinded for PHI appear in the grey spaces shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Member-to-Provider Ratios

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

Health Education Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	16	40,376	0.40
Rural	58	154,309	0.38
Urban	518	1,187,570	0.44
Statewide	537	1,371,726	0.39

Table 19. Member-to-provider ratio for health education services expressed as providers per 1,000 members by county classification in CY 2020.¹⁰⁴

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 fewer 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.¹⁰⁵

¹⁰⁴ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

¹⁰⁵ Currently, the Department does not use member-to-provider ratio standards specific to health education 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 Colorado Medicaid members that live within certain drive time bands from where health education service providers are located.¹⁰⁶

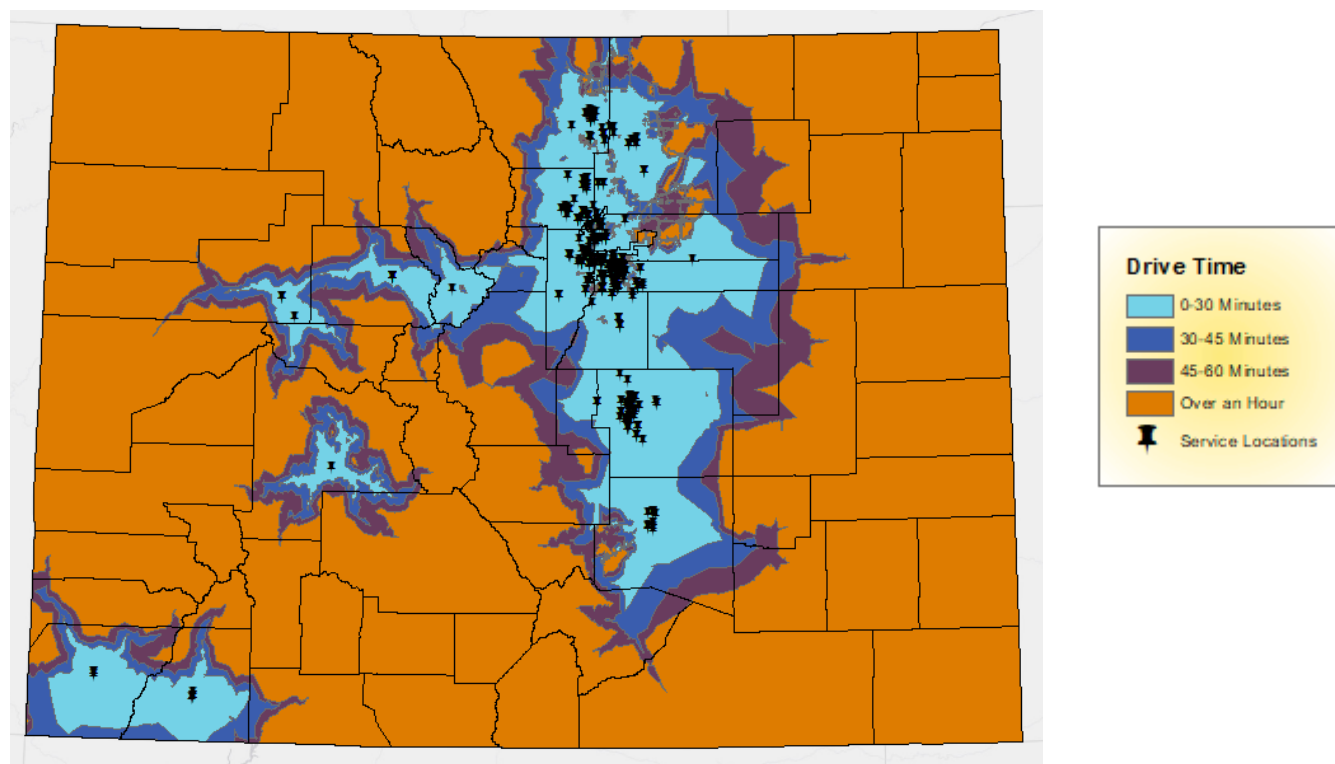


Figure 22. ArcGIS map of drive times of health education provider service locations to members in CY 2020.

Overall, 79.88% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a health education provider. Additionally, 6.71% of total members resided approximately 30-45 minutes from a health education provider; 2.11% of total members resided 45-60 minutes from a health education provider. Finally, 11.30% of total members resided over an hour from a health education provider.

¹⁰⁶ Due to claims data, service locations shown on the ArcGIS map may represent provider billing locations or service delivery locations.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding health education services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- Health education services were reviewed in the [2018 Medicaid Provider Rate Review Analysis Report](#), as part of the Primary Care/E&M category of physician services.¹⁰⁷
- Health education services are optimal for migration to telehealth service provision.

Additional Research

The Department plans to look at the utilization in counties that have a low penetration rate to identify if there is a persisting access to care issue or whether it is due to a lower need for Medicaid health education services in those areas. The Department also plans to investigate the possibility of providing more health education services through remote service provision via telehealth.

Conclusion

Rate benchmarking analyses have indicated that health education services rates are at 62.4% of the benchmark. Given that health education rates are below 80% of the benchmark, the Department believes that ultimately rates may not be sufficient to ensure member access and provider retention going forward.¹⁰⁸ Additionally, health education services rates at 62.4% of the benchmark may not support appropriate reimbursement for high-value services.¹⁰⁹

¹⁰⁷ For more information, see the [2018 Medicaid Provider Rate Review Analysis Report](#).

¹⁰⁸ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.

¹⁰⁹ The Department is conducting additional research and will identify opportunities to improve access to care and provider retention.



Physician Services – Ophthalmology

Service Description

The ophthalmology service grouping is comprised of 49 procedure codes. Ophthalmology services involve eye exams, as well as screening and the diagnosis of problems associated with the optical system and are available to all Health First Colorado members. Ophthalmology services were previously reviewed in the [2017 Medicaid Provider Rate Review Analysis Report](#).

Ophthalmology Statistics	
Total Adjusted Expenditures CY 2020 ¹¹⁰	\$26,152,155
Total Members Utilizing Services in CY 2020	188,243
CY 2020 Over CY 2019 Change in Members Utilizing Services	(10.97%)
Total Active Providers CY 2020	1,119
CY 2020 Over CY 2019 Change in Active Providers	0.54%

Table 20. Ophthalmology expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for ophthalmology services are estimated at 78.2% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.¹¹¹

Ophthalmology Rate Benchmark Comparison ¹¹²		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$26,152,155	\$33,430,858	78.2%

Table 21. Comparison of Colorado Medicaid ophthalmology service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$7,278,703 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 49 procedure codes analyzed in this service grouping, 41 were compared to Medicare, and eight was compared to an average of six other states' Medicaid rates.¹¹³ Individual rate ratios for ophthalmology services were 12.2%-331.2%.

¹¹⁰ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

¹¹¹ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

¹¹² The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

¹¹³ States used in the ophthalmology rate comparison analysis were Arizona, Oklahoma, Nebraska, Utah, Nevada, and Oregon. For more details on ophthalmology rate comparisons, see Appendix B.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for ophthalmology services decreased by 12.96% from an average of 19.06 utilizers per provider in CY 2019 to 16.59 utilizers per provider in CY 2020. Additionally:

- In urban counties, average panel size decreased from 25.15 in CY 2019 to 21.62 in CY 2020.
- In rural counties, average panel size decreased from 8.70 in CY 2019 to 8.01 in CY 2020.
- In frontier counties, average panel size decreased from 4.21 in CY 2019 to 3.96 in CY 2020.

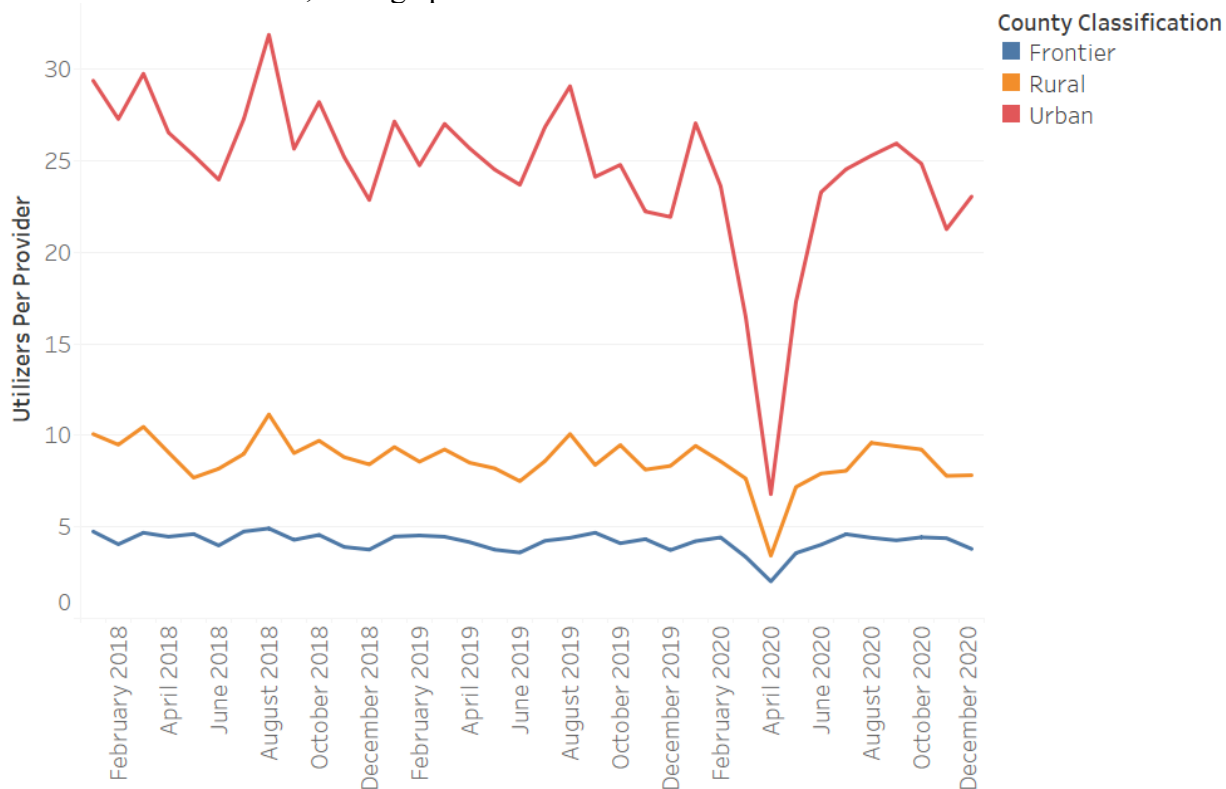


Figure 23. Utilizers per provider (panel size) for ophthalmology services between January 2018 and December 2020.

Analysis indicates that the number of distinct utilizers remained relatively stable over this time across all county classifications. Additionally, there was an increase in active providers over this time across all county classifications.

The number of active providers increased in all counties, while distinct utilizers remained relatively steady, which led to a decrease in the number of utilizers per provider from January 2018 to December 2020.¹¹⁴

There was a noticeable change in all county classifications from March 2020 to June 2020 that can be attributed to the COVID-19 pandemic.¹¹⁵

¹¹⁴ For data specific to distinct utilizers and active providers, see Appendix D.

¹¹⁵ See Appendix E for more information.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of ophthalmology services reside throughout the state. Utilizer density for ophthalmology services ranged from 34, in Jackson County, to 35,348 in El Paso County, in CY 2020.

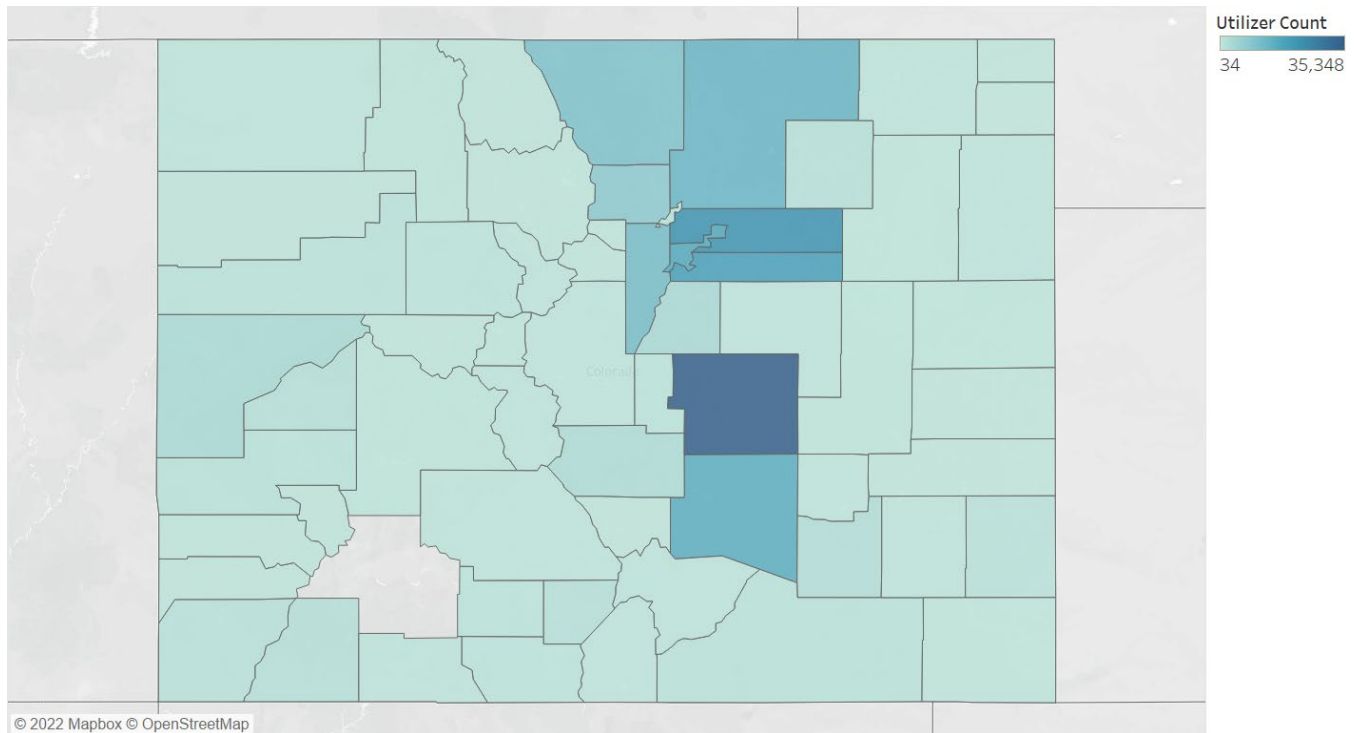


Figure 24. Utilizer density for ophthalmology services by county for CY 2020.¹¹⁶

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

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

Additionally, three counties¹¹⁷ 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.

¹¹⁶ See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

¹¹⁷ Due to software limitations, the three counties blinded for PHI appear in the grey area shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Penetration Rate

The penetration rate estimates the share of total Colorado Medicaid members in a geographic area that received the service. Penetration rates for ophthalmology services ranged from 29.90 in Pitkin County, to 266.90 in Otero County, in CY 2020. Denver County had a penetration rate of 75.20 in CY 2020.

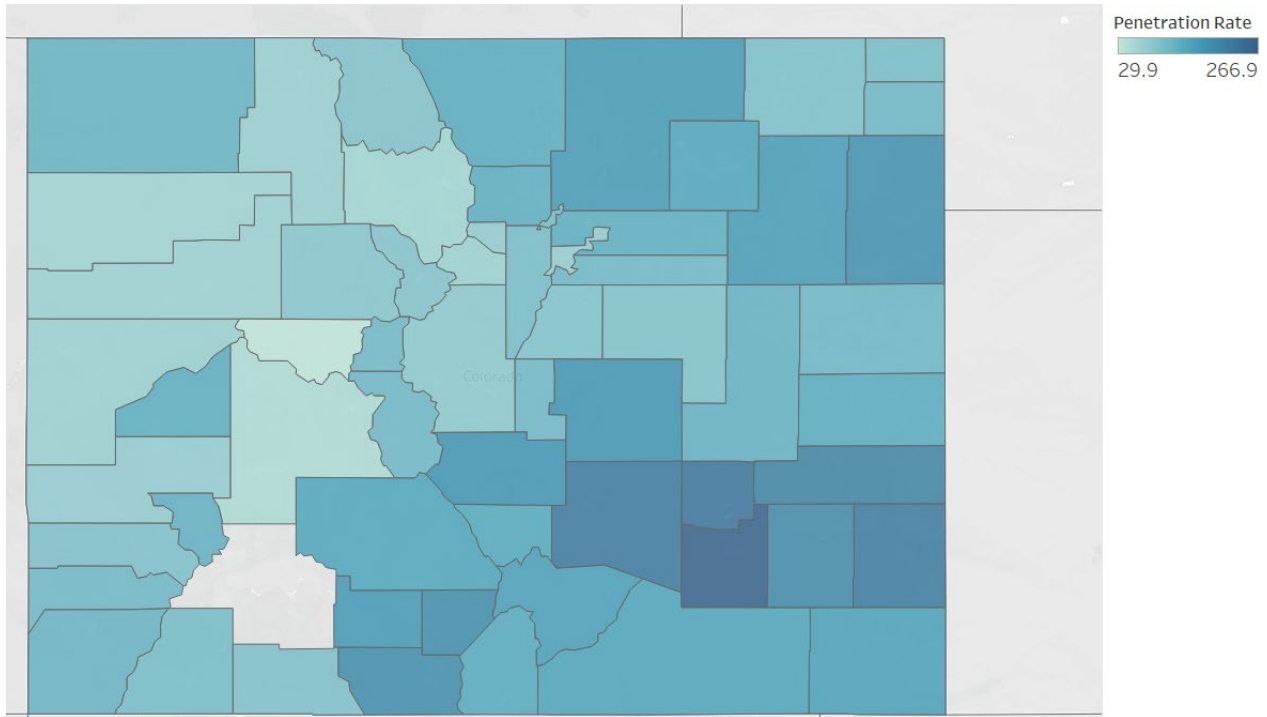


Figure 25. Penetration rates for ophthalmology services by county in CY 2020.

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

Additionally, three counties¹¹⁸ 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.

¹¹⁸ Due to software limitations, the three counties blinded for PHI appear in the grey area shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Member-to-Provider Ratios

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

Ophthalmology Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	432	40,376	10.70
Rural	610	154,309	3.95
Urban	1,090	1,187,570	0.92
Statewide	1,119	1,371,726	0.82

Table 22. Member-to-provider ratio for ophthalmology services expressed as providers per 1,000 members by county classification in CY 2020.¹¹⁹

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.¹²⁰

¹¹⁹ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

¹²⁰ Currently, the Department does not use member-to-provider ratio standards specific to ophthalmology 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 Colorado Medicaid members that live within certain drive time bands from where ophthalmology service providers are located.¹²¹

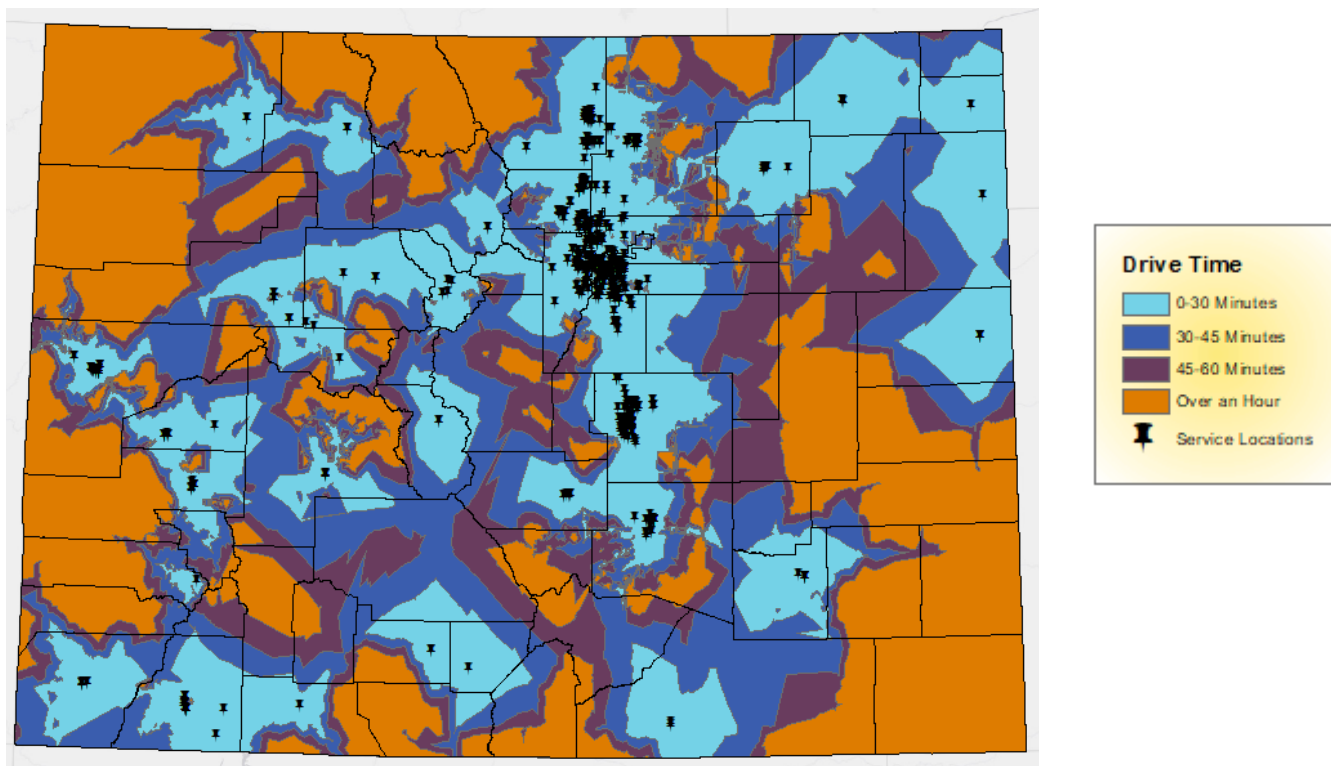


Figure 26. ArcGIS map of drive times of ophthalmology provider service locations to members in CY 2020.

Overall, 94.57% of total Health First Colorado members in CY 2020 resided 30 minutes or less from an ophthalmology provider. Additionally, 3.16% of total members resided approximately 30-45 minutes from an ophthalmology provider; 1.06% of total members resided 45-60 minutes from an ophthalmology provider. Finally, 1.21% of total members resided over an hour from an ophthalmology provider.

¹²¹ Due to claims data, service locations shown on the ArcGIS map may represent service delivery locations.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding ophthalmology services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- Since ophthalmology services were reviewed in the [2017 Medicaid Provider Rate Review Analysis Report](#), total expenditures increased by nearly \$1 million, or 12.8%, compared to a 3.4% increase in distinct utilizers.¹²²

Additional Research

The Department plans to look at the utilization in counties that have a low penetration rate in the 2022 Medicaid Provider Rate Review Analysis Reports that were not identified as having low penetration rates, to identify if there is an emerging access to care issue or whether it is due to a lower need for Medicaid ophthalmology services in those areas.¹²³

Conclusion

Total expenditures and distinct utilizers increased since ophthalmology services were previously reviewed, and nearly 95% of members live within 30 minutes of an ophthalmology provider; these factors indicate that rates may be sufficient for member access and provider retention.¹²⁴ Given that active providers are defined as having one or more Medicaid patient visits during the analysis period, those providers may not provide adequate access to enough Medicaid members at the existing rates.

Rate benchmarking analyses have indicated that ophthalmology rates are at 78.2% of the benchmark. Given that ophthalmology rates are below 80% of the benchmark, the Department believes that ultimately rates may not be sufficient to ensure member access and provider retention going forward.^{125,126}

¹²² For more information, see the [2017 Medicaid Provider Rate Review Analysis Report](#).

¹²³ Counties to review include Gunnison, Hinsdale, San Miguel, and Pitkin.

¹²⁴ The Department recognizes that, while rates may be sufficient, there may be other opportunities to improve access to care and provider retention.

¹²⁵ See the Payment Philosophy section on page 14 for more information on historical Departmental standards for rate comparison data.

¹²⁶ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.



Physician Services – Primary Care/Evaluation & Management (E&M)

Service Description

The primary care/evaluation & management (E&M) service grouping is comprised of 116 procedure codes. Primary care/E&M services include basic office visits for medical care and are available to all Health First Colorado members. Primary care/E&M services were previously reviewed in the [2018 Medicaid Provider Rate Review Analysis Report](#).

Primary Care/E&M Statistics	
Total Adjusted Expenditures CY 2020 ¹²⁷	\$361,644,919
Total Members Utilizing Services in CY 2020	681,554
CY 2020 Over CY 2019 Change in Members Utilizing Services	(5.48%)
Total Active Providers CY 2020	19,282
CY 2020 Over CY 2019 Change in Active Providers	1.21%

Table 23. Primary care/E&M expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for primary care/E&M services are estimated at 83.2% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.¹²⁸

Primary Care/E&M Rate Benchmark Comparison ¹²⁹		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$330,440,859	\$397,074,824	83.2%

Table 24. Comparison of Colorado Medicaid primary care/E&M service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$66,633,964 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 116 procedure codes analyzed in this service grouping, 90 were compared to Medicare, and 26 was compared to an average of six other states' Medicaid rates.¹³⁰ Individual rate ratios for primary care/E&M services were 37.3%-194.0%.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for primary care/E&M services decreased by 7.97% from an average of 9.29 utilizers per provider in CY 2019 to 8.55 utilizers per provider in CY 2020. Additionally:

¹²⁷ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

¹²⁸ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

¹²⁹ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

¹³⁰ States used in the primary care/E&M rate comparison analysis were Arizona, Oklahoma, Nebraska, Utah, Nevada, and Oregon. For more details on primary care/E&M rate comparisons, see Appendix B.

- In urban counties, average panel size decreased from 12.13 in CY 2019 to 11.19 in CY 2020.
- In rural counties, average panel size decreased from 3.96 in CY 2019 to 3.54 in CY 2020.
- In frontier counties, average panel size decreased from 1.88 in CY 2019 to 1.68 in CY 2020.

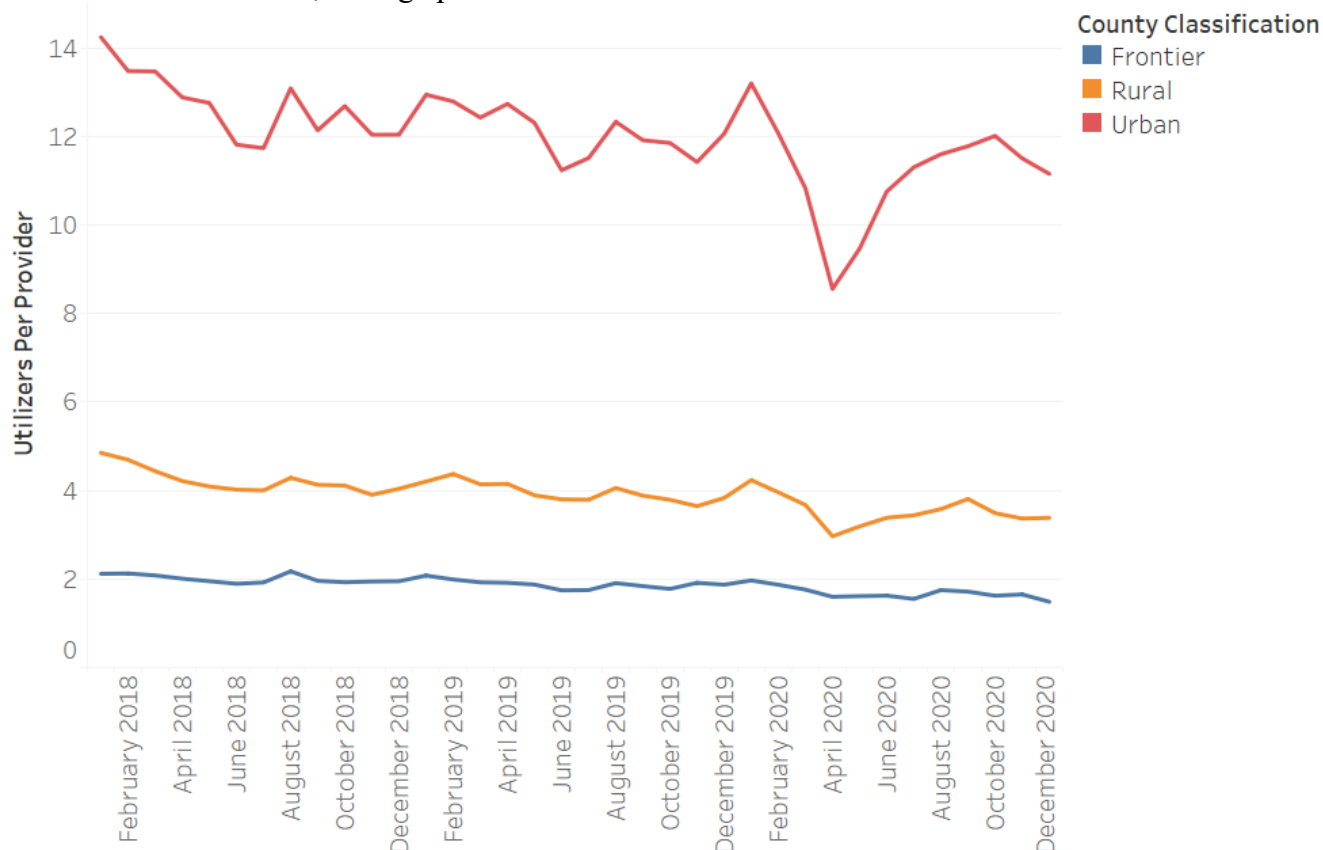


Figure 27. Utilizers per provider (panel size) for primary care/E&M services between January 2018 and December 2020.

Analysis indicates that the number of distinct utilizers decreased over this time across all county classifications. Additionally, the number of active providers increased across all county classifications over time.

The number of distinct utilizers observed in all counties decreased as the total active providers increased, which led to a decrease in the number of utilizers per provider from January 2018 to December 2020.¹³¹

There was a noticeable change in all county classifications from March 2020 to June 2020 that can be attributed to the COVID-19 pandemic.

¹³¹ For data specific to distinct utilizers and active providers, see Appendix D.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of primary care/E&M services reside throughout the state. Utilizer density for primary care/E&M services ranged from 50, in Hinsdale County, to 100,045 in El Paso County, in CY 2020.

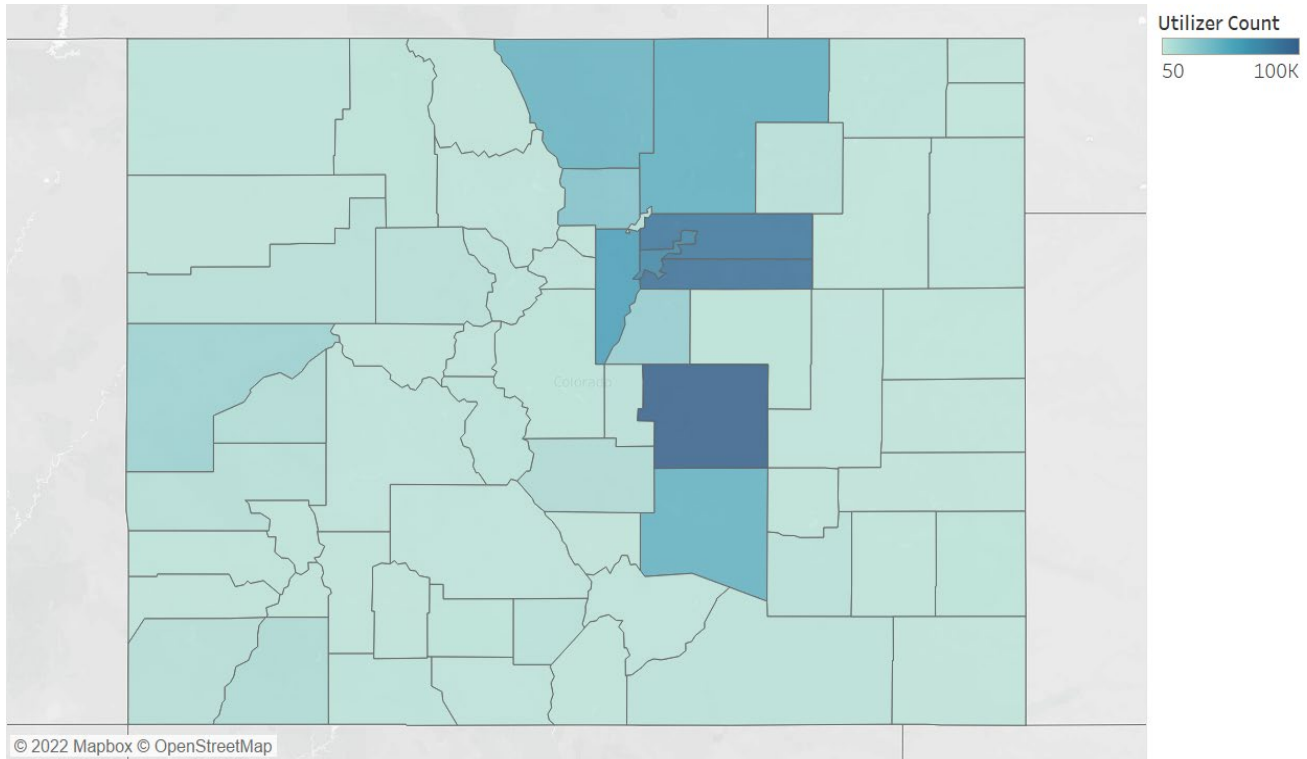


Figure 28. Utilizer density for primary care/E&M services by county for CY 2020.¹³²

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

- relatively lower demand for primary care/E&M services, or a low number of Colorado Medicaid members utilizing primary care/E&M services.

¹³² See Figure 1. Colorado Counties and RAE County Classification in Appendix A 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 primary care/E&M services ranged from 173.50 in Pitkin County, to 611.00 in Lake County, in CY 2020. Denver County had a penetration rate of 329.00 in CY 2020.

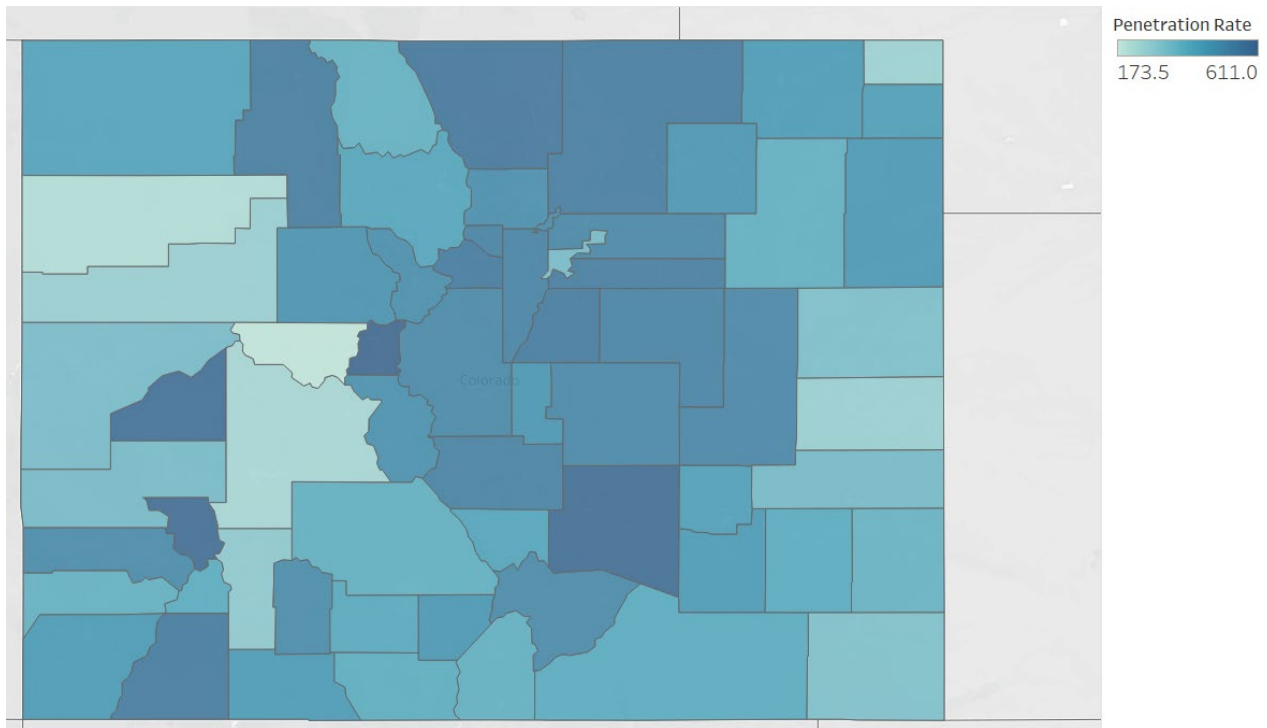


Figure 29. Penetration rates for primary care/E&M services by county in CY 2020.

Counties with relatively higher penetration rates indicate that, as a share of total Colorado Medicaid members residing in the county, a larger proportion received primary care/E&M services.

Member-to-Provider Ratios

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

Primary Care/E&M Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	6,998	40,376	173.32
Rural	11,060	154,309	71.67
Urban	18,396	1,187,570	15.49
Statewide	19,282	1,371,726	14.06

Table 25. Member-to-provider ratio for primary care/E&M services expressed as providers per 1,000 members by county classification in CY 2020.¹³³

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.¹³⁴

¹³³ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

¹³⁴ Currently, the Department does not use member-to-provider ratio standards specific to primary care/E&M 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 Colorado Medicaid members that live within certain drive time bands from where primary care/E&M service providers are located.¹³⁵

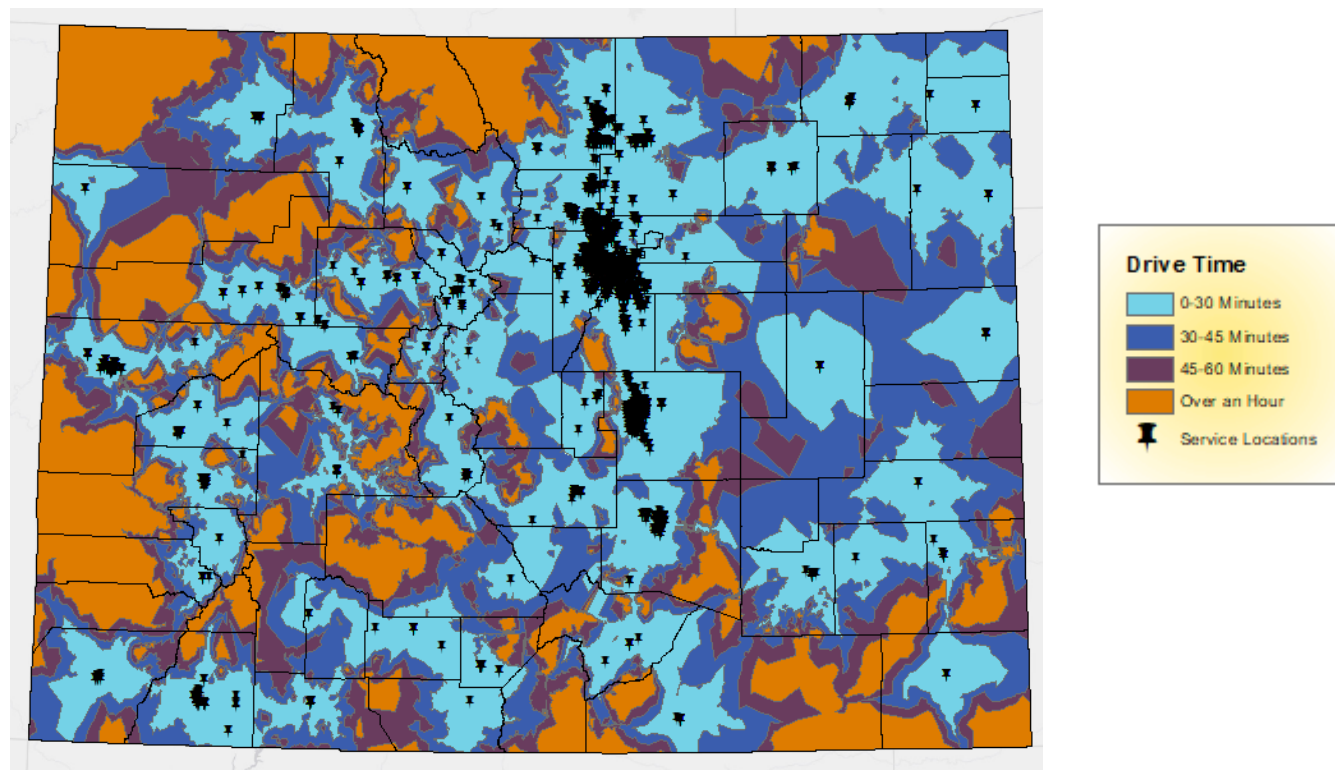


Figure 30. ArcGIS map of drive times of primary care/E&M provider service locations to members in CY 2020.

Overall, 97.94% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a primary care/E&M provider. Additionally, 1.02% of total members resided approximately 30-45 minutes from a primary care/E&M provider; 0.50% of total members resided 45-60 minutes from a primary care/E&M provider. Finally, 0.53% of total members resided over an hour from a primary care/E&M provider.

¹³⁵ Due to claims data, service locations shown on the ArcGIS map may represent service delivery locations.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding primary care/E&M services in the public meeting on March 25, 2022. Committee members discussed some considerations for primary care/E&M services, particularly for improving access to care. Themes of committee feedback included:

- Community Integrated Health practices, if implemented, could help reduce patient intake times by conducting intake services during transportation to clinic or hospital, potentially increasing access to some physician services and primary care services.
- Opportunities to extend telehealth for applicable services to increase access for members and reduce costs to the Department.

Additional Considerations

Other considerations include:

- Since primary care/E&M services were reviewed in the [2018 Medicaid Provider Rate Review Analysis Report](#), total active primary care/E&M providers increased.
- Many of these services are being transitioned from in-person visits to telehealth visits due to improvements in technology that can be used for remote medical care.

Additional Research

The Department plans to investigate opportunities for increasing access to primary care/E&M services via telehealth technology, as well as opportunities for pursuing Community Integrated Health practices that could greatly improve access to these services and provide smoother service delivery.

Conclusion

Nearly 98% of members live within 30 minutes of a primary care/E&M provider and reimbursement rates are set significantly above those of six other states in the rate comparison analysis;¹³⁶ these factors indicate that rates may be sufficient for member access and provider retention.¹³⁷ Given that active providers are defined as having one or more Medicaid patient visits during the analysis period, those providers may not provide adequate access to enough Medicaid members at the existing rates.

Rate benchmarking analyses have indicated that primary care/E&M rates are at 84.0%.¹³⁸ Given that primary care/E&M rates are only slightly above 80% of the benchmark, the Department believes that ultimately rates may not be sufficient to ensure member access and provider retention going forward. Additionally, rates may not support appropriate reimbursement for high-value services.^{139, 140}

¹³⁶ Rate comparison data by benchmark state for Primary Care/E&M services can be found in Appendix B.

¹³⁷ The Department recognizes that, while rates may be sufficient, there may be other opportunities to improve access to care and provider retention.

¹³⁸ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.

¹³⁹ High-value services include services that have a net clinical benefit while also reliably and predictably providing substantial individual and population health benefits; and example of high-value service in the primary care/E&M services grouping are preventative care & appropriate preventative screening/testing services.

¹⁴⁰ The Department is conducting additional research and will identify opportunities to improve access to care and provider retention.

Physician Services – Radiology

Service Description

The radiology service grouping is comprised of 492 procedure codes. Radiology services primarily consist of the physician interpretation fee for imaging services, including X-rays, computerized tomography (CT) scans, and magnetic resonance imaging (MRI), and are available to all Health First Colorado members. Radiology services were previously reviewed in the [2018 Medicaid Provider Rate Review Analysis Report](#).

Radiology Statistics	
Total Adjusted Expenditures CY 2020 ¹⁴¹	\$58,816,897
Total Members Utilizing Services in CY 2020	311,382
CY 2020 Over CY 2019 Change in Members Utilizing Services	(8.87%)
Total Active Providers CY 2020	7,223
CY 2020 Over CY 2019 Change in Active Providers	0.82%

Table 26. Radiology expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for radiology services are estimated at 90.6% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.¹⁴²

Radiology Rate Benchmark Comparison ¹⁴³		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$58,816,577	\$64,855,757	90.6%

Table 27. Comparison of Colorado Medicaid radiology service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$6,069,180 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 492 procedure codes analyzed in this service grouping, 482 were compared to Medicare, and ten were compared to an average of six other states' Medicaid rates.¹⁴⁴ Individual rate ratios for radiology services were 9.5%-389.0%.

¹⁴¹ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

¹⁴² Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

¹⁴³ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

¹⁴⁴ States used in the radiology rate comparison analysis were Arizona, Oklahoma, Nebraska, Utah, Nevada, and Oregon. For more details on radiology rate comparisons, see Appendix B.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for radiology services decreased by 8.60% from an average of 11.28 utilizers per provider in CY 2019 to 10.31 utilizers per provider in CY 2020. Additionally:

- In urban counties, average panel size decreased from 14.54 in CY 2019 to 13.16 in CY 2020.
- In rural counties, average panel size decreased from 5.64 in CY 2019 to 5.22 in CY 2020.
- In frontier counties, average panel size decreased from 2.75 in CY 2019 to 2.55 in CY 2020.

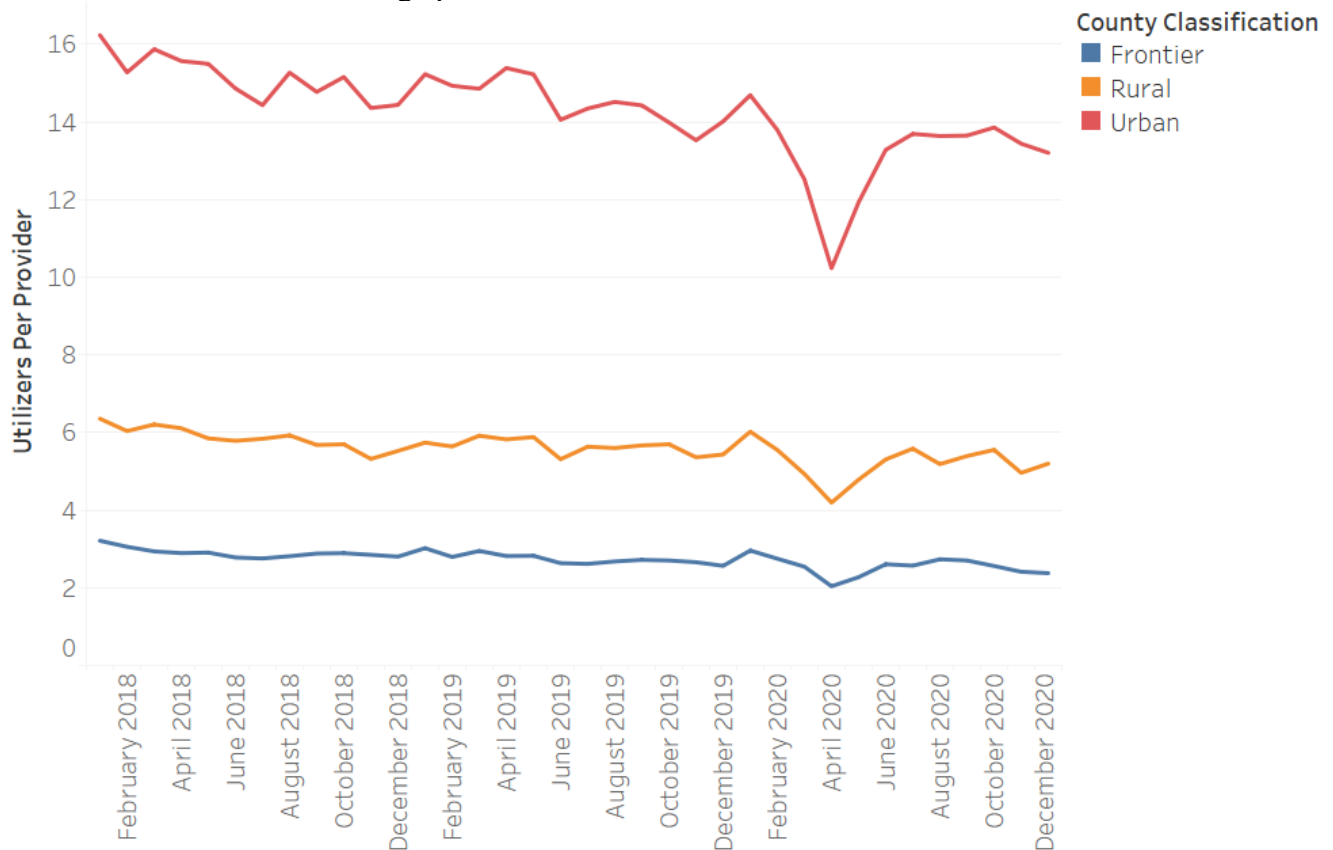


Figure 31. Utilizers per provider (panel size) for radiology services between January 2018 and December 2020.

Analysis indicates that the number of distinct utilizers decreased over this time across all county classifications, and active providers increased over this time in urban counties. Additionally, active providers remained relatively steady over this time in rural and frontier county classifications.

The number of distinct utilizers observed in all counties decreased, while active providers increased in urban counties and remained relatively steady in rural and urban counties, which led to a decrease in the number of utilizers per provider from January 2018 to December 2020, with a steeper decrease in panel size in urban counties.¹⁴⁵

¹⁴⁵ For data specific to distinct utilizers and active providers, see Appendix D.

There was a noticeable change in all county classifications from March 2020 to June 2020 that can be attributed to the COVID-19 pandemic.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of radiology services reside throughout the state. Utilizer density for radiology services ranged from 38, in San Juan County, to 48,117 in El Paso County, in CY 2020.

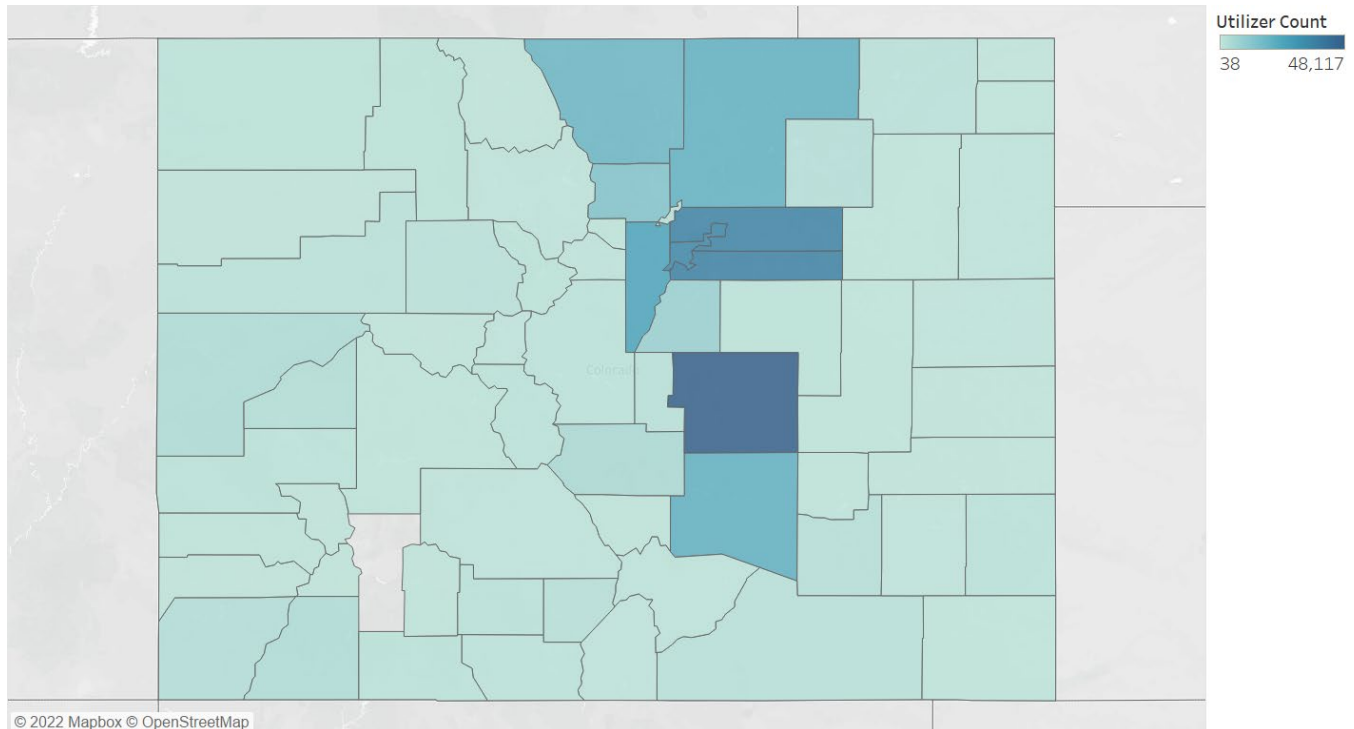


Figure 32. Utilizer density for radiology services by county for CY 2020.¹⁴⁶

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

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

Additionally, one county¹⁴⁷ has been omitted due to protected health information (PHI). For this county, the Department intends to use the analysis internally to inform ongoing benefit and program management activities.

¹⁴⁶ See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

¹⁴⁷ Due to software limitations, the county blinded for PHI appears in the grey area shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Penetration Rate

The penetration rate estimates the share of total Colorado Medicaid members in a geographic area that received the service. Penetration rates for radiology services ranged from 66.90 in Pitkin County, to 294.10 in Fremont County, in CY 2020. Denver County had a penetration rate of 155.4 in CY 2020.

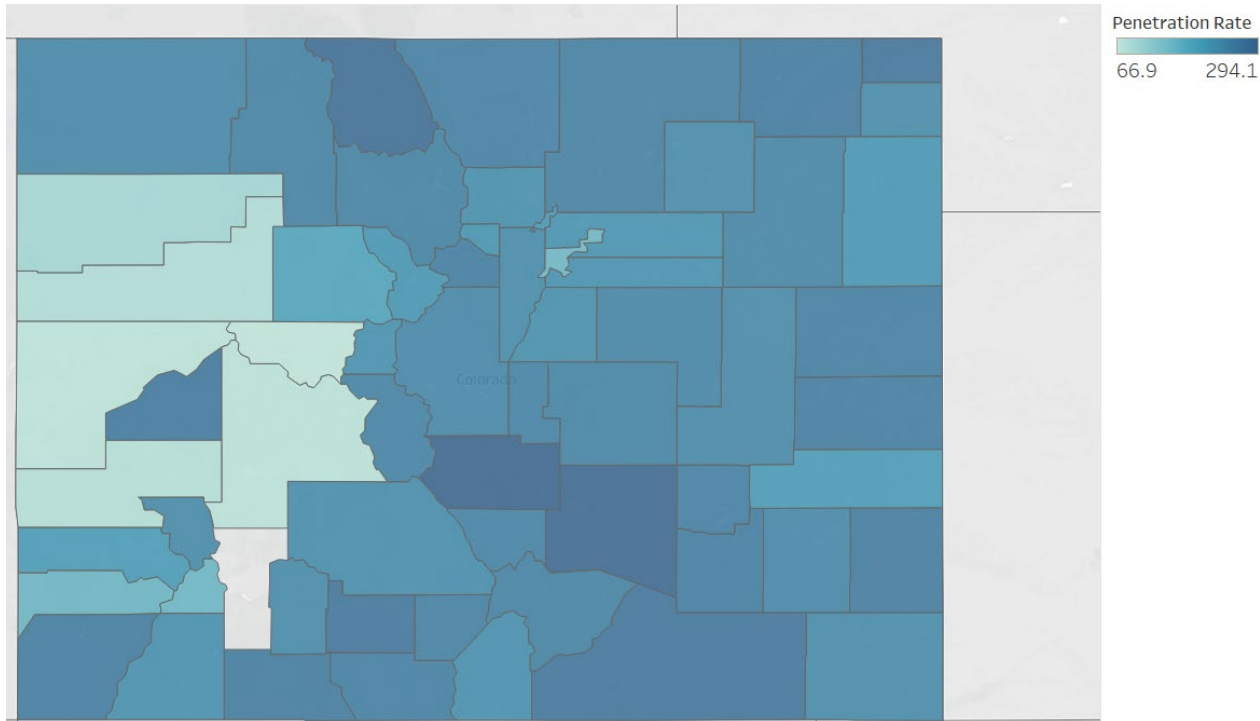


Figure 33. Penetration rates for radiology services by county in CY 2020.

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

Additionally, one county¹⁴⁸ has 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.

¹⁴⁸ Due to software limitations, the county blinded for PHI appears in the grey area shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Member-to-Provider Ratios

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

Radiology Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	1,573	40,376	38.96
Rural	2,648	154,309	17.16
Urban	6,725	1,187,570	5.66
Statewide	7,223	1,371,726	5.27

Table 28. Member-to-provider ratio for radiology services expressed as providers per 1,000 members by county classification in CY 2020.¹⁴⁹

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.¹⁵⁰

¹⁴⁹ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

¹⁵⁰ Currently, the Department does not use member-to-provider ratio standards specific to radiology 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 Colorado Medicaid members that live within certain drive time bands from where radiology service providers are located.¹⁵¹

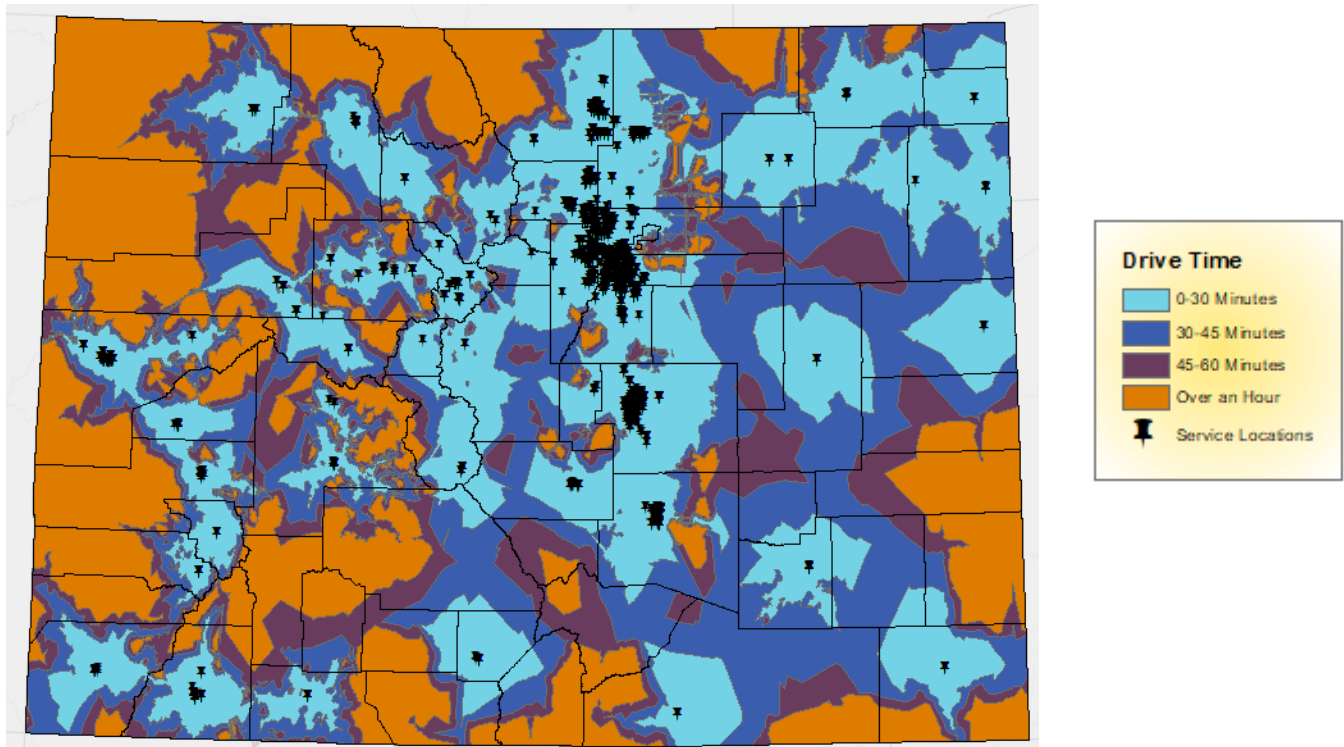


Figure 34. ArcGIS map of drive times of radiology provider service locations to members in CY 2020.

Overall, 95.05% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a radiology provider. Additionally, 1.79% of total members resided approximately 30-45 minutes from a radiology provider; 1.20% of total members resided 45-60 minutes from a radiology provider. Finally, 1.96% of total members resided over an hour from a radiology provider.

¹⁵¹ Due to claims data, service locations shown on the ArcGIS map may represent service delivery locations.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding radiology services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- Since radiology services were reviewed in the [2018 Medicaid Provider Rate Review Analysis Report](#), the total active radiology providers continued to increase at a steady rate. In addition, total expenditures increased by over \$5 million, or 19.4%, compared to a 12.6% decrease in distinct utilizers.¹⁵²

Additional Research

The Department plans to look at the utilization in all county classifications to identify if there is an emerging access to care issue or whether it is due to a lower need for Medicaid radiology services in Colorado.¹⁵³ The Department also plans to investigate the procedure codes driving the low benchmark comparisons to other states' Medicaid and whether these comparisons reflect similar levels of service or if there are significant differences that could attribute the lower rate ratios, as well as if any of these rates would benefit from an immediate rate change.¹⁵⁴

Conclusion

Total expenditures and active providers increased since radiology services were previously reviewed and nearly 95% of members live within 30 minutes of a radiology provider; these factors indicate that rates may be sufficient for member access and provider retention.¹⁵⁵ Given that active providers are defined as having one or more Medicaid patient visits during the analysis period, those providers may not provide adequate access to enough Medicaid members at the existing rates.

Rate benchmarking analyses have indicated that radiology rates are at 90.6% of the benchmark. Given that distinct utilizers decreased since radiology services were previously reviewed and radiology rates are only slightly above 80% of the benchmark, the Department believes that ultimately rates may not be sufficient to ensure member access and provider retention going forward.^{156, 157, 158}

¹⁵² For more information, see the [2018 Medicaid Provider Rate Review Analysis Report](#).

¹⁵³ For further information regarding distinct utilizers of radiology services over time in all county classifications, see Appendix D.

¹⁵⁴ Only 1.11% of total dollars for radiology services were compared to other states' Medicaid rates (i.e., \$653,630), which is relatively small compared to the total expenditures for radiology services (\$58,816,577).

¹⁵⁵ The Department recognizes that, while rates may be sufficient, there may be other opportunities to improve access to care and provider retention.

¹⁵⁶ See the Payment Philosophy section on page 14 for more information on historical Departmental standards for rate comparison data.

¹⁵⁷ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.

¹⁵⁸ For more information, see the [2018 Medicaid Provider Rate Review Analysis Report](#).

Physician Services – Respiratory

Service Description

The respiratory service grouping is comprised of 30 procedure codes. Respiratory services involve diagnostic evaluation and procedures of the nose, trachea, bronchi, lungs, and pleura (a set of membranes that covers the lungs) and are available to all Health First Colorado members. Respiratory services were previously reviewed in the [2017 Medicaid Provider Rate Review Analysis Report](#).

Respiratory Statistics	
Total Adjusted Expenditures CY 2020 ¹⁵⁹	\$914,336
Total Members Utilizing Services in CY 2020	45,286
CY 2020 Over CY 2019 Change in Members Utilizing Services	(29.45%)
Total Active Providers CY 2020	2,148
CY 2020 Over CY 2019 Change in Active Providers	(25.70%)

Table 29. Respiratory expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for respiratory services are estimated at 97.5% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.¹⁶⁰

Respiratory Rate Benchmark Comparison ¹⁶¹		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$914,336	\$938,229	97.5%

Table 30. Comparison of Colorado Medicaid respiratory service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$23,893 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 30 procedure codes analyzed in this service grouping, 28 were compared to Medicare, and two were compared to an average of six other states' Medicaid rates.¹⁶² Individual rate ratios for respiratory services were 39.9%-141.8%.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for respiratory services increased by 4.40% from an average of 7.72 utilizers per provider in CY 2019 to 8.06 utilizers per provider in CY 2020. Additionally:

¹⁵⁹ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

¹⁶⁰ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

¹⁶¹ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

¹⁶² States used in the respiratory rate comparison analysis were Arizona, Oklahoma, Nebraska, Utah, Nevada, and Oregon. For more details on respiratory rate comparisons, see Appendix B.

- In urban counties, average panel size increased from 8.88 in CY 2019 to 9.41 in CY 2020.
- In rural counties, average panel size decreased from 2.50 in CY 2019 to 2.24 in CY 2020.
- In frontier counties, average panel size decreased from 1.75 in CY 2019 to 1.49 in CY 2020.

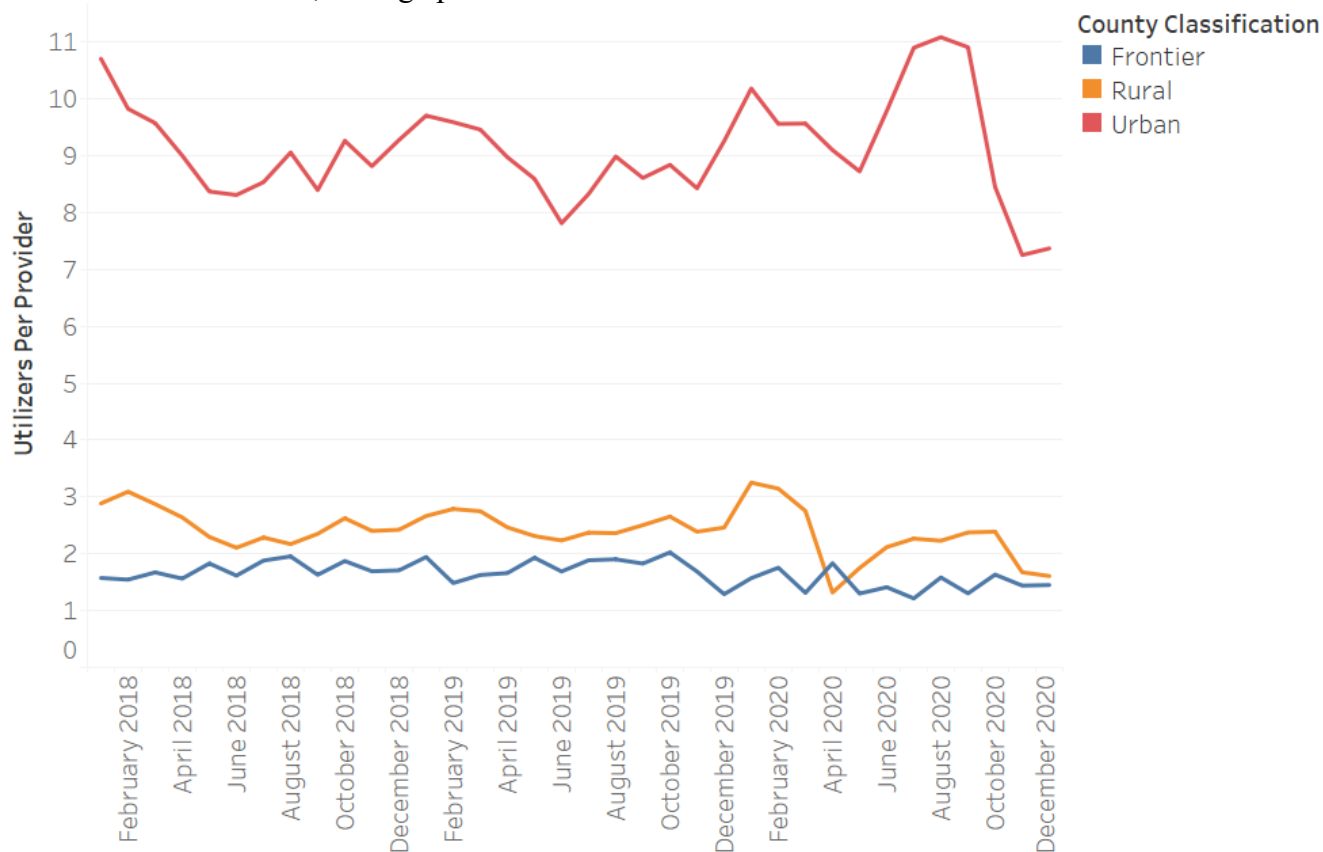


Figure 35. Utilizers per provider (panel size) for respiratory services between January 2018 and December 2020.

Analysis indicates that both the number of distinct utilizers and active providers decreased over this time across all county classifications. There was a noticeable change in both distinct utilizers and active providers in urban counties from June 2018 to December 2018, as well as June 2019 to December 2019, that can be attributed to seasonal patterns.

The number of distinct utilizers and total active providers observed in all counties decreased at a similar rate, which led to a relatively consistent number of utilizers per provider from January 2018 to December 2020.¹⁶³

There was a significant decrease in both utilizers and providers from March 2020 through April 2020, that can be attributed to COVID-19.¹⁶⁴ The changes in active providers occurred at a different rate than the change in distinct utilizers, which led to a noticeable change in panel size from March 2020 through October 2020 in rural and urban counties.¹⁶⁵

¹⁶³ For data specific to distinct utilizers and active providers, see Appendix D.

¹⁶⁴ For more information, see Appendix E and Appendix F.

¹⁶⁵ The Department will continue to monitor respiratory service utilization and active providers to ensure a return to pre-pandemic levels, as appropriate. For more information, see Appendix F.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of respiratory services reside throughout the state. Utilizer density for respiratory services ranged from 31, in Lake County, to 7,601 in El Paso County, in CY 2020.

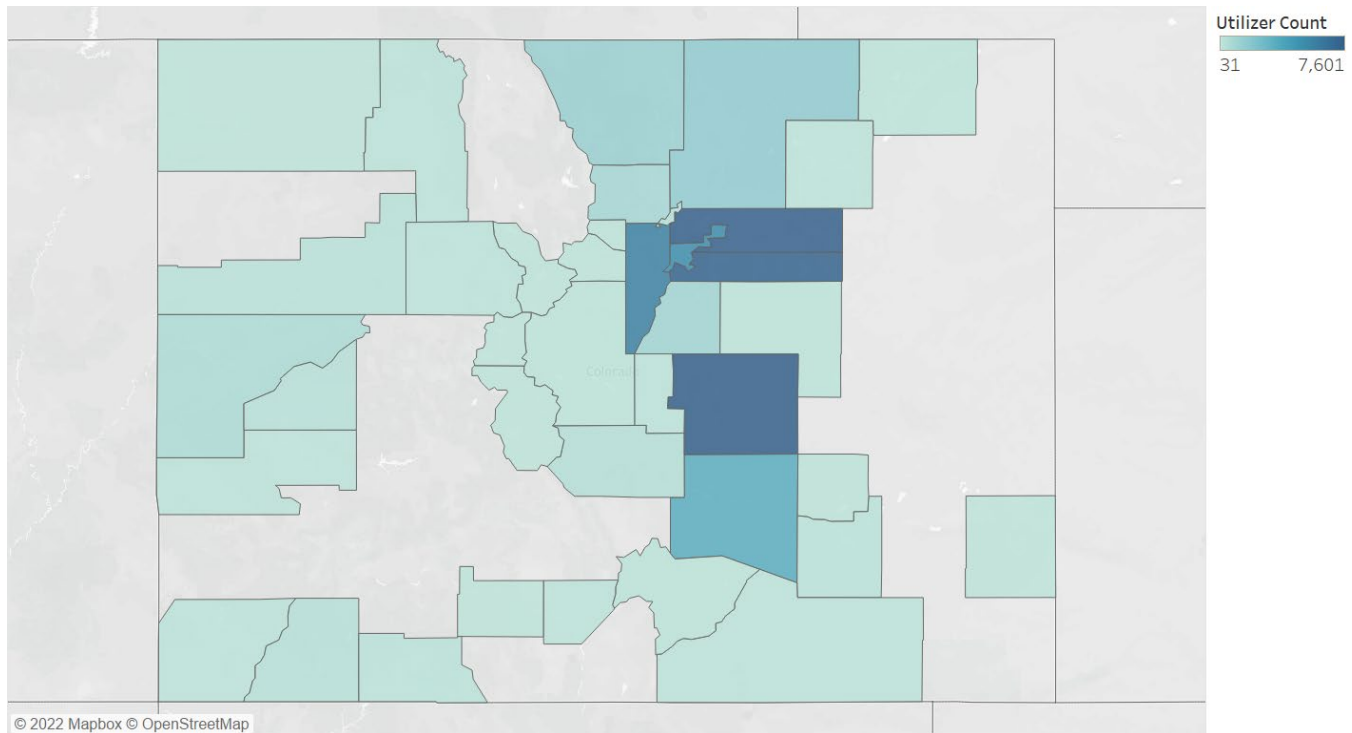


Figure 36. Utilizer density for respiratory services by county for CY 2020.¹⁶⁶

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

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

Additionally, 25 counties¹⁶⁷ 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.

¹⁶⁶ See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

¹⁶⁷ Due to software limitations, the 25 counties blinded for PHI appear in the five grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Penetration Rate

The penetration rate estimates the share of total Colorado Medicaid members in a geographic area that received the service. Penetration rates for respiratory services ranged from 6.14 in Prowers County, to 54.88 in Jefferson County, in CY 2020. Denver County had a penetration rate of 22.82 in CY 2020.

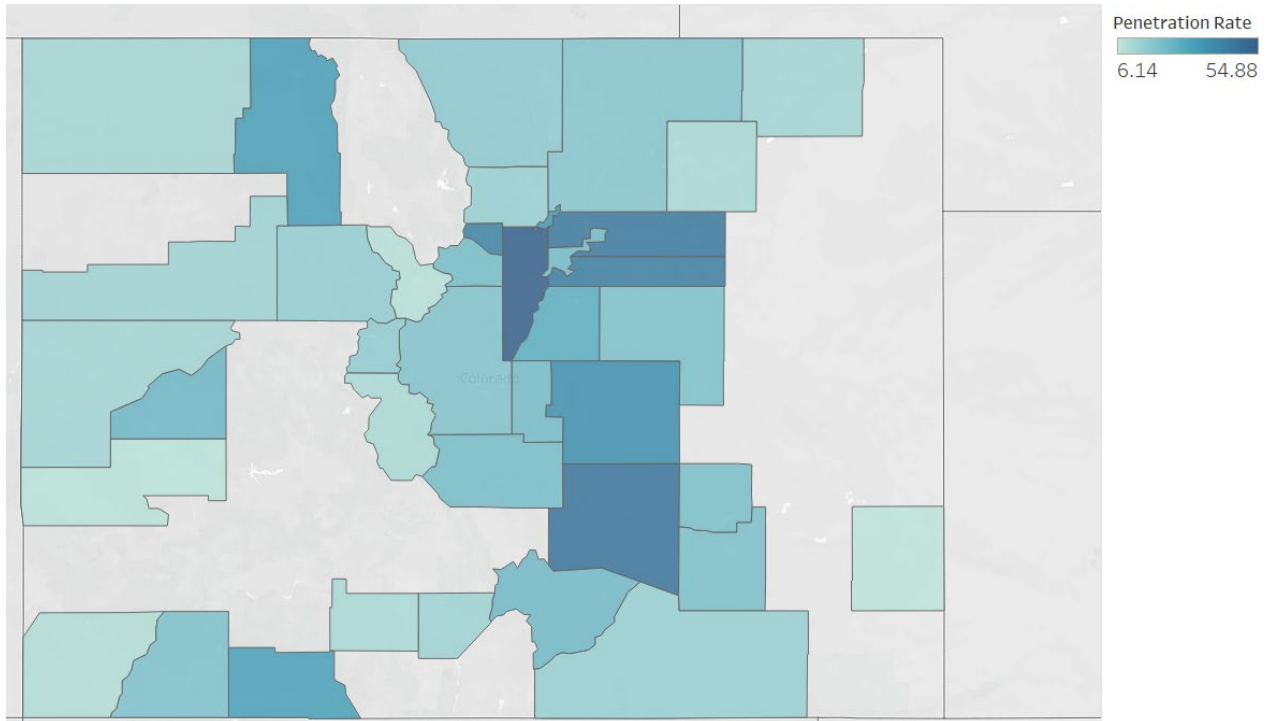


Figure 37. Penetration rates for respiratory services by county in CY 2020.

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

Additionally, 25 counties¹⁶⁸ 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.

¹⁶⁸ Due to software limitations, the 25 counties blinded for PHI appear in the five grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Member-to-Provider Ratios

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

Respiratory Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	176	40,376	4.36
Rural	463	154,309	3.00
Urban	1,971	1,187,570	1.66
Statewide	2,148	1,371,726	1.57

Table 31. Member-to-provider ratio for respiratory services expressed as providers per 1,000 members by county classification in CY 2020.¹⁶⁹

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.¹⁷⁰

¹⁶⁹ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

¹⁷⁰ Currently, the Department does not use member-to-provider ratio standards specific to respiratory 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 Colorado Medicaid members that live within certain drive time bands from where respiratory service providers are located.¹⁷¹

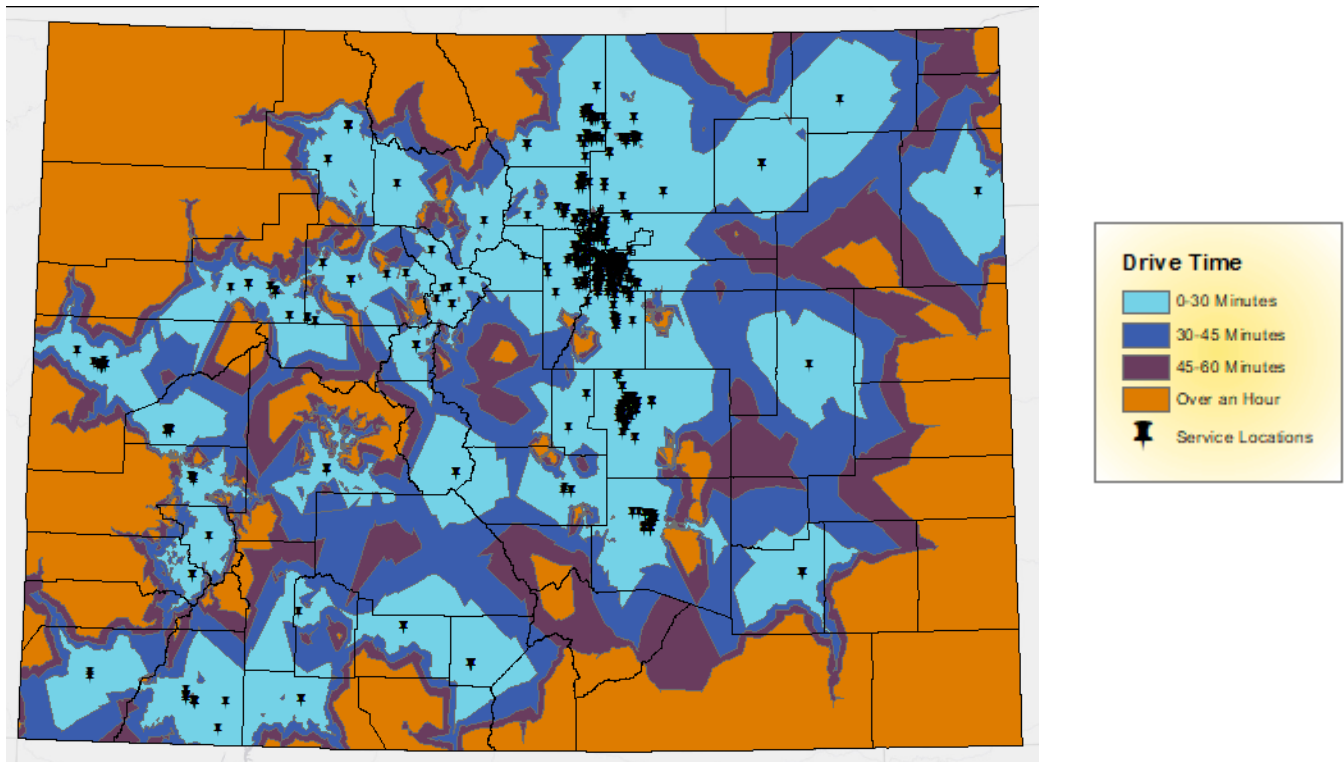


Figure 38. ArcGIS map of drive times of respiratory provider service locations to members in CY 2020.

Overall, 95.59% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a respiratory provider. Additionally, 1.61% of total members resided approximately 30-45 minutes from a respiratory provider; 1.08% of total members resided 45-60 minutes from a respiratory provider. Finally, 1.72% of total members resided over an hour from a respiratory provider.

¹⁷¹ Due to claims data, service locations shown on the ArcGIS map may represent service delivery locations.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding respiratory services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- Since respiratory services were reviewed in the [2017 Medicaid Provider Rate Review Analysis Report](#), Colorado reimbursement rates increased from 73.38% to 97.5% of the benchmark.¹⁷²
- Respiratory services were significantly impacted by the COVID-19 pandemic; for more information, see the supplemental analysis in Appendix F.

Additional Research

The Department plans to continue monitoring respiratory services utilization and active providers to track the return to pre-pandemic levels.¹⁷³

Conclusion

Analyses suggest that respiratory rates at 97.5% of the benchmark were sufficient for member access and provider retention.¹⁷⁴

The primary factors that led to this conclusion included:

- Over 95% of members live within 30 minutes of a respiratory provider.
- Colorado reimbursement rates increased from 73.38% to 97.5% of the benchmark since these services were previously reviewed.¹⁷⁵

¹⁷² See the [2017 Medicaid Provider Rate Review Analysis Report](#) for more information.

¹⁷³ See Appendix F for more information.

¹⁷⁴ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.

¹⁷⁵ Rate comparison data for respiratory services can be found in Appendix B.

Physician Services – Vaccines & Immunizations

Service Description

The vaccines & immunizations service grouping is comprised of 45 procedure codes. Vaccines & immunizations services provide services that improve immunity to a particular disease and are available to all Health First Colorado members. Vaccines & immunizations services were previously reviewed in the [2018 Medicaid Provider Rate Review Analysis Report](#), as part of the primary care/evaluation & management (E&M) service grouping.

Vaccines & Immunizations Statistics	
Total Adjusted Expenditures CY 2020 ¹⁷⁶	\$14,204,304
Total Members Utilizing Services in CY 2020	200,219
CY 2020 Over CY 2019 Change in Members Utilizing Services	6.10%
Total Active Providers CY 2020	5,855
CY 2020 Over CY 2019 Change in Active Providers	10.62%

Table 32. Vaccines & immunizations expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for vaccines & immunizations services are estimated at 107.9% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.¹⁷⁷

Vaccines & Immunizations Rate Benchmark Comparison ¹⁷⁸		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$14,203,812	\$13,160,618	107.9%

Table 33. Comparison of Colorado Medicaid vaccines & immunizations service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$1,043,194 in savings if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 45 procedure codes analyzed in this service grouping, five were compared to Medicare, and 40 were compared to an average of six other states' Medicaid rates.¹⁷⁹ Individual rate ratios for vaccines & immunizations services were 36.8%-284.7%.

¹⁷⁶ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

¹⁷⁷ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

¹⁷⁸ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

¹⁷⁹ States used in the vaccines & immunizations rate comparison analysis were Arizona, Oklahoma, Nebraska, Utah, Nevada, and Oregon. For more details on vaccines & immunizations rate comparisons, see Appendix B.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for vaccines & immunizations services decreased by 4.83% from an average of 7.45 utilizers per provider in CY 2019 to 7.09 utilizers per provider in CY 2020.

Additionally:

- In urban counties, average panel size decreased from 8.03 in CY 2019 to 7.66 in CY 2020.
- In rural counties, average panel size decreased from 5.71 in CY 2019 to 5.15 in CY 2020.
- In frontier counties, average panel size decreased from 2.90 in CY 2019 to 2.73 in CY 2020.

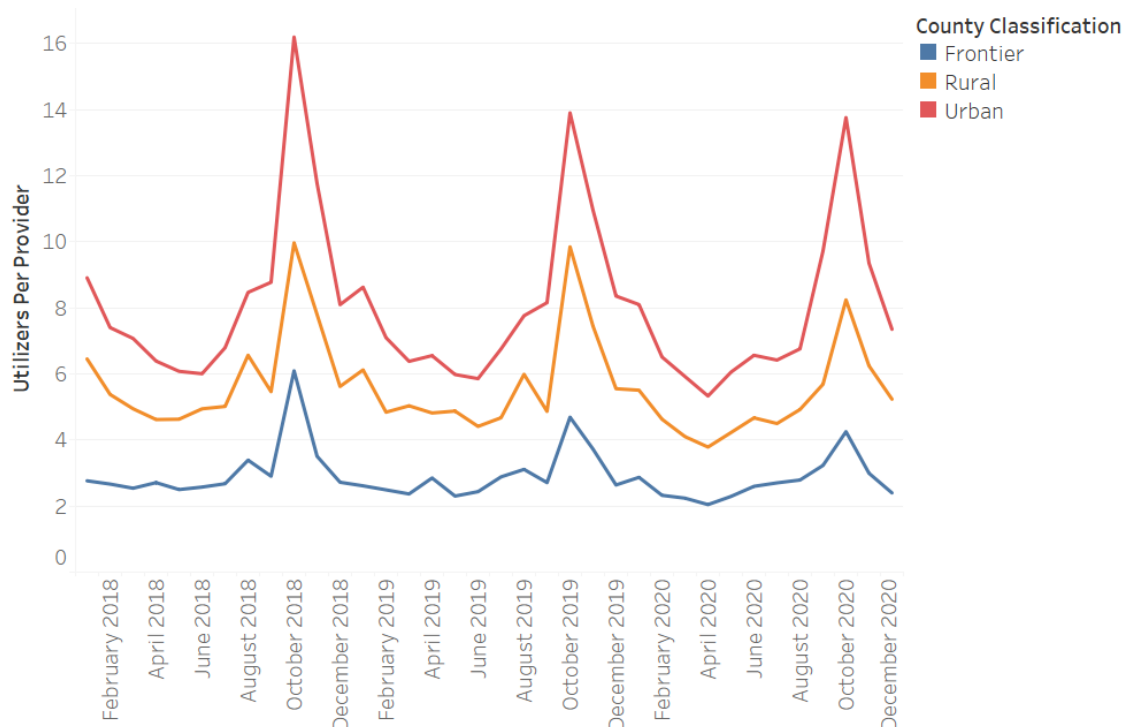


Figure 39. Utilizers per provider (panel size) for vaccines & immunizations services between January 2018 and December 2020.

Analysis indicates that both the number of distinct utilizers and active providers remained relatively stable over this time across all county classifications, not including seasonal patterns (see paragraph below).

The number of distinct utilizers and total active providers observed in all counties remained relatively steady, which led to consistent number of utilizers per provider from January 2018 to December 2020.¹⁸⁰

¹⁸⁰ For data specific to distinct utilizers and active providers, see Appendix D.

There was a noticeable change in all county classifications from August 2018 to October 2018, August 2019 to October 2019, and August 2020 to October 2020, that can be attributed to seasonal patterns, particularly at the beginning of each school year.¹⁸¹

Utilizer Density

The utilizer density metric provides information regarding where utilizers of vaccines & immunizations services reside throughout the state. Utilizer density for vaccines & immunizations services ranged from 45, in Cheyenne County, to 28,777 in Arapahoe County, in CY 2020.

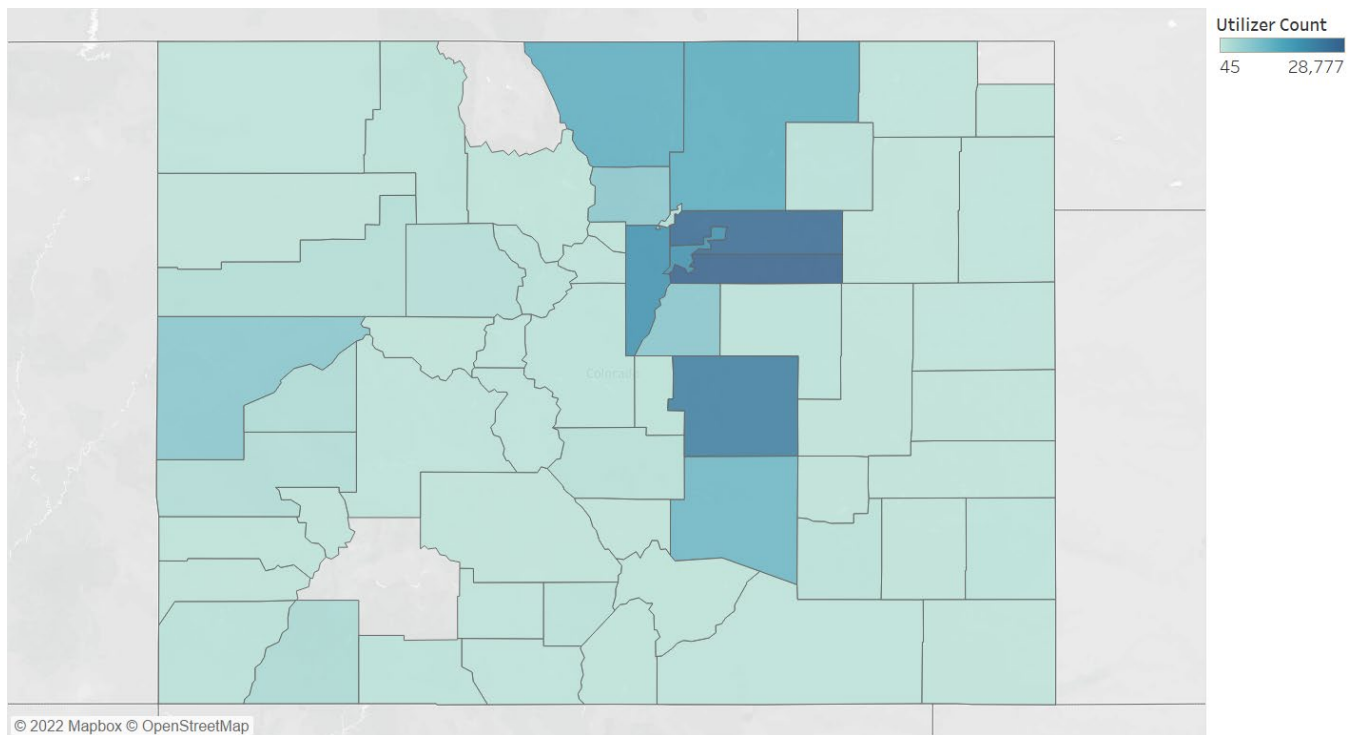


Figure 40. Utilizer density for vaccines & immunizations services by county for CY 2020.¹⁸²

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

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

Additionally, five counties¹⁸³ 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.

¹⁸¹ Please note that since this data only shows claims data through December 2020, this data does not include COVID-19 vaccination data, which begins in January 2021.

¹⁸² See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

¹⁸³ Due to software limitations, the five counties blinded for PHI appear in the three grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Penetration Rate

The penetration rate estimates the share of total Colorado Medicaid members in a geographic area that received the service. Penetration rates for vaccines & immunizations services ranged from 32.40 in Baca County, to 216.70 in Lake County, in CY 2020. Denver County had a penetration rate of 85.20 in CY 2020.

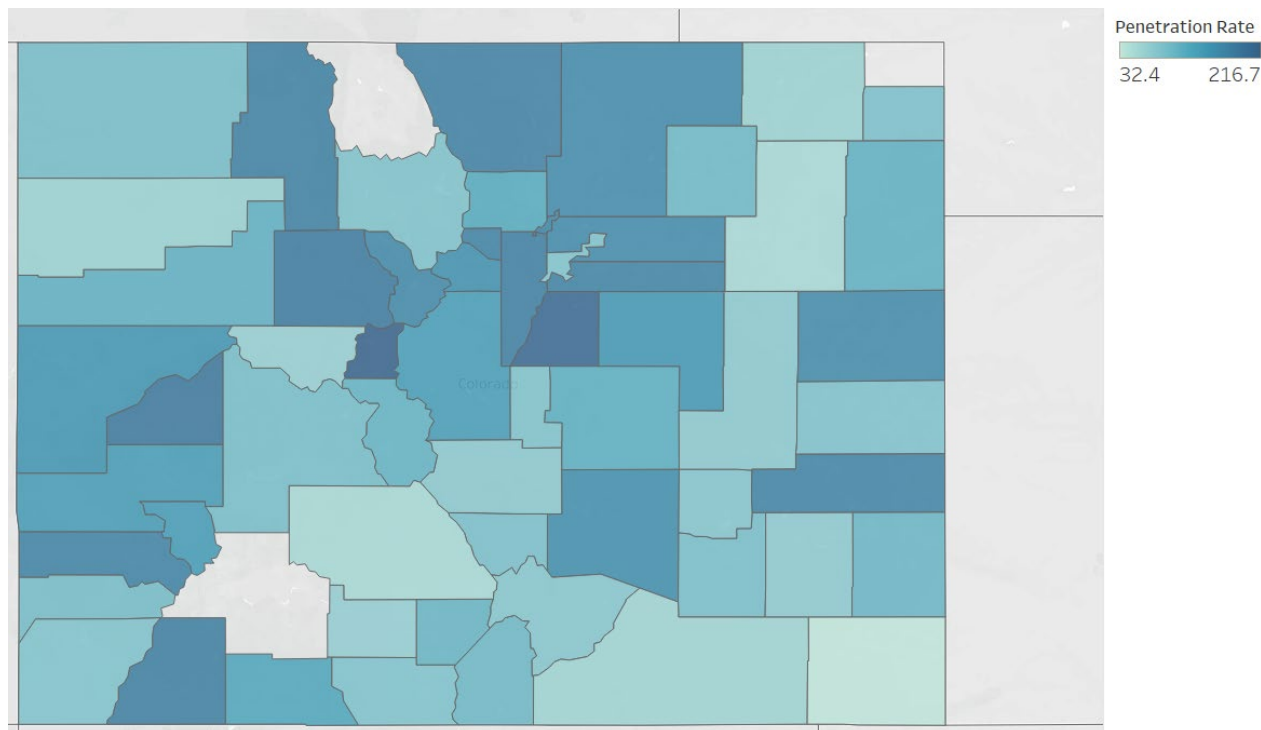


Figure 41. Penetration rates for vaccines & immunizations services by county in CY 2020.

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

Additionally, five counties¹⁸⁴ 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.

¹⁸⁴ Due to software limitations, the five counties blinded for PHI appear in the three grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Member-to-Provider Ratios

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

Vaccines & Immunizations Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	627	40,376	15.53
Rural	1,424	154,309	9.23
Urban	5,469	1,187,570	4.61
Statewide	5,855	1,371,726	4.27

Table 34. Member-to-provider ratio for vaccines & immunizations services expressed as providers per 1,000 members by county classification in CY 2020.¹⁸⁵

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.¹⁸⁶

¹⁸⁵ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

¹⁸⁶ Currently, the Department does not use member-to-provider ratio standards specific to vaccines & immunizations 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 Colorado Medicaid members that live within certain drive time bands from where vaccines & immunizations service providers are located.¹⁸⁷

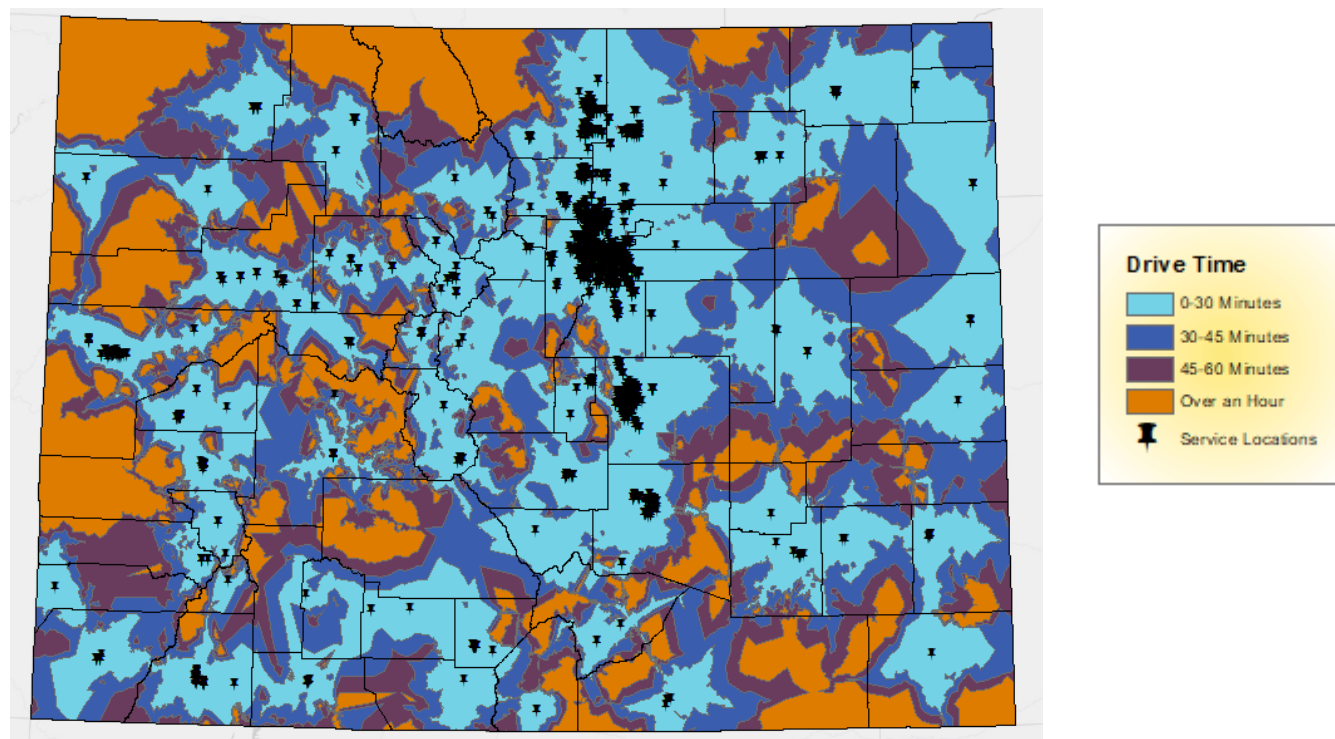


Figure 42. ArcGIS map of drive times of vaccines & immunizations provider service locations to members in CY 2020.

Overall, 97.02% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a vaccines & immunizations provider. Additionally, 1.58% of total members resided approximately 30-45 minutes from a vaccines & immunizations provider; 0.85% of total members resided 45-60 minutes from a vaccines & immunizations provider. Finally, 0.55% of total members resided over an hour from a vaccines & immunizations provider.

¹⁸⁷ Due to claims data, service locations shown on the ArcGIS map may represent service delivery locations.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding vaccines & immunizations services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- Vaccines & immunizations services were previously reviewed in the [2018 Medicaid Provider Rate Review Analysis Report](#), as part of the primary care/E&M service grouping.
- COVID-19 vaccination data is not included in this year's analysis base data, as our data is limited to CY 2020 and earlier, due to requiring six months of claims run-out data at the time of starting the analysis.

Additional Research

The Department plans to continue conduct further analysis on vaccines & immunizations utilization and active provider data during the COVID-19 pandemic and subsequent vaccination campaign to further analyze access to these services, as well as any potential opportunities for improving access to these services for Medicaid members.

Conclusion

Analyses suggest that vaccines & immunizations rates at 107.9% of the benchmark were sufficient for member access and provider retention.¹⁸⁸

The primary factors that led to this conclusion included:

- Over 97% of members live within 30 minutes of a vaccines & immunizations provider.
- Reimbursement rates are set significantly above those of Medicare, as well as set above those of six other states' Medicaid rates in the rate comparison analysis.¹⁸⁹

¹⁸⁸ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.

¹⁸⁹ Rate comparison data for vaccines & immunizations services can be found in Appendix B.

Physician Services – Vascular

Service Description

The vascular service grouping is comprised of 25 procedure codes. Vascular services involve testing and treating the function of arteries and veins and are available to all Health First Colorado members. Vascular services were previously reviewed in the [2017 Medicaid Provider Rate Review Analysis Report](#).

Vascular Statistics	
Total Adjusted Expenditures CY 2020 ¹⁹⁰	\$3,904,163
Total Members Utilizing Services in CY 2020	98,530
CY 2020 Over CY 2019 Change in Members Utilizing Services	(8.38%)
Total Active Providers CY 2020	3,748
CY 2020 Over CY 2019 Change in Active Providers	(1.37%)

Table 35. Vascular expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for vascular services are estimated at 121.2% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.¹⁹¹

Vascular Rate Benchmark Comparison ¹⁹²		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$3,904,163	\$3,220,898	121.2%

Table 36. Comparison of Colorado Medicaid vascular service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$683,265 in savings if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 25 procedure codes analyzed in this service grouping, 23 were compared to Medicare, and two were compared to an average of six other states' Medicaid rates.¹⁹³ Individual rate ratios for vascular services were 48.4%-310.7%.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for vascular services decreased by 3.42% from an average of 5.27 utilizers per provider in CY 2019 to 5.09 utilizers per provider in CY 2020. Additionally:

¹⁹⁰ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

¹⁹¹ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

¹⁹² The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

¹⁹³ States used in the vascular rate comparison analysis were Arizona, Oklahoma, Nebraska, Utah, Nevada, and Oregon. For more details on vascular rate comparisons, see Appendix B.

- In urban counties, average panel size decreased from 6.12 in CY 2019 to 5.94 in CY 2020.
- In rural counties, average panel size decreased from 2.60 in CY 2019 to 2.46 in CY 2020.
- In frontier counties, average panel size decreased from 1.70 in CY 2019 to 1.56 in CY 2020.

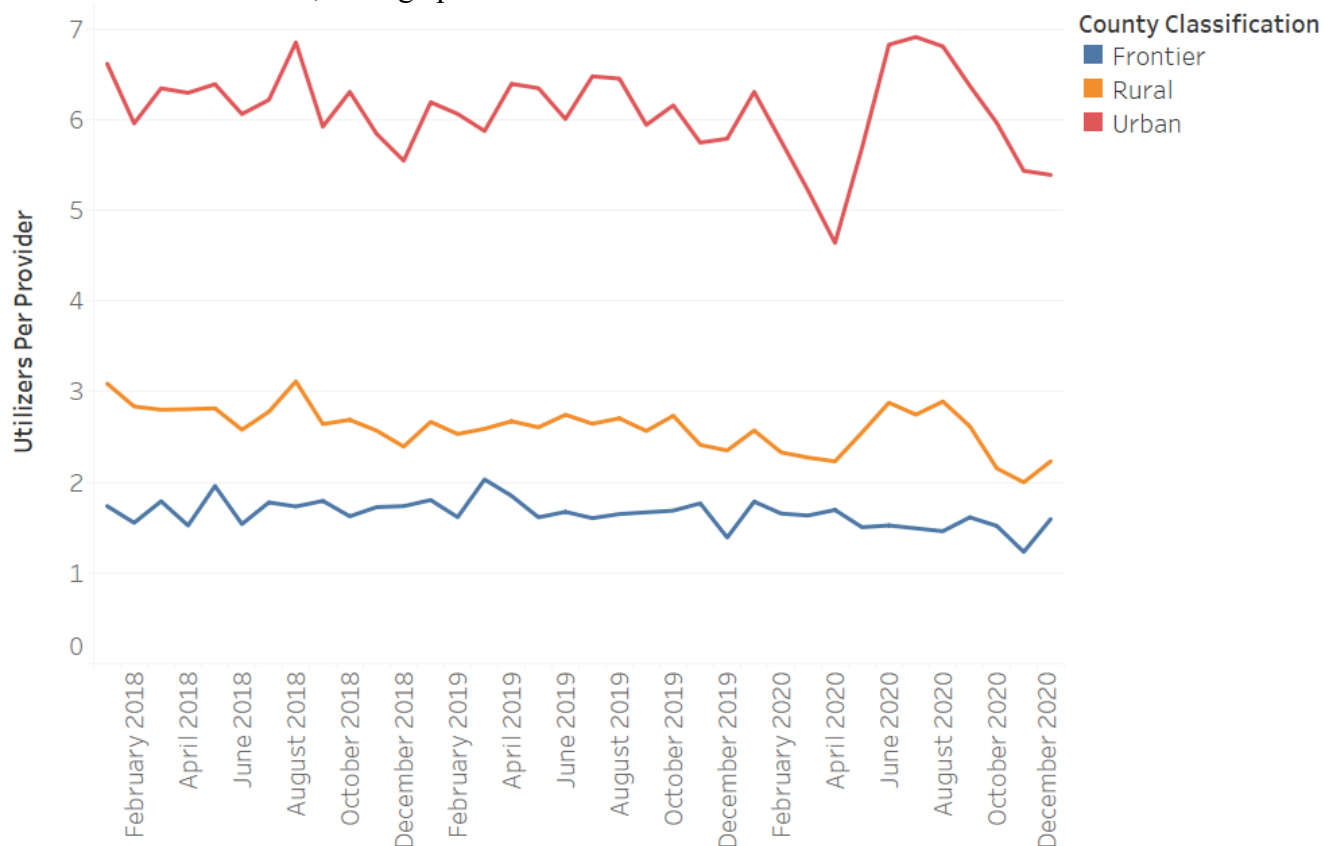


Figure 43. Utilizers per provider (panel size) for vascular services between January 2018 and December 2020.

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

The number of distinct utilizers and total active providers observed in urban and frontier county classifications remained relatively steady, which led to consistent number of utilizers per provider from January 2018 to December 2019. Additionally, the number of distinct utilizers decreased at a higher rate than active providers in rural counties, which led to a slight decrease in utilizers per provider in these counties from January 2018 to December 2020.¹⁹⁴

There was a noticeable change in urban and rural county classifications from March 2020 to December 2020 that can be attributed to the COVID-19 pandemic.¹⁹⁵

¹⁹⁴ For data specific to distinct utilizers and active providers, see Appendix D.

¹⁹⁵ See Appendix E for more information.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of vascular services reside throughout the state. Utilizer density for vascular services ranged from 31, in Phillips County, to 15,903 in Arapahoe County, in CY 2020.

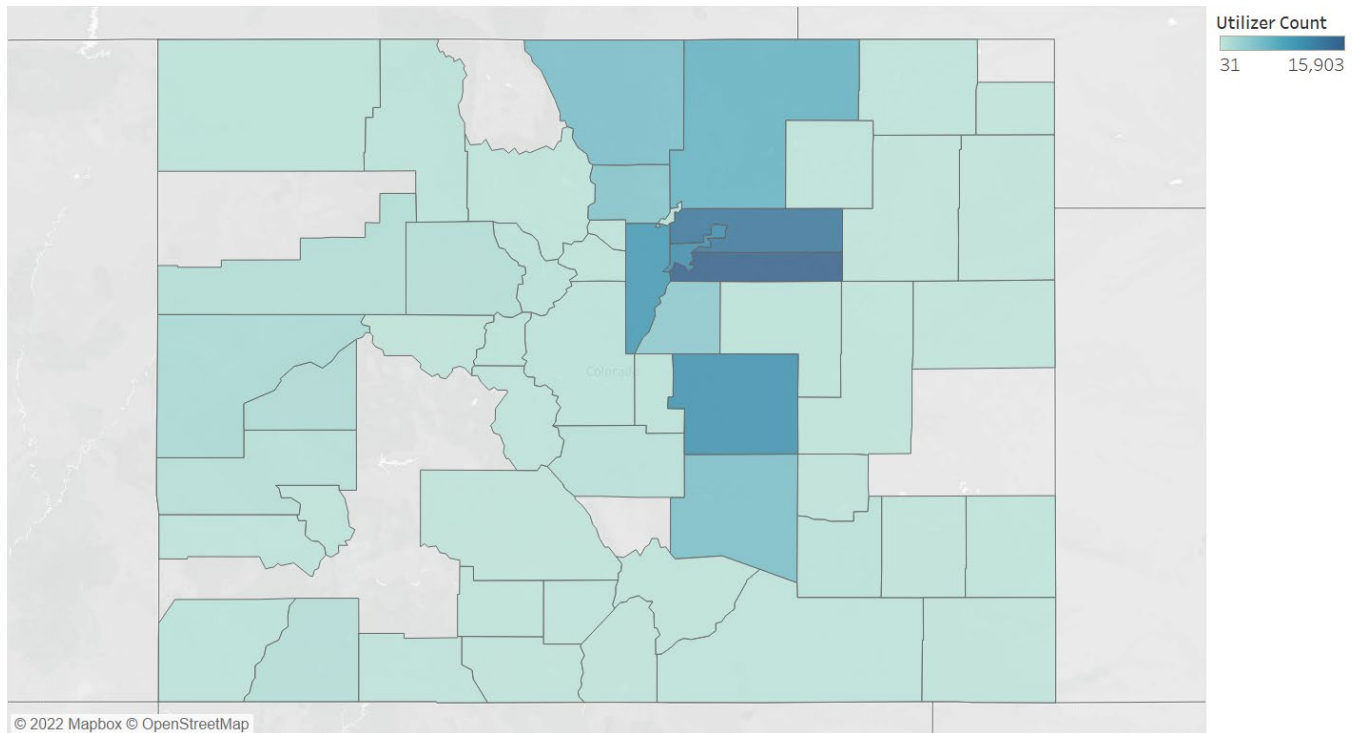


Figure 44. Utilizer density for vascular services by county for CY 2020.¹⁹⁶

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

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

Additionally, 11 counties¹⁹⁷ 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.

¹⁹⁶ See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

¹⁹⁷ Due to software limitations, the 11 counties blinded for PHI appear in the six grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Penetration Rate

The penetration rate estimates the share of total Colorado Medicaid members in a geographic area that received the service. Penetration rates for vascular services ranged from 17.30 in Yuma County, to 166.60 in Lake County, in CY 2020. Denver County had a penetration rate of 48.60 in CY 2020.

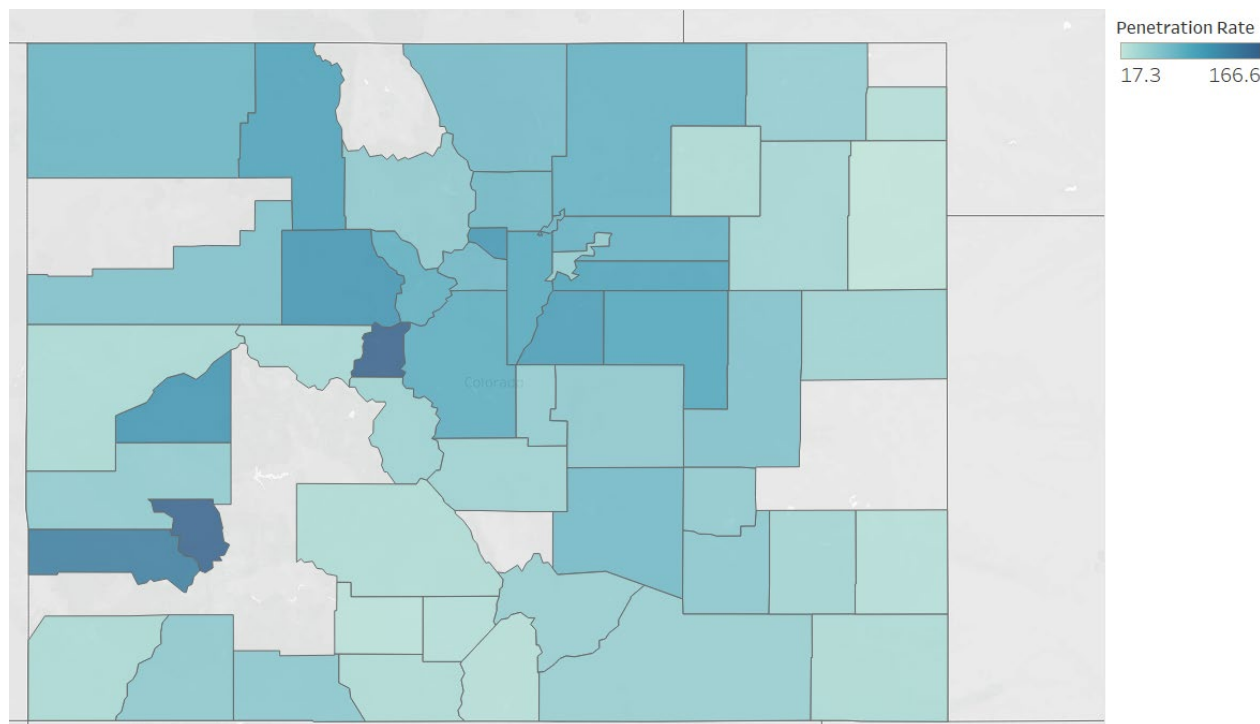


Figure 45. Penetration rates for vascular services by county in CY 2020.

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

Additionally, 11 counties¹⁹⁸ 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.

¹⁹⁸ Due to software limitations, the 11 counties blinded for PHI appear in the six grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Member-to-Provider Ratios

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

Vascular Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	625	40,376	15.48
Rural	1,268	154,309	8.22
Urban	3,437	1,187,570	2.89
Statewide	3,748	1,371,726	2.73

Table 37. Member-to-provider ratio for vascular services expressed as providers per 1,000 members by county classification in CY 2020.¹⁹⁹

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.²⁰⁰

¹⁹⁹ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

²⁰⁰ Currently, the Department does not use member-to-provider ratio standards specific to vascular 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 Colorado Medicaid members that live within certain drive time bands from where vascular service providers are located.²⁰¹

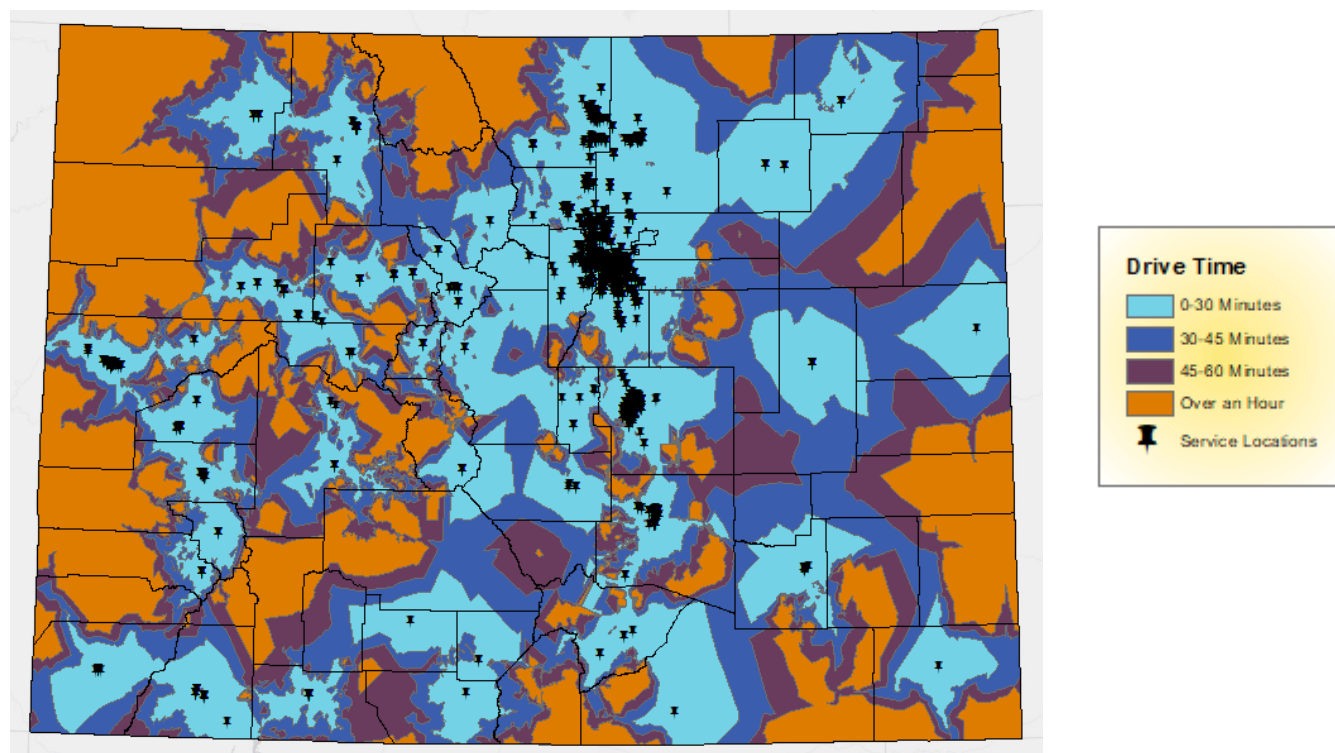


Figure 46. ArcGIS map of drive times of vascular provider service locations to members in CY 2020.

Overall, 96.38% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a vascular provider. Additionally, 1.47% of total members resided approximately 30-45 minutes from a vascular provider; 1.39% of total members resided 45-60 minutes from a vascular provider. Finally, 0.76% of total members resided over an hour from a vascular provider.

²⁰¹ Due to claims data, service locations shown on the ArcGIS map may represent service delivery locations.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding vascular services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- Since vascular services were reviewed in the [2017 Medicaid Provider Rate Review Analysis Report](#), total expenditures increased by nearly \$1 million, or 35.8%, compared to a 28.3% decrease in distinct utilizers.²⁰²

Additional Research

The Department currently has no plans for further research for vascular services.

Conclusion

Analyses suggest that vascular rates at 121.2% of the benchmark were sufficient for member access and provider retention.²⁰³

The primary factors that led to this conclusion included:

- Increase in total expenditures since the first time these services were reviewed.
- Over 96% of members live within 30 minutes of a vascular provider.
- Reimbursement rates are set significantly above those of Medicare in the rate comparison analysis.²⁰⁴

²⁰² For more information, see the [2017 Medicaid Provider Rate Review Analysis Report](#).

²⁰³ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.

²⁰⁴ Rate comparison data for vascular services can be found in Appendix B.

Physician Services – Women’s Health & Family Planning

Service Description

The women’s health & family planning service grouping is comprised of 64 procedure codes. Women’s health & family planning services involve testing services (e.g., pregnancy tests, etc.), preventative care visits, contraceptives, hormonal regulation, and several procedures (e.g., various hysterectomy procedures, etc.) and is available to all Health First Colorado members.²⁰⁵ Family planning services were previously reviewed in the [2018 Medicaid Provider Rate Review Analysis Report](#) as part of the primary care/E&M service grouping. Family planning services were identified, along with women’s health services, to benefit as a stand-alone subcategory for review under the physician services category in Year Two of the [Updated Five-Year Rate Review Schedule](#) in July 2019.

Women’s Health & Family Planning Statistics	
Total Adjusted Expenditures CY 2020 ²⁰⁶	\$188,680,132
Total Members Utilizing Services in CY 2020	549,376
CY 2020 Over CY 2019 Change in Members Utilizing Services	(5.44%)
Total Active Providers CY 2020	15,381
CY 2020 Over CY 2019 Change in Active Providers	1.56%

Table 38. Women’s health & family planning expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for women’s health & family planning services are estimated at 83.4% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.²⁰⁷

Women’s Health & Family Planning Rate Benchmark Comparison ²⁰⁸		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$188,679,084	\$226,119,105	83.4%

Table 39. Comparison of Colorado Medicaid women’s health & family planning service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$37,440,021 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 64 procedure codes analyzed in this service grouping, 43 were compared to Medicare, and 21 were compared to an average of six other states’

²⁰⁵ Women’s health & family planning services were added to the [Updated Five-Year Rate Review Schedule](#) in July 2019; this is the first time they are being reviewed as a subcategory in the physician services service grouping.

²⁰⁶ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

²⁰⁷ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

²⁰⁸ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

Medicaid rates.²⁰⁹ Individual rate ratios for women’s health & family planning services were 36.3%-194.3%.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for women’s health & family planning services increased by 5.91% from an average of 9.65 utilizers per provider in CY 2019 to 9.08 utilizers per provider in CY 2020.

Additionally:

- In urban counties, average panel size decreased from 12.02 in CY 2019 to 11.35 in CY 2020.
- In rural counties, average panel size decreased from 4.49 in CY 2019 to 4.07 in CY 2020.
- In frontier counties, average panel size decreased from 2.09 in CY 2019 to 1.94 in CY 2020.

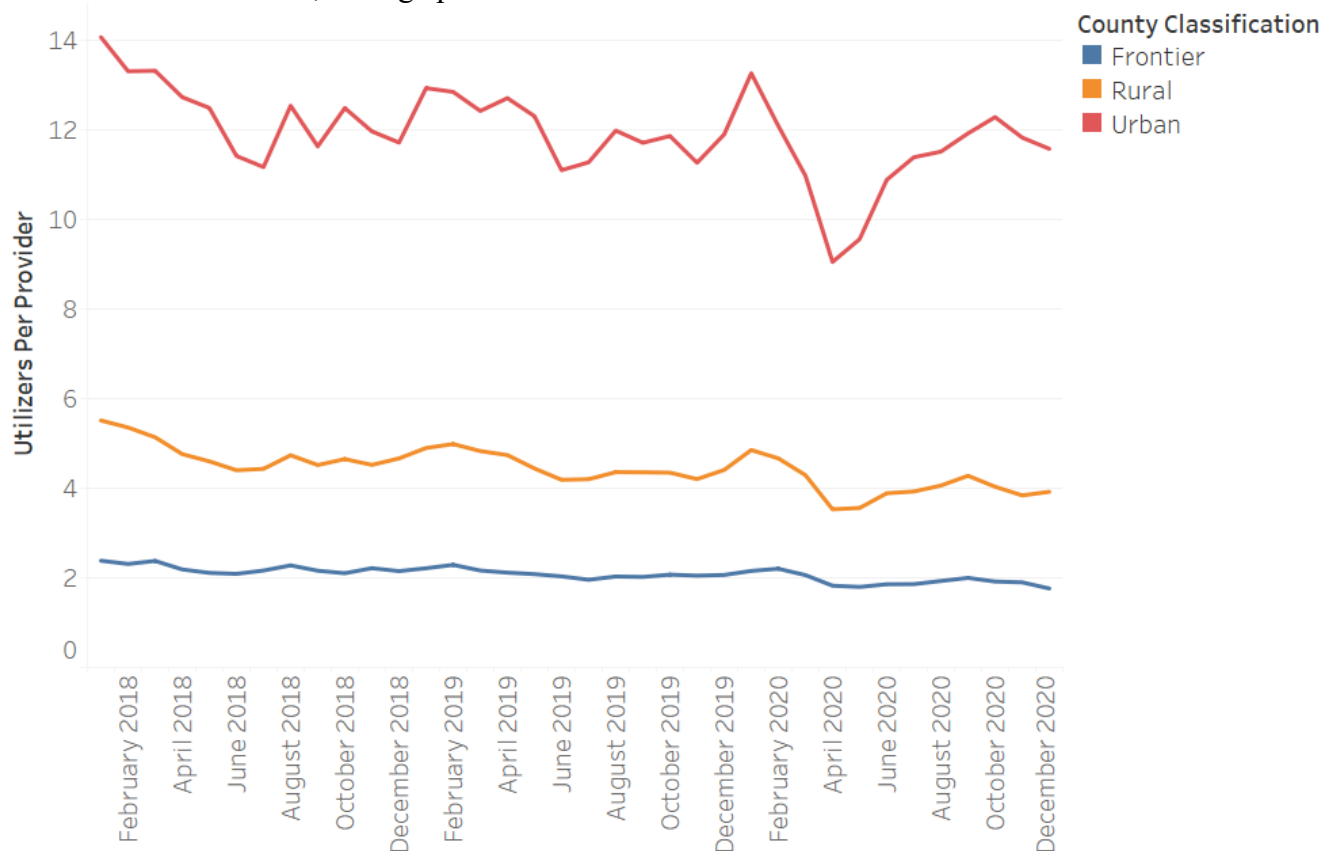


Figure 47. Utilizers per provider (panel size) for women’s health & family planning services between January 2018 and December 2020.

Analysis indicates that the number of distinct utilizers remained relatively stable over this time across all county classifications. Additionally, there was an increase in active providers over this time across all county classifications.

²⁰⁹ States used in the women’s health & family planning rate comparison analysis were Arizona, Oklahoma, Nebraska, Utah, Nevada, and Oregon. For more details on women’s health & family planning rate comparisons, see Appendix B.

The number of distinct utilizers observed in all county classifications remained relatively steady as active providers increased across all county classifications, which led to a decrease in the number of utilizers per provider from January 2018 to December 2020.²¹⁰

There was a noticeable change in urban and rural counties from March 2020 to May 2020 that can be attributed to the COVID-19 pandemic. This was not permanent, and analyses indicate both utilizers of and providers rendering women’s health & family planning service to Medicaid members have returned to pre-pandemic levels.²¹¹

Utilizer Density

The utilizer density metric provides information regarding where utilizers of women’s health & family planning services reside throughout the state. Utilizer density for women’s health & family planning services ranged from 42, in Hinsdale County, to 83,161 in El Paso County, in CY 2020.

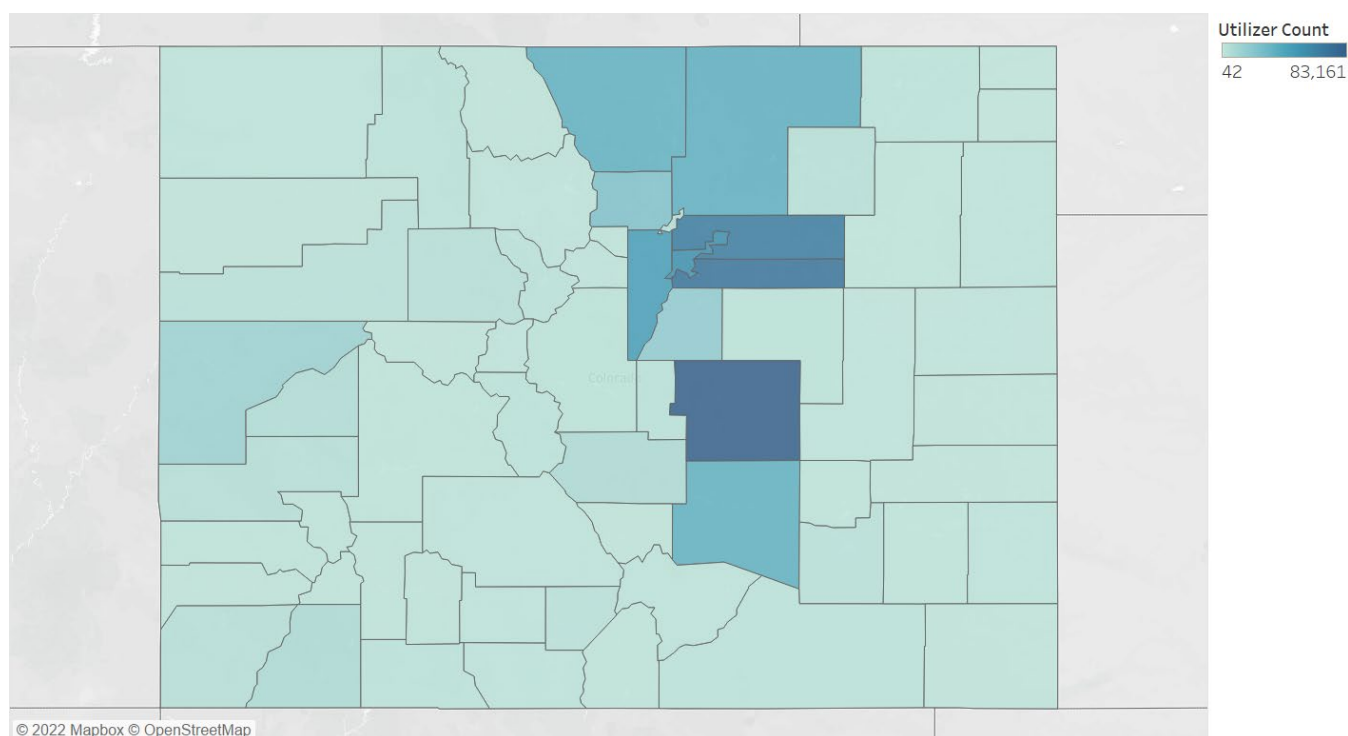


Figure 48. Utilizer density for women’s health & family planning services by county for CY 2020.²¹²

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

- relatively lower demand for women’s health & family planning services, or a low number of Colorado Medicaid members utilizing women’s health & family planning services.

²¹⁰ For data specific to distinct utilizers and active providers, see Appendix D.

²¹¹ See Appendix E for more information.

²¹² See Figure 1. Colorado Counties and RAE County Classification in Appendix A 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 women's health & family planning services ranged from 147.30 in Pitkin County, to 533.70 in Lake County, in CY 2020. Denver County had a penetration rate of 244.20 in CY 2020.

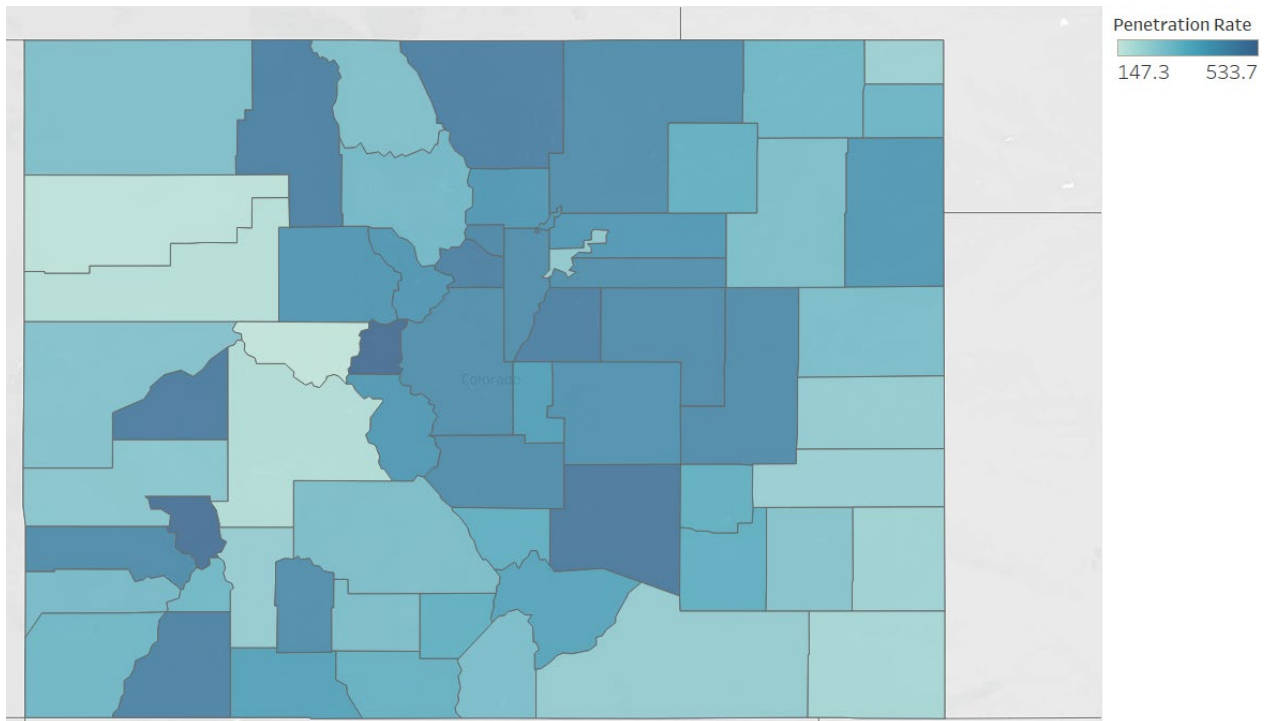


Figure 49. Penetration rates for women's health & family planning services by county in CY 2020.

Counties with relatively higher penetration rates indicate that, as a share of total Colorado Medicaid members residing in the county, a larger proportion received women's health & family planning services.

Member-to-Provider Ratios

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

Women's Health & Family Planning Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	4,285	40,376	106.13
Rural	7,427	154,309	48.13
Urban	14,694	1,187,570	12.37
Statewide	15,381	1,371,726	11.21

Table 40. Member-to-provider ratio for women's health & family planning services expressed as providers per 1,000 members by county classification in CY 2020.²¹³

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.²¹⁴

²¹³ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

²¹⁴ Currently, the Department does not use member-to-provider ratio standards specific to women's health & family planning 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 Colorado Medicaid members that live within certain drive time bands from where women's health & family planning service providers are located.²¹⁵

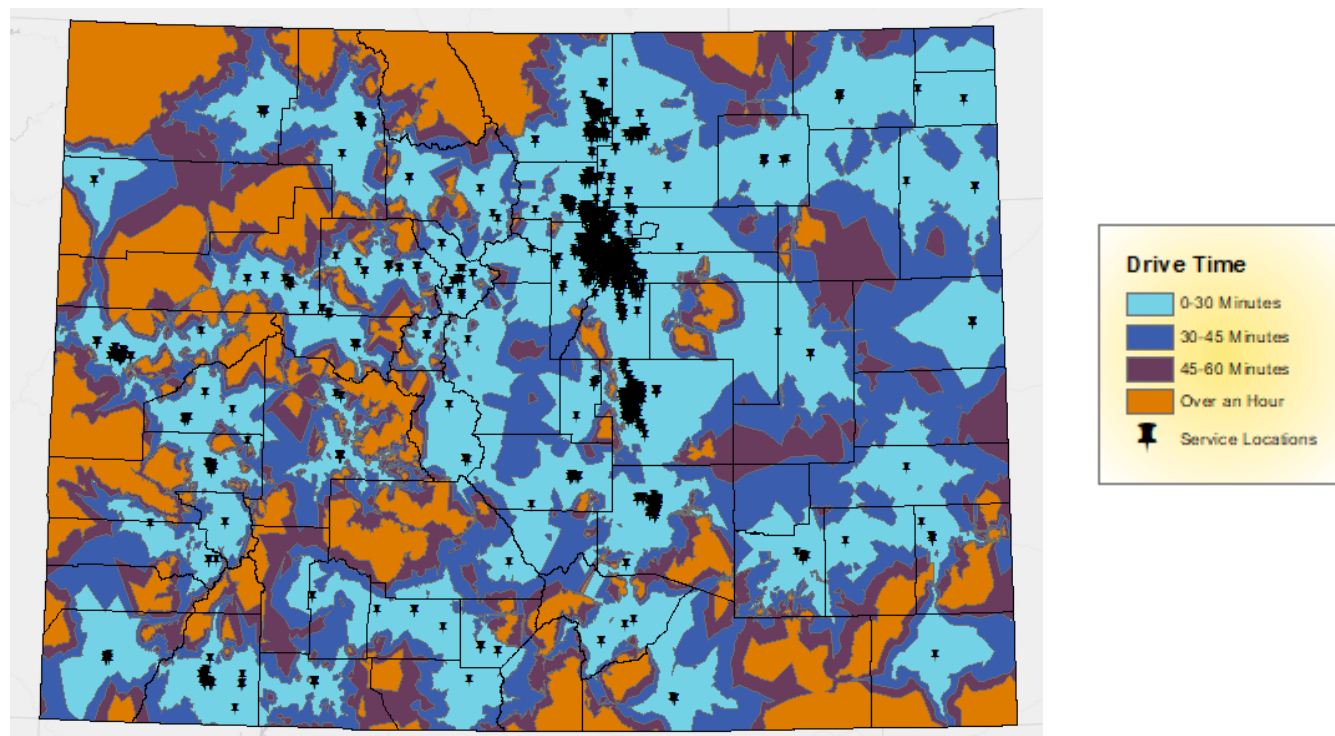


Figure 50. ArcGIS map of drive times of women's health & family planning provider service locations to members in CY 2020.

Overall, 97.98% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a women's health & family planning provider. Additionally, 1.05% of total members resided approximately 30-45 minutes from a women's health & family planning provider; 0.48% of total members resided 45-60 minutes from a women's health & family planning provider. Finally, 0.49% of total members resided over an hour from a women's health & family planning provider.

²¹⁵ Due to claims data, service locations shown on the ArcGIS map may represent service delivery locations.

Stakeholder Feedback

The Department received feedback from stakeholders and committee members regarding women's health & family planning services in the public meeting on March 25, 2022. The themes of stakeholder feedback include:

- Stakeholders shared in the public meeting on March 25, 2022 that the rate for abortion services has not changed since the 1990's and is set too low for appropriate member access and provider retention for these services.²¹⁶
- Opportunities to extend telehealth for applicable services to increase access for members and reduce costs to the Department, particularly for primary care/E&M, health education, and family planning services, among others.

Additional Considerations

Other considerations include:

- Family planning and women's health services are comprised of mostly preventative care services, and family planning is pushed heavily at a national level.
- Several family planning codes are being analyzed through our rate setting process to address stakeholder feedback received prior to this year of review.²¹⁷

Additional Research

The Department plans to look at several rates included in the women's health & family planning subcategory of services, including those related as too low for appropriate access by stakeholders, to identify rates that would benefit from an immediate increase and other possible opportunities for improving member access to these services and provider retention.²¹⁸

Conclusion

Nearly 98% of members live within 30 minutes of a women's health & family planning provider and reimbursement rates for approximately 30% of women's health & family planning services are set significantly above those of six other states in the rate comparison analysis;²¹⁹ these factors indicate that rates may be sufficient for member access and provider retention.²²⁰ Given that active providers are defined as having one or more Medicaid patient visits during the analysis period, those providers may not provide adequate access to enough Medicaid members at the existing rates.

²¹⁶ This service is scheduled to be reviewed in the third year of review; the Department will use this feedback to inform a rate setting project for this stand-alone code.

²¹⁷ Additionally, several codes on which the Department received feedback will be included in the surgeries service grouping, under review in Year Three (Cycle Two) of the Rate Review Process. These codes include procedure codes 58300 (intrauterine device (IUD) insertion), among others.

²¹⁸ Services for further analysis include abortion, IUD insertion, among others.

²¹⁹ Rate comparison data by benchmark state for Primary Care/E&M services can be found in Appendix B.

²²⁰ The Department recognizes that, while rates may be sufficient, there may be other opportunities to improve access to care and provider retention.

Rate benchmarking analyses have indicated that women's health & family planning rates are at 83.4%.²²¹ Given that women's health & family planning rates are only slightly above 80% of the benchmark, the Department believes that ultimately rates may not be sufficient to ensure member access and provider retention going forward. Additionally, rates may not support appropriate reimbursement for high-value services.^{222, 223, 224, 225}

²²¹ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.

²²² High-value services include services that have a net clinical benefit while also reliably and predictably providing substantial individual and population health benefits; examples of high-value service in the women's health & family planning service grouping are pregnancy prevention & appropriate preventative screening/testing services.

²²³ The Department is conducting additional research and will identify opportunities to improve access to care and provider retention.

²²⁴ Please note that this conclusion is for the women's health and family planning services grouping as a whole and this conclusion does not prevent the Department from recommending targeted rate changes for individual services identified as suffering potential access issues or those that would benefit from an immediate rate change.

²²⁵ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.



Physician Services – Other Physician Services

Service Description

The other physician services grouping is comprised of 265 procedure codes. Other physician services include allergy services, diagnostic and therapeutic skin procedures, genetic counseling, health and behavior assessments, infusions, motion analysis, neurology, psychiatric treatment, and treatment of wounds, in addition to several miscellaneous services that do not fit into a broader subcategory of services. Other physician services are available to all Health First Colorado members. Other physician services were previously reviewed in the [2018 Medicaid Provider Rate Review Analysis Report](#).

Other Physician Services Statistics	
Total Adjusted Expenditures CY 2020 ²²⁶	\$371,158,307
Total Members Utilizing Services in CY 2020	684,067
CY 2020 Over CY 2019 Change in Members Utilizing Services	(5.44%)
Total Active Providers CY 2020	19,614
CY 2020 Over CY 2019 Change in Active Providers	1.68%

Table 41. Other Physician Services expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for other physician services are estimated at 83.7% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.²²⁷

Other Physician Services Rate Benchmark Comparison ²²⁸		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$371,158,303	\$443,653,719	83.7%

Table 42. Comparison of Colorado Medicaid other physician services payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$72,495,416 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 265 procedure codes analyzed in this service grouping, 221 were compared to Medicare, and 44 were compared to an average of six other states' Medicaid rates.²²⁹ Individual rate ratios for other physician services were 4.0%-429.4%.

²²⁶ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

²²⁷ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

²²⁸ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

²²⁹ States used in the other physician services rate comparison analysis were Arizona, Oklahoma, Nebraska, Utah, Nevada, and Oregon. For more details on other physician services rate comparisons, see Appendix B.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for other physician services decreased by 7.93% from an average of 9.33 utilizers per provider in CY 2019 to 8.59 utilizers per provider in CY 2020. Additionally:

- In urban counties, average panel size decreased from 12.22 in CY 2019 to 11.25 in CY 2020.
- In rural counties, average panel size decreased from 3.95 in CY 2019 to 3.53 in CY 2020.
- In frontier counties, average panel size decreased from 1.87 in CY 2019 to 1.68 in CY 2020.

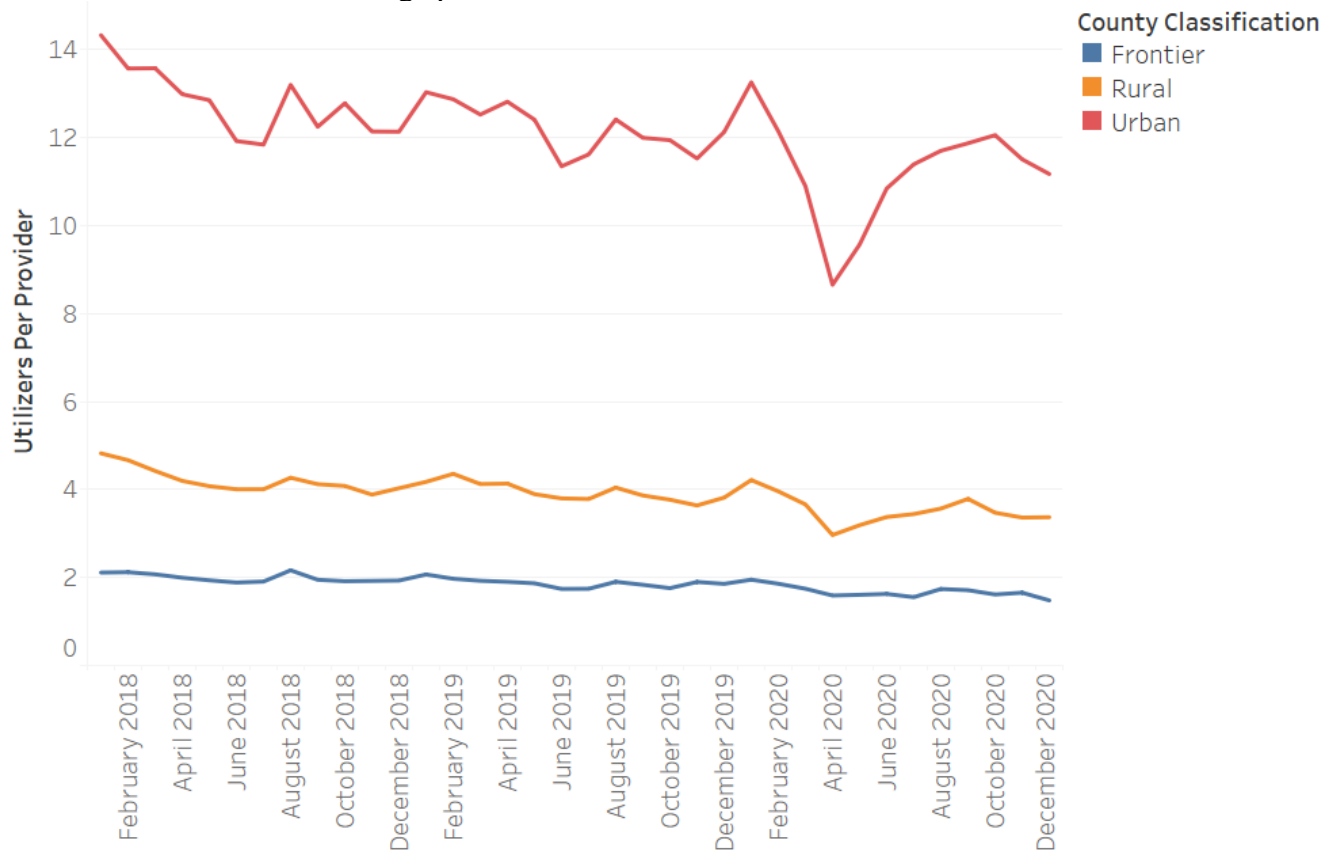


Figure 51. Utilizers per provider (panel size) for other physician services between January 2018 and December 2020.

Analysis indicates that the number of distinct utilizers remained relatively stable over this time across all county classifications. Additionally, there was an increase in active providers over this time across all county classifications.

The number of distinct utilizers observed in all county classifications remained relatively steady as active providers increased across all county classifications, which led to a decrease in the number of utilizers per provider from January 2018 to December 2020.²³⁰

There was a noticeable change across all county classifications from March 2020 to May 2020 that can be attributed to the COVID-19 pandemic.²³¹

²³⁰ For data specific to distinct utilizers and active providers, see Appendix D.

²³¹ See Appendix E for more information.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of other physician services reside throughout the state. Utilizer density for other physician services ranged from 50, in Hinsdale County, to 100,352 in El Paso County, in CY 2020.

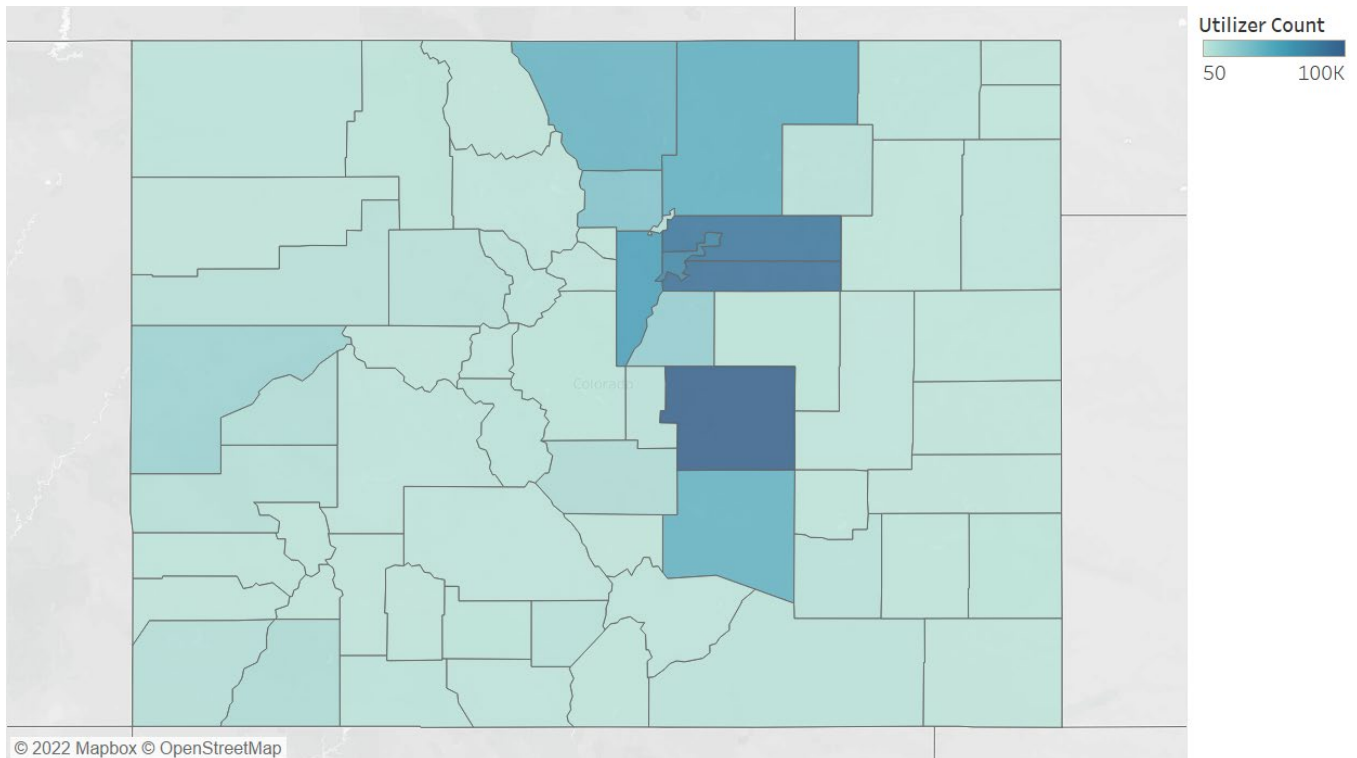


Figure 52. Utilizer density for other physician services by county for CY 2020.²³²

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

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

²³² See Figure 1. Colorado Counties and RAE County Classification in Appendix A 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 other physician services ranged from 174.00 in Pitkin County, to 611.50 in Lake County, in CY 2020. Denver County had a penetration rate of 330.60 in CY 2020.

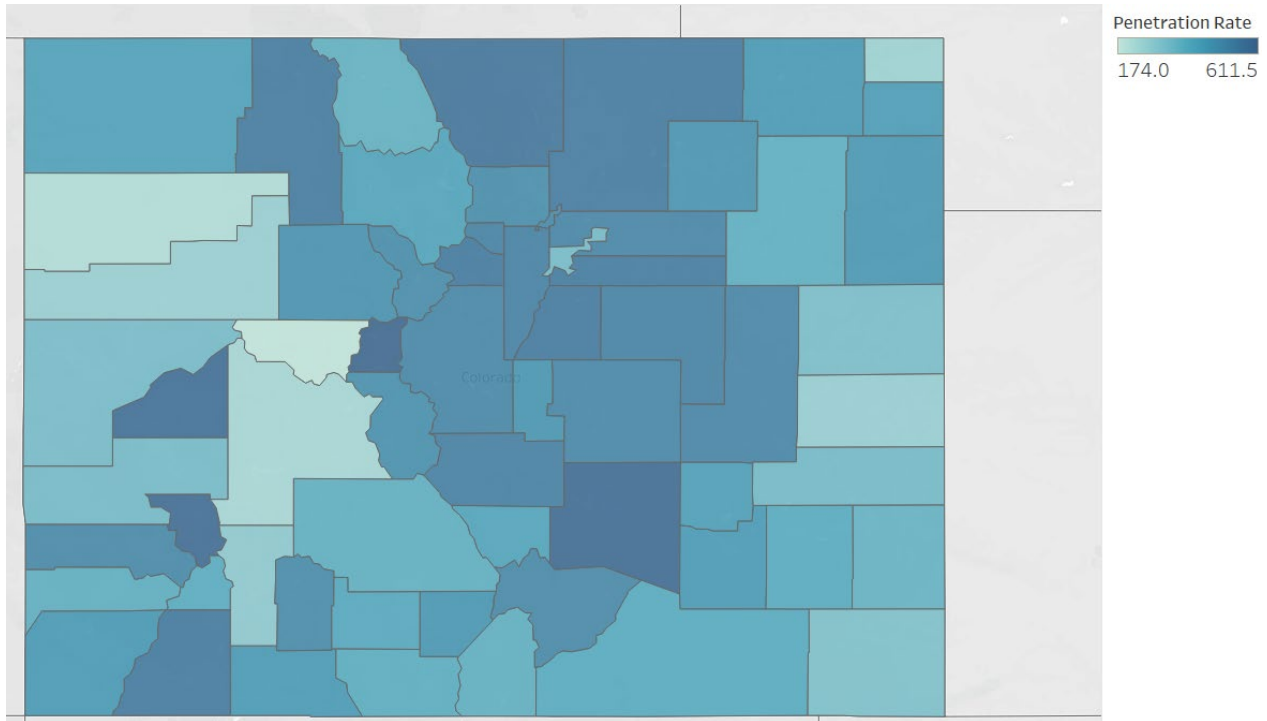


Figure 53. Penetration rates for other physician services by county in CY 2020.

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

Member-to-Provider Ratios

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

Other Physician Services Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	7,118	40,376	176.29
Rural	11,251	154,309	72.91
Urban	18,700	1,187,570	15.75
Statewide	19,614	1,371,726	14.30

Table 43. Member-to-provider ratio for other physician services expressed as providers per 1,000 members by county classification in CY 2020.²³³

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.²³⁴

²³³ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

²³⁴ Currently, the Department does not use member-to-provider ratio standards specific to other physician 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 Colorado Medicaid members that live within certain drive time bands from where other physician services providers are located.²³⁵

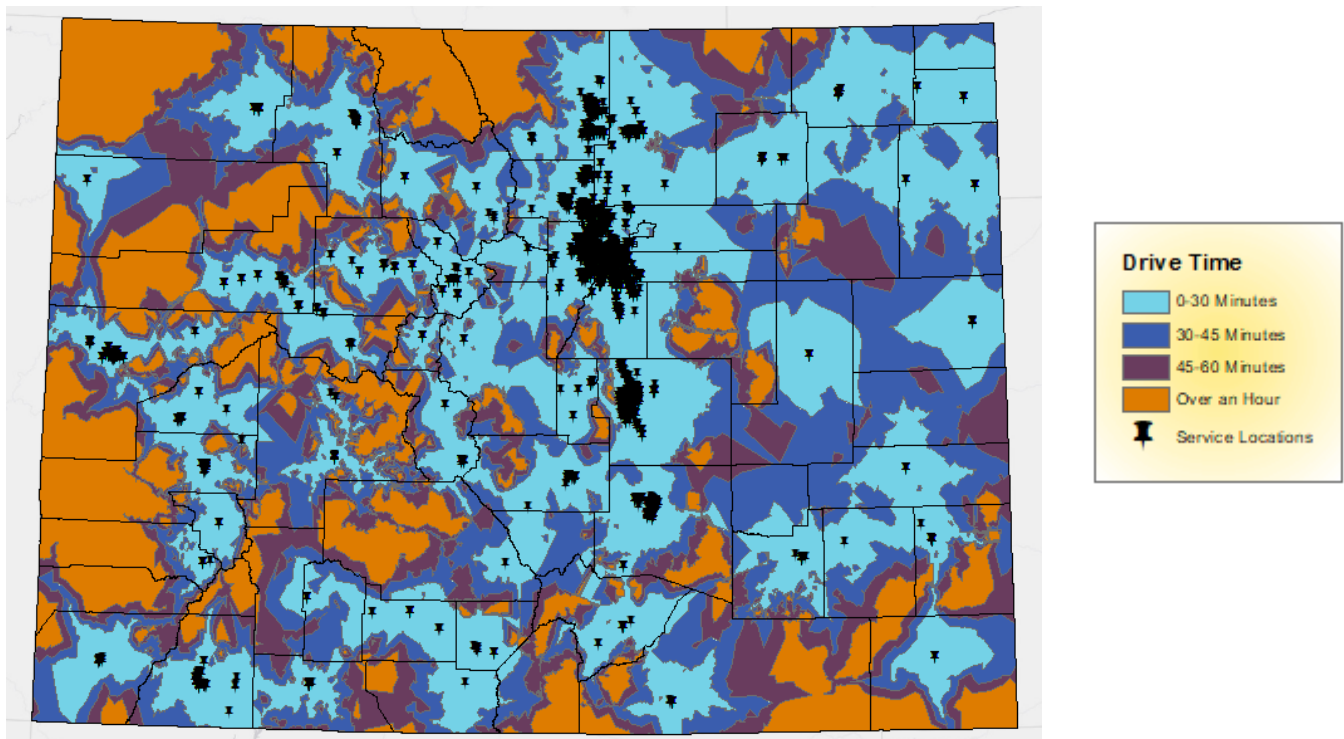


Figure 54. ArcGIS map of drive times of other physician services provider service locations to members in CY 2020.

Overall, 98.01% of total Health First Colorado members in CY 2020 resided 30 minutes or less from an other physician services provider. Additionally, 1.02% of total members resided approximately 30-45 minutes from an other physician services provider; 0.47% of total members resided 45-60 minutes from an other physician services provider. Finally, 0.50% of total members resided over an hour from an other physician services provider.

²³⁵ Due to claims data, service locations shown on the ArcGIS map may represent service delivery locations.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding other physician services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- Since other physician services were reviewed in the [2018 Medicaid Provider Rate Review Analysis Report](#), both total members accessing other physician services and total active other physician services providers increased. In addition, total expenditures increased by over \$300 million, or 35.0%, compared to a 10.1% decrease in distinct utilizers.²³⁶
- The other physician services grouping included additional codes in the 2022 analysis, compared to the previous review in the [2018 Medicaid Provider Rate Review Analysis Report](#).²³⁷

Additional Research

The Department plans to look at the utilization in for each service in the category to identify if there are any potential access issues unique to a smaller set of rates within this grouping.

Conclusion

Total expenditures increased since the last time other physician services were reviewed, and over 98% of members live within 30 minutes of an other physician services provider; these factors indicate that rates may be sufficient for member access and provider retention.²³⁸ Given that active providers are defined as having one or more Medicaid patient visits during the analysis period, those providers may not provide adequate access to enough Medicaid members at the existing rates.

Rate benchmarking analyses have indicated that other physician services rates are at 83.7%.²³⁹ Given that other physician services rates are only slightly above 80% of the benchmark, the Department believes that ultimately rates may not be sufficient to ensure member access and provider retention going forward.²⁴⁰

²³⁶ For more information, see the [2018 Medicaid Provider Rate Review Analysis Report](#).

²³⁷ For more information on the procedure codes included in this analysis, see Appendix B.

²³⁸ The Department recognizes that, while rates may be sufficient, there may be other opportunities to improve access to care and provider retention.

²³⁹ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.

²⁴⁰ The Department is conducting additional research and will identify opportunities to improve access to care and provider retention.

Dialysis & Nephrology Services – Facility

Service Description

The dialysis & nephrology (dialysis) – facility service grouping is comprised of six facility revenue codes. Dialysis – facility services involve the clinical purification of blood as a substitute for the normal functioning of the kidney and are provided in the inpatient hospital setting and dialysis centers; while these services are available to all Health First Colorado members, most utilizers are between 41 and 60 years of age. Dialysis – facility services were previously reviewed in the [2019 Medicaid Provider Rate Review Analysis Report](#).

Dialysis – Facility Statistics	
Total Adjusted Expenditures CY 2020 ²⁴¹	\$9,697,716
Total Members Utilizing Services in CY 2020	675
CY 2020 Over CY 2019 Change in Members Utilizing Services	27.84%
Total Active Providers CY 2020	80
CY 2020 Over CY 2019 Change in Active Providers	1.27%

Table 44. Dialysis – facility expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for dialysis – facility services are estimated at 78.5% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.²⁴²

Dialysis – Facility Regional Rate Benchmark Comparison ²⁴³			
Wage Index Region	CO Repriced	Comparison Repriced	Rate Benchmark Comparison
Boulder, CO	\$346,518	\$456,410	75.9%
Colorado Springs, CO	\$734,207	\$971,901	75.5%
Denver, Aurora, Lakewood	\$5,304,095	\$7,582,448	79.4%
Fort Collins, CO	\$217,202	\$273,379	79.5%
Greeley, CO	\$521,276	\$651,014	80.2%
Pueblo, CO	\$503,301	\$649,512	77.5%
Rural Colorado	\$817,629	\$1,080,806	75.6%
All Colorado	\$8,444,228	\$10,761,508	78.5%

Table 45. Comparison of Colorado Medicaid dialysis – facility service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$2,317,279 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. All the revenue codes analyzed in this service

²⁴¹ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix C.

²⁴² Detailed information regarding the rate comparison analysis methodology is contained in Appendix C.

²⁴³ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix C.

grouping were compared to Medicare.²⁴⁴ Individual rate ratios for dialysis – facility services were 75.4%-80.2%.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for dialysis – facility services increased by 6.30% from an average of 3.49 utilizers per provider in CY 2019 to 3.71 utilizers per provider in CY 2020. Additionally:

- In urban counties, average panel size increased from 4.08 in CY 2019 to 4.31 in CY 2020.
- In rural counties, average panel size increased from 1.55 in CY 2019 to 1.70 in CY 2020.
- In frontier counties, average panel size increased from 1.33 in CY 2019 to 1.45 in CY 2020.

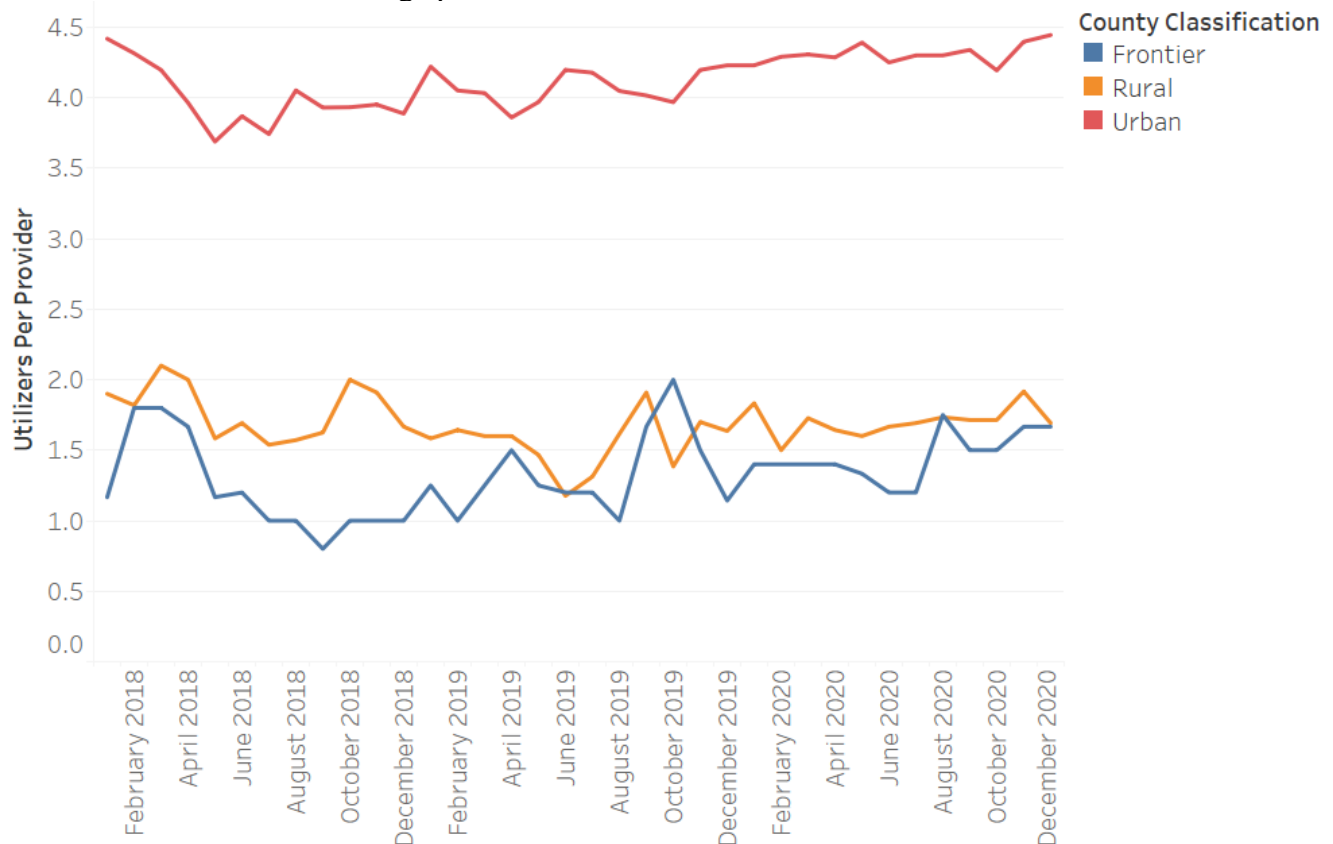


Figure 55. Utilizers per provider (panel size) for dialysis - facility services between January 2018 and December 2020.

Analysis indicates that both the number of distinct utilizers and active providers were increasing over this time in urban counties. Additionally, there was an increase in active providers over this time in rural counties, and a decrease in active providers over time this in frontier counties.

The number of distinct utilizers increased at a higher rate than that of total active providers in urban counties, which led to a slight increase in the number of utilizers per provider in these counties from

²⁴⁴ There are eight regions included in the dialysis - facility rate comparison analysis, which are paid based on revenue code. For more details on the dialysis – facility rate comparison, see Appendix C.

January 2018 to December 2020.²⁴⁵ Additionally, the number of utilizers per provider remained relatively steady over this time in rural and frontier county classifications.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of dialysis – facility services reside throughout the state. Utilizer density for dialysis – facility services ranged from 31, in Pueblo County, to 105 in Denver County, in CY 2020.

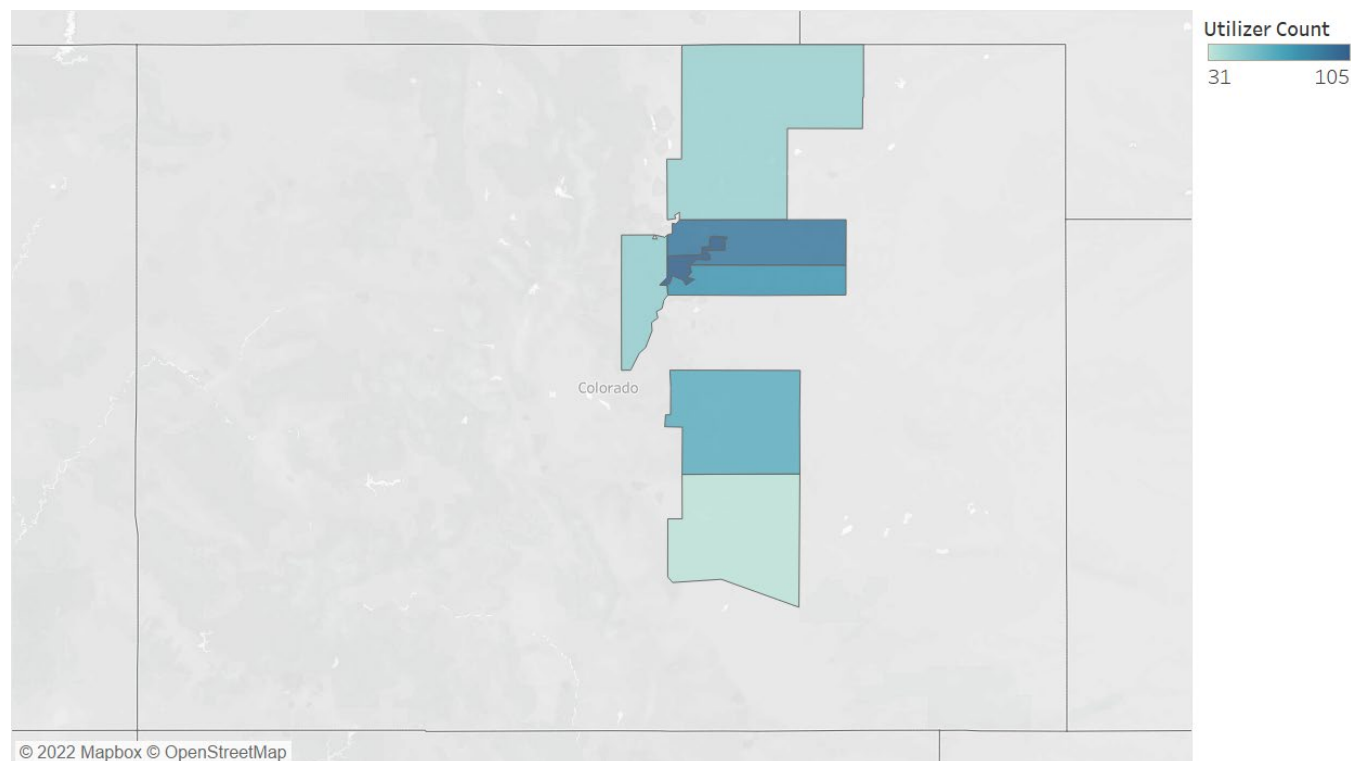


Figure 56. Utilizer density for dialysis – facility services by county for CY 2020.²⁴⁶

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

- Relatively lower demand for dialysis – facility services, or a low number of Colorado Medicaid members utilizing dialysis – facility services.
- Accessing services in other settings not included in this analysis.

Additionally, 30 counties²⁴⁷ 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.

²⁴⁵ For data specific to distinct utilizers and active providers, see Appendix D.

²⁴⁶ See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

²⁴⁷ Due to software limitations, the 30 counties blinded for PHI appear in the grey area shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Penetration Rate

The penetration rate estimates the share of total Colorado Medicaid members in a geographic area that received the service. Penetration rates for dialysis – facility services ranged from 0.32 in El Paso County, to 0.55 in Adams County, in CY 2020. Denver County had a penetration rate of 0.47 in CY 2020.

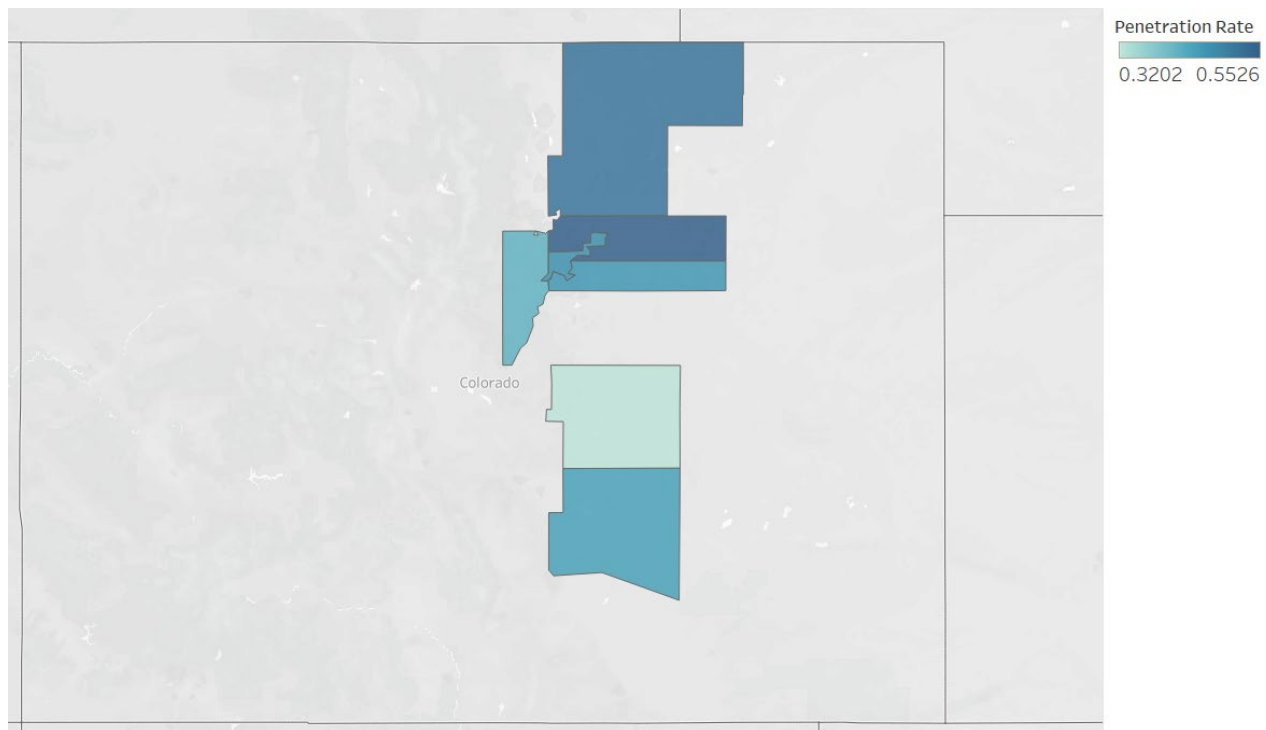


Figure 57. Penetration rates for dialysis – facility services by county in CY 2020.

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

Additionally, 30 counties²⁴⁸ 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.

²⁴⁸ Due to software limitations, the 30 counties blinded for PHI appear in the grey area shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Member-to-Provider Ratios

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

Dialysis Facility Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	8	40,376	0.20
Rural	25	154,309	0.16
Urban	71	1,187,570	0.06
Statewide	80	1,371,726	0.06

Table 46. Member-to-provider ratio for dialysis – facility services expressed as providers per 1,000 members by county classification in CY 2020.²⁴⁹

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.²⁵⁰

²⁴⁹ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

²⁵⁰ Currently, the Department does not use member-to-provider ratio standards specific to dialysis – facility 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 Colorado Medicaid members that live within certain drive time bands from where dialysis – facility service providers are located.²⁵¹

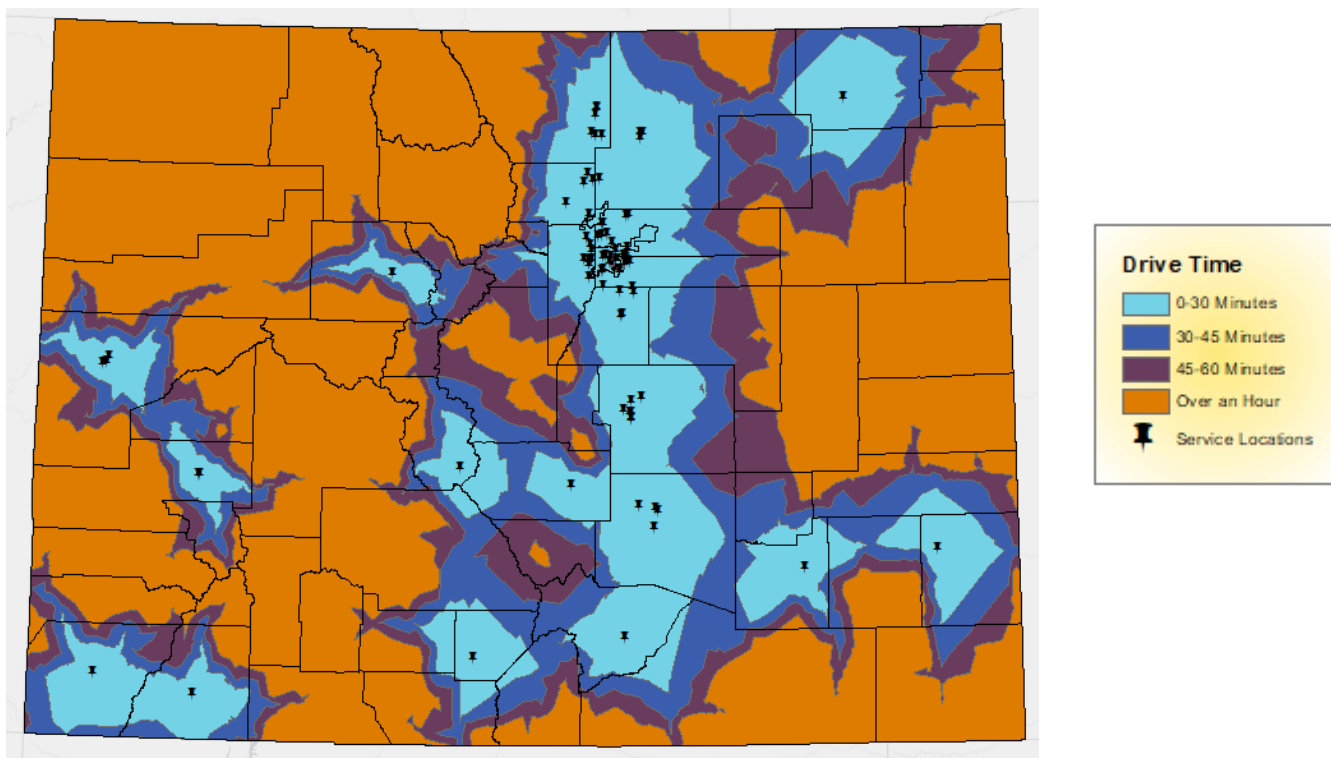


Figure 58. ArcGIS map of drive times of dialysis facility locations to members in CY 2020.

Overall, 90.46% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a dialysis facility. Additionally, 3.81% of total members resided approximately 30-45 minutes from a dialysis facility; 2.60% of total members resided 45-60 minutes from a dialysis facility. Finally, 3.13% of total members resided over an hour from a dialysis facility.

²⁵¹ Due to claims data, some service locations shown on the ArcGIS map represent dialysis facilities.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding dialysis – facility services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- Since dialysis – facility services were reviewed in the [2019 Medicaid Provider Rate Review Analysis Report](#), expenditures increased by over \$1 million, or 11.6%, compared to a 24.1% increase in distinct utilizers.²⁵²
- Dialysis – facility members become eligible for Medicare after three months of receiving Medicaid dialysis – facility services.²⁵³

Additional Research

The Department plans to further investigate the decrease in active providers in frontier counties to determine if this is due to an access issue or if there is a lower need for dialysis – facility services in those counties.

Conclusion

Total expenditures, distinct utilizers, and active providers increased since dialysis – facility services were previously reviewed, and member-to-provider ratios remained stable since the previous review; these factors indicate that rates may be sufficient for member access and provider retention.²⁵⁴ Given that active providers are defined as having one or more Medicaid patient visits during the analysis period, those providers may not provide adequate access to enough Medicaid members at the existing rates.

Rate benchmarking analyses have indicated that dialysis – facility rates are at 78.5% of the benchmark. Given that dialysis – facility rates are below 80% of the benchmark, the Department believes that ultimately rates may not be sufficient to ensure member access and provider retention going forward.²⁵⁵

²⁵² For more information, see the [2019 Medicaid Provider Rate Review Analysis Report](#).

²⁵³ Medicaid members are eligible for Medicare one the first day of the fourth month of dialysis treatment.

²⁵⁴ The Department recognizes that, while rates may be sufficient, there may be other opportunities to improve access to care and provider retention.

²⁵⁵ See the Payment Philosophy section on page 14 for more information on historical Departmental standards for rate comparison data.

Dialysis & Nephrology Services – Professional

Service Description

The dialysis & nephrology (dialysis) – professional service grouping is comprised of 19 procedure codes. Dialysis – professional services involve the clinical purification of blood as a substitute for the normal functioning of the kidney and are provided in the home and in dialysis centers; while these services are available to all Health First Colorado members, most utilizers are between 41 and 60 years of age. Dialysis – professional services were previously reviewed in the [2019 Medicaid Provider Rate Review Analysis Report](#).

Dialysis – Professional Statistics	
Total Adjusted Expenditures CY 2020 ²⁵⁶	\$893,226
Total Members Utilizing Services in CY 2020	1,071
CY 2020 Over CY 2019 Change in Members Utilizing Services	37.66%
Total Active Providers CY 2020	158
CY 2020 Over CY 2019 Change in Active Providers	(1.25%)

Table 47. Dialysis – professional expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for dialysis – professional services are estimated at 61.1% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.²⁵⁷

Dialysis – Professional Rate Benchmark Comparison ²⁵⁸		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$910,930	\$1,490,140	61.1%

Table 48. Comparison of Colorado Medicaid dialysis – professional service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$579,210 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 19 procedure codes analyzed in this service grouping, 18 were compared to Medicare, and one was compared to an average of three other states' Medicaid rates.²⁵⁹ Individual rate ratios for dialysis – professional services were 26.9%-104.0%.

²⁵⁶ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix C.

²⁵⁷ Detailed information regarding the rate comparison analysis methodology is contained in Appendix C.

²⁵⁸ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix C.

²⁵⁹ States used in the dialysis – professional rate comparison analysis were Arizona, Nevada, and Oregon. For more details on dialysis – professional rate comparisons, see Appendix C.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for dialysis – professional services increased by 8.86% from an average of 2.37 utilizers per provider in CY 2019 to 2.58 utilizers per provider in CY 2020. Additionally:

- In urban counties, average panel size increased from 2.73 in CY 2019 to 3.04 in CY 2020.
- In rural counties, average panel size slightly increased from 1.08 in CY 2019 to 1.09 in CY 2020.
- In frontier counties, average panel size increased from 1.17 in CY 2019 to 1.23 in CY 2020.

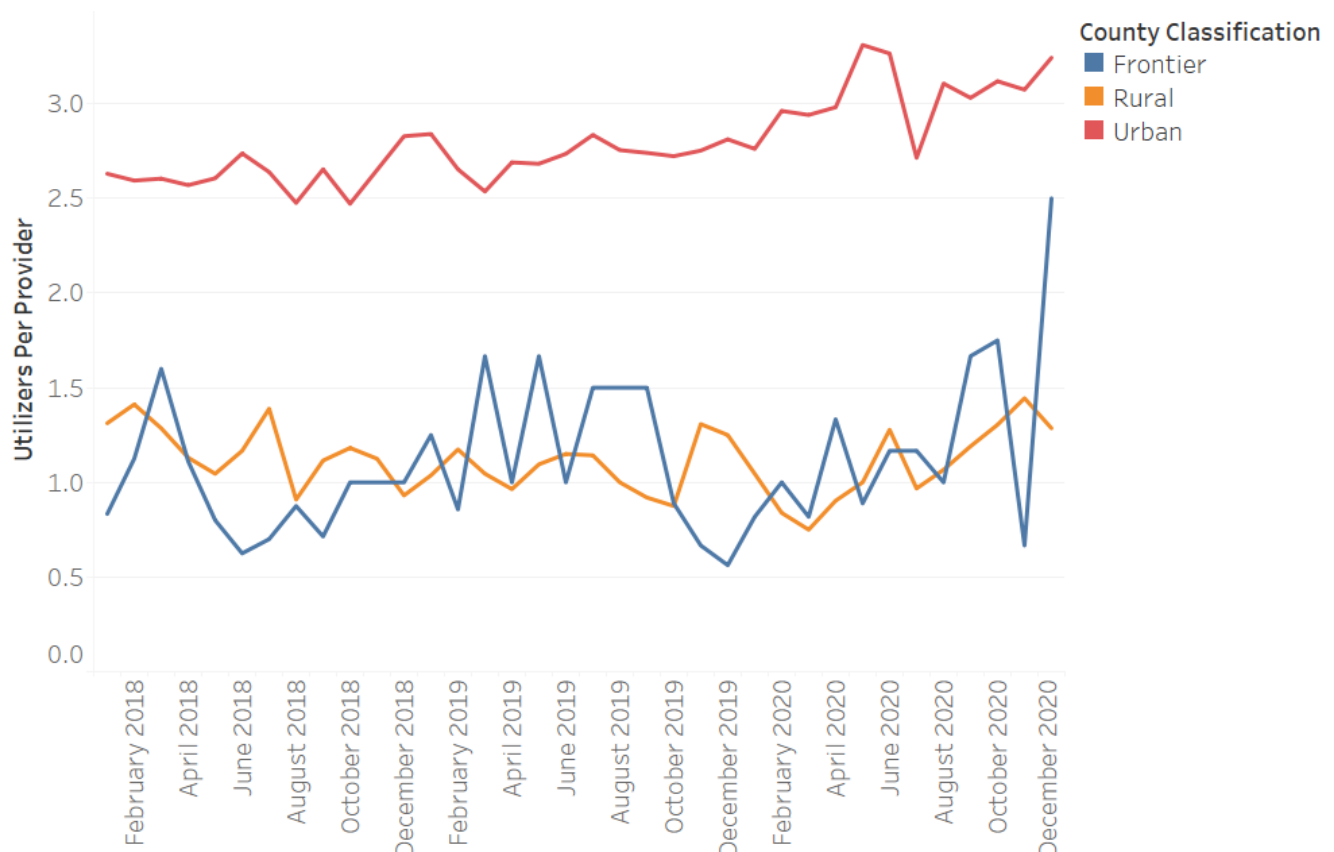


Figure 59. Utilizers per provider (panel size) for dialysis – professional services between January 2018 and December 2020.

Analysis indicates that both the number of distinct utilizers and active providers were increasing over this time across in urban counties. Additionally, there was an increase in active providers over this time in rural counties, and a decrease in active providers over time this in frontier counties.²⁶⁰

The number of distinct utilizers increased at a higher rate than the increase in active providers observed in urban counties, which led to an increase in the number of utilizers per provider from January 2018 to December 2020 in these counties. The number of utilizers per provider remained relatively stable over this time in rural and frontier counties.

²⁶⁰ For data specific to distinct utilizers and active providers, see Appendix D.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of dialysis – professional services reside throughout the state. Utilizer density for dialysis – professional services ranged from 40, in Pueblo County, to 172 in Denver County, in CY 2020.

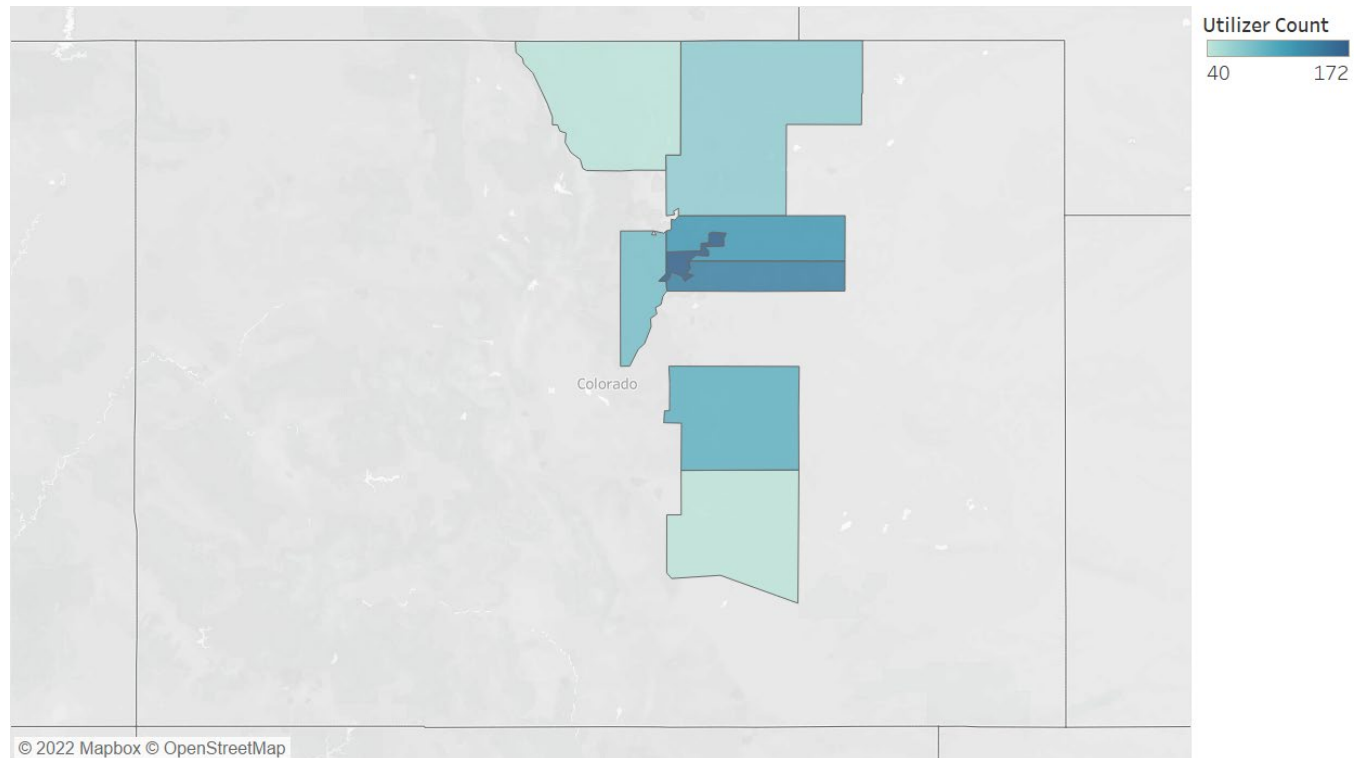


Figure 60. Utilizer density for dialysis – professional services by county for CY 2020.²⁶¹

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

- Relatively lower demand for dialysis – professional services, or a low number of Colorado Medicaid members utilizing dialysis – professional services.
- Accessing services in other settings not included in this analysis.

Additionally, 37 counties²⁶² 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.

²⁶¹ See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

²⁶² Due to software limitations, the 37 counties blinded for PHI appear in the grey area shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Penetration Rate

The penetration rate estimates the share of total Colorado Medicaid members in a geographic area that received the service. Penetration rates for dialysis – professional services ranged from 0.48 in El Paso County, to 0.85 in Arapahoe County, in CY 2020. Denver County had a penetration rate of 0.77 in CY 2020.

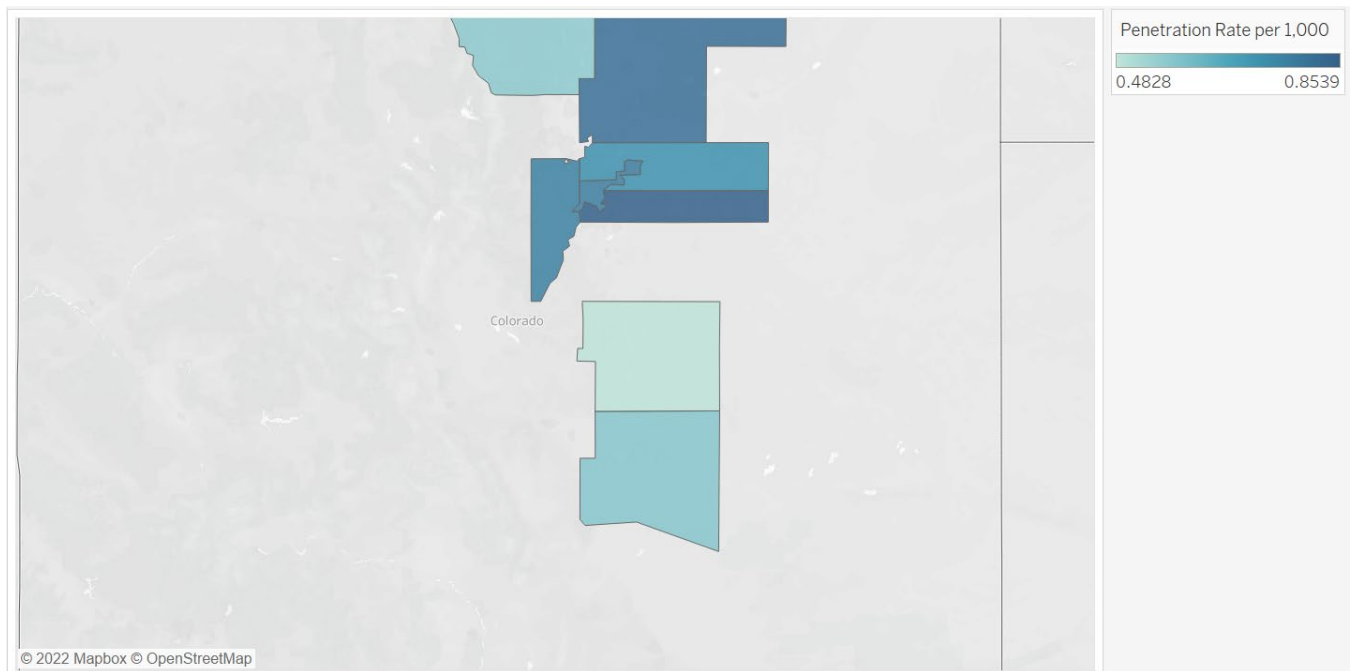


Figure 61. Penetration rates for dialysis – professional services by county in CY 2020.

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

Additionally, 37 counties²⁶³ 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.

²⁶³ Due to software limitations, the 37 counties blinded for PHI appear in the grey area shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Member-to-Provider Ratios

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

Dialysis Professional Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	28	40,376	0.69
Rural	81	154,309	0.52
Urban	148	1,187,570	0.12
Statewide	158	1,371,726	0.12

Table 49. Member-to-provider ratio for dialysis – professional services expressed as providers per 1,000 members by county classification in CY 2020.²⁶⁴

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.²⁶⁵

²⁶⁴ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

²⁶⁵ Currently, the Department does not use member-to-provider ratio standards specific to dialysis – professional 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 Colorado Medicaid members that live within certain drive time bands from where dialysis – professional service providers are located.²⁶⁶

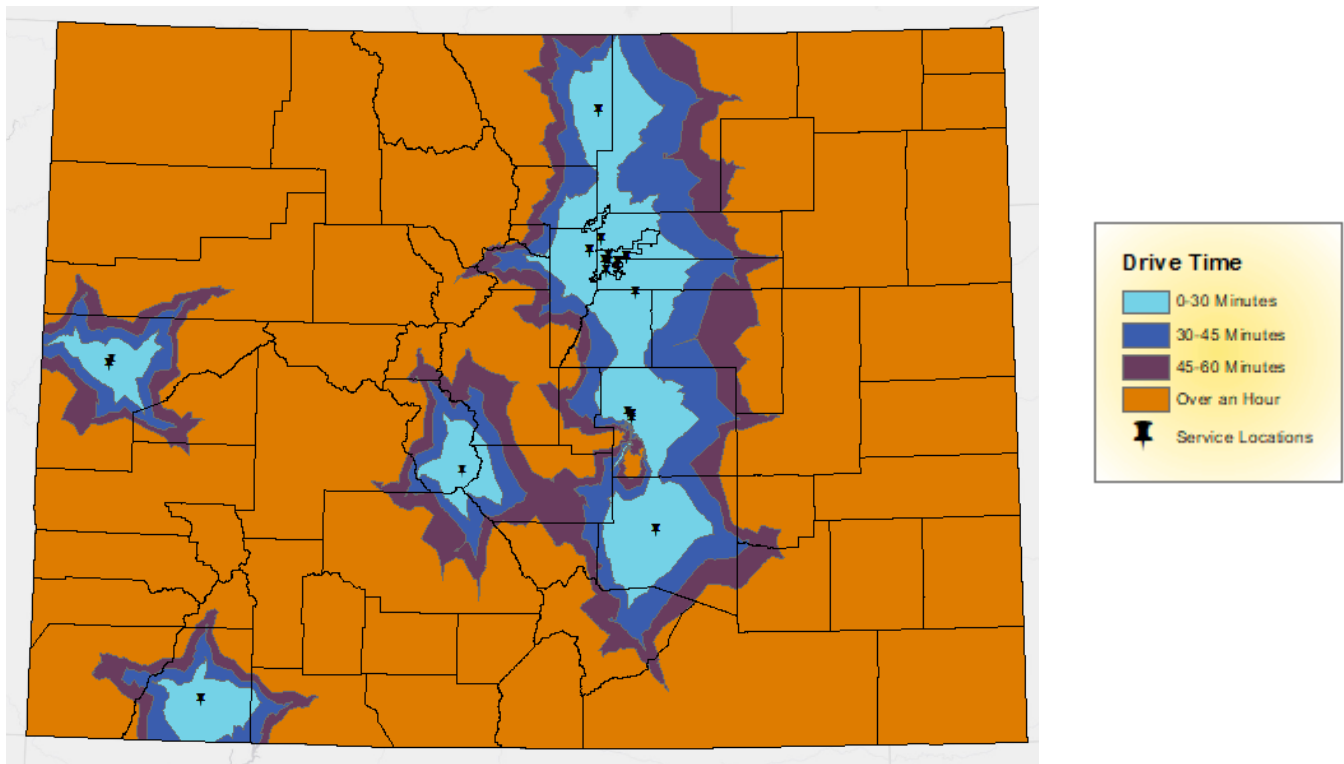


Figure 62. ArcGIS map of drive times of dialysis – professional provider service locations to members in CY 2020.

Overall, 79.73% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a dialysis – professional provider. Additionally, 7.33% of total members resided approximately 30-45 minutes from a dialysis – professional provider; 2.74% of total members resided 45-60 minutes from a dialysis – professional provider. Finally, 10.20% of total members resided over an hour from a dialysis – professional provider.

²⁶⁶ Due to claims data, service locations shown on the ArcGIS map may represent provider agency locations, rather than where the service was provided.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding dialysis – professional services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- Since dialysis - professional services were reviewed in the [2019 Medicaid Provider Rate Review Analysis Report](#), both total members accessing dialysis – professional services and total active dialysis – professional providers increased. In addition, dialysis – professional total expenditures increased by over \$800,000, or 1,415.7%, compared to a 13.2% increase in distinct utilizers.²⁶⁷
- This year’s dialysis – professional service grouping was comprised of 19 procedure codes, compared to only 5 procedure codes analyzed in 2019,²⁶⁸ which may account for the significant increase in total expenditures since these services were first reviewed.²⁶⁹

Additional Research

The Department plans to look at the utilization in counties that have low utilization to identify if there is a persisting access to care issue or whether it is due to a lower need for Medicaid dialysis - professional services in those areas. The Department will also be securing insights from the Health Care Workforce Workteam to determine if the impact of inflation, workforce shortages and other macro environmental factors caused by COVID-19 merit an increase in this rate, given it is only 61.1% of the benchmark.

Conclusion

Total expenditures, distinct utilizers, and active providers increased since dialysis – professional services were previously reviewed, and member-to-provider ratios remained consistent since the last review; these factors indicate that rates may be sufficient for member access and provider retention.²⁷⁰ Given that active providers are defined as having one or more Medicaid patient visits during the analysis period, those providers may not provide adequate access to enough Medicaid members at the existing rates.

Rate benchmarking analyses have indicated that dialysis – professional rates are at 61.1% of the benchmark. Given that dialysis – professional rates are below 80% of the benchmark, the Department believes that ultimately rates may not be sufficient to ensure member access and provider retention going forward.²⁷¹

²⁶⁷ For more information, see the [2019 Medicaid Provider Rate Review Analysis Report](#).

²⁶⁸ For more information, see the [2019 Medicaid Provider Rate Review Analysis Report](#).

²⁶⁹ For more information on procedure codes included in this analysis, see Appendix C.

²⁷⁰ The Department recognizes that, while rates may be sufficient, there may be other opportunities to improve access to care and provider retention.

²⁷¹ See the Payment Philosophy section on page 14 for more information on historical Departmental standards for rate comparison data.

Laboratory & Pathology Services

Service Description

The laboratory & pathology (laboratory) service grouping is comprised of 984 procedure codes. Laboratory services involve the collection and analysis of bodily fluids or specimens for screening and treatment of diseases and disorders. Laboratory services are available to all Health First Colorado members. Providers that render laboratory services must be certified through the Clinical Laboratory Improvement Amendments (CLIA) program. CLIA-approved laboratories are generally located in independent laboratories, hospitals, and physician practices. Laboratory services were previously reviewed in the [2016 Medicaid Provider Rate Review Analysis Report](#).

Laboratory Statistics	
Total Adjusted Expenditures CY 2020 ²⁷²	\$75,251,333
Total Members Utilizing Services in CY 2020	373,185
CY 2020 Over CY 2019 Change in Members Utilizing Services	28.99%
Total Active Providers CY 2020	6,295
CY 2020 Over CY 2019 Change in Active Providers	15.91%

Table 50. Laboratory expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for laboratory services are estimated at 93.7% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.²⁷³

Laboratory Rate Benchmark Comparison ²⁷⁴		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$75,251,322	80,353,775	93.7%

Table 51. Comparison of Colorado Medicaid laboratory service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$5,102,453 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 984 procedure codes analyzed in this service grouping, 963 were compared to Medicare, and 21 were compared to an average of seven other states' Medicaid rates.²⁷⁵ Individual rate ratios for laboratory services were 6.9%-178.3%.

²⁷² The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix C.

²⁷³ Detailed information regarding the rate comparison analysis methodology is contained in Appendix C.

²⁷⁴ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix C.

²⁷⁵ States used in the laboratory rate comparison analysis were Arizona, California, Oklahoma, Nebraska, Utah, Nevada, and Oregon. For more details on laboratory rate comparisons, see Appendix C.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for laboratory services increased by 5.68% from an average of 14.27 utilizers per provider in CY 2019 to 15.08 utilizers per provider in CY 2020. Additionally:

- In urban counties, average panel size increased from 16.59 in CY 2019 to 18.09 in CY 2020.
- In rural counties, average panel size increased from 6.96 in CY 2019 to 7.17 in CY 2020.
- In frontier counties, average panel size decreased from 4.05 in CY 2019 to 3.46 in CY 2020.

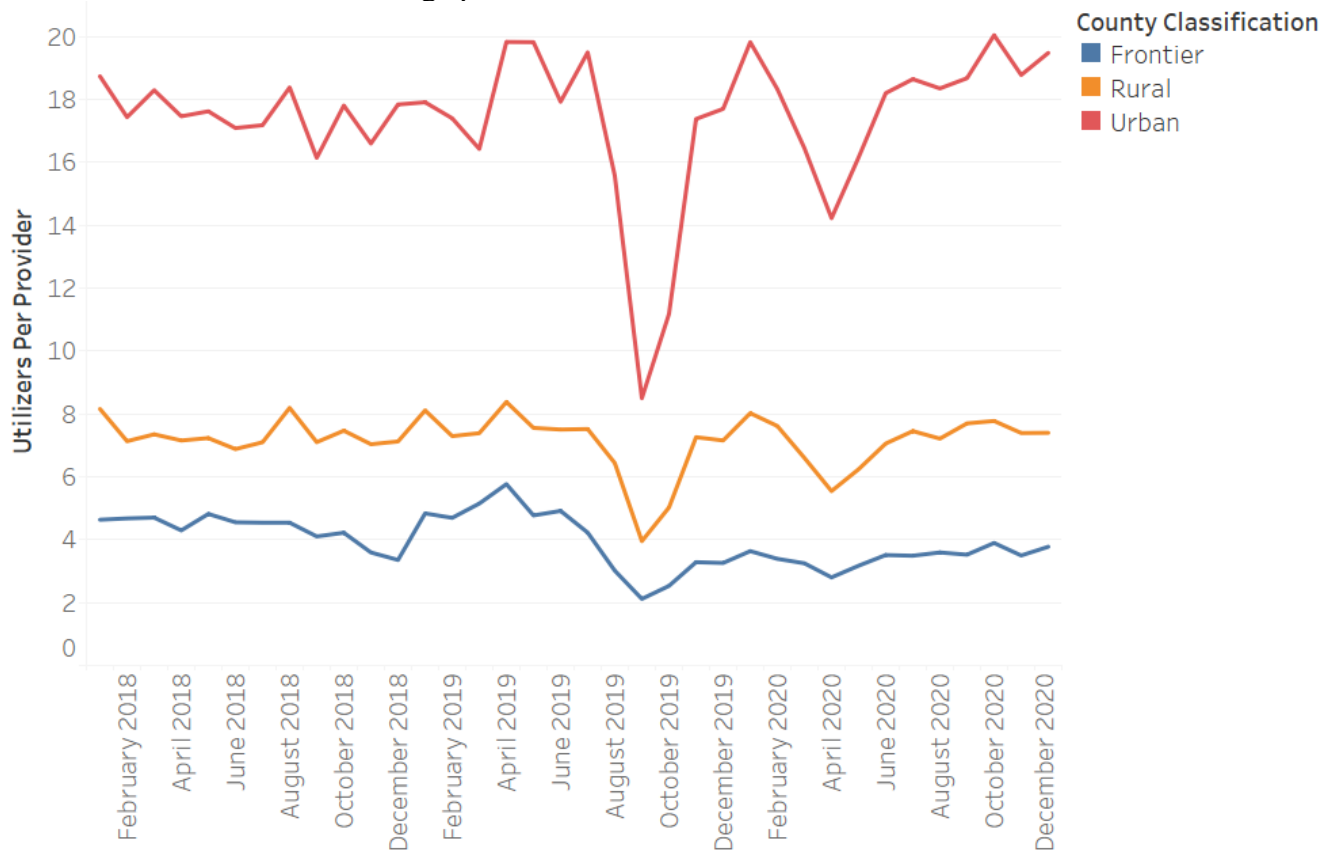


Figure 63. Utilizers per provider (panel size) for laboratory services between January 2018 and December 2020.

Analysis indicates that both the number of distinct utilizers and active providers remained relatively stable over this time across all county classifications. Additionally, both the number of distinct utilizers and active providers significantly increased in urban and rural counties from October 2019 to January 2020.

The number of distinct utilizers and total active providers observed in all counties changed at similar rates, which led to a relatively consistent number of utilizers per provider from January 2018 to December 2020.²⁷⁶

There was a noticeable change in all counties from July 2019 to September 2019 that can be attributed to a significant decrease in utilizers, at the same time when there was a slight increase in active providers,

²⁷⁶ For data specific to distinct utilizers and active providers, see Appendix D.

which caused a significant decrease in the number of utilizers per provider. Additionally, there was a noticeable change in all counties from March 2020 to May 2020 that can be attributed to the COVID-19 pandemic.²⁷⁷

Utilizer Density

The utilizer density metric provides information regarding where utilizers of laboratory services reside throughout the state. Utilizer density for laboratory services ranged from 44, in San Juan County, to 59,670 in El Paso County, in CY 2020.

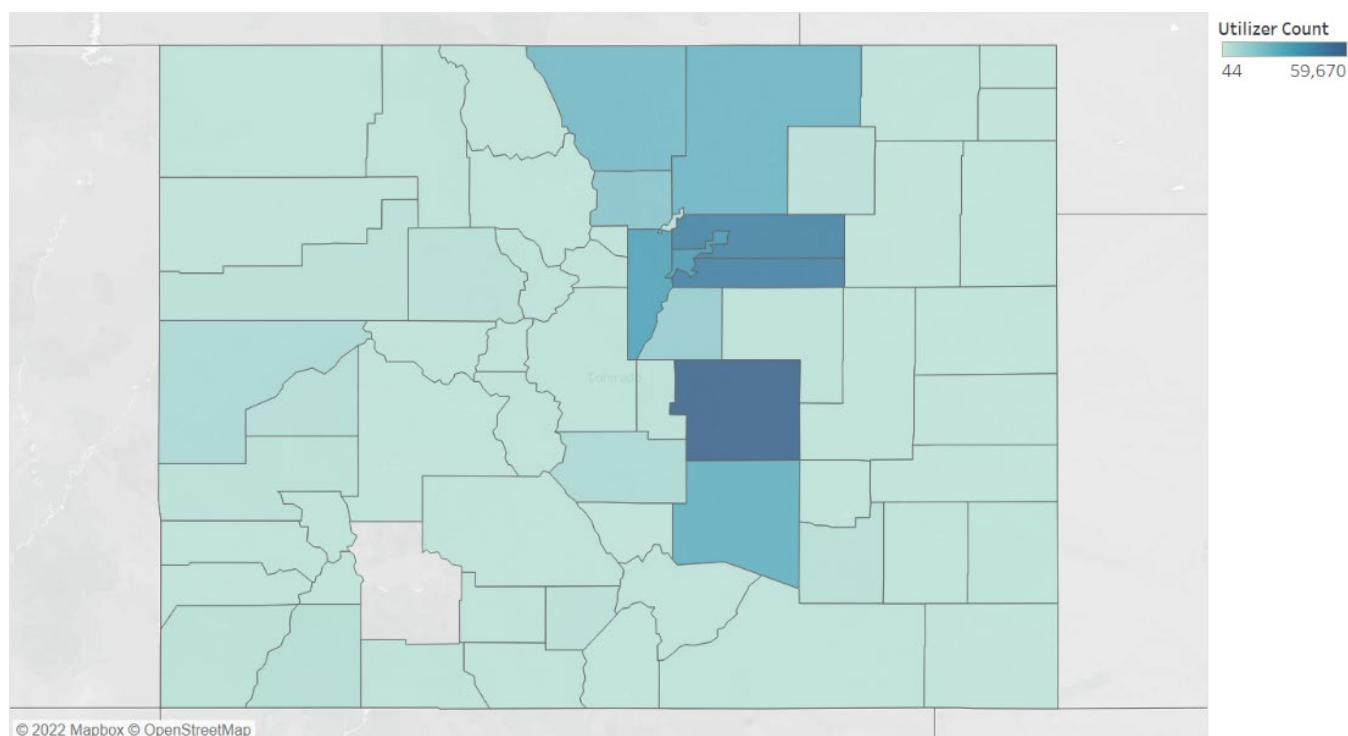


Figure 64. Utilizer density for laboratory services by county for CY 2020.²⁷⁸

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

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

Additionally, two counties²⁷⁹ 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.

²⁷⁷ See Appendix E for more information.

²⁷⁸ See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

²⁷⁹ Due to software limitations, the two counties blinded for PHI appear in the grey area shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Penetration Rate

The penetration rate estimates the share of total Colorado Medicaid members in a geographic area that received the service. Penetration rates for laboratory services ranged from 53.20 in Gunnison County, to 375.30 in Pueblo County, in CY 2020. Denver County had a penetration rate of 160.30 in CY 2020.

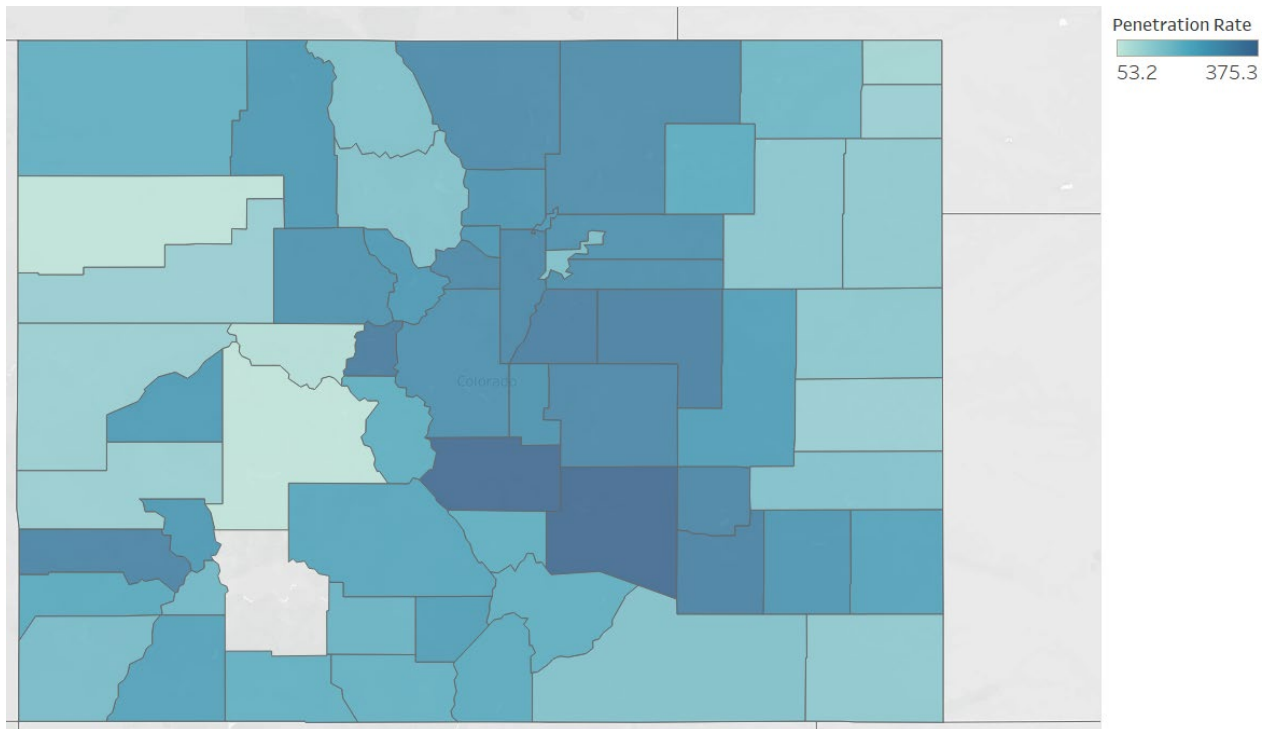


Figure 65. Penetration rates for laboratory services by county in CY 2020.

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

Additionally, two counties²⁸⁰ 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.

²⁸⁰ Due to software limitations, the two counties blinded for PHI appear in the grey area shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Member-to-Provider Ratios

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

Laboratory Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	1,090	40,376	27.00
Rural	2,076	154,309	13.45
Urban	5,934	1,187,570	5.00
Statewide	6,295	1,371,726	4.59

Table 52. Member-to-provider ratio for laboratory services expressed as providers per 1,000 members by county classification in CY 2020.²⁸¹

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.²⁸²

²⁸¹ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

²⁸² Currently, the Department does not use member-to-provider ratio standards specific to laboratory 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 Colorado Medicaid members that live within certain drive time bands from where laboratory service providers are located.²⁸³

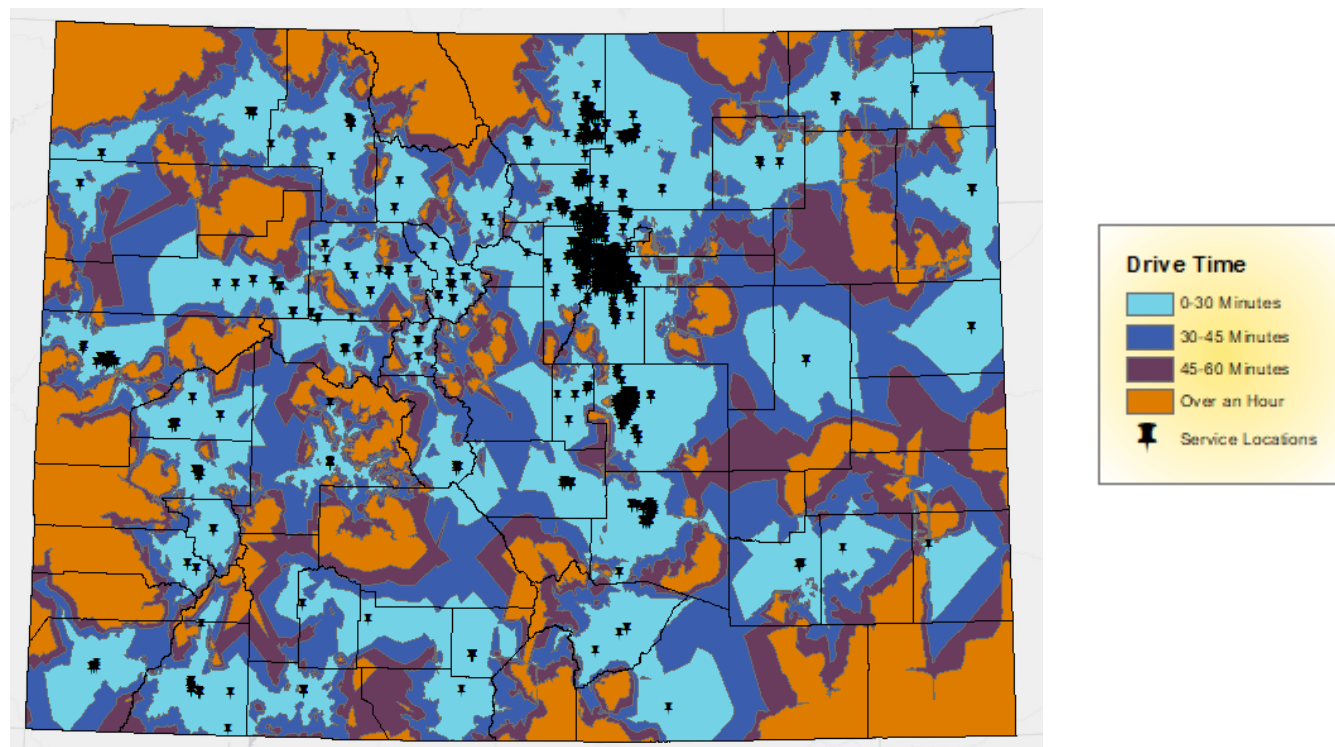


Figure 66. ArcGIS map of drive times of laboratory provider service locations to members in CY 2020.

Overall, 97.39% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a laboratory provider. Additionally, 1.46% of total members resided approximately 30-45 minutes from a laboratory provider; 0.64% of total members resided 45-60 minutes from a laboratory provider. Finally, 0.51% of total members resided over an hour from a laboratory provider.

²⁸³ Due to claims data, service locations shown on the ArcGIS map may represent provider billing locations, rather than where the service was provided.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding laboratory services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- Both total members accessing laboratory services and total active laboratory providers increased from CY 2019 to CY 2020, regardless of the impact from the COVID-19 pandemic.
- Laboratory services provider perform tests and bill for that service; they do not order, collect, or interpret the results of the tests.
- In claims data, providers are assigned an identification code based on their billing location, which may impact the laboratory services drive time analysis, as services may be provided at multiple locations, but will appear as one location based on the billing provider's claims data.
- Providers are not required to report the number of employees or details about facility capabilities to the Department. As such, claims data may not accurately represent a provider's capacity, or whether an individual laboratory performed at, over, or under capacity.

Additional Research

The Department does not currently have plans for further research regarding laboratory services.

Conclusion

Analyses suggest that laboratory rates at 93.7% of the benchmark were sufficient for member access and provider retention.²⁸⁴

The primary factors that led to this conclusion included:

- Over 97% of members live within 30 minutes of a laboratory provider.
- Reimbursement rates increased from 87.96% of Medicare to 92.6% of Medicare since laboratory services were reviewed in the [2016 Medicaid Provider Rate Review Analysis Report](#).
- Reimbursement rates are set significantly above those of seven other states in the rate comparison analysis.²⁸⁵

²⁸⁴ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.

²⁸⁵ Rate comparison data by benchmark state for laboratory services can be found in Appendix C.

Eyeglasses & Vision Services

Service Description

The eyeglasses & vision (vision) service grouping is comprised of 109 procedure codes. Vision services include corrective lenses, contacts, various procedures and frames; these services are available to all Health First Colorado members ages 0-20 and are available to Health First Colorado members ages 21 and up upon medical necessity following eye surgery. Vision services were previously reviewed in the [2020 Medicaid Provider Rate Review Analysis Report](#).

Vision Statistics	
Total Adjusted Expenditures CY 2020 ²⁸⁶	\$51,452,814
Total Members Utilizing Services in CY 2020	185,190
CY 2020 Over CY 2019 Change in Members Utilizing Services	(11.22%)
Total Active Providers CY 2020	1,206
CY 2020 Over CY 2019 Change in Active Providers	(2.27%)

Table 53. Vision expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for vision services are estimated at 57.4% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.²⁸⁷

Vision Rate Benchmark Comparison ²⁸⁸		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$51,452,059	\$89,604,100	57.4%

Table 54. Comparison of Colorado Medicaid vision service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$38,152,041 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 109 procedure codes analyzed in this service grouping, 99 were compared to Medicare, and ten were compared to an average of six other states' Medicaid rates.²⁸⁹ Individual rate ratios for vision services were 14.0%-192.0%.

²⁸⁶ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix C.

²⁸⁷ Detailed information regarding the rate comparison analysis methodology is contained in Appendix C.

²⁸⁸ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix C.

²⁸⁹ States used in the vision rate comparison analysis were Arizona, California, Louisiana, Oklahoma, Nevada, and Oregon. For more details on vision rate comparisons, see Appendix C.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for vision services decreased by 12.08% from an average of 18.96 utilizers per provider in CY 2019 to 16.67 utilizers per provider in CY 2020. Additionally:

- In urban counties, average panel size decreased from 24.65 in CY 2019 to 21.31 in CY 2020.
- In rural counties, average panel size decreased from 9.06 in CY 2019 to 8.36 in CY 2020.
- In frontier counties, average panel size decreased from 4.31 in CY 2019 to 4.18 in CY 2020.

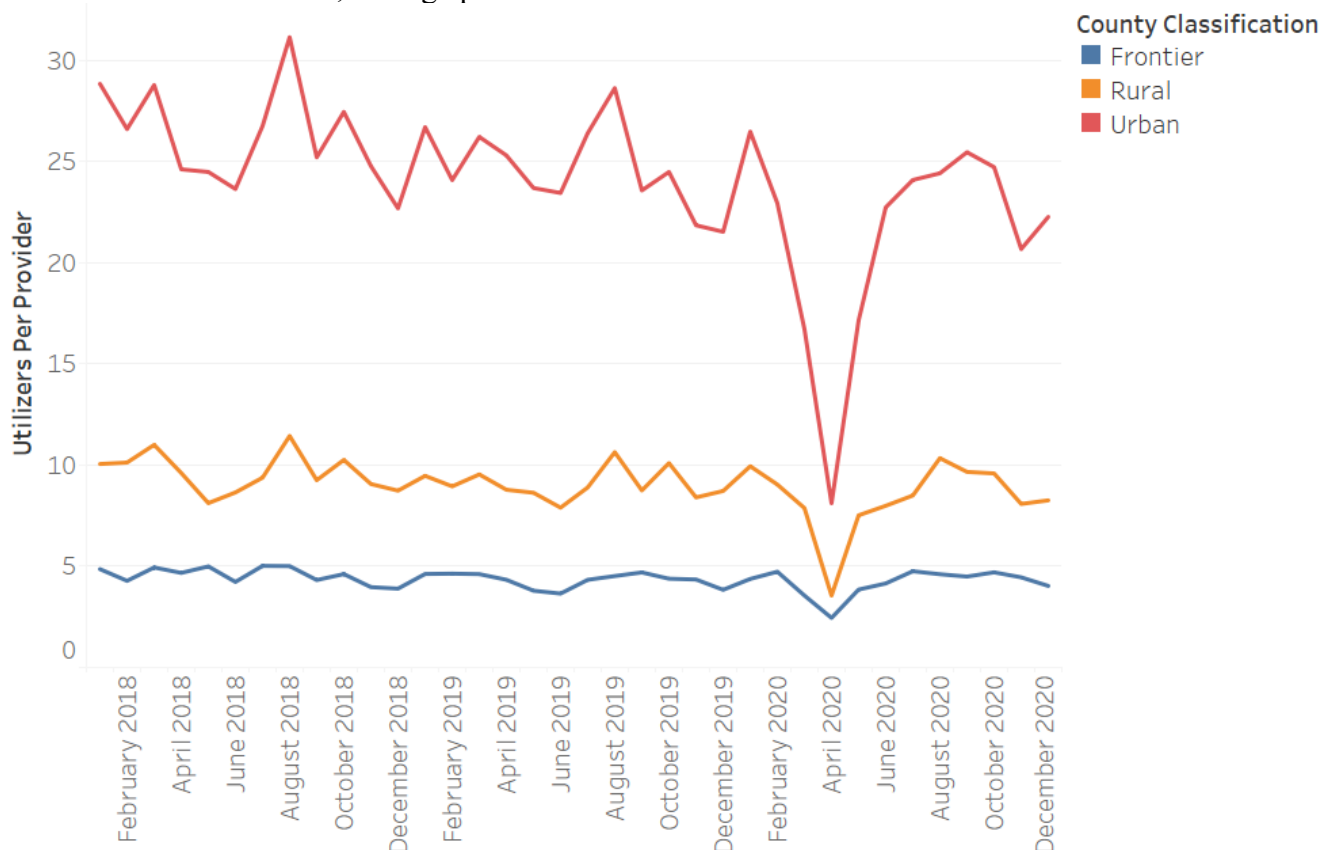


Figure 67. Utilizers per provider (panel size) for vision services between January 2018 and December 2020.

Analysis indicates that the number of distinct utilizers remained relatively stable over this time across all county classifications. Additionally, there was an increase in active providers over this time across all county classifications.

The number of distinct utilizers across all county classifications remained relatively steady and active providers increased across all county classifications, which led to a decrease in the number of utilizers per provider from January 2018 to December 2020 across all county classifications.²⁹⁰

There was a noticeable change in all county classifications from March 2020 to June 2020 that can be attributed to the COVID-19 pandemic.²⁹¹

²⁹⁰ For data specific to distinct utilizers and active providers, see Appendix D.

²⁹¹ See Appendix E for more information.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of vision services reside throughout the state. Utilizer density for vision services ranged from 33, in Jackson County, to 34,876 in El Paso County, in CY 2020.

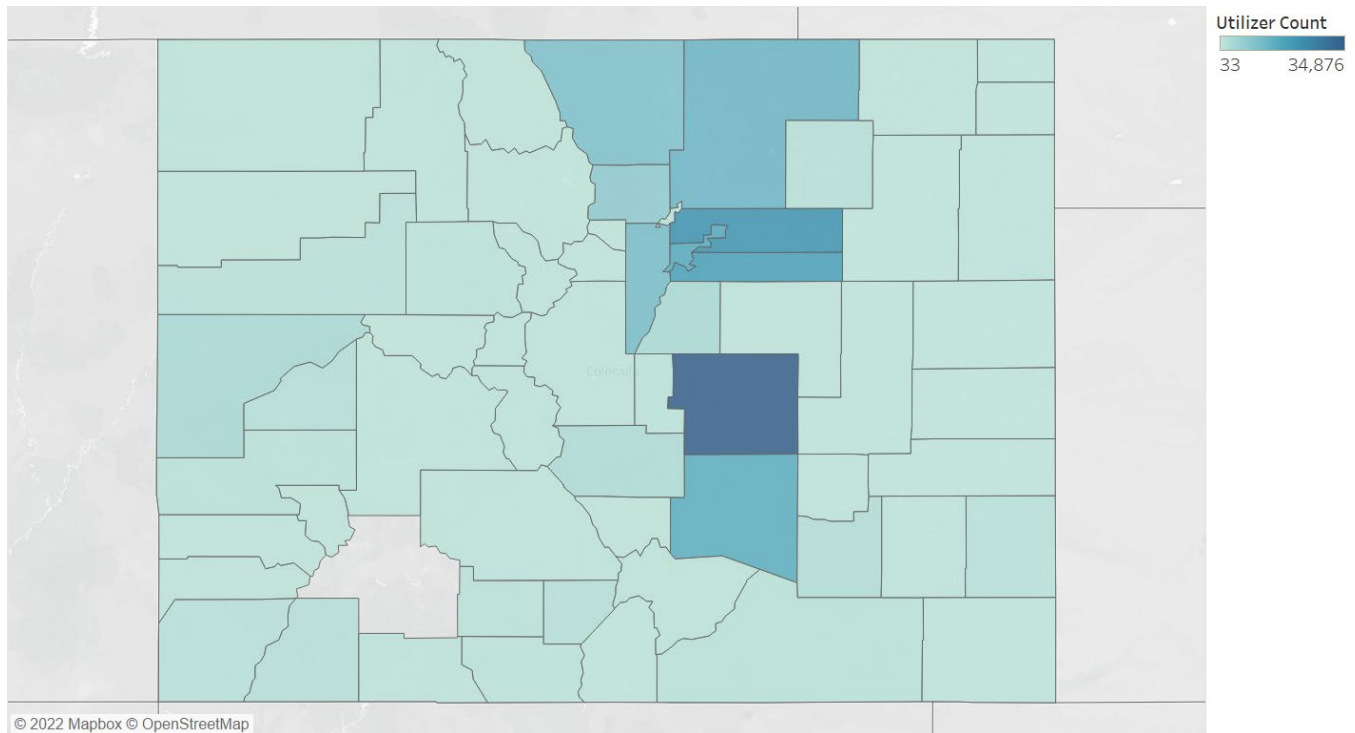


Figure 68. Utilizer density for vision services by county for CY 2020.²⁹²

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

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

Additionally, three counties²⁹³ 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.

²⁹² See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

²⁹³ Due to software limitations, the three counties blinded for PHI appear in the grey area shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

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 ranged from 33.50 in Pitkin County, to 264.90 in Otero County, in CY 2020. Denver County had a penetration rate of 73.50 in CY 2020.

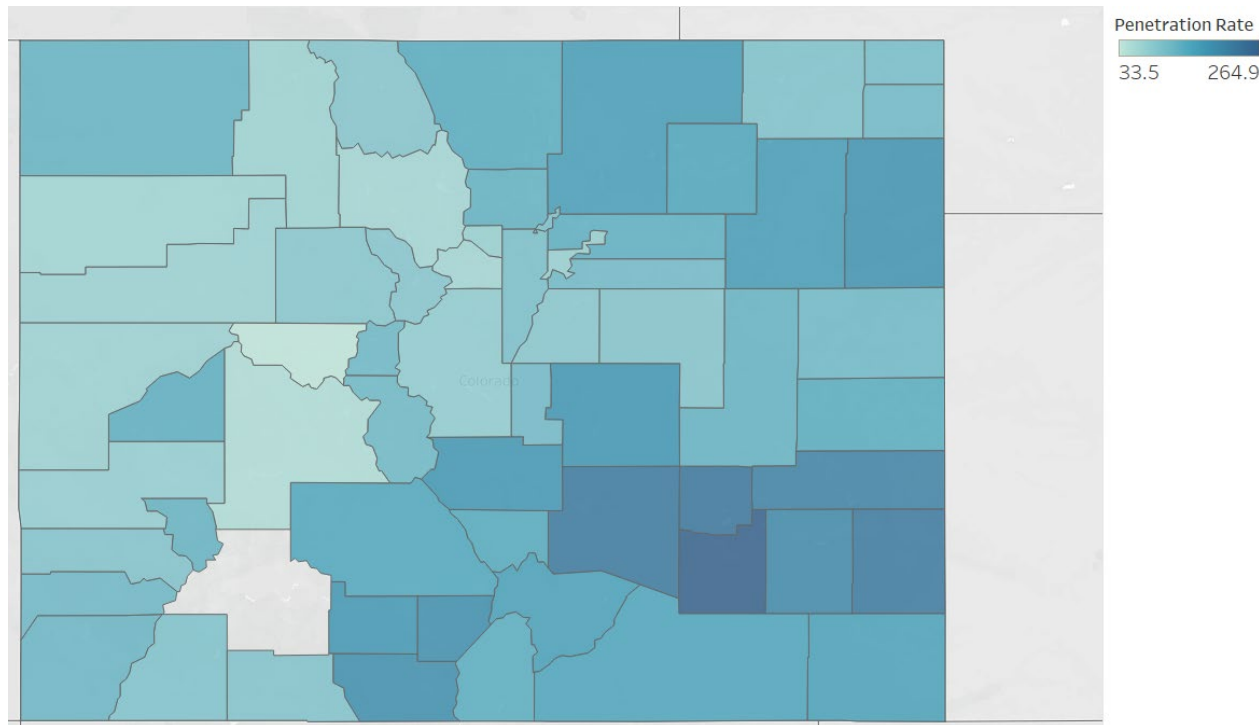


Figure 69. Penetration rates for vision services by county in CY 2020.

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

Additionally, three counties²⁹⁴ 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.

²⁹⁴ Due to software limitations, the three counties blinded for PHI appear in the grey area shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

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	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	412	40,376	10.20
Rural	612	154,309	3.97
Urban	1,158	1,187,570	0.98
Statewide	1,206	1,371,726	0.88

Table 55. Member-to-provider ratio for vision services expressed as providers per 1,000 members by county classification in CY 2020.²⁹⁵

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, 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.²⁹⁶

²⁹⁵ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

²⁹⁶ 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 Colorado Medicaid members that live within certain drive time bands from where vision service providers are located.²⁹⁷

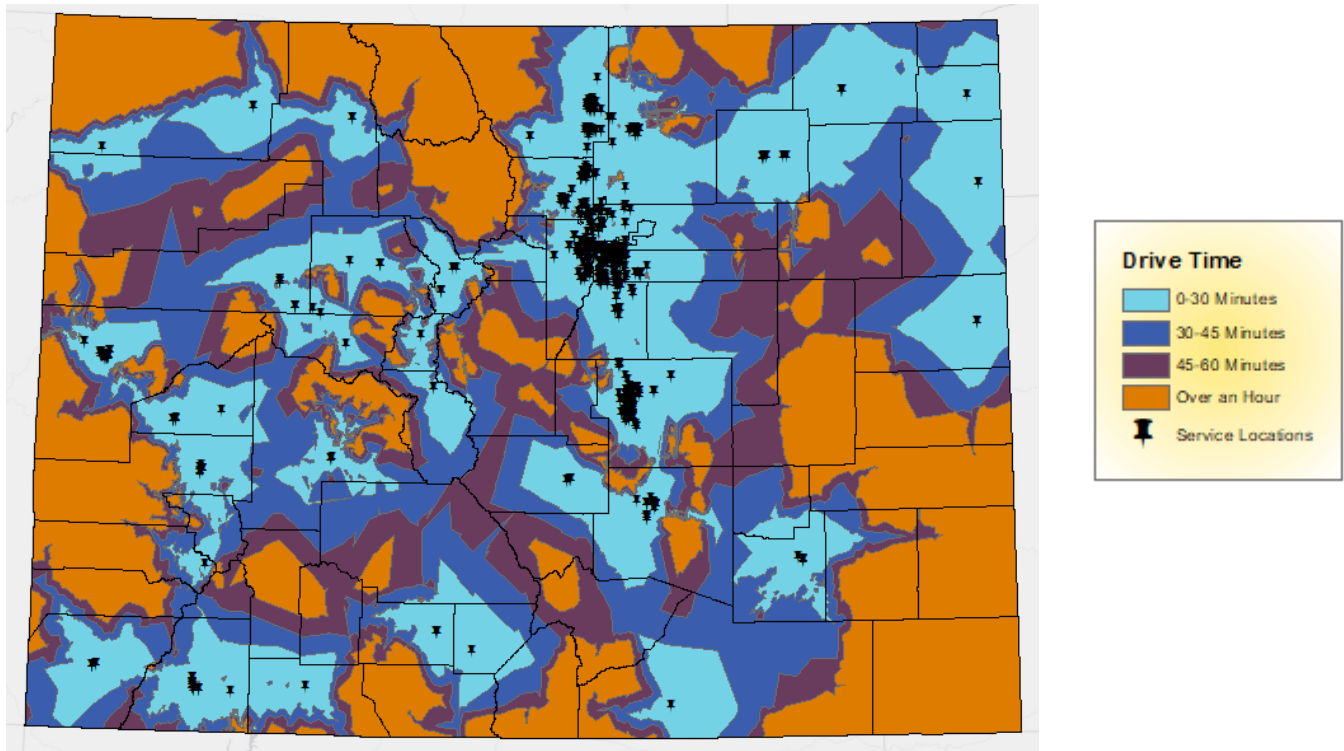


Figure 70. ArcGIS map of drive times of vision provider service locations to members in CY 2020.

Overall, 95.19% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a vision provider. Additionally, 2.31% of total members resided approximately 30-45 minutes from a vision provider; 1.16% of total members resided 45-60 minutes from a vision provider. Finally, 1.34% of total members resided over an hour from a vision provider.

²⁹⁷ Due to claims data, service locations shown on the ArcGIS map may represent service delivery locations.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding vision services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- The vision & eyeglasses category of service covers eye-related surgeries, as well as corrective lenses, contact lenses, and frames; the ophthalmology subcategory of physician services covers eye exams, as well as screening and the diagnosis of problems associated with the optical system. Vision & eyeglasses were moved to Year Two (Cycle Two) to more closely align like-services in the same year of review.
- Vision service policy allowances and limits vary for adult (21 years of age and older) and children (0-20 years of age) members, which may impact utilization of these services.
- Several procedure codes in the vision service grouping that were previously compared to an average of other states' Medicaid were identified as having comparable rates on the Medicare durable medical equipment (DME) fee schedule, which account for the significant change in Colorado's repriced amount compared to the benchmark in the rate comparison analysis.²⁹⁸

Additional Research

The Department plans to look at the codes significantly below the benchmark to identify if there is a potential access to care issue and whether any rates would benefit from an immediate rate change.²⁹⁹

Conclusion

Rate benchmarking analyses determined that vision rates are 57.4% of the benchmark; given that vision rates are below 80% of the benchmark, this indicates that rates may be insufficient.³⁰⁰ Additionally, rates may not support appropriate reimbursement for high-value services.^{301, 302}

²⁹⁸ For more information regarding vision benchmark comparisons, see Appendix C.

²⁹⁹ For more information regarding vision rate ratios, see Appendix C.

³⁰⁰ See the Payment Philosophy section on page 14 for more information on historical Departmental standards for rate comparison data.

³⁰¹ High-value services include services that have a net clinical benefit while also reliably and predictably providing substantial individual and population health benefits; and example of high-value service in the vision services grouping is eye screening for diabetics.

³⁰² The Department is conducting additional research and will identify opportunities to improve access to care and provider retention.

Injections & Miscellaneous J-Codes

Service Description

The injections & miscellaneous J-Codes (injection) service grouping is comprised of 12 procedure codes. Injection services involve injectable products and other similar services provided in the office setting and are administered by a physician. Injection services are available to all Health First Colorado members. Injection services were previously reviewed in the [2016 Medicaid Provider Rate Review Analysis Report](#), under the physician administered drugs (PADs) service grouping.³⁰³

Injection Statistics	
Total Adjusted Expenditures CY 2020 ³⁰⁴	\$1,250,195
Total Members Utilizing Services in CY 2020	4,571
CY 2020 Over CY 2019 Change in Members Utilizing Services	3.58%
Total Active Providers CY 2020	626
CY 2020 Over CY 2019 Change in Active Providers	(8.35%)

Table 56. Injection expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for injection services are estimated at 95.6% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.³⁰⁵

Injection Rate Benchmark Comparison ³⁰⁶		
Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
\$1,250,195	\$1,307,505	95.6%

Table 57. Comparison of Colorado Medicaid injection service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$57,310 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 12 procedure codes analyzed in this service grouping, nine were compared to Medicare, and three was compared to an average of four other states' Medicaid rates.³⁰⁷ Individual rate ratios for injection services were 5.0%-184.9%.

³⁰³ Per recommendation in the [2016 Medicaid Provider Rate Review Recommendation Report](#), most services under the PADs service grouping were moved under the pharmacy benefit to undergo regular rate setting analyses that align with other pharmacy processes. The injection service grouping is included to ensure the remaining codes from the PADs service grouping that do not undergo quarterly reviews are still reviewed on a consistent basis.

³⁰⁴ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix C.

³⁰⁵ Detailed information regarding the rate comparison analysis methodology is contained in Appendix B.

³⁰⁶ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix C.

³⁰⁷ States used in the injection services rate comparison analysis were California, Nebraska, Oregon, and Utah. For more details on injection services rate comparisons, see Appendix C.

Access to Care Analysis

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for injection services increased by 5.50% from an average of 2.91 utilizers per provider in CY 2019 to 3.07 utilizers per provider in CY 2020. Additionally:

- In urban counties, average panel size increased from 3.27 in CY 2019 to 3.48 in CY 2020.
- In rural counties, average panel size increased from 1.57 in CY 2019 to 1.68 in CY 2020.
- In frontier counties, average panel size decreased from 1.26 in CY 2019 to 1.15 in CY 2020.

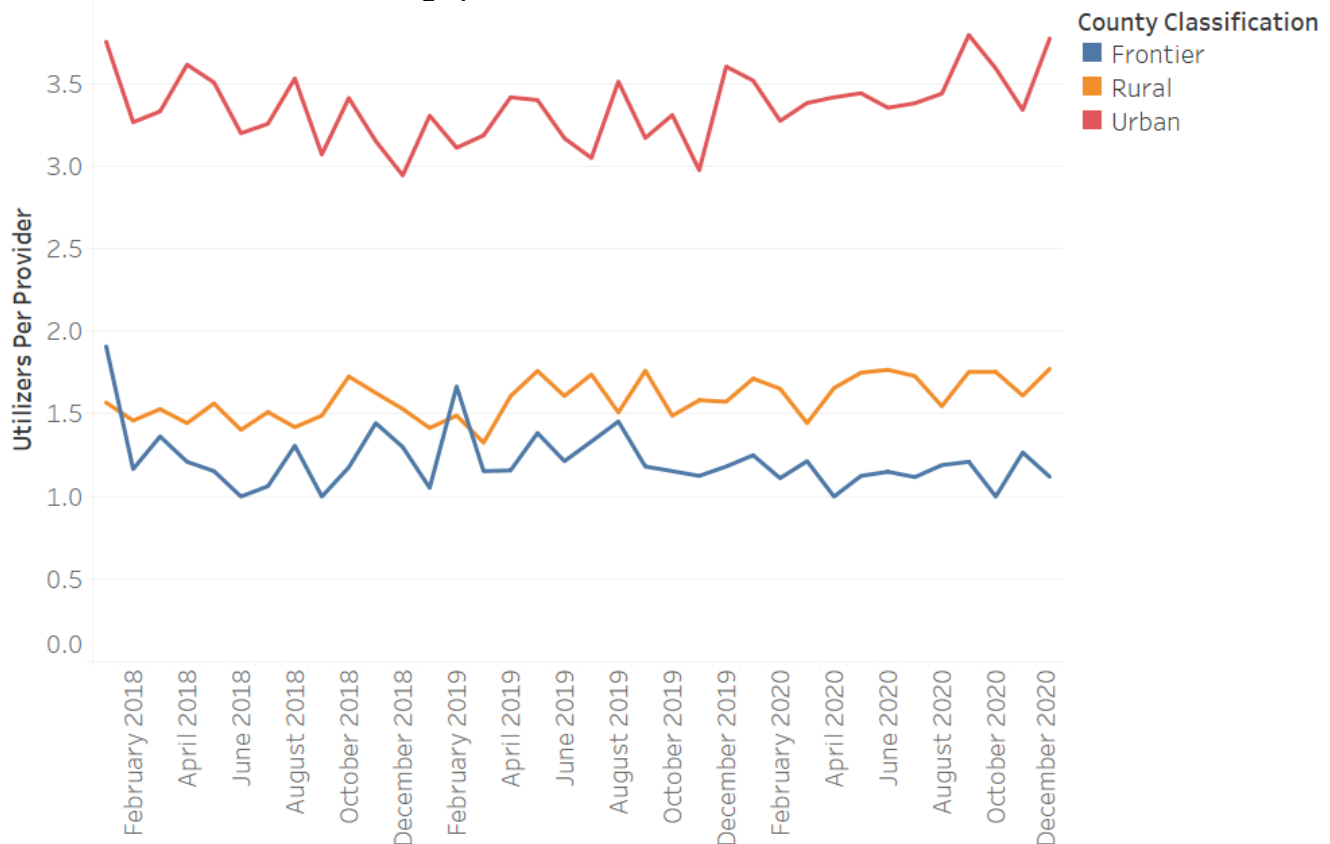


Figure 71. Utilizers per provider (panel size) for injection services between January 2018 and December 2020.

Analysis indicates that both the number of distinct utilizers and active providers slightly decreased from January 2018 through October 2019 in urban counties. Additionally, there was an increase in distinct utilizers over time in rural counties. Active providers remained relatively steady over time in rural and frontier county classifications. There was a noticeable change in both distinct utilizers and active providers in urban and rural counties from March 2020 to May 2020, which can be attributed to the COVID-19 pandemic.³⁰⁸

The number of distinct utilizers and total active providers observed in all counties changed at similar rates over time, which led to a relatively consistent number of utilizers per provider from January 2018 to December 2020.

³⁰⁸ This change occurred at similar rates, which led to a relatively steady panel size from March 2020 to May 2020. For data specific to distinct utilizers and active providers, see Appendix D.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of injection services reside throughout the state. Utilizer density for injection services ranged from 31, in Otero County and Montezuma County, to 752 in El Paso County, in CY 2020.

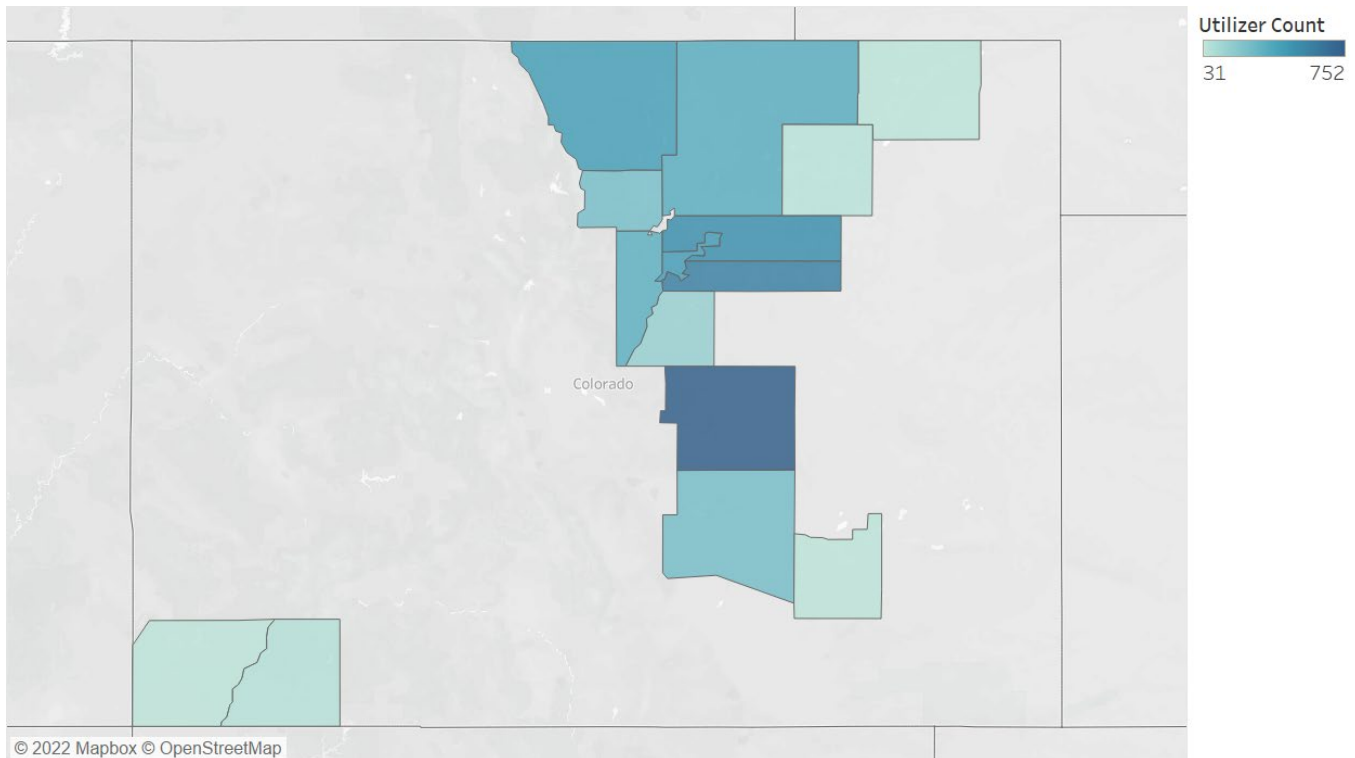


Figure 72. Utilizer density for injection services by county for CY 2020.³⁰⁹

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

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

Additionally, 47 counties³¹⁰ 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.

³⁰⁹ See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

³¹⁰ Due to software limitations, the 47 counties blinded for PHI appear in the grey area shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Penetration Rate

The penetration rate estimates the share of total Colorado Medicaid members in a geographic area that received the service. Penetration rates for injection services ranged from 1.94 in Denver County, to 5.93 in Logan County, in CY 2020.

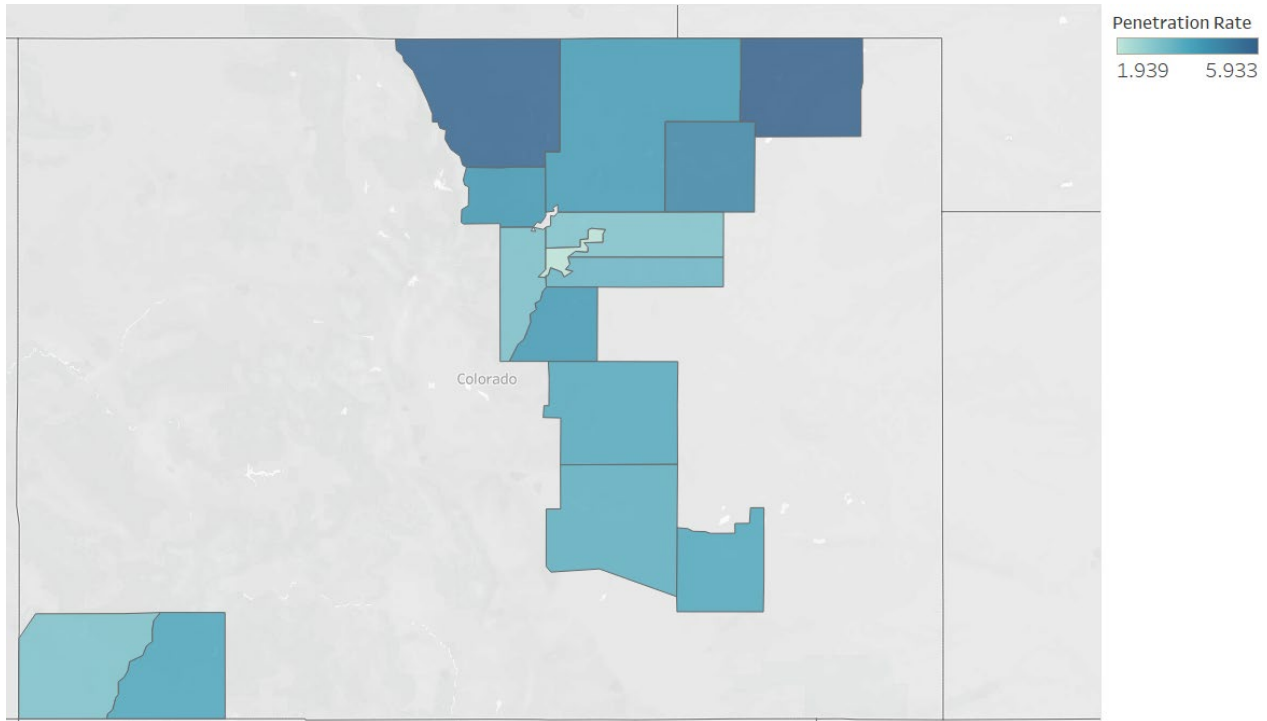


Figure 73. Penetration rates for injection services by county in CY 2020.

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

Additionally, 47 counties³¹¹ 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.

³¹¹ Due to software limitations, the 47 counties blinded for PHI appear in the grey area shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

Member-to-Provider Ratios

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

Injection Member-to-Provider Ratios			
Region	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	63	40,376	1.56
Rural	149	154,309	0.97
Urban	581	1,187,570	0.49
Statewide	626	1,371,726	0.46

Table 58. Member-to-provider ratio for injection services expressed as providers per 1,000 members by county classification in CY 2020.³¹²

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.³¹³

³¹² Some providers treat patients across several counties, accounting for the overlap in providers across regions.

³¹³ Currently, the Department does not use member-to-provider ratio standards specific to injection 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 Colorado Medicaid members that live within certain drive time bands from where injection service providers are located.³¹⁴

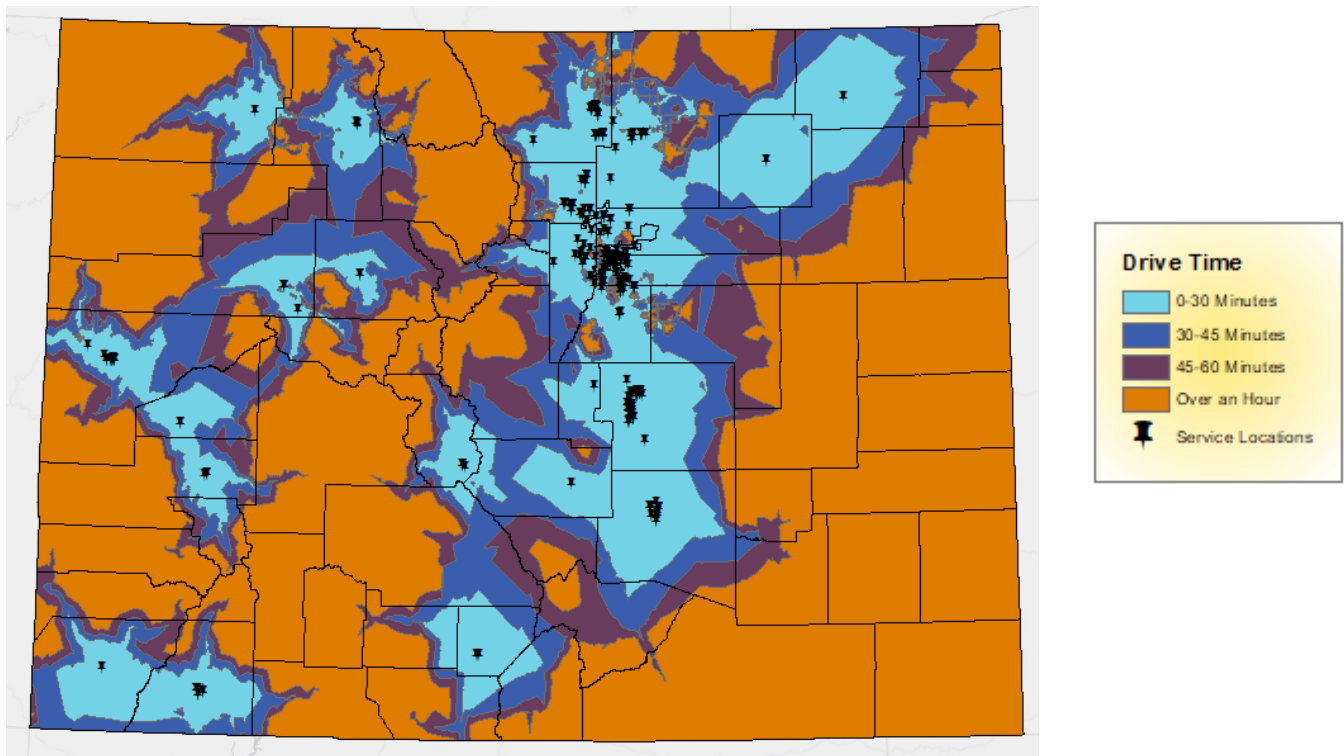


Figure 74. ArcGIS map of drive times of injection provider service locations to members in CY 2020.

Overall, 84.64% of total Health First Colorado members in CY 2020 resided 30 minutes or less from an injection provider. Additionally, 5.65% of total members resided approximately 30-45 minutes from an injection provider; 4.36% of total members resided 45-60 minutes from an injection provider. Finally, 5.35% of total members resided over an hour from an injection provider.

³¹⁴ Due to claims data, service locations shown on the ArcGIS map may represent provider billing or service delivery locations.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding injection services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- Per recommendation in the [2016 Medicaid Provider Rate Review Recommendation Report](#), most services under the PADs service grouping were moved under the pharmacy benefit to undergo regular rate setting analyses that align with other pharmacy processes. The injection service grouping is included to ensure the remaining codes from the PADs service grouping that do not undergo quarterly reviews are still reviewed on a consistent basis.

Additional Research

The Department does not currently have plans for further research regarding injection services.

Conclusion

Analyses suggest that Injection rates at 95.6% of the benchmark were sufficient for member access and provider retention.³¹⁵

The primary factors that led to this conclusion included:

- Over 90% of members live within 45 minutes of an Injections provider.
- Injection services were identified as being between 80%-100% of the benchmark, as noted in the Payment Philosophy section of the report.³¹⁶

³¹⁵ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.

³¹⁶ See the Payment Philosophy Section on page 14 for more information.

Out-of-Cycle Review – Physical & Occupational Therapy (PT/OT), Speech Therapy (ST), and Home Health PT/OT/ST

Service Description

The Physical & Occupations Therapy (PT/OT) service grouping is comprised of 45 procedure codes. PT/OT services include therapy services to assist with physical and occupational mobility and are provided primarily in clinical settings and are available to all Health First Colorado members. PT/OT services were previously reviewed in the [2020 Medicaid Provider Rate Review Analysis Report](#).

PT/OT Statistics	
Total Adjusted Expenditures CY 2020 ³¹⁷	\$44,029,512
Total Members Utilizing Services in CY 2020	40,481
CY 2020 Over CY 2019 Change in Members Utilizing Services	(5.12%)
Total Active Providers CY 2020	2,412
CY 2020 Over CY 2019 Change in Active Providers	0.83%

Table 59. PT/OT expenditure and utilization data.

The Speech Therapy (ST) service grouping is comprised of 21 procedure codes. Speech therapy services consist of services that address and remedy speech language deficits and are available to all Health First Colorado members. Speech therapy services are provided in home and clinical settings. Speech therapy services were previously reviewed in the [2020 Medicaid Provider Rate Review Analysis Report](#).

Speech Therapy Statistics	
Total Adjusted Expenditures CY 2020 ³¹⁸	\$18,615,087
Total Members Utilizing Services in CY 2020	10,155
CY 2020 Over CY 2019 Change in Members Utilizing Services	(8.16%)
Total Active Providers CY 2020	699
CY 2020 Over CY 2019 Change in Active Providers	(4.62%)

Table 60. Speech therapy expenditure and utilization data.

The Home Health PT/OT/ST service grouping is comprised of 8 revenue codes. Home Health PT/OT/ST services provide a range of PT/OT and speech therapy services in home or community settings and are available to all Health First Colorado 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 PT/OT/ST services were previously reviewed in the [2020 Medicaid Provider Rate Review Analysis Report](#).

³¹⁷ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

³¹⁸ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

Home Health PT/OT/ST Statistics	
Total Adjusted Expenditures CY 2020 ³¹⁹	\$80,116,607
Total Members Utilizing Services in CY 2020	16,384
CY 2020 Over CY 2019 Change in Members Utilizing Services	7.23%
Total Active Providers CY 2020	165
CY 2020 Over CY 2019 Change in Active Providers	3.77%

Table 61. Home Health PT/OT/ST expenditure and utilization data.

Rate Comparison Analysis

A summary of the estimated total expenditures resulting from using average paid amount per service day compared to the home health per diem rate is presented below.^{320, 321}

PT/OT/ST and Home Health PT/OT/ST Rate Comparison		
Service	Average Amount Paid per Service Day ³²²	Home Health Per Diem Rate
Physical Therapy	\$43.11	\$121.96
Occupational Therapy	\$72.10	\$122.75
Speech Therapy	\$58.46	\$132.53

Table 62. Comparison of Colorado Medicaid PT/OT/ST service payments to those of Home Health PT/OT/ST per diem, expressed as a percentage (CY 2020).

On average, Colorado Medicaid payments for PT/OT services are estimated at 91.0% of the benchmark. On average, Colorado Medicaid payments for speech therapy services are estimated at 79.0% of the benchmark. On average, Colorado Medicaid payments for home health PT/OT/ST services are estimated at 100.2% of the benchmark. A summary of the estimated total expenditures resulting from using comparable sources is presented below.³²³

³¹⁹ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

³²⁰ Detailed information regarding the rate comparison analysis methodology is contained in Appendix G.

³²¹ Home health agencies have more requirement and administrative costs compared to individual PT/OT and speech therapy providers, which are factored into home health rates.

³²² Service day(s) were determined using the number of days on which a claim was submitted; since some units for PT/OT/ST are in 15-minute increments, some service days may include only 15/30/45 minutes of service provision. For more information see Appendix G.

³²³ Detailed information regarding the rate comparison analysis methodology is contained in Appendix G.

Therapies Rate Benchmark Comparison ³²⁴			
Service	Colorado Repriced	Comparison Repriced	Rate Benchmark Comparison
Physical Therapy/ Occupational Therapy (PT/OT)	\$44,967,563	\$49,403,795	91.0%
Speech Therapy (ST)	\$19,068,261	\$24,128,649	79.0%
Home Health PT/OT/ST	\$89,701,081	\$89,503,000	100.2%

Table 63. Comparison of Colorado Medicaid PT/OT, speech therapy, and home health PT/OT/ST per diem service payments to those of other payers, expressed as a percentage (CY 2020).

The estimated fiscal impact for PT/OT to Colorado Medicaid would be \$4,436,232 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 45 procedure codes analyzed in this service grouping, 40 were compared to Medicare, and five were compared to an average of seven other states' Medicaid rates.³²⁵ Individual rate ratios for PT/OT services were 29.2%-1,604.1%.

The estimated fiscal impact for speech therapy to Colorado Medicaid would be \$5,060,388 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. Of the 21 procedure codes analyzed in this service grouping, 20 were compared to Medicare, and one was compared to an average of 5 other states' Medicaid rates.³²⁶ Individual rate ratios for injection services were 17.4%-89.0%.

The estimated fiscal impact for Home Health PT/OT/ST per diem rates to Colorado Medicaid would be \$198,081 in total savings if Colorado had reimbursed at 100% of the benchmark in CY 2020. All the revenue codes analyzed in this service grouping were compared to an average of 11 other states' Medicaid rates.³²⁷ Individual rate ratios for Home Health PT/OT/ST were 90.3%-111.9%.

³²⁴ The total adjusted expenditures may differ from total expenditures as reported in the annual budget due to additional adjustments conducted for this report (e.g., eligibility exclusions, etc.) and varying service category definitions. For more information, see Appendix B.

³²⁵ States used in the injection services rate comparison analysis were Arizona, California, Maine, Michigan, Oregon, and Oklahoma. For more details on injection services rate comparisons, see Appendix G.

³²⁶ States used in the injection services rate comparison analysis were California, Arizona, Nevada, South Carolina, and Minnesota. For more details on injection services rate comparisons, see Appendix G.

³²⁷ States used in the injection services rate comparison analysis were California, Nebraska, Oregon, Idaho, Illinois, Louisiana, Maryland, North Carolina, Ohio, Washington, and Wisconsin. For more details on Home Health PT/OT/ST services rate comparisons, see Appendix G.

Access to Care Analysis – PT/OT

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for PT/OT services decreased by 9.90% from an average of 7.88 utilizers per provider in CY 2019 to 7.10 utilizers per provider in CY 2020. Additionally:

- In urban counties, average panel size decreased from 7.90 in CY 2019 to 7.15 in CY 2020.
- In rural counties, average panel size decreased from 2.80 in CY 2019 to 2.56 in CY 2020.
- In frontier counties, average panel size decreased from 2.21 in CY 2019 to 2.16 in CY 2020.

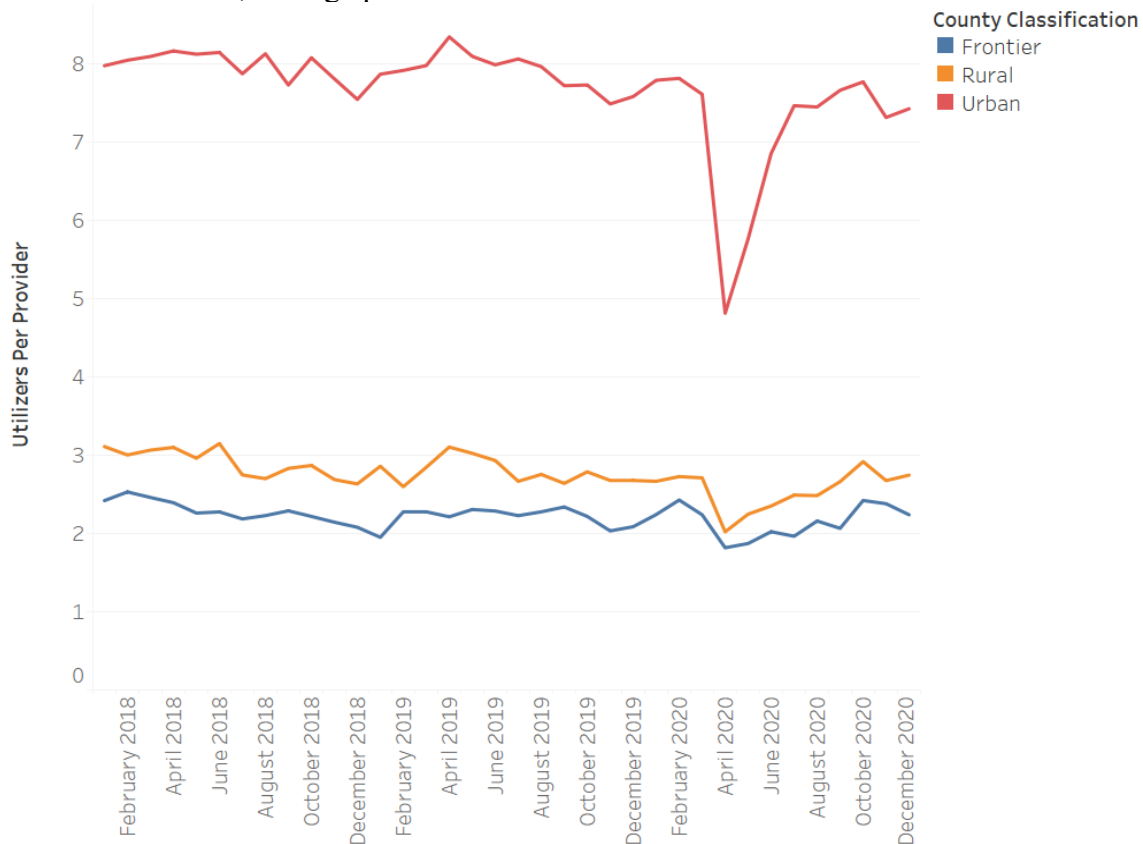


Figure 75. Utilizers per provider (panel size) for PT/OT services between January 2018 and December 2020.

Analysis indicates that both the number of distinct utilizers and active providers increased over this time in urban counties. Additionally, there was a slight decrease in active providers over this time in rural and frontier county classifications. Distinct utilizers in rural and frontier county classifications remained relatively stable.³²⁸

The number of distinct utilizers and total active providers observed in all counties changed at similar rates, which led to a relatively consistent number of utilizers per provider from January 2018 to December 2020.

There was a noticeable change in urban counties from August 2019 to October 2019 that can be attributed to the COVID-19 pandemic.

³²⁸ For data specific to distinct utilizers and active providers, see Appendix D.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of PT/OT services reside throughout the state. Utilizer density for PT/OT services ranged from 37, in Crowley County and Rio Grande County, to 9,115 in El Paso County, in CY 2020.

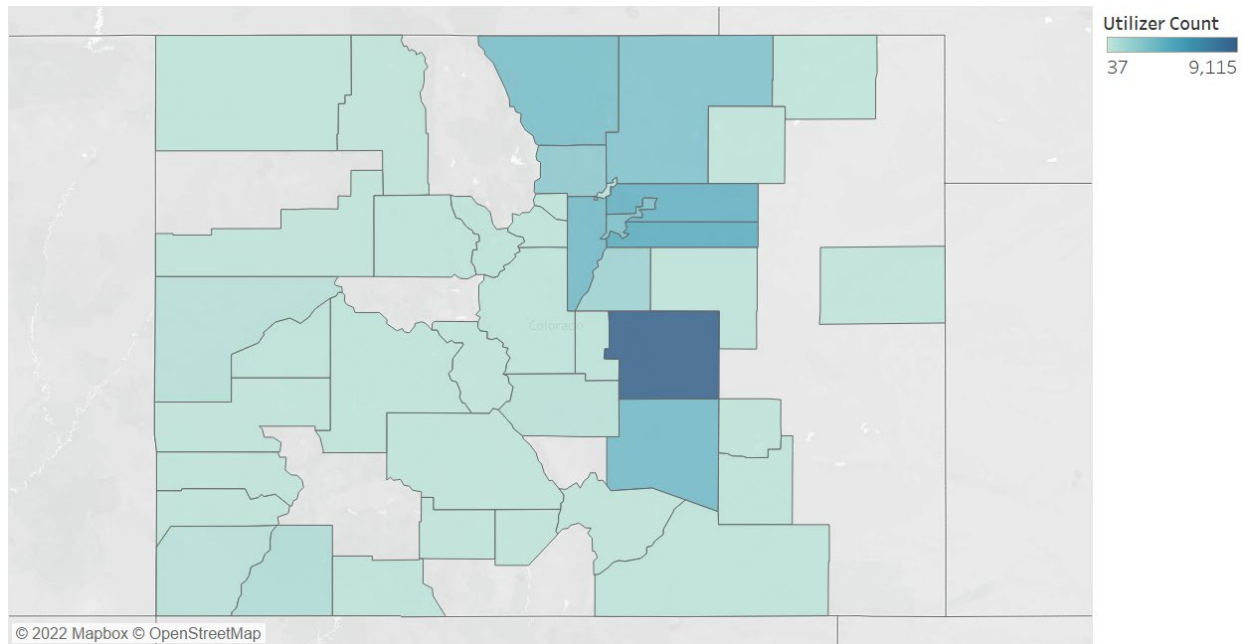


Figure 76. Utilizer density for PT/OT services by county for CY 2020.³²⁹

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.

Additionally, 20 counties³³⁰ 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.

³²⁹ See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

³³⁰ Due to software limitations, the 20 counties blinded for PHI appear in the seven grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

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 ranged from 3.56 in Montrose County, to 55.71 in Dolores County, in CY 2020. Denver County had a penetration rate of 12.79 in CY 2020.

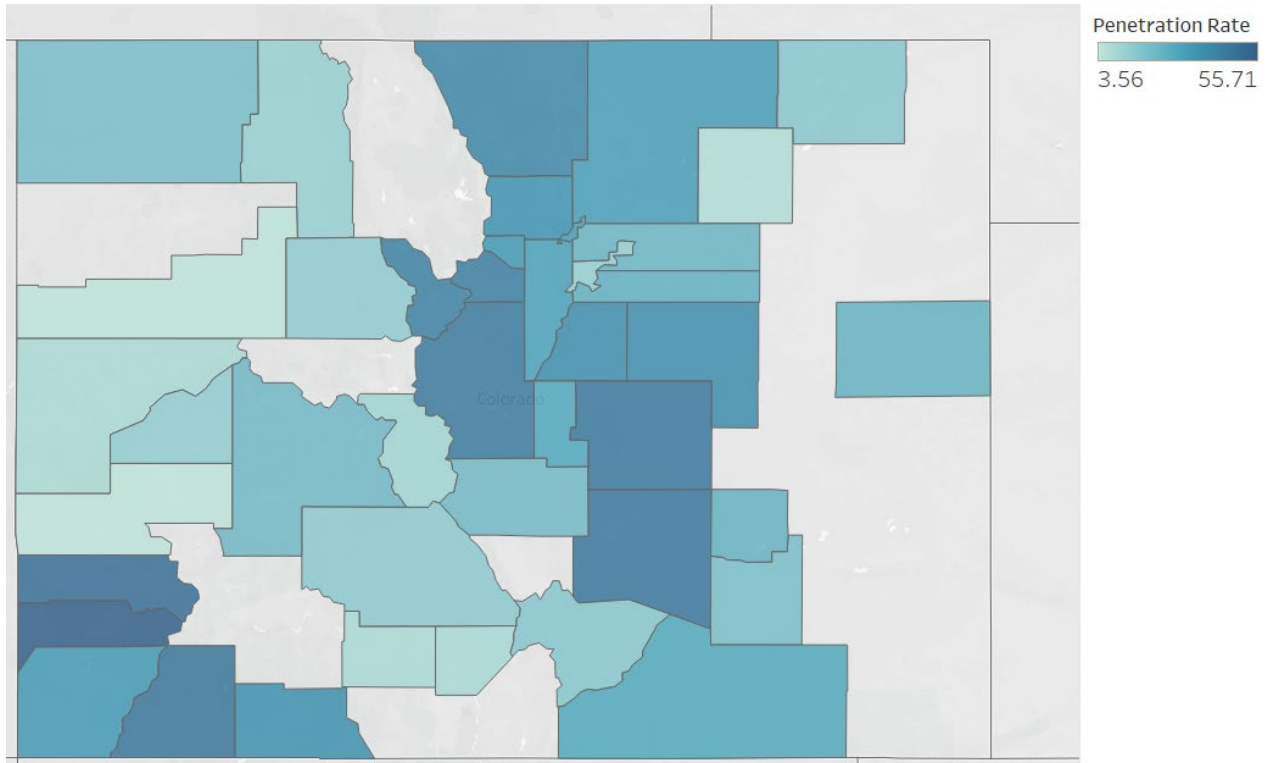


Figure 77. Penetration rates for PT/OT services by county in CY 2020.

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

Additionally, 20 counties³³¹ 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.

³³¹ Due to software limitations, the 20 counties blinded for PHI appear in the seven grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

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	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	246	40,376	6.09
Rural	604	154,309	3.91
Urban	2,277	1,187,570	1.92
Statewide	2,412	1,371,726	1.76

Table 64. Member-to-provider ratio for PT/OT services expressed as providers per 1,000 members by county classification in CY 2019.³³²

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.³³³

³³² Some providers treat patients across several counties, accounting for the overlap in providers across regions.

³³³ 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 Colorado Medicaid members that live within certain drive time bands from where PT/OT service providers are located.³³⁴

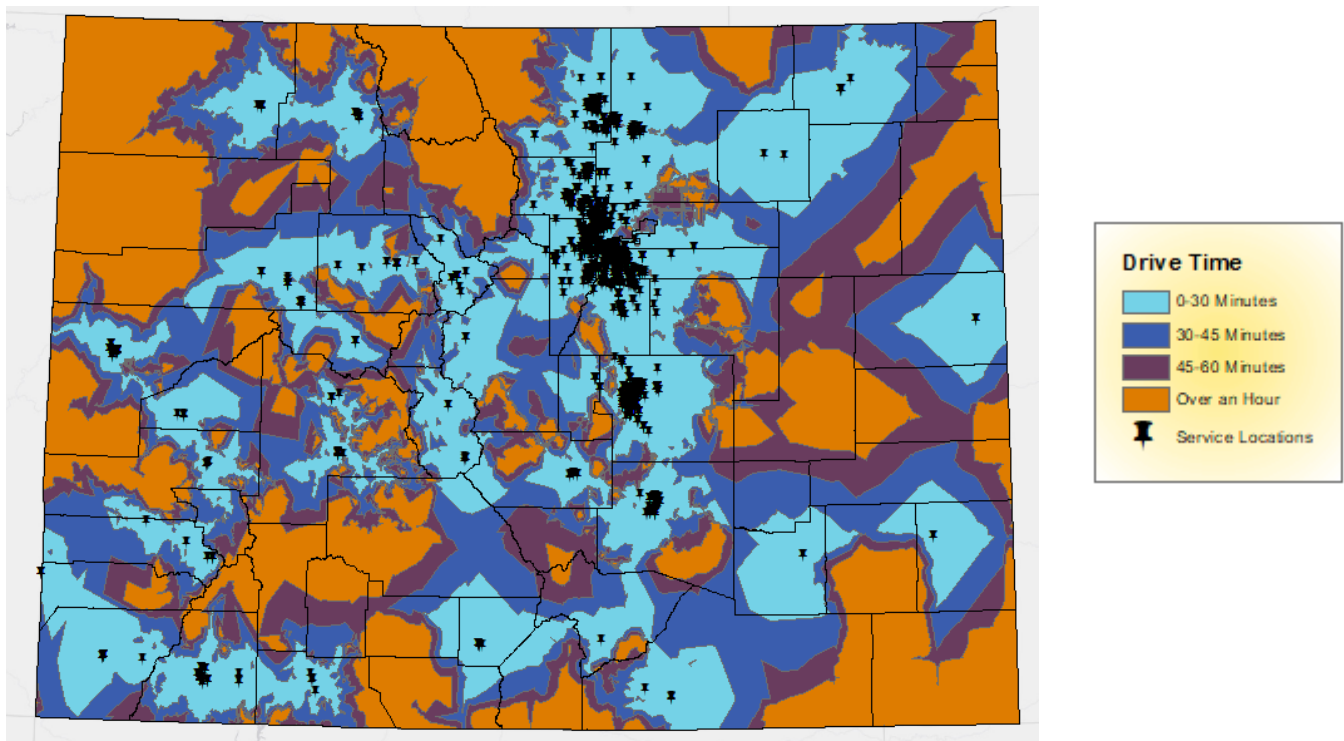


Figure 78. ArcGIS map of drive times of PT/OT provider service locations to members in CY 2020.

Overall, 95.72% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a PT/OT provider. Additionally, 2.23% of total members resided approximately 30-45 minutes from a PT/OT provider; 1.32% of total members resided 45-60 minutes from a PT/OT provider. Finally, 0.73% of total members resided over an hour from a PT/OT provider.

³³⁴ Due to claims data, service locations shown on the ArcGIS map may represent service delivery locations.

Access to Care Analysis – Speech Therapy

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for speech therapy services decreased by 3.63% from an average of 10.75 utilizers per provider in CY 2019 to 10.36 utilizers per provider in CY 2020. Additionally:

- In urban counties, average panel size decreased from 10.60 in CY 2019 to 10.40 in CY 2020.
- In rural counties, average panel size decreased from 3.56 in CY 2019 to 2.73 in CY 2020.
- In frontier counties, average panel size decreased from 2.90 in CY 2019 to 2.72 in CY 2020.

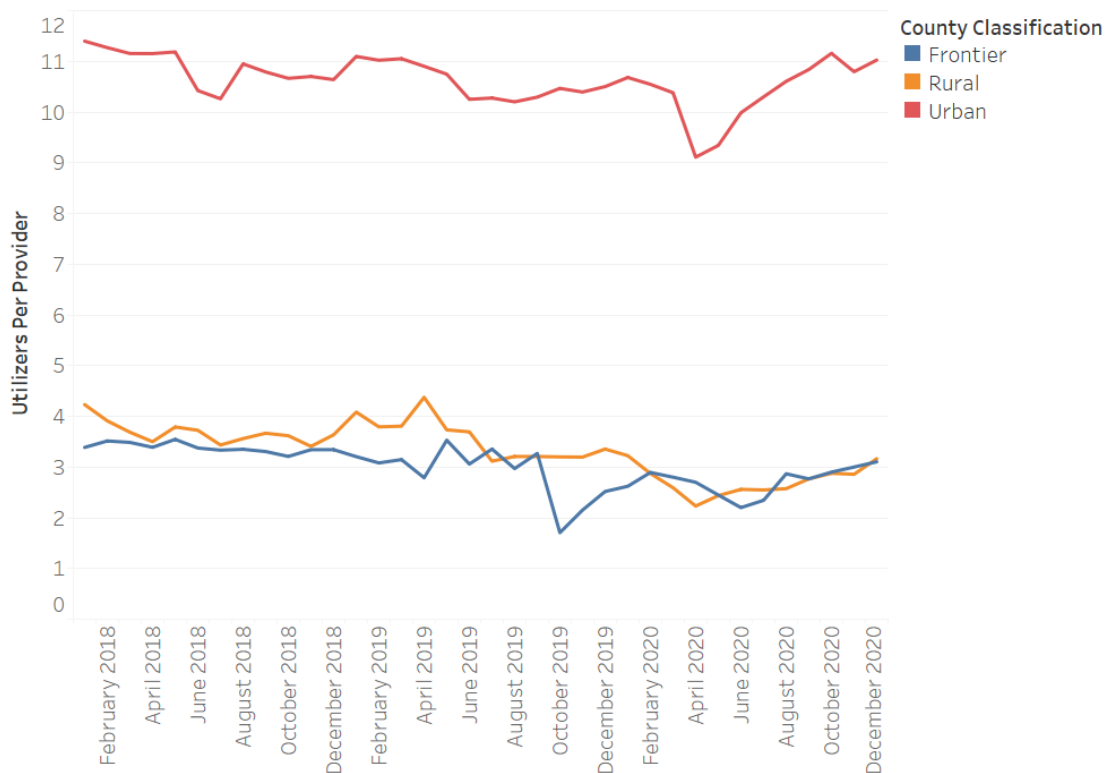


Figure 79. Utilizers per provider (panel size) for speech therapy services between January 2018 and December 2020.

Analysis indicates that both the number of distinct utilizers and active providers remained relatively stable over this time in urban and frontier county classifications. Additionally, there was a slight decrease in both distinct utilizers and active providers from over this time in rural counties.³³⁵

The number of distinct utilizers and total active providers observed in urban and frontier county classifications remained relatively steady, which led to relatively consistent number of utilizers per provider from January 2018 to December 2020. In rural counties, the number of distinct utilizers decreased at a higher rate than active providers, which led to a slight decrease in utilizers per provider from January 2018 to December 2020.

There was a noticeable change in urban and rural county classifications March 2020 to May 2020 that can be attributed to the COVID-19 pandemic.³³⁶

³³⁵ For data specific to distinct utilizers and active providers, see Appendix D.

³³⁶ See Appendix E for more information.

Utilizer Density

The utilizer density metric provides information regarding where utilizers of speech therapy services reside throughout the state. Utilizer density for speech therapy services ranged from 31, in Las Animas County, to 2,690 in El Paso County, in CY 2020.

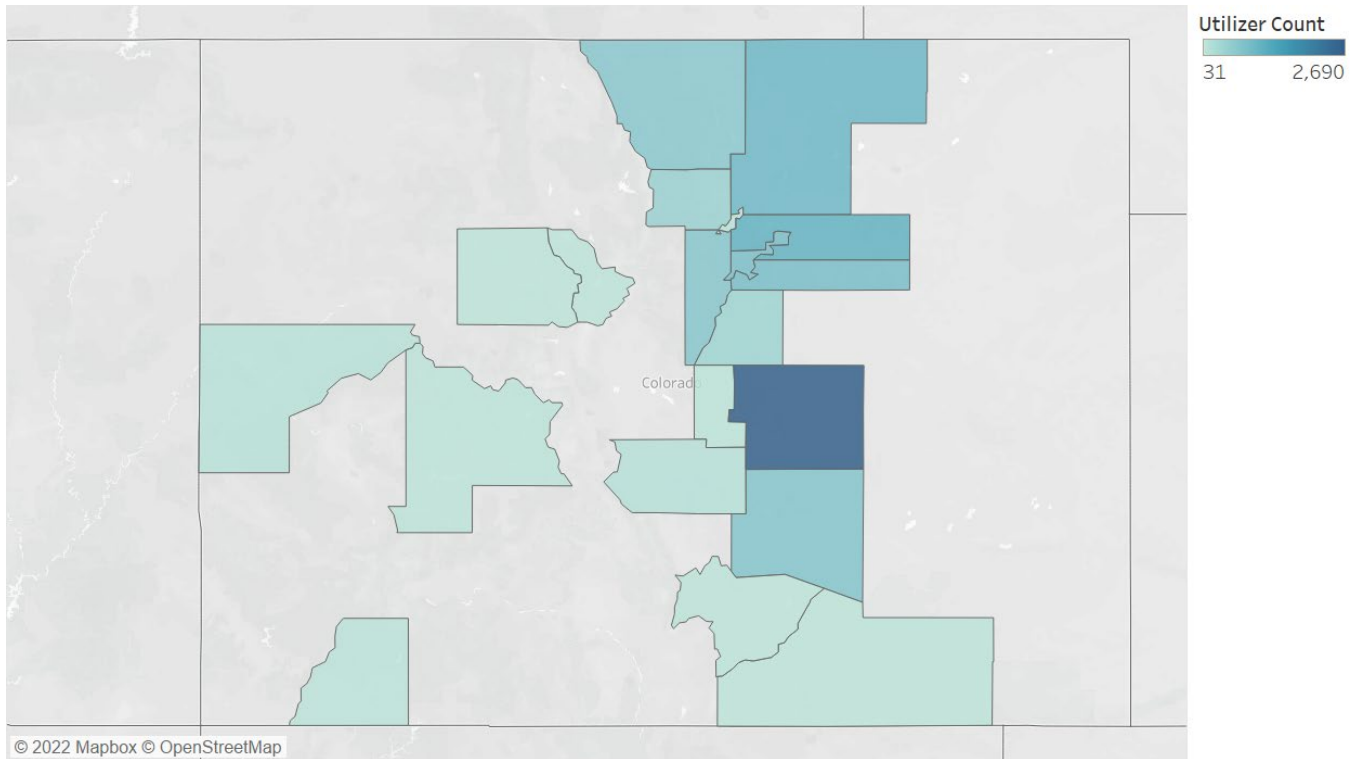


Figure 80. Utilizer density for speech therapy services by county for CY 2020.³³⁷

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.

Additionally, 40 counties³³⁸ 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.

³³⁷ See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

³³⁸ Due to software limitations, the 40 counties blinded for PHI appear in the grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

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 ranged from 1.97 in Mesa County, to 13.64 in El Paso County, in CY 2020. Denver County had a penetration rate of 3.68 in CY 2020.

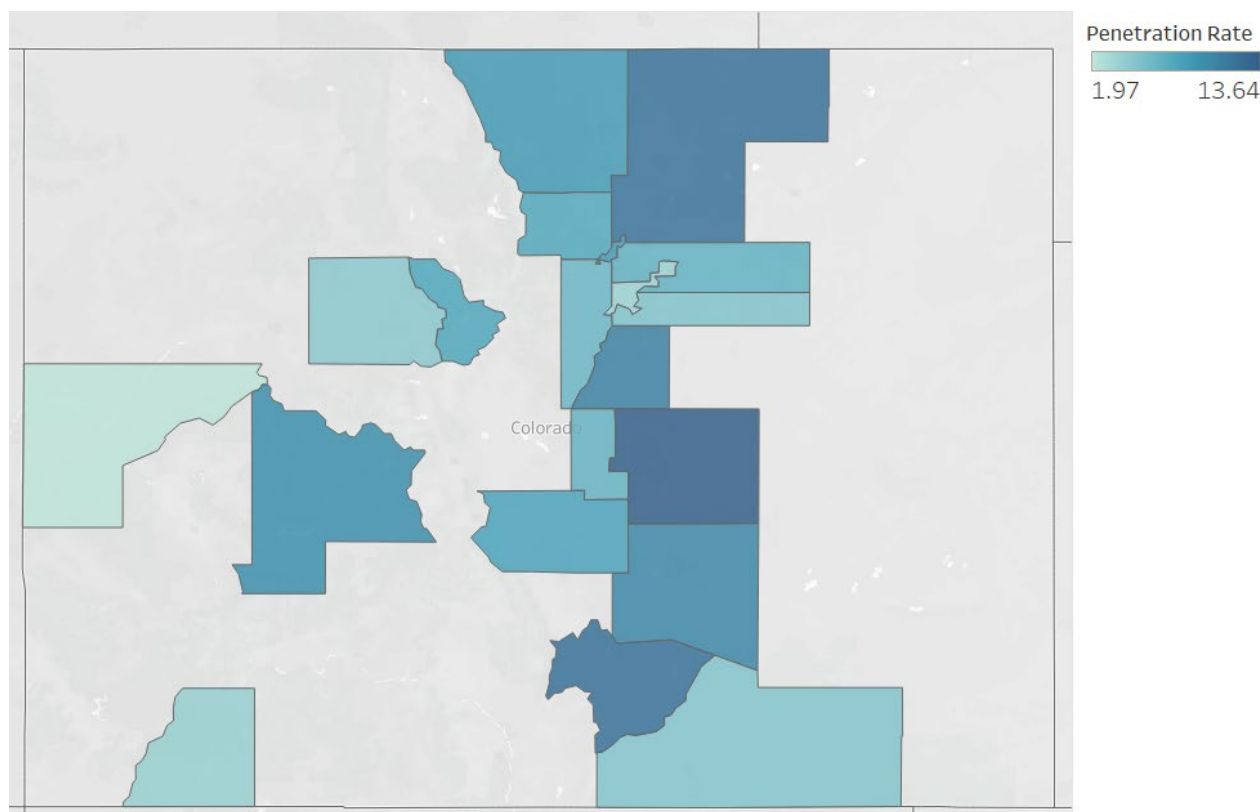


Figure 81. Penetration rates for speech therapy services by county in CY 2020.

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

Additionally, 40 counties³³⁹ 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.

³³⁹ Due to software limitations, the 40 counties blinded for PHI appear in the grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

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	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	74	40,376	1.83
Rural	129	154,309	0.84
Urban	669	1,187,570	0.56
Statewide	699	1,371,726	0.51

Table 65. Member-to-provider ratio for speech therapy services expressed as providers per 1,000 members by county classification in CY 2019.³⁴⁰

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.³⁴¹

³⁴⁰ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

³⁴¹ 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 Colorado Medicaid members that live within certain drive time bands from where speech therapy service providers are located.³⁴²

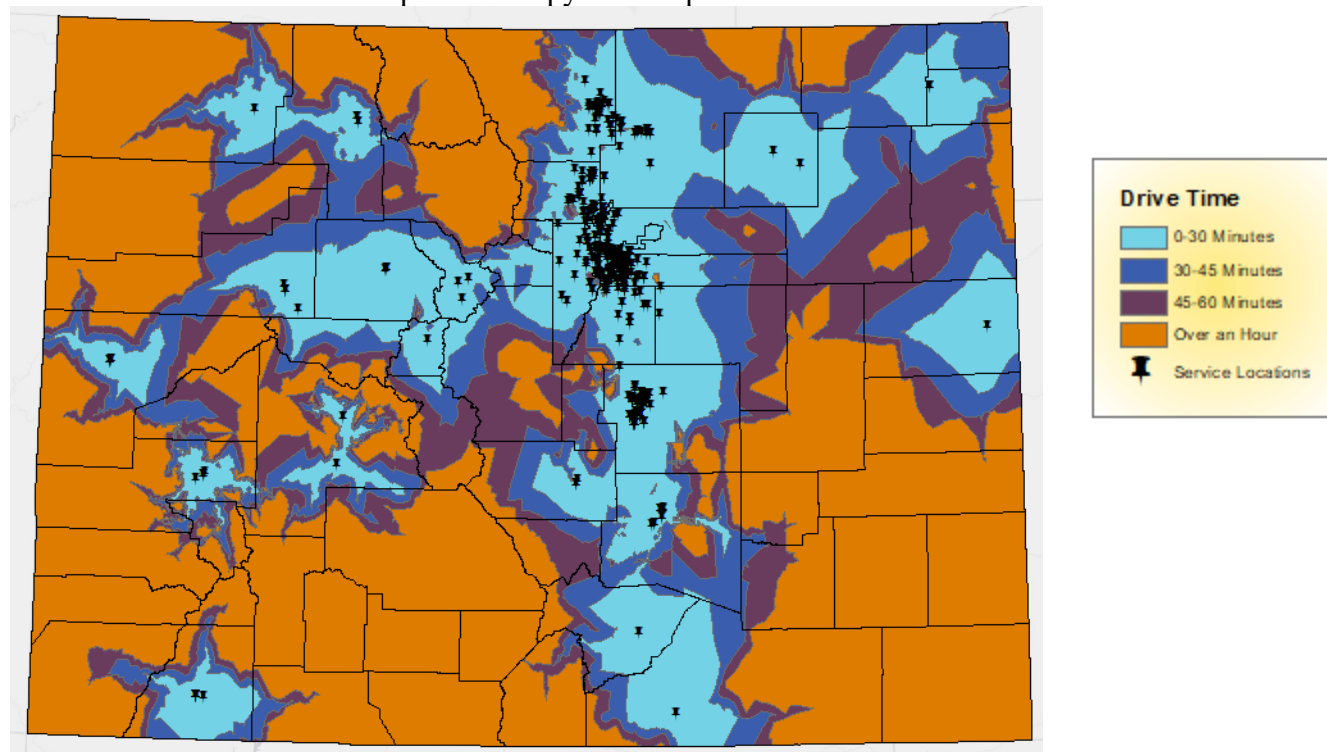


Figure 82. ArcGIS map of drive times of speech therapy provider service locations to members in CY 2020.

Overall, 90.54% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a speech therapy provider. Additionally, 2.90% of total members resided approximately 30-45 minutes from a speech therapy provider; 2.35% of total members resided 45-60 minutes from a speech therapy provider. Finally, 4.21% of total members resided over an hour from a speech therapy provider.

³⁴² Due to claims data, service locations shown on the ArcGIS map represent service delivery locations.

Access to Care Analysis – Home Health PT/OT/ST

Utilizers per Provider (Panel Size) Summary

Statewide, average panel size for home health services increased by 10.24% from an average of 53.50 utilizers per provider in CY 2019 to 58.98 utilizers per provider in CY 2020. Additionally:

- In urban counties, average panel size increased from 58.19 in CY 2019 to 63.40 in CY 2020.
- In rural counties, average panel size decreased from 5.55 in CY 2019 to 5.32 in CY 2020.
- In frontier counties, average panel size increased from 2.41 in CY 2019 to 2.67 in CY 2020.

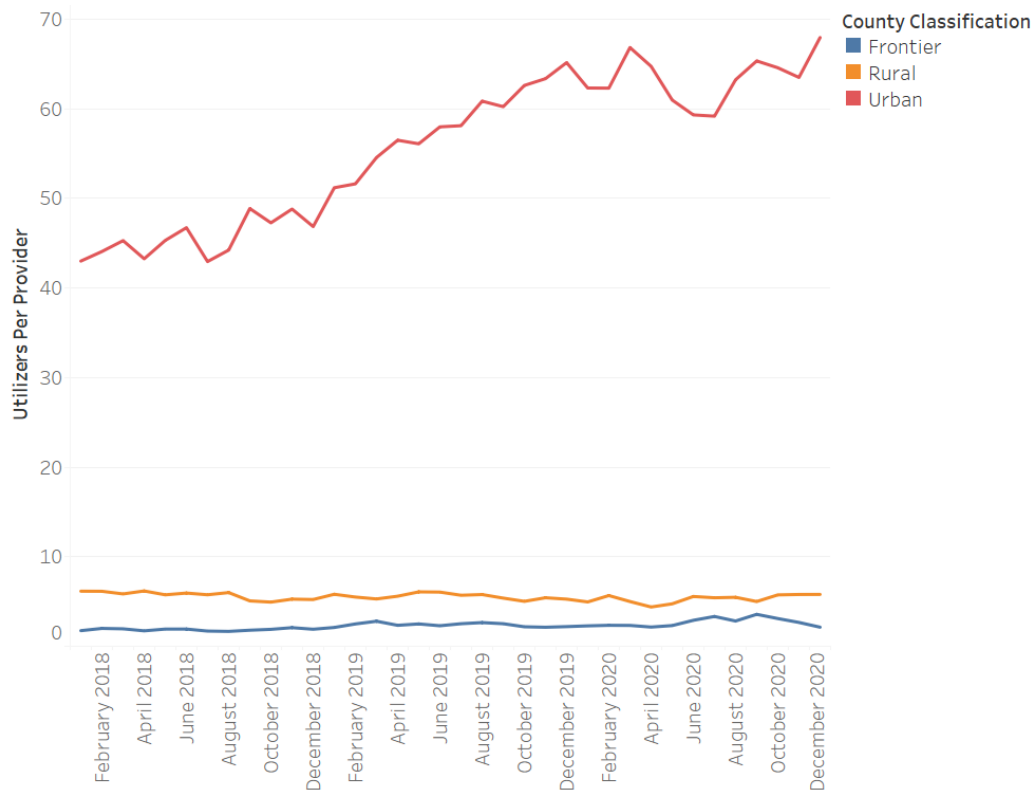


Figure 83. Utilizers per provider (panel size) for home health services between January 2018 and December 2020.

Analysis indicates that the number of distinct utilizers significantly increased over this time in urban counties. Additionally, the number of active providers in urban counties remained relatively steady over this time. Both the number of distinct utilizers and active providers remained relatively stable over this time in rural and frontier county classifications.³⁴³

The number of distinct utilizers increased in urban counties as the number of active providers remained relatively steady, which led to an increase in the number of utilizers per provider in these counties from January 2018 to December 2020. The number of distinct utilizers and total active providers observed in rural and frontier counties remained relatively steady, which led to consistent number of utilizers per provider from January 2018 to December 2020.

³⁴³ For data specific to distinct utilizers and active providers, see Appendix D.

There was a noticeable change in urban counties from March 2020 to May 2020 that can be attributed to the COVID-19 pandemic.³⁴⁴

Utilizer Density

The utilizer density metric provides information regarding where utilizers of home health services reside throughout the state. Utilizer density for home health services ranged from 35, in Montrose County, to 2,739 in Arapahoe County, in CY 2020.

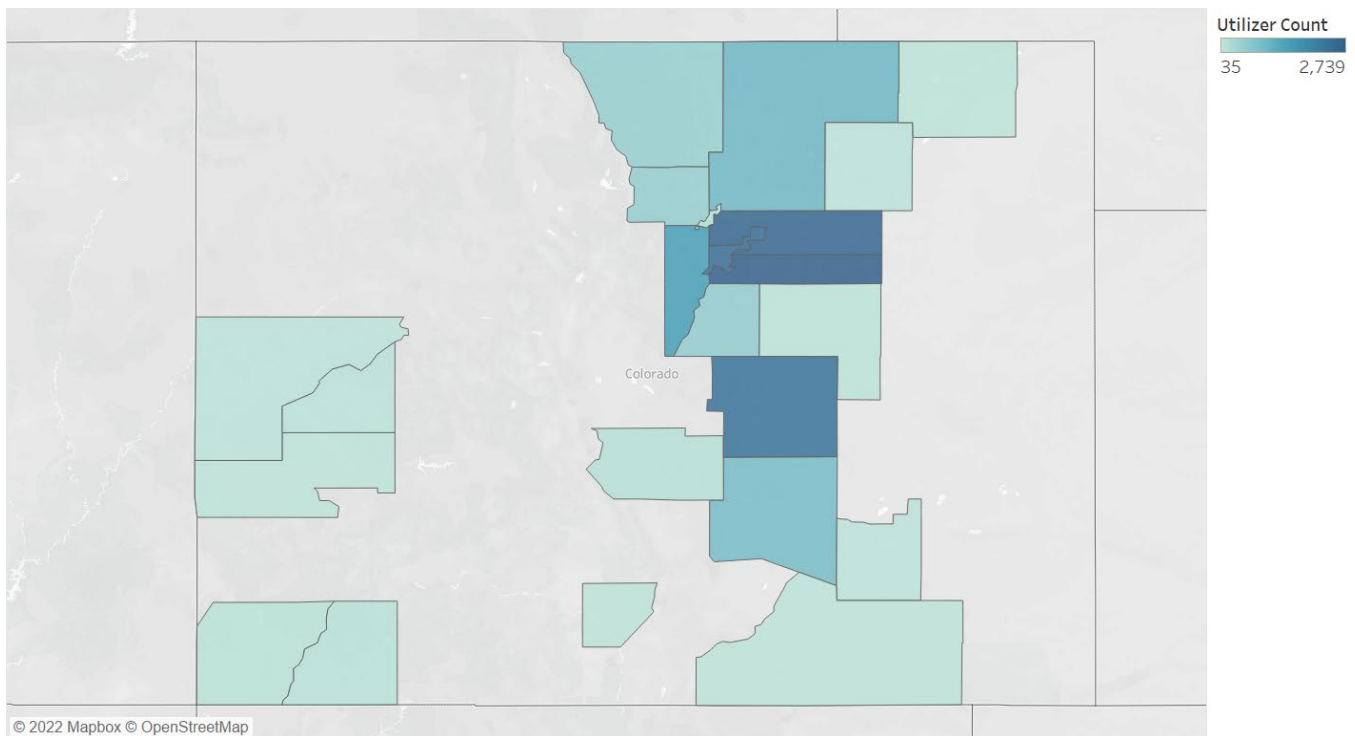


Figure 84. Utilizer density for home health services by county for CY 2020.³⁴⁵

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, 35 counties³⁴⁶ 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.

³⁴⁴ See Appendix E for more information.

³⁴⁵ See Figure 1. Colorado Counties and RAE County Classification in Appendix A to reference Colorado counties by name.

³⁴⁶ Due to software limitations, the 35 counties blinded for PHI appear in the grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

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 ranged from 1.27 in Mesa County, to 16.55 in Arapahoe County, in CY 2020. Denver County had a penetration rate of 10.94 in CY 2020.

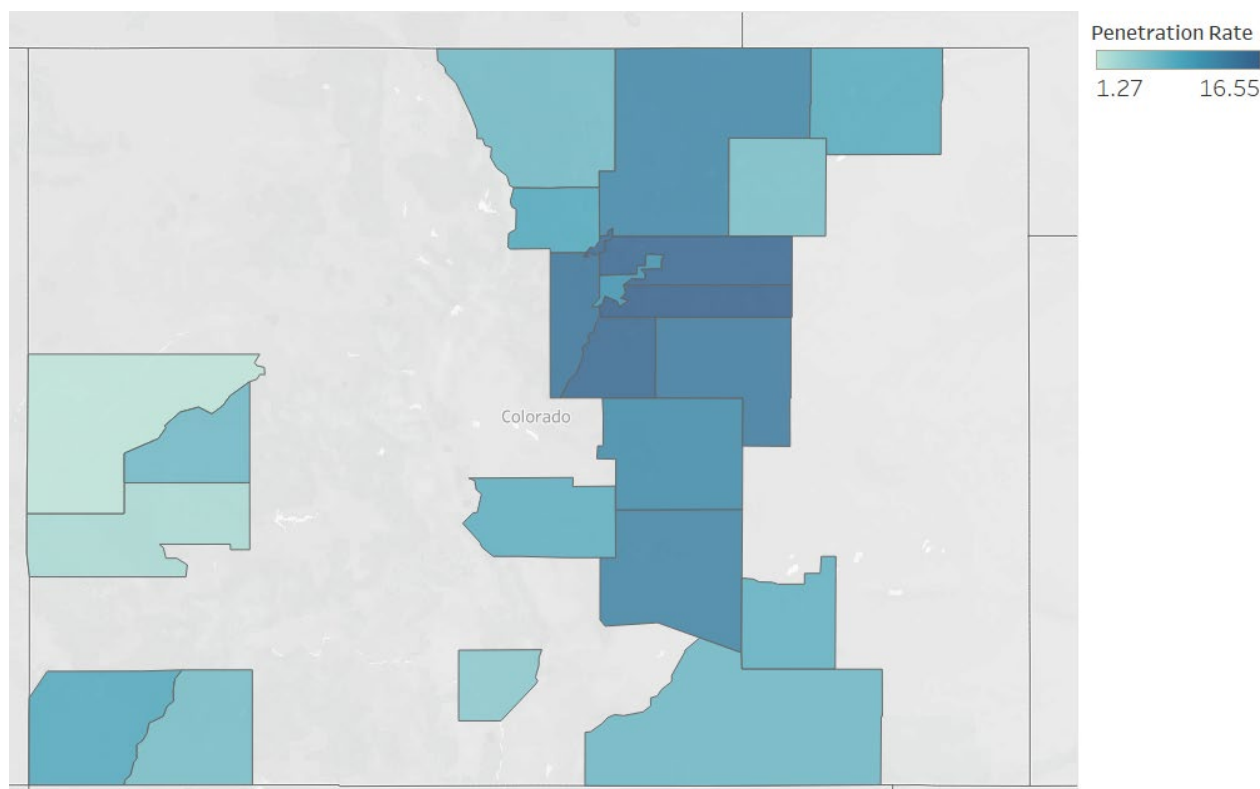


Figure 85. Penetration rates for home health services by county in CY 2020.

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

Additionally, 35 counties³⁴⁷ 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.

³⁴⁷ Due to software limitations, the 35 counties blinded for PHI appear in the grey areas shown in the map. To better identify the counties within these blinded areas, see the reference map in Appendix A.

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	CY 2020 Providers	CY 2020 Total Health First Colorado Members	Providers per 1,000 Members
Frontier	39	40,376	0.97
Rural	62	154,309	0.40
Urban	157	1,187,570	0.13
Statewide	165	1,371,726	0.12

Table 66. Member-to-provider ratio for home health services expressed as providers per 1,000 members by county classification in CY 2019.³⁴⁸

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.³⁴⁹

³⁴⁸ Some providers treat patients across several counties, accounting for the overlap in providers across regions.

³⁴⁹ 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 Colorado Medicaid members that live within certain drive time bands from where home health service providers are located.³⁵⁰

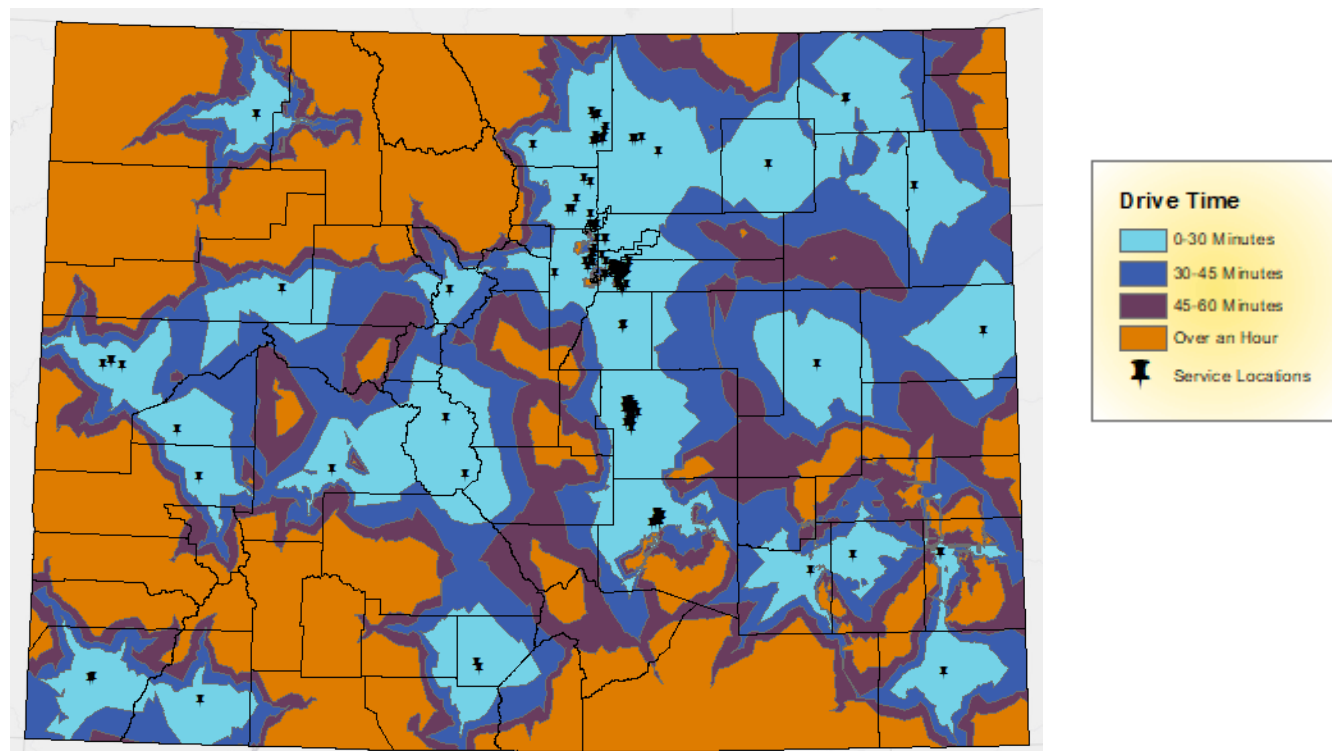


Figure 86. ArcGIS map of drive times of home health provider agency locations to members in CY 2020.

Overall, 89.12% of total Health First Colorado members in CY 2020 resided 30 minutes or less from a home health provider. Additionally, 6.73% of total members resided approximately 30-45 minutes from a home health provider; 1.94 % of total members resided 45-60 minutes from a home health provider. Finally, 2.21% of total members resided over an hour from a home health provider.

³⁵⁰ Due to claims data, service locations shown on the ArcGIS map indicate home health agency locations/provider billing locations, not necessarily the location where home health services were provided.

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding PT/OT/ST or Home Health PT/OT/ST services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- Utilization trends in data indicate a migration of PT/OT and 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.
 - The Department calculated that approximately 24.8% of long-term Home Health PT/OT utilizers also received long-term HH nursing/CNA care. Similarly, 16% of long-term Home Health Speech Therapy utilizers received long-term HH nursing/CNA care.
- Home health agencies have more requirement and administrative costs compared to individual PT/OT and speech therapy providers, which are factored into home health rates.
- Most visits for PT/OT and speech therapy services include more than one procedure code.
- PT/OT, speech therapy, and home health services were reviewed in the [2020 Medicaid Provider Rate Review Analysis Report](#); PT/OT and speech therapy services were recommended to be evaluated to identify services below 80% and above 100% of the benchmark to identify services that would benefit from an immediate rate change in the [2020 Medicaid Provider Rate Review Recommendation Report](#).³⁵¹

Additional Research

The Department plans to look further break down average time spent per visit using Electronic Visit Verification (EVV) data and further analyze the average amount of units reimbursed each service day to gain more clarity on the comparison between outpatient PT/OT/ST and Home Health PT/OT/ST.

Conclusion

Distinct utilizers and active providers increased from January 2018 through December 2020, and over 95% of members live within 45 minutes of a PT/OT provider; these factors indicate that rates are sufficient for member access and provider retention. Analyses indicate that rates for PT/OT services are at 91.0% of the benchmark. Given that active providers are defined as having one or more Medicaid patient visits during the analysis period, those providers may not provide adequate access to enough Medicaid members at the existing rates. Given that PT/OT rates are only slightly above 80% of the benchmark, the Department believes that ultimately rates may not be sufficient to ensure member access and provider retention going forward.^{352, 353}

³⁵¹ This recommendation corresponds with R-10 in the Governor's November 1, 2021 budget request; this recommendation was delayed in 2020 due to the budget deficit at the time, but the Department will pursue this recommendation up state and federal approval.

³⁵² See the Payment Philosophy section on page 14 for more information on historical Departmental standards for rate comparison data.

³⁵³ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.

Rate benchmarking analyses determined that speech therapy rates are 79.0% of the benchmark; given that speech therapy rates are below 80% of the benchmark, this indicates that rates may be insufficient.^{354, 355}

Analyses suggest that Home Health PT/OT/ST rates at 100.2% of the benchmark were sufficient for member access and provider retention.³⁵⁶ The primary factors that led to this conclusion included:

- Significant increases in distinct utilizers over time.

³⁵⁴ See the Payment Philosophy section on page 14 for more information on historical Departmental standards for rate comparison data.

³⁵⁵ The Department is conducting additional research and will identify opportunities to improve access to care and provider retention.

³⁵⁶ This report is intended to be used by the Department, in collaboration with the MPRRAC and stakeholders, to evaluate findings and generate recommendations, which will be presented in the Department's 2022 Rate Review Recommendation Report on November 1, 2022.



Out-of-Cycle Review – Specialty Drugs

Service Description

The Specialty Drugs service grouping is comprised of 6 procedure codes. Specialty Drugs services provide emergency transportation to a facility and is available to all Health First Colorado members.

Specialty Drugs Statistics	
Total Adjusted Expenditures CY 2020	\$4,534,179
Total Members Utilizing Services in CY 2020	PHI
CY 2020 Over CY 2019 Change in Members Utilizing Services	PHI
Total Active Providers CY 2020	1
CY 2020 Over CY 2019 Change in Active Providers	N/A

Table 67. Specialty Drugs expenditure and utilization data.

Rate Comparison Analysis

On average, Colorado Medicaid payments for specialty drug services are estimated at 72% of the benchmark. A summary of the estimated total expenditures compared to invoice data provided by Children’s Hospital of Colorado is presented below.³⁵⁷

Specialty Drugs Rate Analysis		
Product Name	Total Invoice Cost	Total Reimbursement (at 72% of cost)
Spinraza	\$1,534,768	\$1,105,033
Zolgensma	\$3,523,250	\$2,536,740
Brineura	\$581,958	\$419,010
Kymriah	\$657,495	\$473,396
Yescarta	N/A	N/A
Danyelza	N/A	N/A

Table 68. Comparison of Colorado Medicaid specialty drugs service payments to the total invoice cost, expressed as total reimbursement in dollars (CY 2020).

The estimated fiscal impact to Colorado Medicaid would be \$1,763,292 in total funds if Colorado had reimbursed at 100% of the benchmark in CY 2020. All 6 of the procedure codes analyzed in this service grouping were compared to the cost of goods provided using invoice data.³⁵⁸

Stakeholder Feedback

The Department did not receive any feedback from stakeholders regarding specialty drug services in the public meeting on March 25, 2022.

Additional Considerations

Other considerations include:

- Over the last two years, the Department has met with Children’s Hospital more than a dozen times and has met with the Colorado Hospital Association as well to discuss the insufficiency of

³⁵⁷ Detailed information regarding the rate comparison analysis methodology is contained in Appendix G.

³⁵⁸ For more details on specialty drug services rate comparisons, see Appendix G.

the current rate of reimbursement for specialty drugs administered in the outpatient hospital setting.

- The Department is currently working on a project that would include targeted rate changes to the specialty drug reimbursement rates that would allow the Department to reimburse these codes at a rate that more closely aligns with the net invoice total.³⁵⁹

Additional Research

The Department plans to implement rate changes upon federal approval.

Conclusion

Analyses conducted through the rate review process are inconclusive to determine if specialty drug rates at 72% of the benchmark were sufficient for member access and provider retention. However, based on thorough financial analysis outside of the rate review process, the Department has submitted a request to CMS to adjust this reimbursement more closely align with the net invoice total.³⁶⁰

³⁵⁹ The Department is currently working to increase reimbursement rates for this category of service to more closely align with the net invoice total, as provided by invoice data from providers.

³⁶⁰ The Department is will implement suggested rate changes for this category of service upon federal approval.

Appendices

Appendix A – Glossary & County Reference Map

Appendix A provides explanations for common terms used in this report, in addition to a Colorado county classification reference map.

Appendix B – Physician Services Data Analysis Methodology

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

Appendix C – Dialysis, Laboratory, Vision, and Injection Data Analysis Methodology

Appendix C includes details of the benchmark creation, payment comparison methodology, and access to care analysis methodology for all dialysis, laboratory, vision, and injection service groupings.

Appendix D – Service Grouping Data Book

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

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

Appendix E – COVID-19 Impact on Services

Appendix E contains a statement from the Department on the impact of COVID-19 on the 2022 Medicaid Provider Rate Review Analysis data and services under review.

Appendix F – Respiratory Services Additional Data

Appendix F contains additional data concerning respiratory services.

Appendix G – Out-of-Cycle Review Data Analysis Methodology

Appendix G includes details of the benchmark creation, payment comparison methodology, and access to care analysis methodology for all out-of-cycle review service groupings.



COLORADO

Department of Health Care
Policy & Financing

2022 Medicaid Provider Rate Review Analysis Report

Appendix A – Glossary & County Reference Map

Appendix A provides explanations for common terms used throughout the 2021 Medicaid Provider Rate Review Analysis Report, as well as a reference map of counties in Colorado by classification.



Active Provider - Any provider who billed Medicaid at least once between March 2017 and December 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 members who utilized a service.

Drive Time - Measures the percent of Colorado Medicaid members 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 total Medicaid 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 Size 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, or directly provided, the service.

Total Members – The total number of enrolled Colorado Medicaid members.

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.

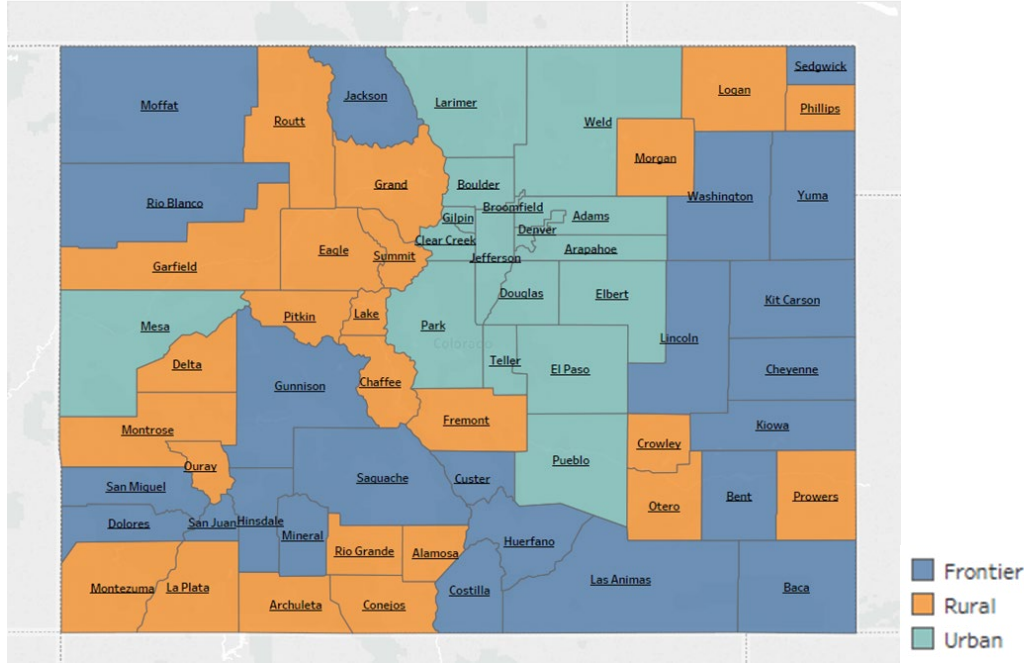


Figure 1. Colorado counties and RAE county classifications.

RAE County Classification ¹					
Urban		Rural		Frontier	
Adams	Mesa	Alamosa	Logan	Baca	Las Animas
Arapahoe	Park	Archuleta	Montezuma	Bent	Lincoln
Broomfield	Pueblo	Chaffee	Montrose	Cheyenne	Mineral
Boulder	Teller	Conejos	Morgan	Costilla	Moffat
Clear Creek	Weld	Crowley	Otero	Custer	Rio Blanco
Denver		Eagle	Ouray	Dolores	Saguache
Douglas		Delta	Phillips	Gunnison	San Juan
Elbert		Fremont	Pitkin	Hinsdale	San Miguel
El Paso		Garfield	Prowers	Huerfano	Sedgwick
Gilpin		Grand	Rio Grande	Jackson	Washington
Jefferson		Lake	Routt	Kiowa	Yuma
Larimer		La Plata	Summit	Kit Carson	

Table 1. Colorado counties by RAE county classification.

¹ 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.

Appendix B – Year 2 (Cycle 2) Methodologies and Data

Executive Summary

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

The following Physician Services were reviewed by **Optumas** as part of the 2022 Medicaid Provider Rate Review Analysis Report:

- Cardiology
- Cognitive Capabilities Assessment
- Ear, Nose, and Throat (ENT)
- Gastroenterology
- Health Education
- Ophthalmology
- Primary Care/Evaluation & Management (E&M)
- Radiology
- Respiratory
- Vaccines & Immunizations
- Vascular
- Women's Health & Family Planning
- Other Physician Services

The work performed on Year 2 (Cycle 2) services comprised three analyses:

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

The data validation process includes:

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

The rate comparison benchmark analysis for January 1, 2020, through December 31, 2020 (CY 2020) compares Colorado Medicaid's latest fee schedule estimated reimbursement with the estimated reimbursement of the overall benchmark(s). The rate comparison benchmark analysis for Physician Services considers Medicare rates the primary comparator. In cases where Medicare rates were not used for comparison, an average rate from a selected group of other states was used.

All else being equal, if Colorado Medicaid were to reimburse at 100.0% of the overall benchmark, expenditures for CY 2020 would see the estimated total funds impacts summarized in **Table 1**:

Table 1. Colorado as a Percent of the Benchmark and Estimated CY 2020 Fund Impact

Service Group	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark	Estimated CY 2020 Total Fund Impact
Cardiology	\$16,065,292	\$17,716,140	90.7%	\$1,650,848
Cognitive Capabilities Assessment	\$7,390,369	\$5,807,772	127.3%	(\$1,582,597)
Ear, Nose, and Throat (ENT)	\$19,610,893	\$26,106,323	75.1%	\$6,495,430
Gastroenterology	\$162,160	\$255,495	63.5%	\$93,335
Health Education	\$687,240	\$1,102,081	62.4%	\$414,841
Ophthalmology	\$26,152,155	\$33,430,858	78.2%	\$7,278,703
Primary Care/Evaluation & Management (E&M)	\$361,644,914	\$430,444,954	84.0%	\$68,800,040
Radiology	\$58,816,577	\$64,885,757	90.7%	\$6,069,180
Respiratory	\$914,336	\$938,229	97.5%	\$23,893
Vaccines & Immunizations	\$14,203,812	\$13,160,618	107.9%	(\$1,043,194)
Vascular	\$3,904,163	\$3,220,898	121.2%	(\$685,265)
Women's Health & Family Planning	\$188,679,084	\$226,119,105	83.4%	\$37,440,021
Other Physician Services	\$371,158,303	\$443,653,719	83.7%	\$72,495,416

The access to care analysis consists of a set of metrics to assist the Department in determining the ease in which members can obtain needed medical services by county classification over time and for the CY 2020 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 Definitions

Metric	Definition	Time Period
Utilizers	The count of distinct utilizers	January 2018 – Dec 2020, Monthly
Providers	The count of active providers	January 2018 – Dec 2020, Monthly
Utilizers Per Provider (Panel Size)	Panel Size is the ratio of utilizers to active providers, and estimates average Medicaid members seen per provider	January 2018 – Dec 2020, Monthly
Member to Provider Ratio	Expressed as providers per 1,000 members, and allows for comparison across areas with large differences in population size	CY 2020

Metric	Definition	Time Period
Utilizer Density Map	Utilizer count by county of residence	CY 2020
Penetration Rate Map	The estimated share of total Medicaid members that received the service by county of residence expressed as per 1,000 members	CY 2020

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

Data Validation

The Department provided three years (January 2018 through December 2020) of eligibility data and fee-for-service (FFS) claims data to **Optumas**. The data validation process included utilization and dollar volume summaries over time which were validated against the Department's expectations, as well as **Optumas'** expectations based on prior analyses to identify potential inconsistencies. In addition, a frequency analysis was performed to examine valid values appearing across all fields contained in the data. Overall, results of this process suggested that the CY 2020 data for Physician Services 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:¹

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

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 were in the data, but the most recent Colorado fee schedule lists them as "not a benefit;"
- Procedure codes that were in the data, but they are not found on the most recent Colorado fee schedule; and
- Procedure codes that do not have a comparable Medicare or other states' average rate

The list of procedure codes that were excluded from this analysis are shown in **Table 3(a)** below.

Table 3(a). List of Procedure Codes Excluded

Physician Service	Procedure Code	Modifier	Procedure Description	Reason for Removal
Cardiology	93799		CARDIOVASCULAR PROCEDURE	manually priced
Cardiology	92992		REVISION OF HEART CHAMBER	not a benefit
Cognitive Capabilities	G8431		POS CLIN DEPRES SCRIN F/U DOC	no comparable rate

¹ See the [Rate Review Schedule](#) on the Department's Medicaid Provider Rate Review Advisory Committee (MPRRAC) website.

Physician Service	Procedure Code	Modifier	Procedure Description	Reason for Removal
Cognitive Capabilities	G8510		SCR DEP NEG, NO PLAN REQD	no comparable rate
Ear, Nose, and Throat	92700		ENT PROCEDURE/SERVICE	no comparable rate
Ear, Nose, and Throat	92585		AUDITOR EVOKE POTENT COMPRE	not a benefit
Ear, Nose, and Throat	92585	26	AUDITOR EVOKE POTENT COMPRE	not a benefit
Ear, Nose, and Throat	92585	TC	AUDITOR EVOKE POTENT COMPRE	not a benefit
Ear, Nose, and Throat	92586		AUDITOR EVOKE POTENT LIMIT	not a benefit
Gastroenterology	91299		GASTROENTEROLOGY PROCEDURE	manually priced
Health Education	T1007	HF	TREATMENT PLAN DEVELOPMENT	no comparable rate
Health Education	T1007		TREATMENT PLAN DEVELOPMENT	not on CO fee schedule
Health Education	S9445		PT EDUCATION NOC INDIVID	not on CO fee schedule
Ophthalmology	92499		EYE SERVICE OR PROCEDURE	manually priced
Primary Care and E&M	99201		OFFICE/OUTPATIENT VISIT NEW	not a benefit
Primary Care and E&M	99201	FP	OFFICE/OUTPATIENT VISIT NEW	not a benefit
Primary Care and E&M	99201	GT	OFFICE/OUTPATIENT VISIT NEW	not a benefit
Radiology	76496	26	FLUOROSCOPIC PROCEDURE	no comparable rate
Radiology	76498		MRI PROCEDURE	no comparable rate
Radiology	76498	26	MRI PROCEDURE	no comparable rate
Radiology	74360	26	X-RAY GUIDE GI DILATION	not on CO fee schedule
Radiology	75956	26	XRAY ENDOVASC THOR AO REPR	not on CO fee schedule
Radiology	75957	26	XRAY ENDOVASC THOR AO REPR	not on CO fee schedule
Radiology	75959	26	XRAY PLACE DIST EXT THOR AO	not on CO fee schedule
Radiology	76999		ECHO EXAMINATION PROCEDURE	manually priced
Radiology	77399		EXTERNAL RADIATION DOSIMETRY	manually priced
Radiology	78299		GI NUCLEAR PROCEDURE	manually priced
Radiology	78499		CARDIOVASCULAR NUCLEAR EXAM	manually priced
Radiology	76970		ULTRASOUND EXAM FOLLOW-UP	not a benefit
Radiology	G0297		LDCT FOR LUNG CA SCREEN	not a benefit
Radiology	G0297	26	LDCT FOR LUNG CA SCREEN	not a benefit
Respiratory	94750		PULMONARY COMPLIANCE STUDY	not a benefit
Respiratory	94750	26	PULMONARY COMPLIANCE STUDY	not a benefit
Vaccines and Immunizations	90389		TETANUS IG IM	no comparable rate
Vascular	N/A	N/A	N/A	N/A
Women's Health and Family Planning	58578		LAPARO PROC UTERUS	no comparable rate
Women's Health and Family Planning	G0144		SCR C/V CYTO,THINLAYER,RESCR	no comparable rate
Women's Health and Family Planning	99201		OFFICE/OUTPATIENT VISIT NEW	not a benefit
Women's Health and Family Planning	99201	GT	OFFICE/OUTPATIENT VISIT NEW	not a benefit
Other Physician Services	J7328		GELSYN-3 INJECTION 0.1 MG	manually priced
Other Physician Services	95999		NEUROLOGICAL PROCEDURE	manually priced
Other Physician Services	99201		OFFICE/OUTPATIENT VISIT NEW	not a benefit
Other Physician Services	99201	FP	OFFICE/OUTPATIENT VISIT NEW	not a benefit

Physician Service	Procedure Code	Modifier	Procedure Description	Reason for Removal
Other Physician Services	99201	GT	OFFICE/OUTPATIENT VISIT NEW	not a benefit

The number of excluded procedure codes for each service group is shown in **Table 3(b)** below.

Table 3(b). Count of Procedure Codes Excluded

Service Group	Manually Priced	Not a Benefit	Not on CO Fee Schedule	No Comparable Rate Available
Cardiology	1	1	0	0
Cognitive Capabilities Assessment	0	0	0	2
Ear, Nose, and Throat (ENT)	0	4	0	1
Gastroenterology	1	0	0	0
Health Education	0	0	2	1
Ophthalmology	1	0	0	0
Primary Care/Evaluation & Management (E&M)	0	3	0	0
Radiology	4	3	4	3
Respiratory	0	2	0	0
Vaccines & Immunizations	0	0	0	1
Vascular	0	0	0	0
Women's Health & Family Planning	0	2	0	2
Other Physician Services	2	3	0	0

Services were priced to the Colorado Medicaid fee schedules at the procedure code level. The summary of exclusions from the CY 2020 base data can be found in **Appendix B1**.

CY 2020 claims data was selected as the base data of the repricing analysis because it yields an annualized result derived from the most recent experience.² There is an inherent processing lag in claims between the time a claim is incurred and 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 Two (Cycle Two) services were provided with ten months of claims runout. The raw claims data reflects the vast majority of FFS experience for Year Two (Cycle Two) services in CY 2020 since Professional Services tend to be the fastest claims to complete, after Pharmacy. For this reason, no IBNR adjustments were made to the data.

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

² The Department is aware that CY 2020 data will show the impact of the global health emergency that occurred in 2020; however, the Department wanted to use the most recent experience to capture the data and will take this into consideration as the data is compiled, analyzed, and conclusions are developed.

Rate Comparison Benchmark Analysis

The first step in the rate comparison benchmark analysis was a repricing exercise using the most recent Colorado Medicaid physician fee schedule rates effective July 1, 2021, by procedure code and the first modifier to obtain a Colorado repriced amount. The first modifier was considered to align with the repricing step using the Medicare physician fee schedule.

It was then necessary to identify other payer sources that would be used in the rate comparison benchmark analysis. Many of the Year Two (Cycle Two) 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.³ Rates were assigned by considering the procedure code and first modifier present on each claim and included consideration as to whether the service was performed at a facility or non-facility. Medicare's base rate which is listed by procedure code and the first modifier includes a breakout for facility versus non-facility and is considered to compare an appropriate rate.

For services without a comparable Medicare rate, supplemental rates were drawn from other state Medicaid programs. Arizona, Oklahoma, Nebraska, Utah, Nevada, and Oregon are linked to the Colorado Medicaid claims on a procedure code and first modifier basis, and the simple average of all corresponding rates is used.

This left a small portion of the data for which a comparable rate could not be found under the Year Two (Cycle Two) 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 final step consisted of applying the base utilization to Colorado Medicaid's latest available fee schedule as well as the matched rates from Medicare or other states. This entailed multiplication of utilization and the corresponding rates from each source, followed by subtraction of third-party liability (TPL) and copayments, to calculate the estimated total dollars that would theoretically be reimbursed by each source.

The distribution of procedure codes compared across benchmark sources for each service group is shown in **Table 4**.

³ The payment rate comparison is influenced by the choice of fee schedule since Colorado-specific Medicare rates are higher than those derived from unadjusted national relative value units. All Medicare rates and relevant information were effective calendar year 2022.

Table 4. Count of Codes by Comparison Source

Service Group	Medicare	Other States	No Comparable Rate Available
Cardiology	177	4	0
Cognitive Capabilities Assessment	11	2	2
Ear, Nose, and Throat (ENT)	60	6	1
Gastroenterology	24	0	0
Health Education	2	7	1
Ophthalmology	63	8	0
Primary Care/Evaluation & Management (E&M)	110	26	0
Radiology	1,040	16	3
Respiratory	41	3	0
Vaccines & Immunizations	5	40	1
Vascular	60	2	0
Women's Health & Family Planning	59	21	2
Other Physician Services	276	44	0

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

Table 5. Rate Ratio Ranges by Comparison Source

Service Group	Medicare	Other States
Cardiology	35.0% - 358.1%	89.8% - 123.1%
Cognitive Capabilities Assessment	69.0% - 378.7%	139.9% - 183.5%
Ear, Nose, and Throat (ENT)	5.4% - 835.4%	33.0% - 102.7%
Gastroenterology	20.6% - 107.9%	N/A
Health Education	51.3% - 112.2%	80.8% - 1,058.2%
Ophthalmology	12.2% - 331.2%	45.1% - 214.8%
Primary Care/Evaluation & Management (E&M)	29.4% - 142.7%	88.7% - 194.0%
Radiology	9.5% - 389.0%	49.9% - 219.8%
Respiratory	39.9% - 141.8%	39.9% - 377.0%
Vaccines & Immunizations	87.8% - 113.6%	36.8% - 284.7%
Vascular	48.4% - 310.7%	91.4% - 102.1%
Women's Health & Family Planning	36.3% - 194.3%	88.7% - 185.5%
Other Physician Services	4.0% - 379.5%	24.7% - 429.4%

As an example, the top figures in Table 5 can be interpreted to mean that when comparing Cardiology Physician Services to Medicare rates by procedure code, the Colorado Medicaid rates were anywhere from 35.0% to 358.1% of the Medicare rate. For the Cardiology procedure codes where Medicare did not have a comparative rate, the Colorado Medicaid rates were anywhere from 89.8% to 123.1% of the other states' average rates.

Estimated expenditures were only compared for the subset of Year Two (Cycle Two) services that are common between Colorado Medicaid and another source. In other words, if no comparable rate could be found for a specific service offered in Colorado Medicaid, then the associated utilization and costs were not shown within the comparison results.

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

Cardiology Payment Comparison

There is a matching Medicare rate for over 98.9% of the Cardiology Physician Services utilization in CY 2020. Other States' average Medicaid rates were utilized for four procedure code and modifier 1 combinations and are shown in **Table 6** below. The Benchmark repriced amount is the combination of Medicare and Other States' repriced amount combined.

Table 6. Procedure Codes/Modifiers Repriced Using Other States' Average

Procedure Code	Modifier	Procedure Description
93530	26	RT HEART CATH CONGENITAL

Procedure Code	Modifier	Procedure Description
93531	26	R & L HEART CATH CONGENITAL
93532	26	R & L HEART CATH CONGENITAL
93533	26	R & L HEART CATH CONGENITAL

Table 6 summarizes the Cardiology Physician Services rate benchmark by the comparison sources.

Table 7. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States' Average	\$183,007	\$181,738	100.7%
Medicare	\$15,882,285	\$17,534,402	90.6%
Total	\$16,065,292	\$17,716,140	90.7%

Table 8 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 8. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	90.7%
Colorado Repriced Amount	\$16,065,292
Benchmark Repriced Amount	\$17,716,140
Est. CY 2020 Total Fund Impact	\$1,650,848

Table 8 can be interpreted to mean that for Cardiology Physician Services under review, Colorado Medicaid pays an estimated 90.7% of the benchmark. Had Colorado Medicaid reimbursed at 100.00% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$1,650,848. Detailed comparison results can be found in **Appendix B2**.

Cognitive Capabilities Assessment Payment Comparison

There is a matching Medicare rate for over 80.2% of the Cognitive Capabilities Assessment Physician Services utilization in CY 2020. Other States' average Medicaid rates are utilized for two procedure code and modifier 1 combinations shown in **Table 9** below. The Benchmark repriced amount is the combination of Medicare and Other States' repriced amount combined.

Table 9. Procedure Codes/Modifiers Repriced Using Other States' Average

Procedure Code	Modifier	Procedure Description
96110		DEVELOPMENTAL SCREEN W/SCORE
96110	EP	DEVELOPMENTAL SCREEN W/SCORE

Table 10 summarizes the Cognitive Capabilities Assessment Physician Services rate benchmark by the comparison sources.

Table 10. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$1,459,935	\$926,797	157.5%
Medicare	\$5,930,434	\$4,880,975	121.5%
Total	\$7,390,369	\$5,807,772	127.2%

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

Table 11. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	127.3%
Colorado Repriced Amount	\$7,390,369
Benchmark Repriced Amount	\$5,807,772
Est. CY 2020 Total Fund Impact	\$(1,582,597)

Table 11 can be interpreted to mean that for Cognitive Capabilities Assessment Physician Services under review, Colorado Medicaid pays an estimated 127.2% of the benchmark. Had Colorado Medicaid reimbursed at 100.00% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$(1,582,597). Detailed comparison results can be found in **Appendix B2**.

Ear, Nose, and Throat Payment Comparison

There is a matching Medicare rate for over 96.4% of the Ear, Nose, and Throat Physician Services utilization in CY 2020. Other States' average Medicaid rates are utilized for six procedure code and modifier 1 combinations shown in the **Table 12** below. The Benchmark repriced amount is the combination of Medicare and Other States' repriced amount combined.

Table 12. Procedure Codes/Modifiers Repriced Using Other States' Average

Procedure Code	Modifier	Procedure Description
92533		CALORIC VESTIBULAR TEST
92551		PURE TONE HEARING TEST AIR
92558		EVOKED AUDITORY TEST QUAL
92606		NON-SPEECH DEVICE SERVICE
92630		AUD REHAB PRE-LING HEAR LOSS
92633		AUD REHAB POSTLING HEAR LOSS

Table 13 summarizes the Ear, Nose, and Throat Physician Services rate benchmark by the comparison sources.

Table 13. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$712,805	\$961,426	74.1%
Medicare	\$18,898,088	\$25,144,896	75.2%
Total	\$19,610,893	\$26,106,323	75.1%

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

Table 14. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	75.1%
Colorado Repriced Amount	\$19,610,893
Benchmark Repriced Amount	\$26,106,323
Est. CY 2020 Total Fund Impact	\$6,495,430

Table 14 can be interpreted to mean that for Ear, Nose, and Throat Physician Services under review, Colorado Medicaid pays an estimated 75.1% of the benchmark. Had Colorado Medicaid reimbursed at 100.00% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$6,495,430. Detailed comparison results can be found in **Appendix B2**.

Gastroenterology Payment Comparison

There is a matching Medicare rate for 100% of the Gastroenterology Physician Services utilization in CY 2020. No Other States' Medicaid rates were needed for Gastroenterology Physician Services. The Benchmark repriced amount is the Medicare repriced amount.

Table 15 summarizes the Gastroenterology Physician Services 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	N/A	N/A	N/A
Medicare	\$162,160	\$255,495	63.5%
Total	\$162,160	\$255,495	63.5%

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

Table 16. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	63.5%
Colorado Repriced Amount	\$162,160
Benchmark Repriced Amount	\$255,495
Est. CY 2020 Total Fund Impact	\$93,335

Table 16 can be interpreted to mean that for Gastroenterology Physician Services under review, Colorado Medicaid pays an estimated 63.5% of the benchmark. Had Colorado Medicaid reimbursed at 100.00% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$93,335. Detailed comparison results can be found in **Appendix B2**.

Health Education Payment Comparison

There is a matching Medicare rate for over 91.7% of the Health Education Physician Services utilization in CY 2020. Other States' average Medicaid rates are utilized for seven procedure code and modifier 1 combinations shown in **Table 17** below. The Benchmark repriced amount is the combination of Medicare and Other States' repriced amount combined.

Table 17. Procedure Codes/Modifiers Repriced Using Other States' Average

Procedure Code	Modifier	Procedure Description
90989		DIALYSIS TRAINING COMPLETE
90993		DIALYSIS TRAINING INCOMPL
96040		GENETIC COUNSELING 30 MIN
99409		AUDIT/DAST OVER 30 MIN
99411		PREVENTIVE COUNSELING GROUP
99412		PREVENTIVE COUNSELING GROUP
G0433		ELISA HIV-1/HIV-2 SCREEN

Table 18 summarizes the Health Education Physician Services rate benchmark by the comparison sources.

Table 18. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$57,265	\$38,425	149%
Medicare	\$629,974	\$1,063,656	59.2%
Total	\$687,240	\$1,102,081	62.4%

Table 19 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 19. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	62.4%
Colorado Repriced Amount	\$687,240
Benchmark Repriced Amount	\$1,102,081
Est. CY 2020 Total Fund Impact	\$414,841

Table 19 can be interpreted to mean that for Health Education Physician Services under review, Colorado Medicaid pays an estimated 62.4% of the benchmark. Had Colorado Medicaid reimbursed at 100.00% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$414,841. Detailed comparison results can be found in **Appendix B2**.

Ophthalmology Payment Comparison

There is a matching Medicare rate for over 89.6% of the Ophthalmology Physician Services utilization in CY 2020. Other States' average Medicaid rates are utilized for eight procedure code and modifier 1 combinations shown in **Table 20** below. The Benchmark repriced amount is the combination of Medicare and Other States' repriced amount combined.

Table 20. Procedure Codes/Modifiers Repriced Using Other States' Average

Procedure Code	Modifier	Procedure Description
92015		DETERMINE REFRACTIVE STATE
92310		CONTACT LENS FITTING
92314		PRESCRIPTION OF CONTACT LENS
92340		FIT SPECTACLES MONOFOCAL
92341		FIT SPECTACLES BIFOCAL

Procedure Code	Modifier	Procedure Description
92342		FIT SPECTACLES MULTIFOCAL
92354		FIT SPECTACLES SINGLE SYSTEM
92370		REPAIR & ADJUST SPECTACLES

Table 21 summarizes the Ophthalmology Physician Services 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	\$2,729,457	\$5,506,153	49.6%
Medicare	\$23,422,698	\$27,924,706	83.9%
Total	\$26,152,155	\$33,430,858	78.2%

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

Table 22. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	78.2%
Colorado Repriced Amount	\$26,152,155
Benchmark Repriced Amount	\$33,430,858
Est. CY 2020 Total Fund Impact	\$7,278,703

Table 22 can be interpreted to mean that for Ophthalmology Physician Services under review, Colorado Medicaid pays an estimated 78.2% of the benchmark. Had Colorado Medicaid reimbursed at 100.00% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$7,278,703. Detailed comparison results can be found in **Appendix B2**.

Primary Care and Evaluation and Management Payment Comparison

There is a matching Medicare rate for over 91.5% of the Primary Care and Evaluation and Management Physician Services utilization in CY 2020. Other States' average Medicaid rates are utilized for twenty-six procedure code and modifier 1 combinations and are shown in **Table 23** below. The Benchmark repriced amount is the combination of Medicare and Other States' repriced amount combined.

Table 23. Procedure Codes/Modifiers Repriced Using Other States' Average

Procedure Code	Modifier	Procedure Description
99245		OFFICE CONSULTATION
99360		PHYSICIAN STANDBY SERVICES
99381		INIT PM E/M NEW PAT INFANT
99382		INIT PM E/M NEW PAT 1-4 YRS
99383		PREV VISIT NEW AGE 5-11
99384		PREV VISIT NEW AGE 12-17
99385		PREV VISIT NEW AGE 18-39
99386		PREV VISIT NEW AGE 40-64
99387		INIT PM E/M NEW PAT 65+ YRS
99391		PER PM REEVAL EST PAT INFANT
99392		PREV VISIT EST AGE 1-4
99393		PREV VISIT EST AGE 5-11
99394		PREV VISIT EST AGE 12-17
99395		PREV VISIT EST AGE 18-39
99396		PREV VISIT EST AGE 40-64
99397		PER PM REEVAL EST PAT 65+ YR
99401		PREVENTIVE COUNSELING INDIV
99402		PREVENTIVE COUNSELING INDIV
99403		PREVENTIVE COUNSELING INDIV
99404		PREVENTIVE COUNSELING INDIV
99408		AUDIT/DAST 15-30 MIN
99409		AUDIT/DAST OVER 30 MIN
99411		PREVENTIVE COUNSELING GROUP
99412		PREVENTIVE COUNSELING GROUP
99485		SUPRV INTERFACILITY TRANSPORT
99486		SUPRV INTERFAC TRNSPORT ADDL

Table 24 summarizes the Primary Care and Evaluation and Management Physician Services rate benchmark by the comparison sources.

Table 24. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$30,656,003	\$27,975,044	109.6%
Medicare	\$330,988,911	\$402,469,910	82.2%
Total	\$361,644,914	\$430,444,954	84.0%

Table 25 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 25. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	84.0%
Colorado Repriced Amount	\$361,644,914
Benchmark Repriced Amount	\$430,444,954
Est. CY 2020 Total Fund Impact	\$68,800,040

Table 25 can be interpreted to mean that for Primary Care and Evaluation and Management Physician Services under review, Colorado Medicaid pays an estimated 84.0% of the benchmark. Had Colorado Medicaid reimbursed at 100.00% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$68,800,040. Detailed comparison results can be found in **Appendix B2**.

Radiology Payment Comparison

There is a matching Medicare rate for over 98.9% of the Radiology Physician Services utilization in CY 2020. Other States' average Medicaid rates are utilized for sixteen procedure code and modifier 1 combinations and are shown in **Table 26** below. The Benchmark repriced amount is the combination of Medicare and Other States' repriced amount combined.

Table 26. Procedure Codes/Modifiers Repriced Using Other States' Average

Procedure Code	Modifier	Procedure Description
72275		EPIDUROGRAPHY
72275	26	EPIDUROGRAPHY
74263		CT COLONOGRAPHY SCREENING
74263	26	CT COLONOGRAPHY SCREENING
76390		MR SPECTROSCOPY
76390	26	MR SPECTROSCOPY
76390	TC	MR SPECTROSCOPY
76497	26	CT PROCEDURE
77385		NTSTY MODUL RAD TX DLVR SMPL
77386		NTSTY MODUL RAD TX DLVR CPLX
77387		GUIDANCE FOR RADIAJ TX DLVR
77387	26	GUIDANCE FOR RADIAJ TX DLVR
77387	TC	GUIDANCE FOR RADIAJ TX DLVR
77412		RADIATION TREATMENT DELIVERY
78267		BREATH TST ATTAIN/ANAL C-14
78268		BREATH TEST ANALYSIS C-14

Table 27 summarizes the Radiology Physician Services rate benchmark by the comparison sources.

Table 27. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$653,630	\$1,047,546	62.4%
Medicare	\$58,162,947	\$63,838,211	91.1%
Total	\$58,816,577	\$64,885,757	90.7%

Table 28 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 28. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	90.7%
Colorado Repriced Amount	\$58,816,577
Benchmark Repriced Amount	\$64,885,757
Est. CY 2020 Total Fund Impact	\$6,069,180

Table 28 can be interpreted to mean that for Radiology Physician Services under review, Colorado Medicaid pays an estimated 90.7% of the benchmark. Had Colorado Medicaid reimbursed at 100.00% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$6,069,180. Detailed comparison results can be found in **Appendix B2**.

Respiratory Payment Comparison

There is a matching Medicare rate for over 99.7% of the Respiratory Physician Services utilization in CY 2020. Other States' average Medicaid rates are utilized for three procedure code and modifier 1 combinations and are shown in **Table 29** below. The Benchmark repriced amount is the combination of Medicare and Other States' repriced amount combined.

Table 29. Procedure Codes/Modifiers Repriced Using Other States' Average

Procedure Code	Modifier	Procedure Description
94150		VITAL CAPACITY TEST
94150	26	VITAL CAPACITY TEST
94642		AEROSOL INHALATION TREATMENT

Table 30 summarizes the Respiratory Physician Services rate benchmark by the comparison sources.

Table 30. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$3,140	\$3,611	87.0%
Medicare	\$911,196	\$934,618	97.5%
Total	\$914,336	\$938,229	97.5%

Table 31 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 31. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	97.5%
Colorado Repriced Amount	\$914,336
Benchmark Repriced Amount	\$938,229
Est. CY 2020 Total Fund Impact	\$23,893

Table 31 can be interpreted to mean that for Respiratory Physician Services under review, Colorado Medicaid pays an estimated 97.5% of the benchmark. Had Colorado Medicaid reimbursed at 100.00% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$23,893. Detailed comparison results can be found in **Appendix B2**.

Vaccines and Immunizations Payment Comparison

There is a matching Medicare rate for over 64.2% of the Vaccine and Immunizations Physician Services utilization in CY 2020. Other States' average Medicaid rates are utilized for forty procedure code and modifier 1 combinations and are shown in **Table 32** below. The Benchmark repriced amount is the combination of Medicare and Other States' repriced amount combined.

Table 32. Procedure Codes/Modifiers Repriced Using Other States' Average

Procedure Code	Modifier	Procedure Description
0001A		ADM SARSCOV2 30MCG/0.3ML 1ST
0011A		ADM SARSCOV2 100MCG/0.5ML1ST
90376		RABIES IG HEAT TREATED
90378		RSV MAB IM 50MG
90384		RH IG FULL-DOSE IM
90385		RH IG MINIDOSE IM
90620		MENB-4C VACC 2 DOSE IM

Procedure Code	Modifier	Procedure Description
90621		MENB-FHBP VACC 2/3 DOSE IM
90632		HEPA VACCINE ADULT IM
90636		HEP A/HEP B VACC ADULT IM
90647		HIB PRP-OMP VACC 3 DOSE IM
90649		4VHPV VACCINE 3 DOSE IM
90650		2VHPV VACCINE 3 DOSE IM
90651		9VHPV VACCINE 2/3 DOSE IM
90654		FLU VACC IIV3 NO PRESERV ID
90656		IIV3 VACC NO PRSV 0.5 ML IM
90658		IIV3 VACCINE SPLT 0.5 ML IM
90661		CCIIV3 VAC NO PRSV 0.5 ML IM
90662		IIV NO PRSV INCREASED AG IM
90670		PCV13 VACCINE IM
90672		LAIV4 VACCINE INTRANASAL
90674		CCIIV4 VAC NO PRSV 0.5 ML IM
90675		RABIES VACCINE IM
90682		RIV4 VACC RECOMBINANT DNA IM
90686		IIV4 VACC NO PRSV 0.5 ML IM
90688		IIV4 VACCINE SPLT 0.5 ML IM
90707		MMR VACCINE SC
90713		POLIOVIRUS IPV SC/IM
90714		TD VACC NO PRESV 7 YRS+ IM
90715		TDAP VACCINE 7 YRS/> IM
90716		VAR VACCINE LIVE SUBQ
90732		PPSV23 VACC 2 YRS+ SUBQ/IM
90733		MPSV4 VACCINE SUBQ
90734		MCV4 MENACWY VACCINE IM
90736		HZV VACCINE LIVE SUBQ
90739		HEPB VACC 2 DOSE ADULT IM
90746		HEPB VACCINE 3 DOSE ADULT IM
90747		HEPB VACC 4 DOSE IMMUNSUP IM
90750		HZV VACC RECOMBINANT IM
90756		CCIIV4 VACC ABX FREE IM

Table 33 summarizes the Vaccines and Immunizations Physician Services rate benchmark by the comparison sources.

Table 33. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$5,081,701	\$4,938,741	102.9%
Medicare	\$9,122,111	\$8,221,878	110.9%
Total	\$14,203,812	\$13,160,618	107.9%

Table 34 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 34. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	107.9%
Colorado Repriced Amount	\$14,203,812
Benchmark Repriced Amount	\$13,160,618
Est. CY 2020 Total Fund Impact	\$(1,043,194)

Table 34 can be interpreted to mean that for Vaccines and Immunizations Physician Services under review, Colorado Medicaid pays an estimated 107.9% of the benchmark. Had Colorado Medicaid reimbursed at 100.00% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$(1,043,194). Detailed comparison results can be found in **Appendix B2**.

Vascular Payment Comparison

There is a matching Medicare rate for over 91.5% of the Vascular Physician Services utilization in CY 2020. Other States' average Medicaid rates are utilized for two procedure code and modifier 1 combinations and are shown in **Table 35** below. The Benchmark repriced amount is the combination of Medicare and Other States' repriced amount combined.

Table 35. Procedure Codes/Modifiers Repriced Using Other States' Average

Procedure Code	Modifier	Procedure Description
36415		ROUTINE VENIPUNCTURE
36416		CAPILLARY BLOOD DRAW

Table 36 summarizes the Vascular Physician Services rate benchmark by the comparison sources.

Table 36. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$331,356	\$333,336	99.4%
Medicare	\$3,572,807	\$2,887,562	123.7%
Total	\$3,904,163	\$3,220,898	121.2%

Table 37 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 37. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	121.2%
Colorado Repriced Amount	\$3,904,163
Benchmark Repriced Amount	\$3,220,898
Est. CY 2020 Total Fund Impact	\$(683,265)

Table 37 can be interpreted to mean that for Vascular Physician Services under review, Colorado Medicaid pays an estimated 121.2% of the benchmark. Had Colorado Medicaid reimbursed at 100.00% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$(683,265). Detailed comparison results can be found in **Appendix B2**.

Women's Health and Family Planning Payment Comparison

There is a matching Medicare rate for over 93.9% of the Women's Health and Family Planning Physician Services utilization in CY 2020. Other States' average Medicaid rates are utilized for twenty-one procedure code and modifier 1 combinations and are shown in **Table 38** below. The Benchmark repriced amount is the combination of Medicare and Other States' repriced amount combined.

Table 38. Procedure Codes/Modifiers Repriced Using Other States' Average

Procedure Code	Modifier	Procedure Description
88142		CYTOPATH C/V THIN LAYER
88147		CYTOPATH C/V AUTOMATED
88175		CYTOPATH C/V AUTO FLUID REDO
99384		PREV VISIT NEW AGE 12-17
99385		PREV VISIT NEW AGE 18-39
99386		PREV VISIT NEW AGE 40-64
99387		INIT PM E/M NEW PAT 65+ YRS
99394		PREV VISIT EST AGE 12-17
99395		PREV VISIT EST AGE 18-39

Procedure Code	Modifier	Procedure Description
99396		PREV VISIT EST AGE 40-64
99397		PER PM REEVAL EST PAT 65+ YR
99401		PREVENTIVE COUNSELING INDIV
99402		PREVENTIVE COUNSELING INDIV
99403		PREVENTIVE COUNSELING INDIV
99404		PREVENTIVE COUNSELING INDIV
99408		AUDIT/DAST 15-30 MIN
99409		AUDIT/DAST OVER 30 MIN
99411		PREVENTIVE COUNSELING GROUP
99412		PREVENTIVE COUNSELING GROUP
G0123		SCREEN CERV/VAG THIN LAYER
G0145		SCR C/V CYTO,THINLAYER,RESCR

Table 39 summarizes the Women’s Health and Family Planning Physician Services rate benchmark by the comparison sources.

Table 39. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$11,487,274	\$10,419,309	110.2%
Medicare	\$177,191,810	\$215,699,795	82.1%
Total	\$188,679,084	\$226,119,104	83.4%

Table 40 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 40. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	83.4%
Colorado Repriced Amount	\$188,679,084
Benchmark Repriced Amount	\$226,119,104
Est. CY 2020 Total Fund Impact	\$37,440,020

Table 40 can be interpreted to mean that for Women’s Health and Family Planning Physician Services under review, Colorado Medicaid pays an estimated 83.4% of the benchmark. Had Colorado Medicaid reimbursed at 100.00% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$37,440,020. Detailed comparison results can be found in **Appendix B2**.

Other Physician Services Payment Comparison

There is a matching Medicare rate for over 91.2% of the Other Physician Services utilization in CY 2020. Other States' average Medicaid rates are utilized for forty-four procedure code and modifier 1 combinations and are shown in Table 41 below. The Benchmark repriced amount is the combination of Medicare and Other States' repriced amount combined.

Table 41. Procedure Codes/Modifiers Repriced Using Other States' Average

Procedure Code	Modifier	Procedure Description
95120		IMMUNOTHERAPY ONE INJECTION
95134		IMMNTX 5 STING INSECTS
96040		GENETIC COUNSELING 30 MIN
96376		TX/PRO/DX INJ SAME DRUG ADON
96379		THER/PROP/DIAG INJ/INF PROC
99000		SPECIMEN HANDLING OFFICE-LAB
99050		MEDICAL SERVICES AFTER HRS
99070		SPECIAL SUPPLIES PHYS/QHP
99172		OCULAR FUNCTION SCREEN
99173		VISUAL ACUITY SCREEN
99174		OCULAR INSTRUMNT SCREEN BIL
99177		OCULAR INSTRUMNT SCREEN BIL
99245		OFFICE CONSULTATION
99360		PHYSICIAN STANDBY SERVICES
99381		INIT PM E/M NEW PAT INFANT
99382		INIT PM E/M NEW PAT 1-4 YRS
99383		PREV VISIT NEW AGE 5-11
99384		PREV VISIT NEW AGE 12-17
99385		PREV VISIT NEW AGE 18-39
99386		PREV VISIT NEW AGE 40-64
99387		INIT PM E/M NEW PAT 65+ YRS
99391		PER PM REEVAL EST PAT INFANT
99392		PREV VISIT EST AGE 1-4
99393		PREV VISIT EST AGE 5-11
99394		PREV VISIT EST AGE 12-17
99395		PREV VISIT EST AGE 18-39
99396		PREV VISIT EST AGE 40-64
99397		PER PM REEVAL EST PAT 65+ YR
99401		PREVENTIVE COUNSELING INDIV
99402		PREVENTIVE COUNSELING INDIV
99403		PREVENTIVE COUNSELING INDIV
99404		PREVENTIVE COUNSELING INDIV

Procedure Code	Modifier	Procedure Description
99408		AUDIT/DAST 15-30 MIN
99409		AUDIT/DAST OVER 30 MIN
99411		PREVENTIVE COUNSELING GROUP
99412		PREVENTIVE COUNSELING GROUP
99485		SUPRV INTERFACILTY TRANSPORT
99486		SUPRV INTERFAC TRNSPORT ADDL
J7321		HYALGAN SUPARTZ VISCO-3 DOSE
J7323		EUFLEXXA INJ PER DOSE
J7324		ORTHOVISC INJ PER DOSE
J7325		SYNVISC OR SYNVISC-ONE
J7327		MONOVISC INJ PER DOSE
S0265		GENETIC COUNSEL 15 MINS

Table 42 summarizes the Other Physician Services rate benchmark by the comparison sources.

Table 42. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$32,727,276	\$29,906,914	109.4%
Medicare	\$338,431,026	\$413,746,805	81.8%
Total	\$371,158,303	\$443,653,719	83.7%

Table 43 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 43. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	83.7%
Colorado Repriced Amount	\$371,158,303
Benchmark Repriced Amount	\$443,653,719
Est. CY 2020 Total Fund Impact	\$72,495,416

Table 43 can be interpreted to mean that for Other Physician Services under review, Colorado Medicaid pays an estimated 83.7% of the benchmark. Had Colorado Medicaid reimbursed at 100.00% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$72,495,416. Detailed comparison results can be found in **Appendix B2**.

Access to Care

This year, the Department contracted with **Optumas** to analyze access to care metrics for Year Two (Cycle Two) 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 billing provider's Medicaid ID which was considered the unique provider identifier;
3. **Utilizer per Provider (Panel Size) over time by county classification** estimating the number of utilizers per provider actively servicing members who reside in that county classification;
4. **Member-to-Provider Ratios by county classification in CY 2020** which is useful in normalizing, and eventually standardizing, the supply of active providers relative to total membership in different county classifications;
5. **Utilizer Density by county in CY 2020** showing on a map the geographic distribution and prevalence of members utilizing each service group, and;
6. **Penetration Rates by county in CY 2020** 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 2022 Medicaid Provider Rate Review Analysis Report (the report).

Data Validation

The access to care analysis applies the following exclusion criteria to the Physician Services January 2018 through December 2020 FFS claims data the Department provided as part of the rate review analysis:

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

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

Interpretation of Results

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

Geographic Partitions

Geographic partitions are arranged in the access metrics because they provide important distinctions when comparing and evaluating access to care for members residing in similar and dissimilar geographic locations. The utilizer and member counts grouped by county and county classification are nonduplicative when analyzed over time on a monthly basis and may be duplicative at the CY 2020 aggregate level. However, the active provider counts grouped by county and county classification maintain potential for duplication even within a single month because these geographic partitions represent the county of residence for the utilizers in the data. For example, if a member resided in both an urban and rural county during the CY 2020 time period, that member would contribute to both the urban CY 2020 total utilizer counts as well as the rural CY 2020 total utilizer counts for the service groups applicable to this member. To the degree that members residing in multiple counties were able to access a single provider within a given month, that provider contributes to the active provider counts for all counties in which that provider's panel resides. Although this duplication does not adversely impact the informational value of the annualized access metrics, it should be considered when interpreting the aggregated results.

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

Appendix B1: Base Data Summary

Table B1(a).

	Cardiology	Cognitive Capabilities Assessment	Ear, Nose, and Throat	Gastroenterology	Health Education Services
CY 2020 Paid Amount	\$15,476,617	\$7,825,312	\$19,553,197	\$166,710	\$667,510
Exclusions					
Non-TXIX	\$220,059	\$3,211	\$237	\$232	\$100
No Eligibility Span	\$21,298	\$5,623	\$5,073	\$1,291	\$119
Dual Eligible	\$110,943	\$15,635	\$10,961	\$862	\$1,344
Child Health Plan Plus (CHP+)	\$473	\$195	\$787	\$0	\$0
Manually Priced	\$1,679	\$0	\$0	\$5,385	\$0
Not A Benefit	\$12,499	\$0	\$55,434	\$0	\$0
No CO Medicaid Rate Found	\$0	\$0	\$0	\$0	\$2,412
No Comparable Rate	\$0	\$961,181	\$2,837	\$0	\$751
Total Exclusions	\$366,951	\$985,845	\$75,329	\$7,770	\$5,726
Repricing Base					
Year Two (Cycle Two) Base Data	\$15,109,666	\$6,839,467	\$19,477,868	\$158,940	\$662,784
Percentage of Raw	97.63%	87.40%	99.61%	95.35%	99.29%

Note: as an example, the Cardiology final figures in the above table can be interpreted to mean that 97.63% (accounting for \$15,109,666 in unadjusted paid dollars) of the CY 2020 data provided by the Department was appropriate for use in the payment rate comparison analysis.

Table B1(b).

Appendix B1: Base Data Summary **CBIZ Optumas**

	Ophthalmology	Primary Care and E&M	Radiology	Respiratory	Vaccines and Immunizations
CY 2020 Paid Amount	\$25,022,837	\$342,332,923	\$56,873,799	\$900,790	\$13,665,719
Exclusions					
Non-TXIX	\$6,248	\$4,223,520	\$450,789	\$316	\$10,075
No Eligibility Span	\$20,340	\$462,073	\$147,536	\$760	\$20,514
Dual Eligible	\$71,202	\$1,690,673	\$279,143	\$3,765	\$31,670
Child Health Plan Plus (CHP+)	\$2,824	\$12,478	\$1,797	\$5	\$590
Manually Priced	\$138	\$0	\$1,773	\$0	\$0
Not A Benefit	\$0	\$301,192	\$10,949	\$404	\$0
No CO Medicaid Rate Found	\$0	\$0	\$5,720	\$0	\$0
No Comparable Rate	\$0	\$0	\$314	\$0	\$405
Total Exclusions	\$100,752	\$6,689,936	\$898,021	\$5,250	\$63,254
Repricing Base					
Year Two (Cycle Two) Base Data	\$24,922,085	\$335,642,987	\$55,975,778	\$895,540	\$13,602,465
Percentage of Raw	99.60%	98.05%	98.42%	99.42%	99.54%

Table B1(c).

	Vascular	Women's Health and Family Planning	Other Physician
CY 2020 Paid Amount	\$3,899,861	\$186,187,777	\$352,528,438
Exclusions			
Non-TXIX	\$42,211	\$207,327	\$4,261,932
No Eligibility Span	\$6,633	\$177,077	\$469,659
Dual Eligible	\$27,221	\$769,863	\$1,835,648
Child Health Plan Plus (CHP+)	\$9	\$7,411	\$12,813
Manually Priced	\$0	\$0	\$4,287
Not A Benefit	\$0	\$186,953	\$299,895
No CO Medicaid Rate Found	\$0	\$0	\$37,234
No Comparable Rate	\$0	\$500	\$0
Total Exclusions	\$76,074	\$1,349,131	\$6,921,468
Repricing Base			
Year Two (Cycle Two) Base Data	\$3,823,787	\$184,838,646	\$345,606,970
Percentage of Raw	98.05%	99.28%	98.04%

Appendix B2: Professional Services Rate Ratio Results

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

All Physician Services analyzed in the rate comparison benchmark analysis are repriced using methodology that incorporates the following data elements:

- Procedure Code
- Modifier 1
- Facility/Non-Facility

Table B2. Physician Services Rate Ratio Results

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Cardiology	92920		PRQ CARDIAC ANGIOPLAST 1 ART	Medicare Facility Rate	\$438.47	\$525.21	83.5%
Cardiology	92924		PRQ CARD ANGIO/ATHRECT 1 ART	Medicare Facility Rate	\$521.25	\$625.91	83.3%
Cardiology	92928		PRQ CARD STENT W/ANGIO 1 VSL	Medicare Facility Rate	\$486.92	\$584.33	83.3%
Cardiology	92933		PRQ CARD STENT/ATH/ANGIO	Medicare Facility Rate	\$544.49	\$655.20	83.1%
Cardiology	92937		PRQ REVASC BYP GRAFT 1 VSL	Medicare Facility Rate	\$487.29	\$583.62	83.5%
Cardiology	92941		PRQ CARD REVASC MI 1 VSL	Medicare Facility Rate	\$545.56	\$656.62	83.1%
Cardiology	92943		PRQ CARD REVASC CHRONIC 1VSL	Medicare Facility Rate	\$545.56	\$656.52	83.1%
Cardiology	92950		HEART/LUNG RESUSCITATION CPR	Medicare Non-Facility Rate	\$86.10	\$346.29	24.9%
Cardiology	92950		HEART/LUNG RESUSCITATION CPR	Medicare Facility Rate	\$86.10	\$185.05	46.5%
Cardiology	92960		CARDIOVERSION ELECTRIC EXT	Medicare Facility Rate	\$80.36	\$109.95	73.1%
Cardiology	92961		CARDIOVERSION ELECTRIC INT	Medicare Facility Rate	\$176.76	\$245.03	72.1%
Cardiology	92973		PRQ CORONARY MECH THROMBECT	Medicare Facility Rate	\$131.70	\$175.20	75.2%
Cardiology	92974		CATH PLACE CARDIO BRACHYTX	Medicare Facility Rate	\$144.59	\$160.02	90.4%
Cardiology	92977		DISSOLVE CLOT HEART VESSEL	Medicare Facility Rate	\$59.69	\$54.37	109.8%
Cardiology	92978	26	ENDOLUMINL IVUS OCT C 1ST	Medicare Facility Rate	\$70.41	\$94.20	74.7%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Cardiology	92978		ENDOLUMINL IVUS OCT C 1ST	Medicare Facility Rate	\$184.10	\$94.20	195.4%
Cardiology	92979	26	ENDOLUMINL IVUS OCT C EA	Medicare Facility Rate	\$56.43	\$75.17	75.1%
Cardiology	92986		REVISION OF AORTIC VALVE	Medicare Facility Rate	\$824.47	\$1,320.84	62.4%
Cardiology	92987		REVISION OF MITRAL VALVE	Medicare Facility Rate	\$873.61	\$1,366.12	63.9%
Cardiology	92990		REVISION OF PULMONARY VALVE	Medicare Facility Rate	\$657.36	\$1,089.08	60.4%
Cardiology	92997		PUL ART BALLOON REPR PERCUT	Medicare Facility Rate	\$611.98	\$633.39	96.6%
Cardiology	92998		PUL ART BALLOON REPR PERCUT	Medicare Facility Rate	\$266.36	\$314.93	84.6%
Cardiology	93000		ELECTROCARDIOGRAM COMPLETE	Medicare Facility/Non-Facility Rate	\$21.82	\$14.75	147.9%
Cardiology	93005		ELECTROCARDIOGRAM TRACING	Medicare Facility/Non-Facility Rate	\$10.91	\$6.42	169.9%
Cardiology	93010		ELECTROCARDIOGRAM REPORT	Medicare Facility/Non-Facility Rate	\$8.63	\$8.33	103.6%
Cardiology	93015		CARDIOVASCULAR STRESS TEST	Medicare Facility/Non-Facility Rate	\$100.45	\$74.05	135.7%
Cardiology	93016		CARDIOVASCULAR STRESS TEST	Medicare Facility/Non-Facility Rate	\$21.65	\$21.92	98.8%
Cardiology	93017		CARDIOVASCULAR STRESS TEST	Medicare Non-Facility Rate	\$61.13	\$37.49	163.1%
Cardiology	93018		CARDIOVASCULAR STRESS TEST	Medicare Facility/Non-Facility Rate	\$15.61	\$14.64	106.6%
Cardiology	93040		RHYTHM ECG WITH REPORT	Medicare Facility/Non-Facility Rate	\$12.68	\$12.97	97.8%
Cardiology	93041		RHYTHM ECG TRACING	Medicare Non-Facility Rate	\$5.09	\$6.06	84.0%
Cardiology	93042		RHYTHM ECG REPORT	Medicare Facility Rate	\$4.90	\$6.91	70.9%
Cardiology	93224		ECG MONIT/REPT UP TO 48 HRS	Medicare Facility/Non-Facility Rate	\$106.20	\$79.89	132.9%
Cardiology	93225		ECG MONIT/REPT UP TO 48 HRS	Medicare Non-Facility Rate	\$33.48	\$20.56	162.8%
Cardiology	93226		ECG MONIT/REPT UP TO 48 HRS	Medicare Non-Facility Rate	\$30.12	\$40.48	74.4%
Cardiology	93227		ECG MONIT/REPT UP TO 48 HRS	Medicare Facility/Non-Facility Rate	\$27.39	\$18.85	145.3%
Cardiology	93228		REMOTE 30 DAY ECG REV/REPORT	Medicare Facility/Non-Facility Rate	\$19.45	\$26.02	74.8%
Cardiology	93229		REMOTE 30 DAY ECG TECH SUPP	Medicare Non-Facility Rate	\$550.02	\$953.76	57.7%
Cardiology	93260		PRGRMG DEV EVAL IMPLTBL SYS	Medicare Non-Facility Rate	\$53.79	\$81.50	66.0%
Cardiology	93260	26	PRGRMG DEV EVAL IMPLTBL SYS	Medicare Facility Rate	\$35.79	\$43.19	82.9%
Cardiology	93261		INTERROGATE SUBQ DEFIB	Medicare Non-Facility Rate	\$49.26	\$75.51	65.2%
Cardiology	93261	26	INTERROGATE SUBQ DEFIB	Medicare Facility Rate	\$31.28	\$37.57	83.3%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Cardiology	93264		REM MNTR WRLS P-ART PRS SNR	Medicare Non-Facility Rate	\$37.65	\$51.30	73.4%
Cardiology	93268		ECG RECORD/REVIEW	Medicare Facility/Non-Facility Rate	\$119.84	\$196.98	60.8%
Cardiology	93270		REMOTE 30 DAY ECG REV/REPORT	Medicare Non-Facility Rate	\$19.87	\$8.96	221.8%
Cardiology	93271		ECG/MONITORING AND ANALYSIS	Medicare Non-Facility Rate	\$60.41	\$162.95	37.1%
Cardiology	93272		ECG/REVIEW INTERPRET ONLY	Medicare Facility/Non-Facility Rate	\$25.09	\$25.07	100.1%
Cardiology	93278	26	ECG/SIGNAL-AVERAGED	Medicare Facility/Non-Facility Rate	\$12.48	\$12.55	99.4%
Cardiology	93279		PM DEVICE PROGR EVAL SNGL	Medicare Non-Facility Rate	\$42.19	\$72.95	57.8%
Cardiology	93279	26	PM DEVICE PROGR EVAL SNGL	Medicare Facility/Non-Facility Rate	\$27.48	\$32.11	85.6%
Cardiology	93280		PM DEVICE PROGR EVAL DUAL	Medicare Facility/Non-Facility Rate	\$50.02	\$86.34	57.9%
Cardiology	93280	26	PM DEVICE PROGR EVAL DUAL	Medicare Facility/Non-Facility Rate	\$32.98	\$38.60	85.4%
Cardiology	93280	TC	PM DEVICE PROGR EVAL DUAL	Medicare Non-Facility Rate	\$17.05	\$47.73	35.7%
Cardiology	93281		PM DEVICE PROGR EVAL MULTI	Medicare Non-Facility Rate	\$58.49	\$91.28	64.1%
Cardiology	93281	26	PM DEVICE PROGR EVAL MULTI	Medicare Facility Rate	\$38.51	\$42.83	89.9%
Cardiology	93282		PRGRMG EVAL IMPLANTABLE DFB	Medicare Non-Facility Rate	\$53.95	\$86.93	62.1%
Cardiology	93282	26	PRGRMG EVAL IMPLANTABLE DFB	Medicare Facility/Non-Facility Rate	\$35.94	\$42.83	83.9%
Cardiology	93283		PRGRMG EVAL IMPLANTABLE DFB	Medicare Non-Facility Rate	\$65.75	\$105.66	62.2%
Cardiology	93283	26	PRGRMG EVAL IMPLANTABLE DFB	Medicare Facility/Non-Facility Rate	\$45.21	\$57.57	78.5%
Cardiology	93284		PRGRMG EVAL IMPLANTABLE DFB	Medicare Non-Facility Rate	\$77.04	\$113.83	67.7%
Cardiology	93284	26	PRGRMG EVAL IMPLANTABLE DFB	Medicare Facility/Non-Facility Rate	\$53.79	\$62.48	86.1%
Cardiology	93284	TC	PRGRMG EVAL IMPLANTABLE DFB	Medicare Non-Facility Rate	\$23.28	\$51.35	45.3%
Cardiology	93285		PRGRMG DEV EVAL SCRMS IP	Medicare Non-Facility Rate	\$36.41	\$65.91	55.2%
Cardiology	93285	26	PRGRMG DEV EVAL SCRMS IP	Medicare Facility Rate	\$22.47	\$26.15	85.9%
Cardiology	93286	26	PERI-PX EVAL PM/LDLS PM IP	Medicare Facility Rate	\$11.42	\$15.37	74.3%
Cardiology	93287	26	PERI-PX DEVICE EVAL & PRGR	Medicare Facility Rate	\$16.77	\$23.00	72.9%
Cardiology	93288		INTERROG EVL PM/LDLS PM IP	Medicare Non-Facility Rate	\$32.60	\$61.71	52.8%
Cardiology	93288	26	INTERROG EVL PM/LDLS PM IP	Medicare Facility/Non-Facility Rate	\$18.43	\$21.22	86.9%
Cardiology	93288	TC	INTERROG EVL PM/LDLS PM IP	Medicare Non-Facility Rate	\$14.18	\$40.48	35.0%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Cardiology	93289		INTERROG DEVICE EVAL HEART	Medicare Non-Facility Rate	\$50.28	\$78.40	64.1%
Cardiology	93289	26	INTERROG DEVICE EVAL HEART	Medicare Facility/Non-Facility Rate	\$33.25	\$37.55	88.5%
Cardiology	93289	TC	INTERROG DEVICE EVAL HEART	Medicare Non-Facility Rate	\$17.05	\$40.85	41.7%
Cardiology	93290		INTERROG DEV EVAL ICPMS IP	Medicare Non-Facility Rate	\$23.97	\$58.81	40.8%
Cardiology	93290	26	INTERROG DEV EVAL ICPMS IP	Medicare Facility/Non-Facility Rate	\$16.14	\$21.59	74.8%
Cardiology	93291	26	ILR DEVICE INTERROGATE	Medicare Facility/Non-Facility Rate	\$18.60	\$18.52	100.4%
Cardiology	93291		ILR DEVICE INTERROGATE	Medicare Non-Facility Rate	\$31.24	\$54.29	57.5%
Cardiology	93291	TC	ILR DEVICE INTERROGATE	Medicare Non-Facility Rate	\$12.62	\$35.77	35.3%
Cardiology	93294		REM INTERROG EVL PM/LDLS PM	Medicare Facility/Non-Facility Rate	\$27.91	\$30.54	91.4%
Cardiology	93295		DEV INTERROG REMOTE 1/2/MLT	Medicare Facility/Non-Facility Rate	\$50.48	\$37.83	133.4%
Cardiology	93296		PM/ICD REMOTE TECH SERV	Medicare Non-Facility Rate	\$27.71	\$24.90	111.3%
Cardiology	93297		REM INTERROG DEV EVAL ICPMS	Medicare Facility/Non-Facility Rate	\$19.45	\$26.68	72.9%
Cardiology	93298		ILR DEVICE INTERROGAT REMOTE	Medicare Facility/Non-Facility Rate	\$22.47	\$26.68	84.2%
Cardiology	93303		ECHO TRANSTHORACIC	Medicare Non-Facility Rate	\$168.27	\$239.38	70.3%
Cardiology	93303	26	ECHO TRANSTHORACIC	Medicare Facility/Non-Facility Rate	\$62.38	\$63.12	98.8%
Cardiology	93304		ECHO TRANSTHORACIC	Medicare Non-Facility Rate	\$92.11	\$168.88	54.5%
Cardiology	93304	26	ECHO TRANSTHORACIC	Medicare Facility Rate	\$37.55	\$36.83	102.0%
Cardiology	93306		TTE W/DOPPLER COMPLETE	Medicare Facility/Non-Facility Rate	\$200.75	\$211.50	94.9%
Cardiology	93306	26	TTE W/DOPPLER COMPLETE	Medicare Facility/Non-Facility Rate	\$54.64	\$70.74	77.2%
Cardiology	93306	TC	TTE W/DOPPLER COMPLETE	Medicare Non-Facility Rate	\$146.13	\$140.75	103.8%
Cardiology	93307		TTE W/O DOPPLER COMPLETE	Medicare Non-Facility Rate	\$136.04	\$148.32	91.7%
Cardiology	93307	26	TTE W/O DOPPLER COMPLETE	Medicare Facility/Non-Facility Rate	\$47.91	\$44.89	106.7%
Cardiology	93308		TTE F-UP OR LMTD	Medicare Facility/Non-Facility Rate	\$100.45	\$105.39	95.3%
Cardiology	93308	26	TTE F-UP OR LMTD	Medicare Facility/Non-Facility Rate	\$28.09	\$25.41	110.5%
Cardiology	93308	TC	TTE F-UP OR LMTD	Medicare Facility Rate	\$63.43	\$79.98	79.3%
Cardiology	93312	26	ECHO TRANSESOPHAGEAL	Medicare Facility Rate	\$67.45	\$109.24	61.7%
Cardiology	93313		ECHO TRANSESOPHAGEAL	Medicare Facility Rate	\$40.65	\$11.35	358.1%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Cardiology	93314		ECHO TRANSESOPHAGEAL	Medicare Non-Facility Rate	\$133.62	\$243.67	54.8%
Cardiology	93314	26	ECHO TRANSESOPHAGEAL	Medicare Facility/Non-Facility Rate	\$40.65	\$90.60	44.9%
Cardiology	93315	26	ECHO TRANSESOPHAGEAL	Medicare Facility Rate	\$109.17	\$128.54	84.9%
Cardiology	93316		ECHO TRANSESOPHAGEAL	Medicare Facility Rate	\$43.48	\$26.10	166.6%
Cardiology	93317		ECHO TRANSESOPHAGEAL	Medicare Non-Facility Rate	\$165.67	\$90.31	183.4%
Cardiology	93317	26	ECHO TRANSESOPHAGEAL	Medicare Facility Rate	\$66.29	\$90.31	73.4%
Cardiology	93318	26	ECHO TRANSESOPHAGEAL INTRAOP	Medicare Facility Rate	\$86.01	\$104.11	82.6%
Cardiology	93320		DOPPLER ECHO EXAM HEART	Medicare Non-Facility Rate	\$74.04	\$54.64	135.5%
Cardiology	93320	26	DOPPLER ECHO EXAM HEART	Medicare Facility/Non-Facility Rate	\$19.81	\$18.14	109.2%
Cardiology	93321		DOPPLER ECHO EXAM HEART	Medicare Non-Facility Rate	\$32.70	\$27.20	120.2%
Cardiology	93321	26	DOPPLER ECHO EXAM HEART	Medicare Facility/Non-Facility Rate	\$7.94	\$7.27	109.2%
Cardiology	93325		DOPPLER COLOR FLOW ADD-ON	Medicare Facility/Non-Facility Rate	\$73.54	\$25.61	287.2%
Cardiology	93325	26	DOPPLER COLOR FLOW ADD-ON	Medicare Facility/Non-Facility Rate	\$3.72	\$3.15	118.1%
Cardiology	93325	TC	DOPPLER COLOR FLOW ADD-ON	Medicare Non-Facility Rate	\$35.08	\$22.46	156.2%
Cardiology	93350		STRESS TTE ONLY	Medicare Non-Facility Rate	\$202.48	\$200.63	100.9%
Cardiology	93350	26	STRESS TTE ONLY	Medicare Facility/Non-Facility Rate	\$77.41	\$70.74	109.4%
Cardiology	93351		STRESS TTE COMPLETE	Medicare Non-Facility Rate	\$208.41	\$249.05	83.7%
Cardiology	93351	26	STRESS TTE COMPLETE	Medicare Facility Rate	\$75.95	\$84.94	89.4%
Cardiology	93351	TC	STRESS TTE COMPLETE	Medicare Non-Facility Rate	\$132.45	\$164.11	80.7%
Cardiology	93352		ADMIN ECG CONTRAST AGENT	Medicare Facility/Non-Facility Rate	\$29.07	\$35.37	82.2%
Cardiology	93355		ECHO TRANSESOPHAGEAL (TEE)	Medicare Facility Rate	\$182.91	\$229.24	79.8%
Cardiology	93356		MYOCDR STRAIN IMG SPCKL TRCK	Medicare Non-Facility Rate	\$42.36	\$40.37	104.9%
Cardiology	93356		MYOCDR STRAIN IMG SPCKL TRCK	Medicare Facility Rate	\$42.36	\$12.11	349.8%
Cardiology	93451	26	RIGHT HEART CATH	Medicare Facility Rate	\$116.68	\$130.31	89.5%
Cardiology	93452	26	LEFT HRT CATH W/VENTRCLGRPHY	Medicare Facility Rate	\$204.35	\$235.60	86.7%
Cardiology	93453	26	R&L HRT CATH W/VENTRCLGRPHY	Medicare Facility Rate	\$267.99	\$313.68	85.4%
Cardiology	93454	26	CORONARY ARTERY ANGIO S&I	Medicare Facility Rate	\$206.03	\$238.14	86.5%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Cardiology	93455	26	CORONARY ART/GRFT ANGIO S&I	Medicare Facility Rate	\$237.86	\$276.73	86.0%
Cardiology	93456	26	R HRT CORONARY ARTERY ANGIO	Medicare Facility Rate	\$263.82	\$308.85	85.4%
Cardiology	93457	26	R HRT ART/GRFT ANGIO	Medicare Facility Rate	\$295.82	\$348.05	85.0%
Cardiology	93458		L HRT ARTERY/VENTRICLE ANGIO	Medicare Facility Rate	\$847.17	\$1,144.03	74.1%
Cardiology	93458	26	L HRT ARTERY/VENTRICLE ANGIO	Medicare Facility/Non-Facility Rate	\$251.38	\$293.04	85.8%
Cardiology	93459	26	L HRT ART/GRFT ANGIO	Medicare Facility Rate	\$283.03	\$332.43	85.1%
Cardiology	93460	26	R&L HRT ART/VENTRICLE ANGIO	Medicare Facility Rate	\$315.38	\$372.17	84.7%
Cardiology	93461	26	R&L HRT ART/VENTRICLE ANGIO	Medicare Facility Rate	\$347.85	\$411.29	84.6%
Cardiology	93462		L HRT CATH TRNSPTL PUNCTURE	Medicare Facility Rate	\$160.28	\$209.19	76.6%
Cardiology	93463		DRUG ADMIN & HEMODYNMIC MEAS	Medicare Facility Rate	\$85.16	\$99.52	85.6%
Cardiology	93464	26	EXERCISE W/HEMODYNAMIC MEAS	Medicare Facility Rate	\$74.94	\$89.91	83.4%
Cardiology	93503		INSERT/PLACE HEART CATHETER	Medicare Facility Rate	\$106.60	\$88.46	120.5%
Cardiology	93505	26	BIOPSY OF HEART LINING	Medicare Facility Rate	\$175.12	\$226.57	77.3%
Cardiology	93530	26	RT HEART CATH CONGENITAL	Other States' Average Rate	\$213.69	\$173.61	123.1%
Cardiology	93531	26	R & L HEART CATH CONGENITAL	Other States' Average Rate	\$369.95	\$350.88	105.4%
Cardiology	93532	26	R & L HEART CATH CONGENITAL	Other States' Average Rate	\$460.45	\$425.01	108.3%
Cardiology	93533	26	R & L HEART CATH CONGENITAL	Other States' Average Rate	\$255.62	\$284.67	89.8%
Cardiology	93563		INJECT CONGENITAL CARD CATH	Medicare Facility Rate	\$44.90	\$57.99	77.4%
Cardiology	93565		INJECT L VENTR/ATRIAL ANGIO	Medicare Facility Rate	\$34.52	\$45.97	75.1%
Cardiology	93566		INJECT R VENTR/ATRIAL ANGIO	Medicare Facility Rate	\$136.76	\$45.80	298.6%
Cardiology	93567		INJECT SUPRVLV AORTOGRAPHY	Medicare Facility Rate	\$112.81	\$51.76	217.9%
Cardiology	93568		INJECT PULM ART HRT CATH	Medicare Facility Rate	\$123.52	\$47.39	260.6%
Cardiology	93571	26	HEART FLOW RESERVE MEASURE	Medicare Facility Rate	\$66.34	\$71.83	92.4%
Cardiology	93572	26	HEART FLOW RESERVE MEASURE	Medicare Facility Rate	\$53.24	\$52.63	101.2%
Cardiology	93580		TRANSCATH CLOSURE OF ASD	Medicare Facility Rate	\$690.57	\$967.01	71.4%
Cardiology	93581		TRANSCATH CLOSURE OF VSD	Medicare Facility Rate	\$924.93	\$1,314.11	70.4%
Cardiology	93582		PERQ TRANSCATH CLOSURE PDA	Medicare Facility Rate	\$560.70	\$657.13	85.3%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Cardiology	93583		PERQ TRANSCATH SEPTAL REDUXN	Medicare Facility Rate	\$624.05	\$734.47	85.0%
Cardiology	93590		PERQ TRANSCATH CLS MITRAL	Medicare Facility Rate	\$453.43	\$1,083.96	41.8%
Cardiology	93592		PERQ TRANSCATH CLOSURE EACH	Medicare Facility Rate	\$168.25	\$394.74	42.6%
Cardiology	93609	26	MAP TACHYCARDIA ADD-ON	Medicare Facility Rate	\$152.10	\$276.24	55.1%
Cardiology	93610	26	INTRA-ATRIAL PACING	Medicare Facility Rate	\$120.71	\$163.59	73.8%
Cardiology	93612	26	INTRAVENTRICULAR PACING	Medicare Facility Rate	\$120.71	\$162.23	74.4%
Cardiology	93613		ELECTROPHYS MAP 3D ADD-ON	Medicare Facility Rate	\$281.06	\$294.55	95.4%
Cardiology	93616	26	ESOPHAGEAL RECORDING	Medicare Facility Rate	\$56.06	\$59.60	94.1%
Cardiology	93619	26	ELECTROPHYSIOLOGY EVALUATION	Medicare Facility Rate	\$292.32	\$388.47	75.2%
Cardiology	93620	26	ELECTROPHYSIOLOGY EVALUATION	Medicare Facility Rate	\$628.69	\$624.28	100.7%
Cardiology	93620		ELECTROPHYSIOLOGY EVALUATION	Medicare Facility Rate	\$852.93	\$624.28	136.6%
Cardiology	93621	26	ELECTROPHYSIOLOGY EVALUATION	Medicare Facility Rate	\$113.23	\$95.26	118.9%
Cardiology	93622	26	ELECTROPHYSIOLOGY EVALUATION	Medicare Facility Rate	\$165.56	\$171.14	96.7%
Cardiology	93623	26	STIMULATION PACING HEART	Medicare Facility Rate	\$141.01	\$105.56	133.6%
Cardiology	93640	26	EVALUATION HEART DEVICE	Medicare Facility Rate	\$177.79	\$177.94	99.9%
Cardiology	93641	26	ELECTROPHYSIOLOGY EVALUATION	Medicare Facility Rate	\$318.87	\$310.13	102.8%
Cardiology	93642	26	ELECTROPHYSIOLOGY EVALUATION	Medicare Facility Rate	\$246.04	\$253.48	97.1%
Cardiology	93650		ABLATE HEART DYSRHYTHM FOCUS	Medicare Facility Rate	\$574.79	\$588.38	97.7%
Cardiology	93653		EP & ABLATE SUPRAVENT ARRHYT	Medicare Facility Rate	\$663.23	\$830.82	79.8%
Cardiology	93654		EP & ABLATE VENTRIC TACHY	Medicare Facility Rate	\$885.13	\$1,111.26	79.7%
Cardiology	93655		ABLATE ARRHYTHMIA ADD ON	Medicare Facility Rate	\$331.63	\$310.37	106.8%
Cardiology	93656		TX ATRIAL FIB PULM VEIN ISOL	Medicare Facility Rate	\$885.42	\$1,114.76	79.4%
Cardiology	93657		TX L/R ATRIAL FIB ADDL	Medicare Facility Rate	\$331.90	\$310.01	107.1%
Cardiology	93660		TILT TABLE EVALUATION	Medicare Non-Facility Rate	\$164.85	\$165.86	99.4%
Cardiology	93660	26	TILT TABLE EVALUATION	Medicare Facility Rate	\$91.19	\$93.78	97.2%
Cardiology	93662	26	INTRACARDIAC ECG (ICE)	Medicare Facility Rate	\$115.69	\$93.96	123.1%
Cardiology	93668		PERIPHERAL VASCULAR REHAB	Medicare Non-Facility Rate	\$34.80	\$14.76	235.8%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Cardiology	93701		BIOIMPEDANCE CV ANALYSIS	Medicare Non-Facility Rate	\$26.66	\$29.25	91.1%
Cardiology	93750		INTERROGATION VAD IN PERSON	Medicare Facility Rate	\$32.33	\$40.13	80.6%
Cardiology	93792		PT/CAREGIVER TRAING HOME INR	Medicare Non-Facility Rate	\$40.74	\$67.73	60.2%
Cardiology	93793		ANTICOAG MGMT PT WARFARIN	Medicare Non-Facility Rate	\$23.53	\$11.57	203.4%
Cardiology	93797		CARDIAC REHAB	Medicare Non-Facility Rate	\$10.91	\$17.27	63.2%
Cardiology	93798		CARDIAC REHAB/MONITOR	Medicare Non-Facility Rate	\$10.91	\$26.90	40.6%
Cognitive Capabilities	96105		ASSESSMENT OF APHASIA	Medicare Non-Facility Rate	\$84.07	\$100.96	83.3%
Cognitive Capabilities	96110		DEVELOPMENTAL SCREEN W/SCORE	Other States' Average Rate	\$12.60	\$7.83	161.0%
Cognitive Capabilities	96110		DEVELOPMENTAL SCREEN W/SCORE	Other States' Average Rate	\$12.60	\$9.21	136.8%
Cognitive Capabilities	96110	EP	DEVELOPMENTAL SCREEN W/SCORE	Other States' Average Rate	\$18.67	\$8.38	222.9%
Cognitive Capabilities	96110	EP	DEVELOPMENTAL SCREEN W/SCORE	Other States' Average Rate	\$18.67	\$10.18	183.4%
Cognitive Capabilities	96112		DEVEL TST PHYS/QHP 1ST HR	Medicare Non-Facility Rate	\$106.34	\$129.91	81.9%
Cognitive Capabilities	96112		DEVEL TST PHYS/QHP 1ST HR	Medicare Facility Rate	\$106.34	\$128.46	82.8%
Cognitive Capabilities	96113		DEVEL TST PHYS/QHP EA ADDL	Medicare Non-Facility Rate	\$41.55	\$61.24	67.8%
Cognitive Capabilities	96113		DEVEL TST PHYS/QHP EA ADDL	Medicare Facility Rate	\$41.55	\$57.26	72.6%
Cognitive Capabilities	96116		NEUROBEHAVIORAL STATUS EXAM	Medicare Facility Rate	\$99.81	\$82.76	120.6%
Cognitive Capabilities	96116		NEUROBEHAVIORAL STATUS EXAM	Medicare Non-Facility Rate	\$99.81	\$96.53	103.4%
Cognitive Capabilities	96121		NUBHVL XM PHY/QHP EA ADDL HR	Medicare Facility Rate	\$83.10	\$71.50	116.2%
Cognitive Capabilities	96121		NUBHVL XM PHY/QHP EA ADDL HR	Medicare Non-Facility Rate	\$83.10	\$80.20	103.6%
Cognitive Capabilities	96125		COGNITIVE TEST BY HC PRO	Medicare Facility/Non-Facility Rate	\$89.01	\$107.29	83.0%
Cognitive Capabilities	96127		BRIEF EMOTIONAL/BEHAV ASSMT	Medicare Facility/Non-Facility Rate	\$18.67	\$4.98	374.9%
Cognitive Capabilities	96132		NRPSYC TST EVAL PHYS/QHP 1ST	Medicare Facility Rate	\$123.56	\$106.82	115.7%
Cognitive Capabilities	96132		NRPSYC TST EVAL PHYS/QHP 1ST	Medicare Non-Facility Rate	\$123.56	\$133.63	92.5%
Cognitive Capabilities	96133		NRPSYC TST EVAL PHYS/QHP EA	Medicare Facility Rate	\$97.86	\$79.44	123.2%
Cognitive Capabilities	96133		NRPSYC TST EVAL PHYS/QHP EA	Medicare Non-Facility Rate	\$97.86	\$103.72	94.4%
Cognitive Capabilities	96136		PSYCL/NRPSYC TST PHY/QHP 1ST	Medicare Facility Rate	\$63.55	\$24.10	263.7%
Cognitive Capabilities	96136		PSYCL/NRPSYC TST PHY/QHP 1ST	Medicare Non-Facility Rate	\$63.55	\$45.84	138.6%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Cognitive Capabilities	96137		PSYCL/NRPSYC TST PHY/QHP EA	Medicare Facility Rate	\$46.51	\$18.64	249.5%
Cognitive Capabilities	96137		PSYCL/NRPSYC TST PHY/QHP EA	Medicare Non-Facility Rate	\$46.51	\$41.47	112.2%
Ear, Nose, and Throat	92502		EAR AND THROAT EXAMINATION	Medicare Facility/Non-Facility Rate	\$81.76	\$97.35	84.0%
Ear, Nose, and Throat	92504		EAR MICROSCOPY EXAMINATION	Medicare Non-Facility Rate	\$12.90	\$30.78	41.9%
Ear, Nose, and Throat	92504		EAR MICROSCOPY EXAMINATION	Medicare Facility Rate	\$12.90	\$9.40	137.2%
Ear, Nose, and Throat	92507		SPEECH/HEARING THERAPY	Medicare Facility/Non-Facility Rate	\$63.39	\$79.33	79.9%
Ear, Nose, and Throat	92508		SPEECH/HEARING THERAPY	Medicare Facility/Non-Facility Rate	\$10.57	\$24.74	42.7%
Ear, Nose, and Throat	92511		NASOPHARYNGOSCOPY	Medicare Non-Facility Rate	\$121.38	\$126.54	95.9%
Ear, Nose, and Throat	92511		NASOPHARYNGOSCOPY	Medicare Facility Rate	\$121.38	\$38.50	315.3%
Ear, Nose, and Throat	92512		NASAL FUNCTION STUDIES	Medicare Non-Facility Rate	\$14.35	\$65.41	21.9%
Ear, Nose, and Throat	92520		LARYNGEAL FUNCTION STUDIES	Medicare Non-Facility Rate	\$63.39	\$86.46	73.3%
Ear, Nose, and Throat	92521		EVALUATION OF SPEECH FLUENCY	Medicare Facility/Non-Facility Rate	\$96.43	\$137.59	70.1%
Ear, Nose, and Throat	92522		EVALUATE SPEECH PRODUCTION	Medicare Facility/Non-Facility Rate	\$78.29	\$115.28	67.9%
Ear, Nose, and Throat	92523		SPEECH SOUND LANG COMPREHEN	Medicare Facility/Non-Facility Rate	\$162.66	\$235.12	69.2%
Ear, Nose, and Throat	92524		BEHAVRAL QUALIT ANALYS VOICE	Medicare Facility/Non-Facility Rate	\$81.60	\$113.47	71.9%
Ear, Nose, and Throat	92526		ORAL FUNCTION THERAPY	Medicare Facility/Non-Facility Rate	\$25.84	\$88.33	29.3%
Ear, Nose, and Throat	92533		CALORIC VESTIBULAR TEST	Other States' Average Rate	\$6.89	\$20.87	33.0%
Ear, Nose, and Throat	92537		CALORIC VSTBLR TEST W/REC	Medicare Non-Facility Rate	\$30.76	\$42.69	72.1%
Ear, Nose, and Throat	92537	26	CALORIC VSTBLR TEST W/REC	Medicare Facility Rate	\$24.06	\$31.92	75.4%
Ear, Nose, and Throat	92538		CALORIC VSTBLR TEST W/REC	Medicare Non-Facility Rate	\$15.67	\$23.60	66.4%
Ear, Nose, and Throat	92538	26	CALORIC VSTBLR TEST W/REC	Medicare Facility Rate	\$12.07	\$16.45	73.4%
Ear, Nose, and Throat	92540		BASIC VESTIBULAR EVALUATION	Medicare Non-Facility Rate	\$59.07	\$115.61	51.1%
Ear, Nose, and Throat	92540	26	BASIC VESTIBULAR EVALUATION	Medicare Facility Rate	\$48.74	\$79.84	61.0%
Ear, Nose, and Throat	92541		SPONTANEOUS NYSTAGMUS TEST	Medicare Non-Facility Rate	\$39.89	\$26.34	151.4%
Ear, Nose, and Throat	92542		POSITIONAL NYSTAGMUS TEST	Medicare Non-Facility Rate	\$39.89	\$30.20	132.1%
Ear, Nose, and Throat	92546		SINUSOIDAL ROTATIONAL TEST	Medicare Non-Facility Rate	\$8.03	\$133.31	6.0%
Ear, Nose, and Throat	92547		SUPPLEMENTAL ELECTRICAL TEST	Medicare Non-Facility Rate	\$4.83	\$11.23	43.0%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Ear, Nose, and Throat	92548		CDP-SOT 6 COND W/I&R	Medicare Non-Facility Rate	\$61.64	\$50.82	121.3%
Ear, Nose, and Throat	92550		TYMPANOMETRY & REFLEX THRESH	Medicare Non-Facility Rate	\$12.78	\$23.16	55.2%
Ear, Nose, and Throat	92551		PURE TONE HEARING TEST AIR	Other States' Average Rate	\$10.91	\$10.63	102.7%
Ear, Nose, and Throat	92551		PURE TONE HEARING TEST AIR	Other States' Average Rate	\$10.91	\$9.70	112.5%
Ear, Nose, and Throat	92552		PURE TONE AUDIOMETRY AIR	Medicare Facility/Non-Facility Rate	\$10.91	\$35.77	30.5%
Ear, Nose, and Throat	92553		AUDIOMETRY AIR & BONE	Medicare Facility/Non-Facility Rate	\$32.99	\$43.38	76.0%
Ear, Nose, and Throat	92555		SPEECH THRESHOLD AUDIOMETRY	Medicare Facility/Non-Facility Rate	\$20.65	\$27.08	76.3%
Ear, Nose, and Throat	92556		SPEECH AUDIOMETRY COMPLETE	Medicare Facility/Non-Facility Rate	\$32.44	\$42.66	76.0%
Ear, Nose, and Throat	92557		COMPREHENSIVE HEARING TEST	Medicare Non-Facility Rate	\$28.70	\$38.88	73.8%
Ear, Nose, and Throat	92557		COMPREHENSIVE HEARING TEST	Medicare Facility Rate	\$28.70	\$33.08	86.8%
Ear, Nose, and Throat	92558		EVOKED AUDITORY TEST QUAL	Other States' Average Rate	\$10.34	\$10.35	100.0%
Ear, Nose, and Throat	92563		TONE DECAY HEARING TEST	Medicare Non-Facility Rate	\$27.83	\$33.96	81.9%
Ear, Nose, and Throat	92565		STENGER TEST PURE TONE	Medicare Non-Facility Rate	\$14.90	\$20.19	73.8%
Ear, Nose, and Throat	92567		TYMPANOMETRY	Medicare Non-Facility Rate	\$11.98	\$17.34	69.1%
Ear, Nose, and Throat	92567		TYMPANOMETRY	Medicare Facility Rate	\$11.98	\$10.82	110.7%
Ear, Nose, and Throat	92568		ACOUSTIC REFL THRESHOLD TST	Medicare Non-Facility Rate	\$4.01	\$16.01	25.0%
Ear, Nose, and Throat	92570		ACOUSTIC IMMITANCE TESTING	Medicare Non-Facility Rate	\$19.48	\$33.88	57.5%
Ear, Nose, and Throat	92575		SENSORINEURAL ACUITY TEST	Medicare Non-Facility Rate	\$4.01	\$74.61	5.4%
Ear, Nose, and Throat	92579		VISUAL AUDIOMETRY (VRA)	Medicare Non-Facility Rate	\$34.86	\$47.77	73.0%
Ear, Nose, and Throat	92579		VISUAL AUDIOMETRY (VRA)	Medicare Facility Rate	\$34.86	\$38.72	90.0%
Ear, Nose, and Throat	92582		CONDITIONING PLAY AUDIOMETRY	Medicare Facility/Non-Facility Rate	\$8.03	\$82.42	9.7%
Ear, Nose, and Throat	92583		SELECT PICTURE AUDIOMETRY	Medicare Non-Facility Rate	\$8.03	\$53.89	14.9%
Ear, Nose, and Throat	92584		ELECTROCOCHLEOGRAPHY	Medicare Non-Facility Rate	\$47.80	\$121.11	39.5%
Ear, Nose, and Throat	92587		EVOKED AUDITORY TEST LIMITED	Medicare Non-Facility Rate	\$40.93	\$22.80	179.5%
Ear, Nose, and Throat	92587	26	EVOKED AUDITORY TEST LIMITED	Medicare Facility Rate	\$5.75	\$18.55	31.0%
Ear, Nose, and Throat	92587	TC	EVOKED AUDITORY TEST LIMITED	Medicare Non-Facility Rate	\$35.17	\$4.25	827.5%
Ear, Nose, and Throat	92588		EVOKED AUDITORY TST COMPLETE	Medicare Non-Facility Rate	\$56.64	\$35.16	161.1%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Ear, Nose, and Throat	92588	26	EVOKED AUDITORY TST COMPLETE	Medicare Facility Rate	\$15.83	\$29.46	53.7%
Ear, Nose, and Throat	92597		ORAL SPEECH DEVICE EVAL	Medicare Non-Facility Rate	\$62.40	\$74.49	83.8%
Ear, Nose, and Throat	92601		COCHLEAR IMPLT F/UP EXAM <7	Medicare Non-Facility Rate	\$111.41	\$170.11	65.5%
Ear, Nose, and Throat	92602		REPROGRAM COCHLEAR IMPLT <7	Medicare Non-Facility Rate	\$65.68	\$107.96	60.8%
Ear, Nose, and Throat	92603		COCHLEAR IMPLT F/UP EXAM 7/>	Medicare Non-Facility Rate	\$63.09	\$158.96	39.7%
Ear, Nose, and Throat	92603		COCHLEAR IMPLT F/UP EXAM 7/>	Medicare Facility Rate	\$63.09	\$123.45	51.1%
Ear, Nose, and Throat	92604		REPROGRAM COCHLEAR IMPLT 7/>	Medicare Non-Facility Rate	\$43.03	\$96.08	44.8%
Ear, Nose, and Throat	92604		REPROGRAM COCHLEAR IMPLT 7/>	Medicare Facility Rate	\$43.03	\$68.54	62.8%
Ear, Nose, and Throat	92606		NON-SPEECH DEVICE SERVICE	Other States' Average Rate	\$40.35	\$70.17	57.5%
Ear, Nose, and Throat	92606		NON-SPEECH DEVICE SERVICE	Other States' Average Rate	\$40.35	\$78.07	51.7%
Ear, Nose, and Throat	92607		EX FOR SPEECH DEVICE RX 1HR	Medicare Facility/Non-Facility Rate	\$100.31	\$128.89	77.8%
Ear, Nose, and Throat	92608		EX FOR SPEECH DEVICE RX ADDL	Medicare Facility/Non-Facility Rate	\$45.18	\$51.04	88.5%
Ear, Nose, and Throat	92609		USE OF SPEECH DEVICE SERVICE	Medicare Facility/Non-Facility Rate	\$82.63	\$108.17	76.4%
Ear, Nose, and Throat	92610		EVALUATE SWALLOWING FUNCTION	Medicare Facility Rate	\$30.04	\$71.89	41.8%
Ear, Nose, and Throat	92610		EVALUATE SWALLOWING FUNCTION	Medicare Non-Facility Rate	\$30.04	\$88.56	33.9%
Ear, Nose, and Throat	92611		MOTION FLUOROSCOPY/SWALLOW	Medicare Non-Facility Rate	\$35.64	\$95.19	37.4%
Ear, Nose, and Throat	92612		ENDOSCOPY SWALLOW (FEES) VID	Medicare Non-Facility Rate	\$123.46	\$205.18	60.2%
Ear, Nose, and Throat	92612		ENDOSCOPY SWALLOW (FEES) VID	Medicare Facility Rate	\$123.46	\$68.22	181.0%
Ear, Nose, and Throat	92613		ENDOSCOPY SWALLOW (FEES) I&R	Medicare Facility/Non-Facility Rate	\$25.91	\$37.25	69.6%
Ear, Nose, and Throat	92625		TINNITUS ASSESSMENT	Medicare Non-Facility Rate	\$57.72	\$70.87	81.4%
Ear, Nose, and Throat	92626		EVAL AUD REHAB STATUS	Medicare Non-Facility Rate	\$15.96	\$91.49	17.4%
Ear, Nose, and Throat	92626		EVAL AUD REHAB STATUS	Medicare Facility Rate	\$15.96	\$76.64	20.8%
Ear, Nose, and Throat	92627		EVAL AUD STATUS REHAB ADD-ON	Medicare Non-Facility Rate	\$15.96	\$21.48	74.3%
Ear, Nose, and Throat	92630		AUD REHAB PRE-LING HEAR LOSS	Other States' Average Rate	\$52.19	\$64.57	80.8%
Ear, Nose, and Throat	92630		AUD REHAB PRE-LING HEAR LOSS	Other States' Average Rate	\$52.19	\$42.81	121.9%
Ear, Nose, and Throat	92633		AUD REHAB POSTLING HEAR LOSS	Other States' Average Rate	\$52.19	\$64.57	80.8%
Ear, Nose, and Throat	92633		AUD REHAB POSTLING HEAR LOSS	Other States' Average Rate	\$52.19	\$42.81	121.9%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Ear, Nose, and Throat	92640		AUD BRAINSTEM IMPLT PROGRAMG	Medicare Non-Facility Rate	\$39.51	\$115.36	34.2%
Gastroenterology	91010		ESOPHAGUS MOTILITY STUDY	Medicare Facility/Non-Facility Rate	\$57.39	\$242.39	23.7%
Gastroenterology	91037		ESOPH IMPED FUNCTION TEST	Medicare Facility/Non-Facility Rate	\$110.47	\$184.21	60.0%
Gastroenterology	91038	26	ESOPH IMPED FUNCT TEST > 1HR	Medicare Facility/Non-Facility Rate	\$42.44	\$56.92	74.6%
Gastroenterology	91065	26	BREATH HYDROGEN/METHANE TEST	Medicare Facility/Non-Facility Rate	\$10.01	\$10.45	95.8%
Gastroenterology	91120		RECTAL SENSATION TEST	Medicare Non-Facility Rate	\$332.93	\$573.25	58.1%
Gastroenterology	91122		ANAL PRESSURE RECORD	Medicare Non-Facility Rate	\$72.83	\$294.31	24.7%
Gastroenterology	91200		LIVER ELASTOGRAPHY	Medicare Facility/Non-Facility Rate	\$26.09	\$32.44	80.4%
Gastroenterology	91200	26	LIVER ELASTOGRAPHY	Medicare Facility Rate	\$9.16	\$10.80	84.8%
Gastroenterology	91010	26	ESOPHAGUS MOTILITY STUDY	Medicare Facility/Non-Facility Rate	\$22.95	\$66.49	34.5%
Gastroenterology	91034		GASTROESOPHAGEAL REFLUX TEST	Medicare Non-Facility Rate	\$174.36	\$208.55	83.6%
Gastroenterology	91034	26	GASTROESOPHAGEAL REFLUX TEST	Medicare Facility/Non-Facility Rate	\$37.48	\$50.68	74.0%
Gastroenterology	91035		G-ESOPH REFLX TST W/ELECTROD	Medicare Facility/Non-Facility Rate	\$345.25	\$516.61	66.8%
Gastroenterology	91035	26	G-ESOPH REFLX TST W/ELECTROD	Medicare Facility/Non-Facility Rate	\$60.68	\$82.64	73.4%
Gastroenterology	91037	26	ESOPH IMPED FUNCTION TEST	Medicare Facility Rate	\$37.48	\$50.24	74.6%
Gastroenterology	91038		ESOPH IMPED FUNCT TEST > 1HR	Medicare Facility/Non-Facility Rate	\$94.38	\$458.19	20.6%
Gastroenterology	91040		ESOPH BALLOON DISTENSION TST	Medicare Facility Rate	\$337.32	\$592.26	57.0%
Gastroenterology	91040	26	ESOPH BALLOON DISTENSION TST	Medicare Facility Rate	\$37.48	\$50.31	74.5%
Gastroenterology	91065		BREATH HYDROGEN/METHANE TEST	Medicare Facility/Non-Facility Rate	\$61.30	\$98.04	62.5%
Gastroenterology	91110		GI TRACT CAPSULE ENDOSCOPY	Medicare Non-Facility Rate	\$635.83	\$840.51	75.6%
Gastroenterology	91110	26	GI TRACT CAPSULE ENDOSCOPY	Medicare Facility/Non-Facility Rate	\$125.08	\$115.95	107.9%
Gastroenterology	91112		GI WIRELESS CAPSULE MEASURE	Medicare Non-Facility Rate	\$976.14	\$1,874.72	52.1%
Gastroenterology	91117		COLON MOTILITY 6 HR STUDY	Medicare Facility Rate	\$113.13	\$139.02	81.4%
Gastroenterology	91120	26	RECTAL SENSATION TEST	Medicare Facility Rate	\$37.72	\$49.42	76.3%
Gastroenterology	91122	26	ANAL PRESSURE RECORD	Medicare Facility Rate	\$53.38	\$89.07	59.9%
Health Education	90989		DIALYSIS TRAINING COMPLETE	Other States' Average Rate	\$512.50	\$492.75	104.0%
Health Education	90993		DIALYSIS TRAINING INCOMPL	Other States' Average Rate	\$512.50	\$48.43	1058.2%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Health Education	92065		ORTHOPTIC/PLEOPTIC TRAINING	Medicare Facility/Non-Facility Rate	\$62.13	\$55.38	112.2%
Health Education	96040		GENETIC COUNSELING 30 MIN	Other States' Average Rate	\$28.56	\$35.34	80.8%
Health Education	97535		SELF CARE MNGMENT TRAINING	Medicare Facility/Non-Facility Rate	\$17.64	\$34.24	51.5%
Health Education	99409		AUDIT/DAST OVER 30 MIN	Other States' Average Rate	\$67.05	\$56.57	118.5%
Health Education	99409		AUDIT/DAST OVER 30 MIN	Other States' Average Rate	\$67.05	\$57.36	116.9%
Health Education	99411		PREVENTIVE COUNSELING GROUP	Other States' Average Rate	\$15.17	\$16.52	91.8%
Health Education	99412		PREVENTIVE COUNSELING GROUP	Other States' Average Rate	\$19.79	\$10.67	185.5%
Health Education	G0433		ELISA HIV-1/HIV-2 SCREEN	Other States' Average Rate	\$11.25	\$9.64	116.7%
Ophthalmology	92002		EYE EXAM NEW PATIENT	Medicare Non-Facility Rate	\$69.75	\$89.88	77.6%
Ophthalmology	92002		EYE EXAM NEW PATIENT	Medicare Facility Rate	\$69.75	\$47.49	146.9%
Ophthalmology	92004		EYE EXAM NEW PATIENT	Medicare Non-Facility Rate	\$127.22	\$155.68	81.7%
Ophthalmology	92004		EYE EXAM NEW PATIENT	Medicare Facility Rate	\$127.22	\$96.98	131.2%
Ophthalmology	92012		EYE EXAM ESTABLISH PATIENT	Medicare Non-Facility Rate	\$73.48	\$93.08	78.9%
Ophthalmology	92012		EYE EXAM ESTABLISH PATIENT	Medicare Facility Rate	\$73.48	\$51.77	141.9%
Ophthalmology	92014		EYE EXAM&TX ESTAB PT 1/>VST	Medicare Non-Facility Rate	\$106.06	\$131.68	80.5%
Ophthalmology	92014		EYE EXAM&TX ESTAB PT 1/>VST	Medicare Facility Rate	\$106.06	\$78.05	135.9%
Ophthalmology	92015		DETERMINE REFRACTIVE STATE	Other States' Average Rate	\$10.05	\$17.60	57.1%
Ophthalmology	92015		DETERMINE REFRACTIVE STATE	Other States' Average Rate	\$10.05	\$16.25	61.8%
Ophthalmology	92018		NEW EYE EXAM & TREATMENT	Medicare Facility/Non-Facility Rate	\$120.39	\$140.71	85.6%
Ophthalmology	92019		EYE EXAM & TREATMENT	Medicare Facility/Non-Facility Rate	\$58.49	\$72.79	80.4%
Ophthalmology	92020		SPECIAL EYE EVALUATION	Medicare Non-Facility Rate	\$23.10	\$29.02	79.6%
Ophthalmology	92020		SPECIAL EYE EVALUATION	Medicare Facility Rate	\$23.10	\$20.69	111.6%
Ophthalmology	92025		CORNEAL TOPOGRAPHY	Medicare Non-Facility Rate	\$21.39	\$37.66	56.8%
Ophthalmology	92025	26	CORNEAL TOPOGRAPHY	Medicare Facility/Non-Facility Rate	\$12.19	\$19.64	62.1%
Ophthalmology	92025	TC	CORNEAL TOPOGRAPHY	Medicare Non-Facility Rate	\$9.23	\$18.02	51.2%
Ophthalmology	92060		SPECIAL EYE EVALUATION	Medicare Non-Facility Rate	\$56.09	\$65.38	85.8%
Ophthalmology	92060	26	SPECIAL EYE EVALUATION	Medicare Facility/Non-Facility Rate	\$45.97	\$37.57	122.4%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Ophthalmology	92065		ORTHOPTIC/PLEOPTIC TRAINING	Medicare Facility/Non-Facility Rate	\$62.13	\$55.38	112.2%
Ophthalmology	92071		CONTACT LENS FITTING FOR TX	Medicare Non-Facility Rate	\$30.64	\$37.60	81.5%
Ophthalmology	92072		FIT CONTAC LENS FOR MANAGMNT	Medicare Non-Facility Rate	\$97.66	\$131.62	74.2%
Ophthalmology	92072		FIT CONTAC LENS FOR MANAGMNT	Medicare Facility Rate	\$97.66	\$97.20	100.5%
Ophthalmology	92081		VISUAL FIELD EXAMINATION(S)	Medicare Non-Facility Rate	\$26.89	\$34.47	78.0%
Ophthalmology	92081	26	VISUAL FIELD EXAMINATION(S)	Medicare Facility Rate	\$13.98	\$16.09	86.9%
Ophthalmology	92082		VISUAL FIELD EXAMINATION(S)	Medicare Non-Facility Rate	\$42.56	\$48.45	87.8%
Ophthalmology	92082	26	VISUAL FIELD EXAMINATION(S)	Medicare Facility Rate	\$19.60	\$21.01	93.3%
Ophthalmology	92083		VISUAL FIELD EXAMINATION(S)	Medicare Non-Facility Rate	\$42.70	\$65.68	65.0%
Ophthalmology	92083	26	VISUAL FIELD EXAMINATION(S)	Medicare Facility/Non-Facility Rate	\$24.37	\$27.37	89.0%
Ophthalmology	92083	TC	VISUAL FIELD EXAMINATION(S)	Medicare Non-Facility Rate	\$14.35	\$38.31	37.5%
Ophthalmology	92100		SERIAL TONOMETRY EXAM(S)	Medicare Non-Facility Rate	\$10.91	\$89.42	12.2%
Ophthalmology	92132		CMPTR OPHTH DX IMG ANT SEGMENT	Medicare Non-Facility Rate	\$29.25	\$32.66	89.6%
Ophthalmology	92132	26	CMPTR OPHTH DX IMG ANT SEGMENT	Medicare Facility/Non-Facility Rate	\$16.93	\$16.45	102.9%
Ophthalmology	92132	TC	CMPTR OPHTH DX IMG ANT SEGMENT	Medicare Non-Facility Rate	\$12.33	\$16.21	76.1%
Ophthalmology	92133		CMPTR OPHTH IMG OPTIC NERVE	Medicare Facility/Non-Facility Rate	\$35.89	\$38.30	93.7%
Ophthalmology	92133	26	CMPTR OPHTH IMG OPTIC NERVE	Medicare Facility/Non-Facility Rate	\$23.54	\$22.09	106.6%
Ophthalmology	92133	TC	CMPTR OPHTH IMG OPTIC NERVE	Medicare Non-Facility Rate	\$12.33	\$16.21	76.1%
Ophthalmology	92134		CPTR OPHTH DX IMG POST SEGMENT	Medicare Facility/Non-Facility Rate	\$35.89	\$42.21	85.0%
Ophthalmology	92134	26	CPTR OPHTH DX IMG POST SEGMENT	Medicare Facility/Non-Facility Rate	\$23.54	\$25.64	91.8%
Ophthalmology	92134	TC	CPTR OPHTH DX IMG POST SEGMENT	Medicare Non-Facility Rate	\$12.33	\$16.57	74.4%
Ophthalmology	92136		OPHTHALMIC BIOMETRY	Medicare Non-Facility Rate	\$58.38	\$51.85	112.6%
Ophthalmology	92136	26	OPHTHALMIC BIOMETRY	Medicare Facility/Non-Facility Rate	\$21.12	\$30.93	68.3%
Ophthalmology	92136	TC	OPHTHALMIC BIOMETRY	Medicare Non-Facility Rate	\$37.28	\$20.92	178.2%
Ophthalmology	92201		OPSCPY EXTND RTA DRAW UNI/BI	Medicare Non-Facility Rate	\$26.28	\$25.26	104.0%
Ophthalmology	92201		OPSCPY EXTND RTA DRAW UNI/BI	Medicare Facility Rate	\$26.28	\$23.08	113.9%
Ophthalmology	92202		OPSCPY EXTND ON/MAC DRAW	Medicare Non-Facility Rate	\$16.67	\$16.16	103.2%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Ophthalmology	92202		OPSCPY EXTND ON/MAC DRAW	Medicare Facility Rate	\$16.67	\$14.71	113.3%
Ophthalmology	92227		REMOTE DX RETINAL IMAGING	Medicare Non-Facility Rate	\$9.31	\$16.93	55.0%
Ophthalmology	92228		REMOTE RETINAL IMAGING MGMT	Medicare Facility/Non-Facility Rate	\$24.13	\$31.91	75.6%
Ophthalmology	92230		EYE EXAM WITH PHOTOS	Medicare Non-Facility Rate	\$38.45	\$103.01	37.3%
Ophthalmology	92235		FLUORESCEIN ANGRPH UNI/BI	Medicare Non-Facility Rate	\$87.75	\$132.31	66.3%
Ophthalmology	92235	26	FLUORESCEIN ANGRPH UNI/BI	Medicare Facility Rate	\$52.01	\$42.91	121.2%
Ophthalmology	92240		ICG ANGIOGRAPHY UNI/BI	Medicare Non-Facility Rate	\$72.98	\$205.01	35.6%
Ophthalmology	92242		FLUORESCEIN ICG ANGIOGRAPHY	Medicare Facility/Non-Facility Rate	\$150.81	\$265.40	56.8%
Ophthalmology	92242	26	FLUORESCEIN ICG ANGIOGRAPHY	Medicare Facility Rate	\$85.56	\$55.35	154.6%
Ophthalmology	92250		EYE EXAM WITH PHOTOS	Medicare Non-Facility Rate	\$62.73	\$38.66	162.3%
Ophthalmology	92250	26	EYE EXAM WITH PHOTOS	Medicare Facility/Non-Facility Rate	\$54.91	\$21.37	256.9%
Ophthalmology	92250	TC	EYE EXAM WITH PHOTOS	Medicare Non-Facility Rate	\$7.79	\$17.29	45.1%
Ophthalmology	92273		FULL FIELD ERG W/I&R	Medicare Facility/Non-Facility Rate	\$97.96	\$133.76	73.2%
Ophthalmology	92274		MULTIFOCAL ERG W/I&R	Medicare Facility Rate	\$88.91	\$91.23	97.5%
Ophthalmology	92283		COLOR VISION EXAMINATION	Medicare Non-Facility Rate	\$12.42	\$57.15	21.7%
Ophthalmology	92284		DARK ADAPTATION EYE EXAM	Medicare Non-Facility Rate	\$18.77	\$60.92	30.8%
Ophthalmology	92285		EYE PHOTOGRAPHY	Medicare Non-Facility Rate	\$13.19	\$24.36	54.1%
Ophthalmology	92285	26	EYE PHOTOGRAPHY	Medicare Facility/Non-Facility Rate	\$10.20	\$3.08	331.2%
Ophthalmology	92285	TC	EYE PHOTOGRAPHY	Medicare Non-Facility Rate	\$2.99	\$21.28	14.1%
Ophthalmology	92286		INTERNAL EYE PHOTOGRAPHY	Medicare Non-Facility Rate	\$51.52	\$40.84	126.2%
Ophthalmology	92287		INTERNAL EYE PHOTOGRAPHY	Medicare Non-Facility Rate	\$45.92	\$191.18	24.0%
Ophthalmology	92287	26	INTERNAL EYE PHOTOGRAPHY	Medicare Facility Rate	\$14.35	\$46.44	30.9%
Ophthalmology	92310		CONTACT LENS FITTING	Other States' Average Rate	\$143.51	\$89.35	160.6%
Ophthalmology	92310		CONTACT LENS FITTING	Other States' Average Rate	\$143.51	\$64.66	222.0%
Ophthalmology	92311		CONTACT LENS FITTING	Medicare Non-Facility Rate	\$82.06	\$111.50	73.6%
Ophthalmology	92311		CONTACT LENS FITTING	Medicare Facility Rate	\$82.06	\$53.52	153.3%
Ophthalmology	92312		CONTACT LENS FITTING	Medicare Non-Facility Rate	\$93.24	\$129.33	72.1%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Ophthalmology	92313		CONTACT LENS FITTING	Medicare Non-Facility Rate	\$79.01	\$105.69	74.8%
Ophthalmology	92314		PRESCRIPTION OF CONTACT LENS	Other States' Average Rate	\$94.72	\$75.62	125.3%
Ophthalmology	92325		MODIFICATION OF CONTACT LENS	Medicare Non-Facility Rate	\$13.50	\$49.18	27.5%
Ophthalmology	92326		REPLACEMENT OF CONTACT LENS	Medicare Non-Facility Rate	\$24.66	\$41.93	58.8%
Ophthalmology	92340		FIT SPECTACLES MONOFOCAL	Other States' Average Rate	\$17.23	\$38.18	45.1%
Ophthalmology	92341		FIT SPECTACLES BIFOCAL	Other States' Average Rate	\$21.27	\$41.68	51.0%
Ophthalmology	92341		FIT SPECTACLES BIFOCAL	Other States' Average Rate	\$21.27	\$29.61	71.8%
Ophthalmology	92342		FIT SPECTACLES MULTIFOCAL	Other States' Average Rate	\$24.13	\$46.07	52.4%
Ophthalmology	92354		FIT SPECTACLES SINGLE SYSTEM	Other States' Average Rate	\$25.25	\$11.75	214.8%
Ophthalmology	92370		REPAIR & ADJUST SPECTACLES	Other States' Average Rate	\$14.35	\$26.29	54.6%
Primary Care and E&M	99202		OFFICE O/P NEW SF 15-29 MIN	Medicare Non-Facility Rate	\$68.12	\$75.19	90.6%
Primary Care and E&M	99202		OFFICE O/P NEW SF 15-29 MIN	Medicare Facility Rate	\$68.12	\$49.46	137.7%
Primary Care and E&M	99202	FP	OFFICE O/P NEW SF 15-29 MIN	Medicare Non-Facility Rate	\$84.71	\$75.19	112.7%
Primary Care and E&M	99202	FP	OFFICE O/P NEW SF 15-29 MIN	Medicare Facility Rate	\$84.71	\$49.46	171.3%
Primary Care and E&M	99202	GT	OFFICE O/P NEW SF 15-29 MIN	Medicare Facility Rate	\$73.20	\$49.46	148.0%
Primary Care and E&M	99202	GT	OFFICE O/P NEW SF 15-29 MIN	Medicare Non-Facility Rate	\$73.20	\$75.19	97.4%
Primary Care and E&M	99203		OFFICE O/P NEW LOW 30-44 MIN	Medicare Non-Facility Rate	\$98.87	\$115.01	86.0%
Primary Care and E&M	99203		OFFICE O/P NEW LOW 30-44 MIN	Medicare Facility Rate	\$98.87	\$84.21	117.4%
Primary Care and E&M	99203	FP	OFFICE O/P NEW LOW 30-44 MIN	Medicare Facility Rate	\$84.71	\$84.21	100.6%
Primary Care and E&M	99203	FP	OFFICE O/P NEW LOW 30-44 MIN	Medicare Non-Facility Rate	\$84.71	\$115.01	73.7%
Primary Care and E&M	99203	GT	OFFICE O/P NEW LOW 30-44 MIN	Medicare Facility Rate	\$103.95	\$84.21	123.4%
Primary Care and E&M	99203	GT	OFFICE O/P NEW LOW 30-44 MIN	Medicare Non-Facility Rate	\$103.95	\$115.01	90.4%
Primary Care and E&M	99204		OFFICE O/P NEW MOD 45-59 MIN	Medicare Facility Rate	\$151.79	\$136.65	111.1%
Primary Care and E&M	99204		OFFICE O/P NEW MOD 45-59 MIN	Medicare Non-Facility Rate	\$151.79	\$171.08	88.7%
Primary Care and E&M	99204	FP	OFFICE O/P NEW MOD 45-59 MIN	Medicare Facility Rate	\$186.73	\$136.65	136.6%
Primary Care and E&M	99204	FP	OFFICE O/P NEW MOD 45-59 MIN	Medicare Non-Facility Rate	\$186.73	\$171.08	109.1%
Primary Care and E&M	99204	GT	OFFICE O/P NEW MOD 45-59 MIN	Medicare Facility Rate	\$156.87	\$136.65	114.8%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Primary Care and E&M	99204	GT	OFFICE O/P NEW MOD 45-59 MIN	Medicare Non-Facility Rate	\$156.87	\$171.08	91.7%
Primary Care and E&M	99205		OFFICE O/P NEW HI 60-74 MIN	Medicare Non-Facility Rate	\$189.08	\$226.12	83.6%
Primary Care and E&M	99205		OFFICE O/P NEW HI 60-74 MIN	Medicare Facility Rate	\$189.08	\$185.53	101.9%
Primary Care and E&M	99205	GT	OFFICE O/P NEW HI 60-74 MIN	Medicare Facility Rate	\$194.16	\$185.53	104.7%
Primary Care and E&M	99205	FP	OFFICE O/P NEW HI 60-74 MIN	Medicare Facility Rate	\$186.43	\$185.53	100.5%
Primary Care and E&M	99205	FP	OFFICE O/P NEW HI 60-74 MIN	Medicare Non-Facility Rate	\$186.43	\$226.12	82.4%
Primary Care and E&M	99205	GT	OFFICE O/P NEW HI 60-74 MIN	Medicare Non-Facility Rate	\$194.16	\$226.12	85.9%
Primary Care and E&M	99211		OFFICE O/P EST MINIMAL PROB	Medicare Non-Facility Rate	\$18.37	\$24.25	75.8%
Primary Care and E&M	99211		OFFICE O/P EST MINIMAL PROB	Medicare Facility Rate	\$18.37	\$9.04	203.2%
Primary Care and E&M	99211	FP	OFFICE O/P EST MINIMAL PROB	Medicare Facility Rate	\$23.27	\$9.04	257.4%
Primary Care and E&M	99211	FP	OFFICE O/P EST MINIMAL PROB	Medicare Non-Facility Rate	\$23.27	\$24.25	96.0%
Primary Care and E&M	99211	GT	OFFICE O/P EST MINIMAL PROB	Medicare Facility Rate	\$23.44	\$9.04	259.3%
Primary Care and E&M	99211	GT	OFFICE O/P EST MINIMAL PROB	Medicare Non-Facility Rate	\$23.44	\$24.25	96.7%
Primary Care and E&M	99212		OFFICE O/P EST SF 10-19 MIN	Medicare Facility Rate	\$39.98	\$36.61	109.2%
Primary Care and E&M	99212		OFFICE O/P EST SF 10-19 MIN	Medicare Non-Facility Rate	\$39.98	\$58.35	68.5%
Primary Care and E&M	99212	FP	OFFICE O/P EST SF 10-19 MIN	Medicare Facility Rate	\$49.91	\$36.61	136.3%
Primary Care and E&M	99212	GT	OFFICE O/P EST SF 10-19 MIN	Medicare Facility Rate	\$45.05	\$36.61	123.1%
Primary Care and E&M	99212	GT	OFFICE O/P EST SF 10-19 MIN	Medicare Non-Facility Rate	\$45.05	\$58.35	77.2%
Primary Care and E&M	99212	FP	OFFICE O/P EST SF 10-19 MIN	Medicare Non-Facility Rate	\$49.91	\$58.35	85.5%
Primary Care and E&M	99213		OFFICE O/P EST LOW 20-29 MIN	Medicare Non-Facility Rate	\$66.78	\$93.34	71.5%
Primary Care and E&M	99213		OFFICE O/P EST LOW 20-29 MIN	Medicare Facility Rate	\$66.78	\$67.62	98.8%
Primary Care and E&M	99213	FP	OFFICE O/P EST LOW 20-29 MIN	Medicare Facility Rate	\$82.75	\$67.62	122.4%
Primary Care and E&M	99213	FP	OFFICE O/P EST LOW 20-29 MIN	Medicare Non-Facility Rate	\$82.75	\$93.34	88.7%
Primary Care and E&M	99213	GT	OFFICE O/P EST LOW 20-29 MIN	Medicare Facility Rate	\$71.85	\$67.62	106.3%
Primary Care and E&M	99213	GT	OFFICE O/P EST LOW 20-29 MIN	Medicare Non-Facility Rate	\$71.85	\$93.34	77.0%
Primary Care and E&M	99214		OFFICE O/P EST MOD 30-39 MIN	Medicare Non-Facility Rate	\$98.54	\$131.65	74.8%
Primary Care and E&M	99214		OFFICE O/P EST MOD 30-39 MIN	Medicare Facility Rate	\$98.54	\$99.41	99.1%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Primary Care and E&M	99214	FP	OFFICE O/P EST MOD 30-39 MIN	Medicare Facility Rate	\$121.41	\$99.41	122.1%
Primary Care and E&M	99214	FP	OFFICE O/P EST MOD 30-39 MIN	Medicare Non-Facility Rate	\$121.41	\$131.65	92.2%
Primary Care and E&M	99214	GT	OFFICE O/P EST MOD 30-39 MIN	Medicare Facility Rate	\$103.62	\$99.41	104.2%
Primary Care and E&M	99214	GT	OFFICE O/P EST MOD 30-39 MIN	Medicare Non-Facility Rate	\$103.62	\$131.65	78.7%
Primary Care and E&M	99215		OFFICE O/P EST HI 40-54 MIN	Medicare Non-Facility Rate	\$131.91	\$185.18	71.2%
Primary Care and E&M	99215		OFFICE O/P EST HI 40-54 MIN	Medicare Facility Rate	\$131.91	\$147.50	89.4%
Primary Care and E&M	99215	FP	OFFICE O/P EST HI 40-54 MIN	Medicare Non-Facility Rate	\$165.78	\$185.18	89.5%
Primary Care and E&M	99215	FP	OFFICE O/P EST HI 40-54 MIN	Medicare Facility Rate	\$165.78	\$147.50	112.4%
Primary Care and E&M	99215	GT	OFFICE O/P EST HI 40-54 MIN	Medicare Facility Rate	\$136.98	\$147.50	92.9%
Primary Care and E&M	99215	GT	OFFICE O/P EST HI 40-54 MIN	Medicare Non-Facility Rate	\$136.98	\$185.18	74.0%
Primary Care and E&M	99217		OBSERVATION CARE DISCHARGE	Medicare Facility Rate	\$58.06	\$72.09	80.5%
Primary Care and E&M	99218		INITIAL OBSERVATION CARE	Medicare Facility Rate	\$54.56	\$97.74	55.8%
Primary Care and E&M	99219		INITIAL OBSERVATION CARE	Medicare Facility Rate	\$89.69	\$132.69	67.6%
Primary Care and E&M	99220		INITIAL OBSERVATION CARE	Medicare Facility Rate	\$126.17	\$179.23	70.4%
Primary Care and E&M	99221		INITIAL HOSPITAL CARE	Medicare Facility Rate	\$76.18	\$100.35	75.9%
Primary Care and E&M	99222		INITIAL HOSPITAL CARE	Medicare Facility Rate	\$104.84	\$135.38	77.4%
Primary Care and E&M	99223		INITIAL HOSPITAL CARE	Medicare Facility Rate	\$154.18	\$198.66	77.6%
Primary Care and E&M	99224		SUBSEQUENT OBSERVATION CARE	Medicare Facility/Non-Facility Rate	\$21.50	\$39.05	55.1%
Primary Care and E&M	99225		SUBSEQUENT OBSERVATION CARE	Medicare Facility/Non-Facility Rate	\$38.15	\$71.10	53.7%
Primary Care and E&M	99226		SUBSEQUENT OBSERVATION CARE	Medicare Facility/Non-Facility Rate	\$57.05	\$101.45	56.2%
Primary Care and E&M	99231		SUBSEQUENT HOSPITAL CARE	Medicare Facility Rate	\$31.76	\$38.69	82.1%
Primary Care and E&M	99232		SUBSEQUENT HOSPITAL CARE	Medicare Facility/Non-Facility Rate	\$56.84	\$71.46	79.5%
Primary Care and E&M	99233		SUBSEQUENT HOSPITAL CARE	Medicare Facility Rate	\$81.45	\$102.71	79.3%
Primary Care and E&M	99234		OBSERV/HOSP SAME DATE	Medicare Facility Rate	\$109.39	\$130.39	83.9%
Primary Care and E&M	99235		OBSERV/HOSP SAME DATE	Medicare Facility Rate	\$144.27	\$165.71	87.1%
Primary Care and E&M	99236		OBSERV/HOSP SAME DATE	Medicare Facility Rate	\$179.46	\$212.05	84.6%
Primary Care and E&M	99238		HOSPITAL DISCHARGE DAY	Medicare Facility/Non-Facility Rate	\$58.14	\$72.45	80.2%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Primary Care and E&M	99239		HOSPITAL DISCHARGE DAY	Medicare Facility Rate	\$83.44	\$105.96	78.7%
Primary Care and E&M	99245		OFFICE CONSULTATION	Other States' Average Rate	\$206.11	\$187.14	110.1%
Primary Care and E&M	99245		OFFICE CONSULTATION	Other States' Average Rate	\$206.11	\$174.21	118.3%
Primary Care and E&M	99281		EMERGENCY DEPT VISIT	Medicare Facility/Non-Facility Rate	\$17.39	\$21.94	79.3%
Primary Care and E&M	99282		EMERGENCY DEPT VISIT	Medicare Facility/Non-Facility Rate	\$32.70	\$42.48	77.0%
Primary Care and E&M	99283		EMERGENCY DEPT VISIT	Medicare Facility/Non-Facility Rate	\$52.56	\$72.16	72.8%
Primary Care and E&M	99284		EMERGENCY DEPT VISIT	Medicare Facility/Non-Facility Rate	\$97.20	\$121.91	79.7%
Primary Care and E&M	99285		EMERGENCY DEPT VISIT	Medicare Facility Rate	\$144.90	\$176.89	81.9%
Primary Care and E&M	99291		CRITICAL CARE FIRST HOUR	Medicare Non-Facility Rate	\$225.21	\$284.52	79.2%
Primary Care and E&M	99291		CRITICAL CARE FIRST HOUR	Medicare Facility Rate	\$225.21	\$218.22	103.2%
Primary Care and E&M	99292		CRITICAL CARE ADDL 30 MIN	Medicare Facility Rate	\$100.28	\$109.60	91.5%
Primary Care and E&M	99304		NURSING FACILITY CARE INIT	Medicare Facility/Non-Facility Rate	\$69.01	\$89.44	77.2%
Primary Care and E&M	99305		NURSING FACILITY CARE INIT	Medicare Facility/Non-Facility Rate	\$95.92	\$129.33	74.2%
Primary Care and E&M	99306		NURSING FACILITY CARE INIT	Medicare Facility/Non-Facility Rate	\$122.81	\$165.66	74.1%
Primary Care and E&M	99307		NURSING FAC CARE SUBSEQ	Medicare Facility/Non-Facility Rate	\$34.11	\$43.96	77.6%
Primary Care and E&M	99308		NURSING FAC CARE SUBSEQ	Medicare Facility/Non-Facility Rate	\$52.42	\$69.38	75.6%
Primary Care and E&M	99309		NURSING FAC CARE SUBSEQ	Medicare Facility/Non-Facility Rate	\$69.96	\$91.49	76.5%
Primary Care and E&M	99310		NURSING FAC CARE SUBSEQ	Medicare Facility/Non-Facility Rate	\$102.44	\$134.76	76.0%
Primary Care and E&M	99315		NURSING FAC DISCHARGE DAY	Medicare Facility/Non-Facility Rate	\$50.92	\$72.82	69.9%
Primary Care and E&M	99316		NURSING FAC DISCHARGE DAY	Medicare Facility/Non-Facility Rate	\$66.50	\$104.25	63.8%
Primary Care and E&M	99318		ANNUAL NURSING FAC ASSESSMNT	Medicare Facility/Non-Facility Rate	\$72.15	\$95.85	75.3%
Primary Care and E&M	99324		DOMICIL/R-HOME VISIT NEW PAT	Medicare Non-Facility Rate	\$48.19	\$54.43	88.5%
Primary Care and E&M	99325		DOMICIL/R-HOME VISIT NEW PAT	Medicare Facility/Non-Facility Rate	\$69.87	\$79.32	88.1%
Primary Care and E&M	99326		DOMICIL/R-HOME VISIT NEW PAT	Medicare Non-Facility Rate	\$113.33	\$137.77	82.3%
Primary Care and E&M	99327		DOMICIL/R-HOME VISIT NEW PAT	Medicare Non-Facility Rate	\$147.13	\$185.31	79.4%
Primary Care and E&M	99328		DOMICIL/R-HOME VISIT NEW PAT	Medicare Non-Facility Rate	\$173.91	\$217.88	79.8%
Primary Care and E&M	99334		DOMICIL/R-HOME VISIT EST PAT	Medicare Facility/Non-Facility Rate	\$48.27	\$61.03	79.1%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Primary Care and E&M	99335		DOMICIL/R-HOME VISIT EST PAT	Medicare Non-Facility Rate	\$74.13	\$95.93	77.3%
Primary Care and E&M	99336		DOMICIL/R-HOME VISIT EST PAT	Medicare Non-Facility Rate	\$105.08	\$135.67	77.5%
Primary Care and E&M	99337		DOMICIL/R-HOME VISIT EST PAT	Medicare Non-Facility Rate	\$150.60	\$193.99	77.6%
Primary Care and E&M	99341		HOME VISIT NEW PATIENT	Medicare Non-Facility Rate	\$50.62	\$54.43	93.0%
Primary Care and E&M	99342		HOME VISIT NEW PATIENT	Medicare Non-Facility Rate	\$69.87	\$77.24	90.5%
Primary Care and E&M	99343		HOME VISIT NEW PATIENT	Medicare Non-Facility Rate	\$110.56	\$125.61	88.0%
Primary Care and E&M	99344		HOME VISIT NEW PATIENT	Medicare Non-Facility Rate	\$144.68	\$180.90	80.0%
Primary Care and E&M	99345		HOME VISIT NEW PATIENT	Medicare Non-Facility Rate	\$173.91	\$219.04	79.4%
Primary Care and E&M	99347		HOME VISIT EST PATIENT	Medicare Non-Facility Rate	\$45.83	\$55.17	83.1%
Primary Care and E&M	99348		HOME VISIT EST PATIENT	Medicare Non-Facility Rate	\$68.90	\$83.60	82.4%
Primary Care and E&M	99349		HOME VISIT EST PATIENT	Medicare Non-Facility Rate	\$100.58	\$129.00	78.0%
Primary Care and E&M	99350		HOME VISIT EST PATIENT	Medicare Non-Facility Rate	\$140.85	\$178.42	78.9%
Primary Care and E&M	99354		PROLNG SVC O/P 1ST HOUR	Medicare Non-Facility Rate	\$80.27	\$129.07	62.2%
Primary Care and E&M	99354		PROLNG SVC O/P 1ST HOUR	Medicare Facility Rate	\$80.27	\$120.37	66.7%
Primary Care and E&M	99355		PROLNG SVC O/P EA ADDL 30	Medicare Non-Facility Rate	\$78.95	\$93.22	84.7%
Primary Care and E&M	99355		PROLNG SVC O/P EA ADDL 30	Medicare Facility Rate	\$78.95	\$84.89	93.0%
Primary Care and E&M	99356		PROLNG SVC I/P/OBS 1ST HOUR	Medicare Facility/Non-Facility Rate	\$73.10	\$90.78	80.5%
Primary Care and E&M	99357		PROLNG SVC I/P/OBS EA ADDL	Medicare Facility Rate	\$73.34	\$91.14	80.5%
Primary Care and E&M	99360		PHYSICIAN STANDBY SERVICES	Other States' Average Rate	\$58.51	\$54.03	108.3%
Primary Care and E&M	99381		INIT PM E/M NEW PAT INFANT	Other States' Average Rate	\$102.18	\$93.82	108.9%
Primary Care and E&M	99381		INIT PM E/M NEW PAT INFANT	Other States' Average Rate	\$102.18	\$76.87	132.9%
Primary Care and E&M	99382		INIT PM E/M NEW PAT 1-4 YRS	Other States' Average Rate	\$106.47	\$97.95	108.7%
Primary Care and E&M	99382		INIT PM E/M NEW PAT 1-4 YRS	Other States' Average Rate	\$106.47	\$80.99	131.5%
Primary Care and E&M	99383		PREV VISIT NEW AGE 5-11	Other States' Average Rate	\$111.07	\$85.28	130.2%
Primary Care and E&M	99383		PREV VISIT NEW AGE 5-11	Other States' Average Rate	\$111.07	\$101.89	109.0%
Primary Care and E&M	99384		PREV VISIT NEW AGE 12-17	Other States' Average Rate	\$125.56	\$114.73	109.4%
Primary Care and E&M	99384		PREV VISIT NEW AGE 12-17	Other States' Average Rate	\$125.56	\$98.12	128.0%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Primary Care and E&M	99385		PREV VISIT NEW AGE 18-39	Other States' Average Rate	\$121.93	\$115.73	105.4%
Primary Care and E&M	99385		PREV VISIT NEW AGE 18-39	Other States' Average Rate	\$121.93	\$95.63	127.5%
Primary Care and E&M	99386		PREV VISIT NEW AGE 40-64	Other States' Average Rate	\$140.66	\$134.77	104.4%
Primary Care and E&M	99386		PREV VISIT NEW AGE 40-64	Other States' Average Rate	\$140.66	\$111.52	126.1%
Primary Care and E&M	99387		INIT PM E/M NEW PAT 65+ YRS	Other States' Average Rate	\$152.86	\$145.86	104.8%
Primary Care and E&M	99387		INIT PM E/M NEW PAT 65+ YRS	Other States' Average Rate	\$152.86	\$112.15	136.3%
Primary Care and E&M	99391		PER PM REEVAL EST PAT INFANT	Other States' Average Rate	\$91.94	\$84.37	109.0%
Primary Care and E&M	99391		PER PM REEVAL EST PAT INFANT	Other States' Average Rate	\$91.94	\$69.58	132.1%
Primary Care and E&M	99392		PREV VISIT EST AGE 1-4	Other States' Average Rate	\$98.21	\$90.16	108.9%
Primary Care and E&M	99392		PREV VISIT EST AGE 1-4	Other States' Average Rate	\$98.21	\$75.36	130.3%
Primary Care and E&M	99393		PREV VISIT EST AGE 5-11	Other States' Average Rate	\$97.89	\$89.86	108.9%
Primary Care and E&M	99393		PREV VISIT EST AGE 5-11	Other States' Average Rate	\$97.89	\$75.24	130.1%
Primary Care and E&M	99394		PREV VISIT EST AGE 12-17	Other States' Average Rate	\$107.10	\$83.82	127.8%
Primary Care and E&M	99394		PREV VISIT EST AGE 12-17	Other States' Average Rate	\$107.10	\$98.45	108.8%
Primary Care and E&M	99395		PREV VISIT EST AGE 18-39	Other States' Average Rate	\$109.41	\$101.31	108.0%
Primary Care and E&M	99395		PREV VISIT EST AGE 18-39	Other States' Average Rate	\$109.41	\$84.63	129.3%
Primary Care and E&M	99396		PREV VISIT EST AGE 40-64	Other States' Average Rate	\$116.63	\$110.33	105.7%
Primary Care and E&M	99396		PREV VISIT EST AGE 40-64	Other States' Average Rate	\$116.63	\$90.57	128.8%
Primary Care and E&M	99397		PER PM REEVAL EST PAT 65+ YR	Other States' Average Rate	\$125.56	\$117.92	106.5%
Primary Care and E&M	99397		PER PM REEVAL EST PAT 65+ YR	Other States' Average Rate	\$125.56	\$95.70	131.2%
Primary Care and E&M	99401		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$33.62	\$28.43	118.2%
Primary Care and E&M	99401		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$33.62	\$34.54	97.3%
Primary Care and E&M	99402		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$57.64	\$41.89	137.6%
Primary Care and E&M	99402		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$57.64	\$54.11	106.5%
Primary Care and E&M	99403		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$80.32	\$62.34	128.8%
Primary Care and E&M	99403		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$80.32	\$74.56	107.7%
Primary Care and E&M	99404		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$103.03	\$82.78	124.5%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Primary Care and E&M	99404		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$103.03	\$95.00	108.5%
Primary Care and E&M	99406		BEHAV CHNG SMOKING 3-10 MIN	Medicare Facility Rate	\$12.74	\$12.11	105.2%
Primary Care and E&M	99406		BEHAV CHNG SMOKING 3-10 MIN	Medicare Non-Facility Rate	\$12.74	\$15.73	81.0%
Primary Care and E&M	99406	HD	BEHAV CHNG SMOKING 3-10 MIN	Medicare Non-Facility Rate	\$11.11	\$15.73	70.6%
Primary Care and E&M	99406	HD	BEHAV CHNG SMOKING 3-10 MIN	Medicare Facility Rate	\$11.11	\$12.11	91.7%
Primary Care and E&M	99407		BEHAV CHNG SMOKING > 10 MIN	Medicare Facility Rate	\$25.17	\$25.63	98.2%
Primary Care and E&M	99407		BEHAV CHNG SMOKING > 10 MIN	Medicare Non-Facility Rate	\$25.17	\$28.89	87.1%
Primary Care and E&M	99407	HD	BEHAV CHNG SMOKING > 10 MIN	Medicare Non-Facility Rate	\$10.79	\$28.89	37.3%
Primary Care and E&M	99408		AUDIT/DAST 15-30 MIN	Other States' Average Rate	\$32.76	\$29.18	112.3%
Primary Care and E&M	99408		AUDIT/DAST 15-30 MIN	Other States' Average Rate	\$32.76	\$30.43	107.7%
Primary Care and E&M	99409		AUDIT/DAST OVER 30 MIN	Other States' Average Rate	\$67.05	\$56.57	118.5%
Primary Care and E&M	99409		AUDIT/DAST OVER 30 MIN	Other States' Average Rate	\$67.05	\$57.36	116.9%
Primary Care and E&M	99411		PREVENTIVE COUNSELING GROUP	Other States' Average Rate	\$15.17	\$16.52	91.8%
Primary Care and E&M	99412		PREVENTIVE COUNSELING GROUP	Other States' Average Rate	\$19.79	\$10.67	185.5%
Primary Care and E&M	99415		PROLONG CLINCL STAFF SVC	Medicare Non-Facility Rate	\$7.22	\$10.77	67.0%
Primary Care and E&M	99416		PROLONG CLINCL STAFF SVC ADD	Medicare Non-Facility Rate	\$4.04	\$6.16	65.6%
Primary Care and E&M	99441		PHONE E/M PHYS/QHP 5-10 MIN	Medicare Facility Rate	\$14.73	\$36.08	40.8%
Primary Care and E&M	99441		PHONE E/M PHYS/QHP 5-10 MIN	Medicare Non-Facility Rate	\$14.73	\$57.82	25.5%
Primary Care and E&M	99442		PHONE E/M PHYS/QHP 11-20 MIN	Medicare Facility Rate	\$28.67	\$67.35	42.6%
Primary Care and E&M	99442		PHONE E/M PHYS/QHP 11-20 MIN	Medicare Non-Facility Rate	\$28.67	\$93.08	30.8%
Primary Care and E&M	99443		PHONE E/M PHYS/QHP 21-30 MIN	Medicare Facility Rate	\$41.94	\$99.41	42.2%
Primary Care and E&M	99443		PHONE E/M PHYS/QHP 21-30 MIN	Medicare Non-Facility Rate	\$41.94	\$131.65	31.9%
Primary Care and E&M	99460		INIT NB EM PER DAY HOSP	Medicare Facility/Non-Facility Rate	\$89.64	\$95.42	93.9%
Primary Care and E&M	99461		INIT NB EM PER DAY NON-FAC	Medicare Non-Facility Rate	\$93.21	\$94.95	98.2%
Primary Care and E&M	99462		SBSQ NB EM PER DAY HOSP	Medicare Facility Rate	\$39.90	\$42.19	94.6%
Primary Care and E&M	99463		SAME DAY NB DISCHARGE	Medicare Facility/Non-Facility Rate	\$108.61	\$110.30	98.5%
Primary Care and E&M	99464		ATTENDANCE AT DELIVERY	Medicare Facility/Non-Facility Rate	\$67.29	\$74.91	89.8%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Primary Care and E&M	99465		NB RESUSCITATION	Medicare Facility/Non-Facility Rate	\$139.97	\$145.94	95.9%
Primary Care and E&M	99468		NEONATE CRIT CARE INITIAL	Medicare Facility Rate	\$884.38	\$918.76	96.3%
Primary Care and E&M	99469		NEONATE CRIT CARE SUBSQ	Medicare Facility Rate	\$409.05	\$398.00	102.8%
Primary Care and E&M	99471		PED CRITICAL CARE INITIAL	Medicare Facility Rate	\$810.03	\$795.47	101.8%
Primary Care and E&M	99472		PED CRITICAL CARE SUBSQ	Medicare Facility Rate	\$381.14	\$405.39	94.0%
Primary Care and E&M	99475		PED CRIT CARE AGE 2-5 INIT	Medicare Facility Rate	\$546.43	\$571.43	95.6%
Primary Care and E&M	99476		PED CRIT CARE AGE 2-5 SUBSQ	Medicare Facility Rate	\$330.36	\$342.75	96.4%
Primary Care and E&M	99477		INIT DAY HOSP NEONATE CARE	Medicare Facility Rate	\$329.07	\$347.91	94.6%
Primary Care and E&M	99478		IC LBW INF < 1500 GM SUBSQ	Medicare Facility Rate	\$130.52	\$137.26	95.1%
Primary Care and E&M	99479		IC LBW INF 1500-2500 G SUBSQ	Medicare Facility Rate	\$118.35	\$125.08	94.6%
Primary Care and E&M	99480		IC INF PBW 2501-5000 G SUBSQ	Medicare Facility Rate	\$113.96	\$119.90	95.0%
Primary Care and E&M	99485		SUPRV INTERFACILITY TRANSPORT	Other States' Average Rate	\$73.47	\$68.45	107.3%
Primary Care and E&M	99486		SUPRV INTERFAC TRNSPORT ADDL	Other States' Average Rate	\$63.93	\$59.26	107.9%
Primary Care and E&M	99497		ADVNCd CARE PLAN 30 MIN	Medicare Non-Facility Rate	\$41.99	\$86.14	48.7%
Primary Care and E&M	99497		ADVNCd CARE PLAN 30 MIN	Medicare Facility Rate	\$41.99	\$78.17	53.7%
Radiology	70100		X-RAY EXAM OF JAW <4VIEWS	Medicare Non-Facility Rate	\$28.60	\$41.19	69.4%
Radiology	70100	26	X-RAY EXAM OF JAW <4VIEWS	Medicare Facility/Non-Facility Rate	\$8.60	\$9.04	95.1%
Radiology	70100	TC	X-RAY EXAM OF JAW <4VIEWS	Medicare Non-Facility Rate	\$19.99	\$32.15	62.2%
Radiology	70110		X-RAY EXAM OF JAW 4/> VIEWS	Medicare Non-Facility Rate	\$32.49	\$46.87	69.3%
Radiology	70110	26	X-RAY EXAM OF JAW 4/> VIEWS	Medicare Facility/Non-Facility Rate	\$11.38	\$12.19	93.4%
Radiology	70110	TC	X-RAY EXAM OF JAW 4/> VIEWS	Medicare Non-Facility Rate	\$21.12	\$34.69	60.9%
Radiology	70130		X-RAY EXAM OF MASTOIDS	Medicare Non-Facility Rate	\$40.62	\$67.29	60.4%
Radiology	70130	26	X-RAY EXAM OF MASTOIDS	Medicare Facility Rate	\$16.26	\$17.02	95.5%
Radiology	70140		X-RAY EXAM OF FACIAL BONES	Medicare Non-Facility Rate	\$19.51	\$34.29	56.9%
Radiology	70140	26	X-RAY EXAM OF FACIAL BONES	Medicare Facility/Non-Facility Rate	\$8.13	\$10.11	80.4%
Radiology	70140	TC	X-RAY EXAM OF FACIAL BONES	Medicare Non-Facility Rate	\$11.38	\$24.18	47.1%
Radiology	70150		X-RAY EXAM OF FACIAL BONES	Medicare Non-Facility Rate	\$32.49	\$50.84	63.9%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	70150	26	X-RAY EXAM OF FACIAL BONES	Medicare Facility/Non-Facility Rate	\$11.38	\$12.90	88.2%
Radiology	70150	TC	X-RAY EXAM OF FACIAL BONES	Medicare Non-Facility Rate	\$21.12	\$37.95	55.7%
Radiology	70160		X-RAY EXAM OF NASAL BONES	Medicare Non-Facility Rate	\$24.38	\$40.84	59.7%
Radiology	70160	26	X-RAY EXAM OF NASAL BONES	Medicare Facility/Non-Facility Rate	\$8.13	\$8.69	93.6%
Radiology	70160	TC	X-RAY EXAM OF NASAL BONES	Medicare Non-Facility Rate	\$16.26	\$32.15	50.6%
Radiology	70190		X-RAY EXAM OF EYE SOCKETS	Medicare Non-Facility Rate	\$24.38	\$40.78	59.8%
Radiology	70200		X-RAY EXAM OF EYE SOCKETS	Medicare Non-Facility Rate	\$32.49	\$51.90	62.6%
Radiology	70200	26	X-RAY EXAM OF EYE SOCKETS	Medicare Facility/Non-Facility Rate	\$11.38	\$13.95	81.6%
Radiology	70200	TC	X-RAY EXAM OF EYE SOCKETS	Medicare Non-Facility Rate	\$21.12	\$37.95	55.7%
Radiology	70210		X-RAY EXAM OF SINUSES	Medicare Non-Facility Rate	\$15.45	\$34.68	44.6%
Radiology	70210	26	X-RAY EXAM OF SINUSES	Medicare Facility/Non-Facility Rate	\$4.88	\$8.69	56.2%
Radiology	70210	TC	X-RAY EXAM OF SINUSES	Medicare Non-Facility Rate	\$10.56	\$25.99	40.6%
Radiology	70220		X-RAY EXAM OF SINUSES	Medicare Non-Facility Rate	\$24.38	\$40.40	60.3%
Radiology	70220	26	X-RAY EXAM OF SINUSES	Medicare Facility/Non-Facility Rate	\$8.13	\$10.79	75.3%
Radiology	70220	TC	X-RAY EXAM OF SINUSES	Medicare Non-Facility Rate	\$16.26	\$29.61	54.9%
Radiology	70240		X-RAY EXAM PITUITARY SADDLE	Medicare Facility Rate	\$16.26	\$35.37	46.0%
Radiology	70250		X-RAY EXAM OF SKULL	Medicare Non-Facility Rate	\$20.32	\$38.29	53.1%
Radiology	70250	26	X-RAY EXAM OF SKULL	Medicare Facility/Non-Facility Rate	\$6.50	\$9.04	71.9%
Radiology	70250	TC	X-RAY EXAM OF SKULL	Medicare Non-Facility Rate	\$13.80	\$29.25	47.2%
Radiology	70260		X-RAY EXAM OF SKULL	Medicare Non-Facility Rate	\$40.62	\$47.91	84.8%
Radiology	70260	26	X-RAY EXAM OF SKULL	Medicare Facility/Non-Facility Rate	\$13.00	\$13.95	93.2%
Radiology	70260	TC	X-RAY EXAM OF SKULL	Medicare Non-Facility Rate	\$27.63	\$33.96	81.4%
Radiology	70328	26	X-RAY EXAM OF JAW JOINT	Medicare Facility/Non-Facility Rate	\$4.88	\$9.04	54.0%
Radiology	70328		X-RAY EXAM OF JAW JOINT	Medicare Non-Facility Rate	\$16.26	\$37.20	43.7%
Radiology	70330		X-RAY EXAM OF JAW JOINTS	Medicare Non-Facility Rate	\$32.49	\$57.40	56.6%
Radiology	70330	26	X-RAY EXAM OF JAW JOINTS	Medicare Facility/Non-Facility Rate	\$11.38	\$11.84	96.1%
Radiology	70330	TC	X-RAY EXAM OF JAW JOINTS	Medicare Non-Facility Rate	\$21.12	\$45.56	46.4%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	70336		MAGNETIC IMAGE JAW JOINT	Medicare Facility/Non-Facility Rate	\$149.50	\$301.75	49.5%
Radiology	70336	26	MAGNETIC IMAGE JAW JOINT	Medicare Facility Rate	\$32.49	\$72.23	45.0%
Radiology	70355	26	PANORAMIC X-RAY OF JAWS	Medicare Facility Rate	\$8.60	\$10.09	85.2%
Radiology	70355	TC	PANORAMIC X-RAY OF JAWS	Medicare Non-Facility Rate	\$11.70	\$8.60	136.0%
Radiology	70360		X-RAY EXAM OF NECK	Medicare Non-Facility Rate	\$16.26	\$33.58	48.4%
Radiology	70360	26	X-RAY EXAM OF NECK	Medicare Facility/Non-Facility Rate	\$4.88	\$9.04	54.0%
Radiology	70360	TC	X-RAY EXAM OF NECK	Medicare Facility/Non-Facility Rate	\$11.38	\$24.54	46.4%
Radiology	70450		CT HEAD/BRAIN W/O DYE	Medicare Facility/Non-Facility Rate	\$206.36	\$116.64	176.9%
Radiology	70450	26	CT HEAD/BRAIN W/O DYE	Medicare Facility/Non-Facility Rate	\$41.93	\$41.38	101.3%
Radiology	70450	TC	CT HEAD/BRAIN W/O DYE	Medicare Non-Facility Rate	\$162.49	\$75.27	215.9%
Radiology	70460		CT HEAD/BRAIN W/DYE	Medicare Non-Facility Rate	\$255.11	\$164.29	155.3%
Radiology	70460	26	CT HEAD/BRAIN W/DYE	Medicare Facility/Non-Facility Rate	\$55.48	\$55.33	100.3%
Radiology	70460	TC	CT HEAD/BRAIN W/DYE	Medicare Non-Facility Rate	\$184.42	\$108.96	169.3%
Radiology	70470		CT HEAD/BRAIN W/O & W/DYE	Medicare Non-Facility Rate	\$255.11	\$193.22	132.0%
Radiology	70470	26	CT HEAD/BRAIN W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$62.39	\$62.52	99.8%
Radiology	70470	TC	CT HEAD/BRAIN W/O & W/DYE	Medicare Non-Facility Rate	\$184.42	\$130.70	141.1%
Radiology	70480		CT ORBIT/EAR/FOSSA W/O DYE	Medicare Non-Facility Rate	\$173.87	\$175.45	99.1%
Radiology	70480	26	CT ORBIT/EAR/FOSSA W/O DYE	Medicare Facility/Non-Facility Rate	\$43.88	\$62.87	69.8%
Radiology	70480	TC	CT ORBIT/EAR/FOSSA W/O DYE	Medicare Non-Facility Rate	\$130.00	\$112.59	115.5%
Radiology	70481		CT ORBIT/EAR/FOSSA W/DYE	Medicare Non-Facility Rate	\$255.11	\$201.25	126.8%
Radiology	70481	26	CT ORBIT/EAR/FOSSA W/DYE	Medicare Facility Rate	\$67.66	\$54.96	123.1%
Radiology	70482		CT ORBIT/EAR/FOSSA W/O&W/DYE	Medicare Non-Facility Rate	\$255.11	\$236.60	107.8%
Radiology	70482	26	CT ORBIT/EAR/FOSSA W/O&W/DYE	Medicare Facility Rate	\$68.25	\$62.16	109.8%
Radiology	70486		CT MAXILLOFACIAL W/O DYE	Medicare Facility/Non-Facility Rate	\$173.87	\$141.64	122.8%
Radiology	70486	26	CT MAXILLOFACIAL W/O DYE	Medicare Facility/Non-Facility Rate	\$43.88	\$41.74	105.1%
Radiology	70486	TC	CT MAXILLOFACIAL W/O DYE	Medicare Non-Facility Rate	\$130.00	\$99.91	130.1%
Radiology	70487		CT MAXILLOFACIAL W/DYE	Medicare Non-Facility Rate	\$255.11	\$168.64	151.3%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	70487	26	CT MAXILLOFACIAL W/DYE	Medicare Facility/Non-Facility Rate	\$64.20	\$54.96	116.8%
Radiology	70487	TC	CT MAXILLOFACIAL W/DYE	Medicare Non-Facility Rate	\$186.87	\$113.67	164.4%
Radiology	70488		CT MAXILLOFACIAL W/O & W/DYE	Medicare Non-Facility Rate	\$255.11	\$206.27	123.7%
Radiology	70488	26	CT MAXILLOFACIAL W/O & W/DYE	Medicare Facility Rate	\$68.25	\$62.16	109.8%
Radiology	70490		CT SOFT TISSUE NECK W/O DYE	Medicare Non-Facility Rate	\$206.36	\$166.03	124.3%
Radiology	70490	26	CT SOFT TISSUE NECK W/O DYE	Medicare Facility/Non-Facility Rate	\$43.88	\$62.87	69.8%
Radiology	70490	TC	CT SOFT TISSUE NECK W/O DYE	Medicare Non-Facility Rate	\$162.49	\$103.17	157.5%
Radiology	70491		CT SOFT TISSUE NECK W/DYE	Medicare Facility/Non-Facility Rate	\$255.11	\$205.37	124.2%
Radiology	70491	26	CT SOFT TISSUE NECK W/DYE	Medicare Facility/Non-Facility Rate	\$67.66	\$67.78	99.8%
Radiology	70491	TC	CT SOFT TISSUE NECK W/DYE	Medicare Non-Facility Rate	\$184.42	\$137.59	134.0%
Radiology	70492		CT SFT TSUE NCK W/O & W/DYE	Medicare Non-Facility Rate	\$255.11	\$247.09	103.2%
Radiology	70492	26	CT SFT TSUE NCK W/O & W/DYE	Medicare Facility Rate	\$70.67	\$79.16	89.3%
Radiology	70496		CT ANGIOGRAPHY HEAD	Medicare Non-Facility Rate	\$320.84	\$306.83	104.6%
Radiology	70496	26	CT ANGIOGRAPHY HEAD	Medicare Facility/Non-Facility Rate	\$81.15	\$85.47	94.9%
Radiology	70496	TC	CT ANGIOGRAPHY HEAD	Medicare Non-Facility Rate	\$239.68	\$221.36	108.3%
Radiology	70498		CT ANGIOGRAPHY NECK	Medicare Non-Facility Rate	\$320.84	\$306.47	104.7%
Radiology	70498	26	CT ANGIOGRAPHY NECK	Medicare Facility/Non-Facility Rate	\$81.15	\$85.47	94.9%
Radiology	70498	TC	CT ANGIOGRAPHY NECK	Medicare Non-Facility Rate	\$239.68	\$220.99	108.5%
Radiology	70540		MRI ORBIT/FACE/NECK W/O DYE	Medicare Non-Facility Rate	\$399.07	\$255.68	156.1%
Radiology	70540	26	MRI ORBIT/FACE/NECK W/O DYE	Medicare Facility/Non-Facility Rate	\$65.89	\$66.01	99.8%
Radiology	70540	TC	MRI ORBIT/FACE/NECK W/O DYE	Medicare Non-Facility Rate	\$333.19	\$189.67	175.7%
Radiology	70542	26	MRI ORBIT/FACE/NECK W/DYE	Medicare Facility Rate	\$52.72	\$79.26	66.5%
Radiology	70543		MRI ORBT/FAC/NCK W/O & W/DYE	Medicare Non-Facility Rate	\$618.51	\$382.91	161.5%
Radiology	70543	26	MRI ORBT/FAC/NCK W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$71.01	\$104.67	67.8%
Radiology	70543	TC	MRI ORBT/FAC/NCK W/O & W/DYE	Medicare Non-Facility Rate	\$513.46	\$278.24	184.5%
Radiology	70544		MR ANGIOGRAPHY HEAD W/O DYE	Medicare Facility/Non-Facility Rate	\$390.62	\$241.79	161.6%
Radiology	70544	26	MR ANGIOGRAPHY HEAD W/O DYE	Medicare Facility/Non-Facility Rate	\$54.76	\$59.01	92.8%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	70544	TC	MR ANGIOGRAPHY HEAD W/O DYE	Medicare Non-Facility Rate	\$331.88	\$182.78	181.6%
Radiology	70545		MR ANGIOGRAPHY HEAD W/DYE	Medicare Non-Facility Rate	\$427.99	\$255.19	167.7%
Radiology	70545	26	MR ANGIOGRAPHY HEAD W/DYE	Medicare Facility/Non-Facility Rate	\$54.76	\$58.64	93.4%
Radiology	70546		MR ANGIOGRAPH HEAD W/O&W/DYE	Medicare Non-Facility Rate	\$604.29	\$370.76	163.0%
Radiology	70546	26	MR ANGIOGRAPH HEAD W/O&W/DYE	Medicare Facility/Non-Facility Rate	\$81.08	\$72.60	111.7%
Radiology	70547		MR ANGIOGRAPHY NECK W/O DYE	Medicare Non-Facility Rate	\$390.45	\$242.51	161.0%
Radiology	70547	26	MR ANGIOGRAPHY NECK W/O DYE	Medicare Facility/Non-Facility Rate	\$54.76	\$59.01	92.8%
Radiology	70547	TC	MR ANGIOGRAPHY NECK W/O DYE	Medicare Non-Facility Rate	\$331.80	\$183.51	180.8%
Radiology	70548	26	MR ANGIOGRAPHY NECK W/DYE	Medicare Facility Rate	\$54.76	\$73.65	74.4%
Radiology	70549		MR ANGIOGRAPH NECK W/O&W/DYE	Medicare Non-Facility Rate	\$604.29	\$388.27	155.6%
Radiology	70549	26	MR ANGIOGRAPH NECK W/O&W/DYE	Medicare Facility/Non-Facility Rate	\$81.08	\$88.29	91.8%
Radiology	70551		MRI BRAIN STEM W/O DYE	Medicare Facility/Non-Facility Rate	\$404.19	\$218.78	184.7%
Radiology	70551	26	MRI BRAIN STEM W/O DYE	Medicare Facility/Non-Facility Rate	\$72.48	\$72.60	99.8%
Radiology	70551	TC	MRI BRAIN STEM W/O DYE	Medicare Non-Facility Rate	\$331.80	\$146.19	227.0%
Radiology	70552		MRI BRAIN STEM W/DYE	Medicare Non-Facility Rate	\$492.34	\$303.35	162.3%
Radiology	70552	26	MRI BRAIN STEM W/DYE	Medicare Facility Rate	\$82.05	\$87.24	94.1%
Radiology	70552	TC	MRI BRAIN STEM W/DYE	Medicare Non-Facility Rate	\$410.28	\$216.12	189.8%
Radiology	70553		MRI BRAIN STEM W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$624.51	\$357.59	174.6%
Radiology	70553	26	MRI BRAIN STEM W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$100.42	\$111.96	89.7%
Radiology	70553	TC	MRI BRAIN STEM W/O & W/DYE	Medicare Non-Facility Rate	\$508.91	\$245.63	207.2%
Radiology	70554	26	FMRI BRAIN BY TECH	Medicare Facility Rate	\$83.54	\$103.55	80.7%
Radiology	70555	26	FMRI BRAIN BY PHYS/PSYCH	Medicare Facility Rate	\$90.34	\$122.43	73.8%
Radiology	70557	26	MRI BRAIN W/O DYE	Medicare Facility Rate	\$117.15	\$159.07	73.6%
Radiology	70558	26	MRI BRAIN W/DYE	Medicare Facility Rate	\$129.57	\$172.90	74.9%
Radiology	70559	26	MRI BRAIN W/O & W/DYE	Medicare Facility Rate	\$130.08	\$161.69	80.5%
Radiology	71045		X-RAY EXAM CHEST 1 VIEW	Medicare Facility/Non-Facility Rate	\$25.25	\$27.42	92.1%
Radiology	71045	26	X-RAY EXAM CHEST 1 VIEW	Medicare Facility/Non-Facility Rate	\$10.68	\$9.04	118.1%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	71045	TC	X-RAY EXAM CHEST 1 VIEW	Medicare Facility/Non-Facility Rate	\$14.54	\$18.38	79.1%
Radiology	71046		X-RAY EXAM CHEST 2 VIEWS	Medicare Facility/Non-Facility Rate	\$33.18	\$35.69	93.0%
Radiology	71046	26	X-RAY EXAM CHEST 2 VIEWS	Medicare Facility/Non-Facility Rate	\$16.39	\$10.79	151.9%
Radiology	71046	TC	X-RAY EXAM CHEST 2 VIEWS	Medicare Facility/Non-Facility Rate	\$16.79	\$24.90	67.4%
Radiology	71047		X-RAY EXAM CHEST 3 VIEWS	Medicare Non-Facility Rate	\$41.12	\$45.03	91.3%
Radiology	71047	26	X-RAY EXAM CHEST 3 VIEWS	Medicare Facility Rate	\$22.07	\$13.24	166.7%
Radiology	71047	TC	X-RAY EXAM CHEST 3 VIEWS	Medicare Non-Facility Rate	\$19.05	\$31.79	59.9%
Radiology	71048		X-RAY EXAM CHEST 4+ VIEWS	Medicare Non-Facility Rate	\$49.07	\$49.31	99.5%
Radiology	71048	26	X-RAY EXAM CHEST 4+ VIEWS	Medicare Facility/Non-Facility Rate	\$27.76	\$15.35	180.8%
Radiology	71048	TC	X-RAY EXAM CHEST 4+ VIEWS	Medicare Non-Facility Rate	\$21.32	\$33.96	62.8%
Radiology	71100		X-RAY EXAM RIBS UNI 2 VIEWS	Medicare Non-Facility Rate	\$24.38	\$39.31	62.0%
Radiology	71100	26	X-RAY EXAM RIBS UNI 2 VIEWS	Medicare Facility/Non-Facility Rate	\$8.13	\$11.15	72.9%
Radiology	71100	TC	X-RAY EXAM RIBS UNI 2 VIEWS	Medicare Non-Facility Rate	\$16.26	\$28.16	57.7%
Radiology	71101		X-RAY EXAM UNILAT RIBS/CHEST	Medicare Non-Facility Rate	\$37.13	\$45.03	82.5%
Radiology	71101	26	X-RAY EXAM UNILAT RIBS/CHEST	Medicare Facility/Non-Facility Rate	\$11.38	\$13.24	86.0%
Radiology	71101	TC	X-RAY EXAM UNILAT RIBS/CHEST	Medicare Non-Facility Rate	\$24.28	\$31.79	76.4%
Radiology	71110		X-RAY EXAM RIBS BIL 3 VIEWS	Medicare Facility/Non-Facility Rate	\$40.62	\$46.81	86.8%
Radiology	71110	26	X-RAY EXAM RIBS BIL 3 VIEWS	Medicare Facility/Non-Facility Rate	\$11.38	\$14.30	79.6%
Radiology	71110	TC	X-RAY EXAM RIBS BIL 3 VIEWS	Medicare Non-Facility Rate	\$29.24	\$32.51	89.9%
Radiology	71111		X-RAY EXAM RIBS/CHEST4/> VWS	Medicare Non-Facility Rate	\$45.49	\$56.18	81.0%
Radiology	71111	26	X-RAY EXAM RIBS/CHEST4/> VWS	Medicare Facility/Non-Facility Rate	\$13.80	\$15.70	87.9%
Radiology	71111	TC	X-RAY EXAM RIBS/CHEST4/> VWS	Medicare Non-Facility Rate	\$31.69	\$40.48	78.3%
Radiology	71120		X-RAY EXAM BREASTBONE 2/>VWS	Medicare Non-Facility Rate	\$24.38	\$36.08	67.6%
Radiology	71120	26	X-RAY EXAM BREASTBONE 2/>VWS	Medicare Facility/Non-Facility Rate	\$8.13	\$9.73	83.6%
Radiology	71120	TC	X-RAY EXAM BREASTBONE 2/>VWS	Medicare Non-Facility Rate	\$16.26	\$26.35	61.7%
Radiology	71130		X-RAY STRENOCLAVIC JT 3/>VWS	Medicare Non-Facility Rate	\$24.38	\$44.38	54.9%
Radiology	71130	26	X-RAY STRENOCLAVIC JT 3/>VWS	Medicare Facility/Non-Facility Rate	\$8.13	\$10.79	75.3%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	71250	26	CT THORAX DX C-	Medicare Facility/Non-Facility Rate	\$43.88	\$52.87	83.0%
Radiology	71250		CT THORAX DX C-	Medicare Non-Facility Rate	\$206.36	\$146.62	140.7%
Radiology	71250	TC	CT THORAX DX C-	Medicare Non-Facility Rate	\$162.49	\$93.75	173.3%
Radiology	71260	26	CT THORAX DX C+	Medicare Facility/Non-Facility Rate	\$60.77	\$56.73	107.1%
Radiology	71260		CT THORAX DX C+	Medicare Facility/Non-Facility Rate	\$255.11	\$184.90	138.0%
Radiology	71260	TC	CT THORAX DX C+	Medicare Non-Facility Rate	\$184.42	\$128.17	143.9%
Radiology	71270	26	CT THORAX DX C-/C+	Medicare Facility/Non-Facility Rate	\$67.66	\$61.46	110.1%
Radiology	71270		CT THORAX DX C-/C+	Medicare Non-Facility Rate	\$255.11	\$219.97	116.0%
Radiology	71270	TC	CT THORAX DX C-/C+	Medicare Non-Facility Rate	\$184.42	\$158.51	116.3%
Radiology	71275		CT ANGIOGRAPHY CHEST	Medicare Facility/Non-Facility Rate	\$348.55	\$313.24	111.3%
Radiology	71275	26	CT ANGIOGRAPHY CHEST	Medicare Facility/Non-Facility Rate	\$55.90	\$88.99	62.8%
Radiology	71275	TC	CT ANGIOGRAPHY CHEST	Medicare Non-Facility Rate	\$292.65	\$224.26	130.5%
Radiology	71550		MRI CHEST W/O DYE	Medicare Non-Facility Rate	\$505.34	\$387.10	130.5%
Radiology	71550	26	MRI CHEST W/O DYE	Medicare Facility/Non-Facility Rate	\$71.17	\$71.54	99.5%
Radiology	71551	26	MRI CHEST W/DYE	Medicare Facility Rate	\$58.50	\$84.78	69.0%
Radiology	71552		MRI CHEST W/O & W/DYE	Medicare Non-Facility Rate	\$890.92	\$540.35	164.9%
Radiology	71552	26	MRI CHEST W/O & W/DYE	Medicare Facility Rate	\$76.54	\$110.29	69.4%
Radiology	71555		MRI ANGIO CHEST W OR W/O DYE	Medicare Non-Facility Rate	\$390.21	\$377.75	103.3%
Radiology	71555	26	MRI ANGIO CHEST W OR W/O DYE	Medicare Facility/Non-Facility Rate	\$76.94	\$87.92	87.5%
Radiology	71555	TC	MRI ANGIO CHEST W OR W/O DYE	Medicare Non-Facility Rate	\$313.27	\$289.84	108.1%
Radiology	72020		X-RAY EXAM OF SPINE 1 VIEW	Medicare Non-Facility Rate	\$20.32	\$26.00	78.2%
Radiology	72020	26	X-RAY EXAM OF SPINE 1 VIEW	Medicare Facility/Non-Facility Rate	\$7.55	\$7.98	94.6%
Radiology	72020	TC	X-RAY EXAM OF SPINE 1 VIEW	Medicare Non-Facility Rate	\$12.19	\$18.02	67.6%
Radiology	72040		X-RAY EXAM NECK SPINE 2-3 VW	Medicare Facility/Non-Facility Rate	\$24.38	\$42.21	57.8%
Radiology	72040	26	X-RAY EXAM NECK SPINE 2-3 VW	Medicare Facility/Non-Facility Rate	\$8.13	\$11.15	72.9%
Radiology	72040	TC	X-RAY EXAM NECK SPINE 2-3 VW	Medicare Non-Facility Rate	\$16.26	\$31.06	52.4%
Radiology	72050		X-RAY EXAM NECK SPINE 4/5VWS	Medicare Non-Facility Rate	\$40.62	\$56.99	71.3%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	72050	26	X-RAY EXAM NECK SPINE 4/5VWS	Medicare Facility/Non-Facility Rate	\$14.94	\$13.60	109.9%
Radiology	72050	TC	X-RAY EXAM NECK SPINE 4/5VWS	Medicare Facility/Non-Facility Rate	\$24.38	\$43.38	56.2%
Radiology	72052		X-RAY EXAM NECK SPINE 6/>VWS	Medicare Non-Facility Rate	\$48.75	\$66.36	73.5%
Radiology	72052	26	X-RAY EXAM NECK SPINE 6/>VWS	Medicare Facility/Non-Facility Rate	\$16.26	\$14.64	111.1%
Radiology	72052	TC	X-RAY EXAM NECK SPINE 6/>VWS	Medicare Non-Facility Rate	\$32.49	\$51.72	62.8%
Radiology	72070		X-RAY EXAM THORAC SPINE 2VWS	Medicare Non-Facility Rate	\$24.38	\$35.00	69.7%
Radiology	72070	26	X-RAY EXAM THORAC SPINE 2VWS	Medicare Facility/Non-Facility Rate	\$8.13	\$10.09	80.6%
Radiology	72070	TC	X-RAY EXAM THORAC SPINE 2VWS	Medicare Facility/Non-Facility Rate	\$16.26	\$24.90	65.3%
Radiology	72072		X-RAY EXAM THORAC SPINE 3VWS	Medicare Non-Facility Rate	\$24.38	\$41.83	58.3%
Radiology	72072	26	X-RAY EXAM THORAC SPINE 3VWS	Medicare Facility/Non-Facility Rate	\$8.13	\$11.13	73.0%
Radiology	72072	TC	X-RAY EXAM THORAC SPINE 3VWS	Medicare Non-Facility Rate	\$16.26	\$30.70	53.0%
Radiology	72074		X-RAY EXAM THORAC SPINE4/>VW	Medicare Non-Facility Rate	\$24.38	\$47.60	51.2%
Radiology	72074	26	X-RAY EXAM THORAC SPINE4/>VW	Medicare Facility/Non-Facility Rate	\$8.13	\$12.19	66.7%
Radiology	72074	TC	X-RAY EXAM THORAC SPINE4/>VW	Medicare Non-Facility Rate	\$16.26	\$35.41	45.9%
Radiology	72080		X-RAY EXAM THORACOLMB 2/> VW	Medicare Non-Facility Rate	\$24.38	\$37.15	65.6%
Radiology	72080	26	X-RAY EXAM THORACOLMB 2/> VW	Medicare Facility/Non-Facility Rate	\$8.13	\$10.44	77.9%
Radiology	72080	TC	X-RAY EXAM THORACOLMB 2/> VW	Medicare Non-Facility Rate	\$16.26	\$26.72	60.9%
Radiology	72081		X-RAY EXAM ENTIRE SPI 1 VW	Medicare Facility/Non-Facility Rate	\$29.49	\$45.41	64.9%
Radiology	72081	26	X-RAY EXAM ENTIRE SPI 1 VW	Medicare Facility/Non-Facility Rate	\$10.24	\$12.90	79.4%
Radiology	72081	TC	X-RAY EXAM ENTIRE SPI 1 VW	Medicare Non-Facility Rate	\$19.26	\$32.51	59.2%
Radiology	72082		X-RAY EXAM ENTIRE SPI 2/3 VW	Medicare Non-Facility Rate	\$47.36	\$75.30	62.9%
Radiology	72082	26	X-RAY EXAM ENTIRE SPI 2/3 VW	Medicare Facility/Non-Facility Rate	\$12.34	\$15.62	79.0%
Radiology	72082	TC	X-RAY EXAM ENTIRE SPI 2/3 VW	Medicare Non-Facility Rate	\$34.94	\$59.69	58.5%
Radiology	72083		X-RAY EXAM ENTIRE SPI 4/5 VW	Medicare Non-Facility Rate	\$51.35	\$84.40	60.8%
Radiology	72083	26	X-RAY EXAM ENTIRE SPI 4/5 VW	Medicare Facility/Non-Facility Rate	\$13.49	\$17.82	75.7%
Radiology	72083	TC	X-RAY EXAM ENTIRE SPI 4/5 VW	Medicare Non-Facility Rate	\$37.96	\$66.57	57.0%
Radiology	72084		X-RAY EXAM ENTIRE SPI 6/> VW	Medicare Non-Facility Rate	\$61.18	\$105.94	57.7%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	72084	26	X-RAY EXAM ENTIRE SPI 6/> VW	Medicare Facility/Non-Facility Rate	\$15.68	\$20.89	75.1%
Radiology	72084	TC	X-RAY EXAM ENTIRE SPI 6/> VW	Medicare Non-Facility Rate	\$45.49	\$85.05	53.5%
Radiology	72100		X-RAY EXAM L-S SPINE 2/3 VWS	Medicare Facility/Non-Facility Rate	\$32.49	\$42.57	76.3%
Radiology	72100	26	X-RAY EXAM L-S SPINE 2/3 VWS	Medicare Facility/Non-Facility Rate	\$9.75	\$11.15	87.4%
Radiology	72100	TC	X-RAY EXAM L-S SPINE 2/3 VWS	Medicare Non-Facility Rate	\$22.74	\$31.43	72.4%
Radiology	72110		X-RAY EXAM L-2 SPINE 4/>VWS	Medicare Facility/Non-Facility Rate	\$48.75	\$54.83	88.9%
Radiology	72110	26	X-RAY EXAM L-2 SPINE 4/>VWS	Medicare Facility/Non-Facility Rate	\$14.94	\$12.90	115.8%
Radiology	72110	TC	X-RAY EXAM L-2 SPINE 4/>VWS	Medicare Non-Facility Rate	\$32.49	\$41.93	77.5%
Radiology	72114		X-RAY EXAM L-S SPINE BENDING	Medicare Non-Facility Rate	\$60.13	\$66.36	90.6%
Radiology	72114	26	X-RAY EXAM L-S SPINE BENDING	Medicare Facility/Non-Facility Rate	\$17.64	\$15.01	117.5%
Radiology	72114	TC	X-RAY EXAM L-S SPINE BENDING	Medicare Non-Facility Rate	\$39.81	\$51.35	77.5%
Radiology	72120		X-RAY BEND ONLY L-S SPINE	Medicare Non-Facility Rate	\$30.05	\$43.66	68.8%
Radiology	72120	26	X-RAY BEND ONLY L-S SPINE	Medicare Facility/Non-Facility Rate	\$10.71	\$11.15	96.1%
Radiology	72120	TC	X-RAY BEND ONLY L-S SPINE	Medicare Non-Facility Rate	\$19.51	\$32.51	60.0%
Radiology	72125		CT NECK SPINE W/O DYE	Medicare Facility/Non-Facility Rate	\$206.36	\$143.84	143.5%
Radiology	72125	26	CT NECK SPINE W/O DYE	Medicare Facility/Non-Facility Rate	\$43.88	\$49.01	89.5%
Radiology	72125	TC	CT NECK SPINE W/O DYE	Medicare Non-Facility Rate	\$162.49	\$94.83	171.3%
Radiology	72126		CT NECK SPINE W/DYE	Medicare Non-Facility Rate	\$255.11	\$187.50	136.1%
Radiology	72126	26	CT NECK SPINE W/DYE	Medicare Facility Rate	\$59.72	\$59.70	100.0%
Radiology	72127		CT NECK SPINE W/O & W/DYE	Medicare Non-Facility Rate	\$255.11	\$220.93	115.5%
Radiology	72127	26	CT NECK SPINE W/O & W/DYE	Medicare Facility Rate	\$62.07	\$62.42	99.4%
Radiology	72128		CT CHEST SPINE W/O DYE	Medicare Non-Facility Rate	\$206.36	\$143.48	143.8%
Radiology	72128	26	CT CHEST SPINE W/O DYE	Medicare Facility/Non-Facility Rate	\$44.04	\$49.01	89.9%
Radiology	72128	TC	CT CHEST SPINE W/O DYE	Medicare Non-Facility Rate	\$162.33	\$94.47	171.8%
Radiology	72129		CT CHEST SPINE W/DYE	Medicare Non-Facility Rate	\$255.11	\$188.95	135.0%
Radiology	72129	26	CT CHEST SPINE W/DYE	Medicare Facility Rate	\$60.04	\$60.06	100.0%
Radiology	72130	26	CT CHEST SPINE W/O & W/DYE	Medicare Facility Rate	\$62.39	\$62.16	100.4%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	72131		CT LUMBAR SPINE W/O DYE	Medicare Non-Facility Rate	\$206.36	\$143.12	144.2%
Radiology	72131	26	CT LUMBAR SPINE W/O DYE	Medicare Facility/Non-Facility Rate	\$43.88	\$49.01	89.5%
Radiology	72131	TC	CT LUMBAR SPINE W/O DYE	Medicare Non-Facility Rate	\$162.49	\$94.11	172.7%
Radiology	72132		CT LUMBAR SPINE W/DYE	Medicare Non-Facility Rate	\$255.11	\$187.50	136.1%
Radiology	72132	26	CT LUMBAR SPINE W/DYE	Medicare Facility Rate	\$60.04	\$59.70	100.6%
Radiology	72133	26	CT LUMBAR SPINE W/O & W/DYE	Medicare Facility Rate	\$62.39	\$62.42	100.0%
Radiology	72141		MRI NECK SPINE W/O DYE	Medicare Facility/Non-Facility Rate	\$408.89	\$213.71	191.3%
Radiology	72141	26	MRI NECK SPINE W/O DYE	Medicare Facility/Non-Facility Rate	\$78.06	\$72.96	107.0%
Radiology	72141	TC	MRI NECK SPINE W/O DYE	Medicare Non-Facility Rate	\$330.83	\$140.75	235.0%
Radiology	72142		MRI NECK SPINE W/DYE	Medicare Non-Facility Rate	\$492.34	\$310.60	158.5%
Radiology	72142	26	MRI NECK SPINE W/DYE	Medicare Facility/Non-Facility Rate	\$82.05	\$87.60	93.7%
Radiology	72146		MRI CHEST SPINE W/O DYE	Medicare Non-Facility Rate	\$492.34	\$213.35	230.8%
Radiology	72146	26	MRI CHEST SPINE W/O DYE	Medicare Facility/Non-Facility Rate	\$78.41	\$72.60	108.0%
Radiology	72146	TC	MRI CHEST SPINE W/O DYE	Medicare Non-Facility Rate	\$330.58	\$140.75	234.9%
Radiology	72147		MRI CHEST SPINE W/DYE	Medicare Non-Facility Rate	\$492.34	\$307.34	160.2%
Radiology	72147	26	MRI CHEST SPINE W/DYE	Medicare Facility/Non-Facility Rate	\$82.05	\$87.24	94.1%
Radiology	72148		MRI LUMBAR SPINE W/O DYE	Medicare Facility/Non-Facility Rate	\$402.96	\$214.07	188.2%
Radiology	72148	26	MRI LUMBAR SPINE W/O DYE	Medicare Facility/Non-Facility Rate	\$72.48	\$72.96	99.3%
Radiology	72148	TC	MRI LUMBAR SPINE W/O DYE	Medicare Non-Facility Rate	\$330.58	\$141.11	234.3%
Radiology	72149		MRI LUMBAR SPINE W/DYE	Medicare Non-Facility Rate	\$492.34	\$304.80	161.5%
Radiology	72149	26	MRI LUMBAR SPINE W/DYE	Medicare Facility/Non-Facility Rate	\$82.05	\$87.24	94.1%
Radiology	72149	TC	MRI LUMBAR SPINE W/DYE	Medicare Non-Facility Rate	\$410.28	\$217.56	188.6%
Radiology	72156		MRI NECK SPINE W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$634.68	\$359.96	176.3%
Radiology	72156	26	MRI NECK SPINE W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$108.87	\$111.96	97.2%
Radiology	72156	TC	MRI NECK SPINE W/O & W/DYE	Medicare Non-Facility Rate	\$508.99	\$248.00	205.2%
Radiology	72157		MRI CHEST SPINE W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$634.27	\$360.32	176.0%
Radiology	72157	26	MRI CHEST SPINE W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$108.62	\$111.96	97.0%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	72157	TC	MRI CHEST SPINE W/O & W/DYE	Medicare Non-Facility Rate	\$508.26	\$248.36	204.6%
Radiology	72158		MRI LUMBAR SPINE W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$624.28	\$358.87	174.0%
Radiology	72158	26	MRI LUMBAR SPINE W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$100.42	\$111.96	89.7%
Radiology	72158	TC	MRI LUMBAR SPINE W/O & W/DYE	Medicare Non-Facility Rate	\$508.99	\$246.91	206.1%
Radiology	72159	26	MR ANGIO SPINE W/O&W/DYE	Medicare Facility Rate	\$72.32	\$88.29	81.9%
Radiology	72170		X-RAY EXAM OF PELVIS	Medicare Facility/Non-Facility Rate	\$24.38	\$29.61	82.3%
Radiology	72170	26	X-RAY EXAM OF PELVIS	Medicare Facility/Non-Facility Rate	\$8.13	\$8.69	93.6%
Radiology	72170	TC	X-RAY EXAM OF PELVIS	Medicare Non-Facility Rate	\$16.26	\$20.92	77.7%
Radiology	72190		X-RAY EXAM OF PELVIS	Medicare Non-Facility Rate	\$30.87	\$45.06	68.5%
Radiology	72190	26	X-RAY EXAM OF PELVIS	Medicare Facility/Non-Facility Rate	\$10.40	\$12.55	82.9%
Radiology	72190	TC	X-RAY EXAM OF PELVIS	Medicare Non-Facility Rate	\$20.32	\$32.51	62.5%
Radiology	72191	26	CT ANGIOGRAPH PELV W/O&W/DYE	Medicare Facility Rate	\$55.90	\$87.55	63.8%
Radiology	72192		CT PELVIS W/O DYE	Medicare Non-Facility Rate	\$206.36	\$146.96	140.4%
Radiology	72192	26	CT PELVIS W/O DYE	Medicare Facility/Non-Facility Rate	\$43.88	\$53.22	82.5%
Radiology	72192	TC	CT PELVIS W/O DYE	Medicare Non-Facility Rate	\$162.49	\$93.75	173.3%
Radiology	72193		CT PELVIS W/DYE	Medicare Non-Facility Rate	\$255.11	\$260.98	97.8%
Radiology	72193	26	CT PELVIS W/DYE	Medicare Facility/Non-Facility Rate	\$56.96	\$56.73	100.4%
Radiology	72193	TC	CT PELVIS W/DYE	Medicare Non-Facility Rate	\$184.42	\$204.26	90.3%
Radiology	72194		CT PELVIS W/O & W/DYE	Medicare Non-Facility Rate	\$255.11	\$287.77	88.7%
Radiology	72194	26	CT PELVIS W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$59.72	\$59.70	100.0%
Radiology	72194	TC	CT PELVIS W/O & W/DYE	Medicare Non-Facility Rate	\$184.42	\$228.07	80.9%
Radiology	72195		MRI PELVIS W/O DYE	Medicare Non-Facility Rate	\$419.46	\$259.76	161.5%
Radiology	72195	26	MRI PELVIS W/O DYE	Medicare Facility/Non-Facility Rate	\$49.48	\$71.90	68.8%
Radiology	72195	TC	MRI PELVIS W/O DYE	Medicare Non-Facility Rate	\$332.68	\$187.85	177.1%
Radiology	72196		MRI PELVIS W/DYE	Medicare Non-Facility Rate	\$492.34	\$304.16	161.9%
Radiology	72196	26	MRI PELVIS W/DYE	Medicare Facility Rate	\$82.05	\$84.78	96.8%
Radiology	72197		MRI PELVIS W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$623.55	\$382.11	163.2%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	72197	26	MRI PELVIS W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$77.09	\$107.49	71.7%
Radiology	72197	TC	MRI PELVIS W/O & W/DYE	Medicare Non-Facility Rate	\$512.81	\$274.62	186.7%
Radiology	72198		MR ANGIO PELVIS W/O & W/DYE	Medicare Non-Facility Rate	\$389.89	\$379.58	102.7%
Radiology	72198	26	MR ANGIO PELVIS W/O & W/DYE	Medicare Facility Rate	\$74.18	\$87.21	85.1%
Radiology	72200		X-RAY EXAM SI JOINTS	Medicare Non-Facility Rate	\$24.38	\$35.04	69.6%
Radiology	72200	26	X-RAY EXAM SI JOINTS	Medicare Facility/Non-Facility Rate	\$8.28	\$8.33	99.4%
Radiology	72200	TC	X-RAY EXAM SI JOINTS	Medicare Non-Facility Rate	\$13.80	\$26.72	51.6%
Radiology	72202		X-RAY EXAM SI JOINTS 3/> VWS	Medicare Non-Facility Rate	\$30.87	\$41.83	73.8%
Radiology	72202	26	X-RAY EXAM SI JOINTS 3/> VWS	Medicare Facility/Non-Facility Rate	\$9.34	\$11.13	83.9%
Radiology	72202	TC	X-RAY EXAM SI JOINTS 3/> VWS	Medicare Non-Facility Rate	\$20.32	\$30.70	66.2%
Radiology	72220		X-RAY EXAM SACRUM TAILBONE	Medicare Non-Facility Rate	\$24.38	\$34.68	70.3%
Radiology	72220	26	X-RAY EXAM SACRUM TAILBONE	Medicare Facility/Non-Facility Rate	\$8.28	\$8.69	95.3%
Radiology	72220	TC	X-RAY EXAM SACRUM TAILBONE	Medicare Non-Facility Rate	\$13.80	\$25.99	53.1%
Radiology	72275		EPIDUROGRAPHY	Other States' Average Rate	\$91.74	\$113.41	80.9%
Radiology	72275	26	EPIDUROGRAPHY	Other States' Average Rate	\$22.36	\$35.60	62.8%
Radiology	72275	26	EPIDUROGRAPHY	Other States' Average Rate	\$22.36	\$34.41	65.0%
Radiology	72275		EPIDUROGRAPHY	Other States' Average Rate	\$91.74	\$111.83	82.0%
Radiology	72295		X-RAY OF LOWER SPINE DISK	Medicare Facility Rate	\$65.00	\$119.84	54.2%
Radiology	72295	26	X-RAY OF LOWER SPINE DISK	Medicare Facility Rate	\$19.51	\$41.31	47.2%
Radiology	73000		X-RAY EXAM OF COLLAR BONE	Medicare Non-Facility Rate	\$16.26	\$34.33	47.4%
Radiology	73000	26	X-RAY EXAM OF COLLAR BONE	Medicare Facility/Non-Facility Rate	\$4.88	\$8.34	58.5%
Radiology	73000	TC	X-RAY EXAM OF COLLAR BONE	Medicare Facility/Non-Facility Rate	\$11.38	\$25.99	43.8%
Radiology	73010		X-RAY EXAM OF SHOULDER BLADE	Medicare Non-Facility Rate	\$20.32	\$25.26	80.4%
Radiology	73010	26	X-RAY EXAM OF SHOULDER BLADE	Medicare Facility/Non-Facility Rate	\$6.50	\$9.05	71.8%
Radiology	73010	TC	X-RAY EXAM OF SHOULDER BLADE	Medicare Non-Facility Rate	\$13.80	\$16.21	85.1%
Radiology	73020		X-RAY EXAM OF SHOULDER	Medicare Non-Facility Rate	\$13.00	\$22.76	57.1%
Radiology	73020	26	X-RAY EXAM OF SHOULDER	Medicare Facility/Non-Facility Rate	\$4.88	\$7.64	63.9%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	73020	TC	X-RAY EXAM OF SHOULDER	Medicare Non-Facility Rate	\$8.13	\$15.12	53.8%
Radiology	73030		X-RAY EXAM OF SHOULDER	Medicare Facility/Non-Facility Rate	\$20.32	\$36.84	55.2%
Radiology	73030	26	X-RAY EXAM OF SHOULDER	Medicare Facility/Non-Facility Rate	\$6.50	\$9.40	69.1%
Radiology	73030	TC	X-RAY EXAM OF SHOULDER	Medicare Facility/Non-Facility Rate	\$13.80	\$27.44	50.3%
Radiology	73040		CONTRAST X-RAY OF SHOULDER	Medicare Non-Facility Rate	\$40.62	\$142.86	28.4%
Radiology	73040	26	CONTRAST X-RAY OF SHOULDER	Medicare Facility Rate	\$13.00	\$27.74	46.9%
Radiology	73050		X-RAY EXAM OF SHOULDERS	Medicare Non-Facility Rate	\$20.32	\$30.32	67.0%
Radiology	73050	26	X-RAY EXAM OF SHOULDERS	Medicare Facility/Non-Facility Rate	\$6.50	\$9.40	69.1%
Radiology	73050	TC	X-RAY EXAM OF SHOULDERS	Medicare Non-Facility Rate	\$13.80	\$20.92	66.0%
Radiology	73060		X-RAY EXAM OF HUMERUS	Medicare Facility/Non-Facility Rate	\$20.32	\$33.97	59.8%
Radiology	73060	26	X-RAY EXAM OF HUMERUS	Medicare Facility/Non-Facility Rate	\$6.50	\$7.98	81.5%
Radiology	73060	TC	X-RAY EXAM OF HUMERUS	Medicare Facility/Non-Facility Rate	\$13.80	\$25.99	53.1%
Radiology	73070		X-RAY EXAM OF ELBOW	Medicare Facility/Non-Facility Rate	\$13.00	\$31.07	41.8%
Radiology	73070	26	X-RAY EXAM OF ELBOW	Medicare Facility/Non-Facility Rate	\$4.06	\$8.34	48.7%
Radiology	73070	TC	X-RAY EXAM OF ELBOW	Medicare Non-Facility Rate	\$8.94	\$22.73	39.3%
Radiology	73080		X-RAY EXAM OF ELBOW	Medicare Facility/Non-Facility Rate	\$16.26	\$34.68	46.9%
Radiology	73080	26	X-RAY EXAM OF ELBOW	Medicare Facility/Non-Facility Rate	\$4.88	\$8.69	56.2%
Radiology	73080	TC	X-RAY EXAM OF ELBOW	Medicare Facility/Non-Facility Rate	\$11.38	\$25.99	43.8%
Radiology	73085		CONTRAST X-RAY OF ELBOW	Medicare Non-Facility Rate	\$40.62	\$122.11	33.3%
Radiology	73085	26	CONTRAST X-RAY OF ELBOW	Medicare Facility Rate	\$16.26	\$28.37	57.3%
Radiology	73090		X-RAY EXAM OF FOREARM	Medicare Facility/Non-Facility Rate	\$16.26	\$31.07	52.3%
Radiology	73090	26	X-RAY EXAM OF FOREARM	Medicare Facility/Non-Facility Rate	\$4.88	\$7.98	61.2%
Radiology	73090	TC	X-RAY EXAM OF FOREARM	Medicare Facility/Non-Facility Rate	\$11.38	\$23.09	49.3%
Radiology	73092		X-RAY EXAM OF ARM INFANT	Medicare Non-Facility Rate	\$16.26	\$33.97	47.9%
Radiology	73092	26	X-RAY EXAM OF ARM INFANT	Medicare Facility/Non-Facility Rate	\$4.88	\$7.98	61.2%
Radiology	73092	TC	X-RAY EXAM OF ARM INFANT	Medicare Non-Facility Rate	\$11.38	\$25.99	43.8%
Radiology	73100		X-RAY EXAM OF WRIST	Medicare Facility/Non-Facility Rate	\$11.38	\$36.15	31.5%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	73100	26	X-RAY EXAM OF WRIST	Medicare Facility/Non-Facility Rate	\$3.25	\$8.34	39.0%
Radiology	73100	TC	X-RAY EXAM OF WRIST	Medicare Non-Facility Rate	\$8.13	\$27.80	29.2%
Radiology	73110		X-RAY EXAM OF WRIST	Medicare Facility/Non-Facility Rate	\$16.26	\$43.74	37.2%
Radiology	73110	26	X-RAY EXAM OF WRIST	Medicare Facility/Non-Facility Rate	\$4.88	\$8.69	56.2%
Radiology	73110	TC	X-RAY EXAM OF WRIST	Medicare Non-Facility Rate	\$11.38	\$35.05	32.5%
Radiology	73115		CONTRAST X-RAY OF WRIST	Medicare Non-Facility Rate	\$40.62	\$148.30	27.4%
Radiology	73115	26	CONTRAST X-RAY OF WRIST	Medicare Facility Rate	\$16.26	\$28.10	57.9%
Radiology	73120		X-RAY EXAM OF HAND	Medicare Non-Facility Rate	\$8.94	\$33.25	26.9%
Radiology	73120	26	X-RAY EXAM OF HAND	Medicare Facility/Non-Facility Rate	\$3.25	\$8.34	39.0%
Radiology	73120	TC	X-RAY EXAM OF HAND	Medicare Non-Facility Rate	\$5.70	\$24.90	22.9%
Radiology	73130		X-RAY EXAM OF HAND	Medicare Facility/Non-Facility Rate	\$13.00	\$39.03	33.3%
Radiology	73130	26	X-RAY EXAM OF HAND	Medicare Facility/Non-Facility Rate	\$4.06	\$8.69	46.7%
Radiology	73130	TC	X-RAY EXAM OF HAND	Medicare Facility/Non-Facility Rate	\$8.94	\$30.34	29.5%
Radiology	73140		X-RAY EXAM OF FINGER(S)	Medicare Non-Facility Rate	\$9.75	\$40.18	24.3%
Radiology	73140	26	X-RAY EXAM OF FINGER(S)	Medicare Facility/Non-Facility Rate	\$4.06	\$6.94	58.5%
Radiology	73140	TC	X-RAY EXAM OF FINGER(S)	Medicare Facility/Non-Facility Rate	\$5.70	\$33.24	17.1%
Radiology	73200		CT UPPER EXTREMITY W/O DYE	Medicare Non-Facility Rate	\$206.36	\$181.89	113.5%
Radiology	73200	26	CT UPPER EXTREMITY W/O DYE	Medicare Facility/Non-Facility Rate	\$43.88	\$49.01	89.5%
Radiology	73200	TC	CT UPPER EXTREMITY W/O DYE	Medicare Non-Facility Rate	\$162.49	\$132.88	122.3%
Radiology	73201		CT UPPER EXTREMITY W/DYE	Medicare Non-Facility Rate	\$255.11	\$225.48	113.1%
Radiology	73201	26	CT UPPER EXTREMITY W/DYE	Medicare Facility Rate	\$56.96	\$56.37	101.0%
Radiology	73202	26	CT UPPER EXTREMITY W/O&W/DYE	Medicare Facility Rate	\$59.72	\$59.70	100.0%
Radiology	73206		CT ANGIO UPR EXTRM W/O&W/DYE	Medicare Non-Facility Rate	\$302.90	\$333.91	90.7%
Radiology	73206	26	CT ANGIO UPR EXTRM W/O&W/DYE	Medicare Facility Rate	\$55.90	\$87.55	63.8%
Radiology	73218		MRI UPPER EXTREMITY W/O DYE	Medicare Non-Facility Rate	\$412.88	\$346.62	119.1%
Radiology	73218	26	MRI UPPER EXTREMITY W/O DYE	Medicare Facility/Non-Facility Rate	\$44.27	\$66.74	66.3%
Radiology	73218	TC	MRI UPPER EXTREMITY W/O DYE	Medicare Non-Facility Rate	\$333.26	\$279.88	119.1%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	73219	26	MRI UPPER EXTREMITY W/DYE	Medicare Facility Rate	\$52.72	\$79.88	66.0%
Radiology	73220		MRI UPPR EXTREMITY W/O&W/DYE	Medicare Non-Facility Rate	\$505.34	\$468.42	107.9%
Radiology	73220	26	MRI UPPR EXTREMITY W/O&W/DYE	Medicare Facility/Non-Facility Rate	\$101.56	\$105.39	96.4%
Radiology	73220	TC	MRI UPPR EXTREMITY W/O&W/DYE	Medicare Non-Facility Rate	\$403.78	\$363.03	111.2%
Radiology	73221		MRI JOINT UPR EXTREM W/O DYE	Medicare Facility/Non-Facility Rate	\$256.72	\$226.60	113.3%
Radiology	73221	26	MRI JOINT UPR EXTREM W/O DYE	Medicare Facility/Non-Facility Rate	\$57.68	\$67.00	86.1%
Radiology	73221	TC	MRI JOINT UPR EXTREM W/O DYE	Medicare Non-Facility Rate	\$199.04	\$159.59	124.7%
Radiology	73222		MRI JOINT UPR EXTREM W/DYE	Medicare Non-Facility Rate	\$494.70	\$357.60	138.3%
Radiology	73222	26	MRI JOINT UPR EXTREM W/DYE	Medicare Facility/Non-Facility Rate	\$52.72	\$80.25	65.7%
Radiology	73222	TC	MRI JOINT UPR EXTREM W/DYE	Medicare Non-Facility Rate	\$441.96	\$277.35	159.4%
Radiology	73223		MRI JOINT UPR EXTR W/O&W/DYE	Medicare Non-Facility Rate	\$777.33	\$442.33	175.7%
Radiology	73223	26	MRI JOINT UPR EXTR W/O&W/DYE	Medicare Facility/Non-Facility Rate	\$71.01	\$105.39	67.4%
Radiology	73223	TC	MRI JOINT UPR EXTR W/O&W/DYE	Medicare Non-Facility Rate	\$672.22	\$336.94	199.5%
Radiology	73225	26	MR ANGIO UPR EXTR W/O&W/DYE	Medicare Facility Rate	\$70.28	\$85.14	82.5%
Radiology	73501		X-RAY EXAM HIP UNI 1 VIEW	Medicare Non-Facility Rate	\$22.74	\$34.67	65.6%
Radiology	73501	26	X-RAY EXAM HIP UNI 1 VIEW	Medicare Facility/Non-Facility Rate	\$7.24	\$9.40	77.0%
Radiology	73501	TC	X-RAY EXAM HIP UNI 1 VIEW	Medicare Non-Facility Rate	\$15.45	\$25.27	61.1%
Radiology	73502		X-RAY EXAM HIP UNI 2-3 VIEWS	Medicare Facility/Non-Facility Rate	\$31.44	\$50.18	62.7%
Radiology	73502	26	X-RAY EXAM HIP UNI 2-3 VIEWS	Medicare Facility/Non-Facility Rate	\$8.60	\$11.15	77.1%
Radiology	73502	TC	X-RAY EXAM HIP UNI 2-3 VIEWS	Medicare Non-Facility Rate	\$22.74	\$39.03	58.3%
Radiology	73503		X-RAY EXAM HIP UNI 4/> VIEWS	Medicare Non-Facility Rate	\$39.23	\$63.15	62.1%
Radiology	73503	26	X-RAY EXAM HIP UNI 4/> VIEWS	Medicare Facility/Non-Facility Rate	\$11.06	\$13.60	81.3%
Radiology	73521		X-RAY EXAM HIPS BI 2 VIEWS	Medicare Non-Facility Rate	\$30.30	\$44.02	68.8%
Radiology	73521	26	X-RAY EXAM HIPS BI 2 VIEWS	Medicare Facility/Non-Facility Rate	\$8.87	\$11.15	79.6%
Radiology	73521	TC	X-RAY EXAM HIPS BI 2 VIEWS	Medicare Facility/Non-Facility Rate	\$21.38	\$32.87	65.0%
Radiology	73522		X-RAY EXAM HIPS BI 3-4 VIEWS	Medicare Non-Facility Rate	\$37.04	\$57.32	64.6%
Radiology	73522	26	X-RAY EXAM HIPS BI 3-4 VIEWS	Medicare Facility/Non-Facility Rate	\$11.62	\$14.66	79.3%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	73522	TC	X-RAY EXAM HIPS BI 3-4 VIEWS	Medicare Non-Facility Rate	\$25.44	\$42.66	59.6%
Radiology	73523		X-RAY EXAM HIPS BI 5/> VIEWS	Medicare Facility/Non-Facility Rate	\$43.07	\$65.62	65.6%
Radiology	73523	26	X-RAY EXAM HIPS BI 5/> VIEWS	Medicare Facility/Non-Facility Rate	\$12.43	\$15.35	81.0%
Radiology	73523	TC	X-RAY EXAM HIPS BI 5/> VIEWS	Medicare Non-Facility Rate	\$30.64	\$50.27	61.0%
Radiology	73525		CONTRAST X-RAY OF HIP	Medicare Facility/Non-Facility Rate	\$84.98	\$145.30	58.5%
Radiology	73525	26	CONTRAST X-RAY OF HIP	Medicare Facility Rate	\$24.70	\$29.09	84.9%
Radiology	73551		X-RAY EXAM OF FEMUR 1	Medicare Facility/Non-Facility Rate	\$21.12	\$31.07	68.0%
Radiology	73551	26	X-RAY EXAM OF FEMUR 1	Medicare Facility/Non-Facility Rate	\$6.42	\$8.34	77.0%
Radiology	73551	TC	X-RAY EXAM OF FEMUR 1	Medicare Non-Facility Rate	\$14.63	\$22.73	64.4%
Radiology	73552		X-RAY EXAM OF FEMUR 2/>	Medicare Facility/Non-Facility Rate	\$24.62	\$37.56	65.5%
Radiology	73552	26	X-RAY EXAM OF FEMUR 2/>	Medicare Facility/Non-Facility Rate	\$7.24	\$9.04	80.1%
Radiology	73552	TC	X-RAY EXAM OF FEMUR 2/>	Medicare Facility/Non-Facility Rate	\$17.38	\$28.53	60.9%
Radiology	73560		X-RAY EXAM OF KNEE 1 OR 2	Medicare Facility/Non-Facility Rate	\$16.26	\$36.51	44.5%
Radiology	73560	26	X-RAY EXAM OF KNEE 1 OR 2	Medicare Facility/Non-Facility Rate	\$4.88	\$8.34	58.5%
Radiology	73560	TC	X-RAY EXAM OF KNEE 1 OR 2	Medicare Non-Facility Rate	\$11.38	\$28.16	40.4%
Radiology	73562		X-RAY EXAM OF KNEE 3	Medicare Facility/Non-Facility Rate	\$20.32	\$43.72	46.5%
Radiology	73562	26	X-RAY EXAM OF KNEE 3	Medicare Facility/Non-Facility Rate	\$6.50	\$9.40	69.1%
Radiology	73562	TC	X-RAY EXAM OF KNEE 3	Medicare Non-Facility Rate	\$13.80	\$34.32	40.2%
Radiology	73564		X-RAY EXAM KNEE 4 OR MORE	Medicare Facility/Non-Facility Rate	\$20.32	\$49.46	41.1%
Radiology	73564	26	X-RAY EXAM KNEE 4 OR MORE	Medicare Facility/Non-Facility Rate	\$6.50	\$11.15	58.3%
Radiology	73564	TC	X-RAY EXAM KNEE 4 OR MORE	Medicare Facility/Non-Facility Rate	\$13.80	\$38.31	36.0%
Radiology	73565		X-RAY EXAM OF KNEES	Medicare Facility/Non-Facility Rate	\$16.26	\$43.39	37.5%
Radiology	73565	26	X-RAY EXAM OF KNEES	Medicare Facility/Non-Facility Rate	\$4.88	\$8.71	56.0%
Radiology	73565	TC	X-RAY EXAM OF KNEES	Medicare Non-Facility Rate	\$11.38	\$34.69	32.8%
Radiology	73580		CONTRAST X-RAY OF KNEE JOINT	Medicare Non-Facility Rate	\$65.00	\$160.33	40.5%
Radiology	73590		X-RAY EXAM OF LOWER LEG	Medicare Facility/Non-Facility Rate	\$20.32	\$33.61	60.5%
Radiology	73590	26	X-RAY EXAM OF LOWER LEG	Medicare Facility/Non-Facility Rate	\$6.50	\$7.98	81.5%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	73590	TC	X-RAY EXAM OF LOWER LEG	Medicare Facility/Non-Facility Rate	\$13.80	\$25.63	53.8%
Radiology	73592		X-RAY EXAM OF LEG INFANT	Medicare Non-Facility Rate	\$20.32	\$33.97	59.8%
Radiology	73592	26	X-RAY EXAM OF LEG INFANT	Medicare Facility/Non-Facility Rate	\$6.50	\$7.98	81.5%
Radiology	73592	TC	X-RAY EXAM OF LEG INFANT	Medicare Non-Facility Rate	\$13.80	\$25.99	53.1%
Radiology	73600		X-RAY EXAM OF ANKLE	Medicare Non-Facility Rate	\$12.19	\$34.33	35.5%
Radiology	73600	26	X-RAY EXAM OF ANKLE	Medicare Facility/Non-Facility Rate	\$4.06	\$7.98	50.9%
Radiology	73600	TC	X-RAY EXAM OF ANKLE	Medicare Non-Facility Rate	\$8.13	\$26.35	30.9%
Radiology	73610		X-RAY EXAM OF ANKLE	Medicare Facility/Non-Facility Rate	\$16.26	\$39.39	41.3%
Radiology	73610	26	X-RAY EXAM OF ANKLE	Medicare Facility/Non-Facility Rate	\$4.88	\$8.69	56.2%
Radiology	73610	TC	X-RAY EXAM OF ANKLE	Medicare Facility/Non-Facility Rate	\$11.38	\$30.70	37.1%
Radiology	73620		X-RAY EXAM OF FOOT	Medicare Facility/Non-Facility Rate	\$8.94	\$29.99	29.8%
Radiology	73620	26	X-RAY EXAM OF FOOT	Medicare Facility/Non-Facility Rate	\$3.25	\$7.62	42.7%
Radiology	73620	TC	X-RAY EXAM OF FOOT	Medicare Non-Facility Rate	\$5.70	\$22.37	25.5%
Radiology	73630		X-RAY EXAM OF FOOT	Medicare Facility/Non-Facility Rate	\$13.00	\$36.86	35.3%
Radiology	73630	26	X-RAY EXAM OF FOOT	Medicare Facility/Non-Facility Rate	\$4.06	\$8.33	48.7%
Radiology	73630	TC	X-RAY EXAM OF FOOT	Medicare Facility/Non-Facility Rate	\$8.94	\$28.53	31.3%
Radiology	73650		X-RAY EXAM OF HEEL	Medicare Non-Facility Rate	\$16.26	\$30.71	52.9%
Radiology	73650	26	X-RAY EXAM OF HEEL	Medicare Facility/Non-Facility Rate	\$4.88	\$7.98	61.2%
Radiology	73650	TC	X-RAY EXAM OF HEEL	Medicare Non-Facility Rate	\$11.38	\$22.73	50.1%
Radiology	73660		X-RAY EXAM OF TOE(S)	Medicare Non-Facility Rate	\$9.75	\$31.12	31.3%
Radiology	73660	26	X-RAY EXAM OF TOE(S)	Medicare Facility/Non-Facility Rate	\$4.06	\$6.58	61.7%
Radiology	73660	TC	X-RAY EXAM OF TOE(S)	Medicare Non-Facility Rate	\$5.70	\$24.54	23.2%
Radiology	73700		CT LOWER EXTREMITY W/O DYE	Medicare Non-Facility Rate	\$206.36	\$143.12	144.2%
Radiology	73700	26	CT LOWER EXTREMITY W/O DYE	Medicare Facility/Non-Facility Rate	\$43.88	\$49.01	89.5%
Radiology	73700	TC	CT LOWER EXTREMITY W/O DYE	Medicare Non-Facility Rate	\$162.49	\$94.11	172.7%
Radiology	73701		CT LOWER EXTREMITY W/DYE	Medicare Non-Facility Rate	\$255.11	\$185.26	137.7%
Radiology	73701	26	CT LOWER EXTREMITY W/DYE	Medicare Facility Rate	\$57.29	\$56.73	101.0%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	73702	26	CT LWR EXTREMITY W/O&W/DYE	Medicare Facility Rate	\$60.04	\$59.70	100.6%
Radiology	73702		CT LWR EXTREMITY W/O&W/DYE	Medicare Non-Facility Rate	\$255.11	\$217.48	117.3%
Radiology	73706		CT ANGIO LWR EXTR W/O&W/DYE	Medicare Facility/Non-Facility Rate	\$302.90	\$362.39	83.6%
Radiology	73706	26	CT ANGIO LWR EXTR W/O&W/DYE	Medicare Facility Rate	\$55.90	\$91.76	60.9%
Radiology	73718		MRI LOWER EXTREMITY W/O DYE	Medicare Non-Facility Rate	\$412.88	\$252.42	163.6%
Radiology	73718	26	MRI LOWER EXTREMITY W/O DYE	Medicare Facility/Non-Facility Rate	\$44.27	\$66.01	67.1%
Radiology	73718	TC	MRI LOWER EXTREMITY W/O DYE	Medicare Non-Facility Rate	\$333.19	\$186.40	178.8%
Radiology	73719	26	MRI LOWER EXTREMITY W/DYE	Medicare Facility Rate	\$52.72	\$79.52	66.3%
Radiology	73720		MRI LWR EXTREMITY W/O&W/DYE	Medicare Facility/Non-Facility Rate	\$505.34	\$382.19	132.2%
Radiology	73720	26	MRI LWR EXTREMITY W/O&W/DYE	Medicare Facility/Non-Facility Rate	\$101.56	\$105.03	96.7%
Radiology	73720	TC	MRI LWR EXTREMITY W/O&W/DYE	Medicare Non-Facility Rate	\$403.78	\$277.15	145.7%
Radiology	73721		MRI JNT OF LWR EXTRE W/O DYE	Medicare Non-Facility Rate	\$256.72	\$226.23	113.5%
Radiology	73721	26	MRI JNT OF LWR EXTRE W/O DYE	Medicare Facility/Non-Facility Rate	\$57.68	\$67.00	86.1%
Radiology	73721	TC	MRI JNT OF LWR EXTRE W/O DYE	Medicare Facility/Non-Facility Rate	\$199.04	\$159.23	125.0%
Radiology	73722		MRI JOINT OF LWR EXTR W/DYE	Medicare Non-Facility Rate	\$494.70	\$358.32	138.1%
Radiology	73722	26	MRI JOINT OF LWR EXTR W/DYE	Medicare Facility/Non-Facility Rate	\$52.72	\$80.25	65.7%
Radiology	73722	TC	MRI JOINT OF LWR EXTR W/DYE	Medicare Non-Facility Rate	\$441.96	\$278.07	158.9%
Radiology	73723		MRI JOINT LWR EXTR W/O&W/DYE	Medicare Non-Facility Rate	\$618.26	\$440.88	140.2%
Radiology	73723	26	MRI JOINT LWR EXTR W/O&W/DYE	Medicare Facility/Non-Facility Rate	\$71.01	\$105.03	67.6%
Radiology	73723	TC	MRI JOINT LWR EXTR W/O&W/DYE	Medicare Non-Facility Rate	\$512.89	\$335.85	152.7%
Radiology	73725	26	MR ANG LWR EXT W OR W/O DYE	Medicare Facility/Non-Facility Rate	\$72.79	\$87.54	83.2%
Radiology	73725	TC	MR ANG LWR EXT W OR W/O DYE	Medicare Non-Facility Rate	\$315.79	\$290.56	108.7%
Radiology	74018		X-RAY EXAM ABDOMEN 1 VIEW	Medicare Facility/Non-Facility Rate	\$25.70	\$32.13	80.0%
Radiology	74018	26	X-RAY EXAM ABDOMEN 1 VIEW	Medicare Facility/Non-Facility Rate	\$11.15	\$9.04	123.3%
Radiology	74018	TC	X-RAY EXAM ABDOMEN 1 VIEW	Medicare Facility/Non-Facility Rate	\$14.54	\$23.09	63.0%
Radiology	74019		X-RAY EXAM ABDOMEN 2 VIEWS	Medicare Facility/Non-Facility Rate	\$34.07	\$39.30	86.7%
Radiology	74019	26	X-RAY EXAM ABDOMEN 2 VIEWS	Medicare Facility/Non-Facility Rate	\$17.28	\$11.49	150.4%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	74019	TC	X-RAY EXAM ABDOMEN 2 VIEWS	Medicare Non-Facility Rate	\$16.79	\$27.80	60.4%
Radiology	74021		X-RAY EXAM ABDOMEN 3+ VIEWS	Medicare Non-Facility Rate	\$42.47	\$46.12	92.1%
Radiology	74021	26	X-RAY EXAM ABDOMEN 3+ VIEWS	Medicare Facility/Non-Facility Rate	\$23.42	\$13.24	176.9%
Radiology	74021	TC	X-RAY EXAM ABDOMEN 3+ VIEWS	Medicare Non-Facility Rate	\$19.05	\$32.87	58.0%
Radiology	74022		X-RAY EXAM COMPLETE ABDOMEN	Medicare Facility/Non-Facility Rate	\$32.49	\$53.28	61.0%
Radiology	74022	26	X-RAY EXAM COMPLETE ABDOMEN	Medicare Facility/Non-Facility Rate	\$11.38	\$15.70	72.5%
Radiology	74022	TC	X-RAY EXAM COMPLETE ABDOMEN	Medicare Non-Facility Rate	\$21.12	\$37.59	56.2%
Radiology	74150		CT ABDOMEN W/O DYE	Medicare Non-Facility Rate	\$206.36	\$151.32	136.4%
Radiology	74150	26	CT ABDOMEN W/O DYE	Medicare Facility/Non-Facility Rate	\$52.82	\$58.66	90.0%
Radiology	74160		CT ABDOMEN W/DYE	Medicare Non-Facility Rate	\$255.11	\$266.05	95.9%
Radiology	74160	26	CT ABDOMEN W/DYE	Medicare Facility/Non-Facility Rate	\$62.72	\$62.52	100.3%
Radiology	74160	TC	CT ABDOMEN W/DYE	Medicare Non-Facility Rate	\$173.87	\$203.53	85.4%
Radiology	74170		CT ABDOMEN W/O & W/DYE	Medicare Non-Facility Rate	\$255.11	\$297.90	85.6%
Radiology	74170	26	CT ABDOMEN W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$68.73	\$68.74	100.0%
Radiology	74170	TC	CT ABDOMEN W/O & W/DYE	Medicare Non-Facility Rate	\$173.87	\$229.16	75.9%
Radiology	74174		CT ANGIO ABD&PELV W/O&W/DYE	Medicare Non-Facility Rate	\$463.41	\$427.30	108.5%
Radiology	74174	26	CT ANGIO ABD&PELV W/O&W/DYE	Medicare Facility/Non-Facility Rate	\$86.36	\$106.67	81.0%
Radiology	74174	TC	CT ANGIO ABD&PELV W/O&W/DYE	Medicare Non-Facility Rate	\$377.05	\$320.63	117.6%
Radiology	74175		CT ANGIO ABDOM W/O & W/DYE	Medicare Non-Facility Rate	\$337.16	\$343.15	98.3%
Radiology	74175	26	CT ANGIO ABDOM W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$55.90	\$88.26	63.3%
Radiology	74175	TC	CT ANGIO ABDOM W/O & W/DYE	Medicare Non-Facility Rate	\$281.27	\$254.88	110.4%
Radiology	74176		CT ABD & PELVIS W/O CONTRAST	Medicare Facility/Non-Facility Rate	\$175.40	\$201.34	87.1%
Radiology	74176	26	CT ABD & PELVIS W/O CONTRAST	Medicare Facility/Non-Facility Rate	\$68.25	\$85.13	80.2%
Radiology	74176	TC	CT ABD & PELVIS W/O CONTRAST	Medicare Non-Facility Rate	\$107.16	\$116.21	92.2%
Radiology	74177		CT ABD & PELV W/CONTRAST	Medicare Facility/Non-Facility Rate	\$275.99	\$344.96	80.0%
Radiology	74177	26	CT ABD & PELV W/CONTRAST	Medicare Facility/Non-Facility Rate	\$71.58	\$89.35	80.1%
Radiology	74177	TC	CT ABD & PELV W/CONTRAST	Medicare Non-Facility Rate	\$204.41	\$255.61	80.0%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	74178		CT ABD & PELV 1/> REGNS	Medicare Non-Facility Rate	\$349.35	\$386.32	90.4%
Radiology	74178	26	CT ABD & PELV 1/> REGNS	Medicare Facility/Non-Facility Rate	\$79.22	\$98.10	80.8%
Radiology	74178	TC	CT ABD & PELV 1/> REGNS	Medicare Non-Facility Rate	\$270.15	\$288.22	93.7%
Radiology	74181		MRI ABDOMEN W/O DYE	Medicare Facility/Non-Facility Rate	\$487.70	\$219.63	222.1%
Radiology	74181	26	MRI ABDOMEN W/O DYE	Medicare Facility/Non-Facility Rate	\$71.49	\$71.54	99.9%
Radiology	74182		MRI ABDOMEN W/DYE	Medicare Non-Facility Rate	\$501.60	\$342.93	146.3%
Radiology	74182	26	MRI ABDOMEN W/DYE	Medicare Facility Rate	\$58.50	\$84.78	69.0%
Radiology	74183		MRI ABDOMEN W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$623.55	\$382.83	162.9%
Radiology	74183	26	MRI ABDOMEN W/O & W/DYE	Medicare Facility/Non-Facility Rate	\$77.09	\$107.13	72.0%
Radiology	74183	TC	MRI ABDOMEN W/O & W/DYE	Medicare Non-Facility Rate	\$512.81	\$275.71	186.0%
Radiology	74185		MRI ANGIO ABDOM W ORW/O DYE	Medicare Non-Facility Rate	\$389.89	\$380.30	102.5%
Radiology	74185	26	MRI ANGIO ABDOM W ORW/O DYE	Medicare Facility Rate	\$74.18	\$87.21	85.1%
Radiology	74190	26	X-RAY EXAM OF PERITONEUM	Medicare Facility Rate	\$13.08	\$22.76	57.5%
Radiology	74220		CONTRAST X-RAY ESOPHAGUS	Medicare Facility/Non-Facility Rate	\$32.49	\$107.62	30.2%
Radiology	74220	26	CONTRAST X-RAY ESOPHAGUS	Medicare Facility/Non-Facility Rate	\$16.26	\$29.46	55.2%
Radiology	74221		X-RAY XM ESOPHAGUS 2CNTRST	Medicare Facility/Non-Facility Rate	\$114.70	\$121.23	94.6%
Radiology	74221	26	X-RAY XM ESOPHAGUS 2CNTRST	Medicare Facility Rate	\$36.47	\$34.37	106.1%
Radiology	74230		CINE/VID X-RAY THROAT/ESOPH	Medicare Non-Facility Rate	\$48.75	\$139.98	34.8%
Radiology	74230	26	CINE/VID X-RAY THROAT/ESOPH	Medicare Facility Rate	\$24.38	\$26.31	92.7%
Radiology	74240		X-RAY UPPER GI DELAY W/O KUB	Medicare Facility/Non-Facility Rate	\$56.87	\$134.84	42.2%
Radiology	74240	26	X-RAY UPPER GI DELAY W/O KUB	Medicare Facility Rate	\$24.38	\$39.28	62.1%
Radiology	74240	TC	X-RAY UPPER GI DELAY W/O KUB	Medicare Non-Facility Rate	\$32.49	\$95.56	34.0%
Radiology	74246		CONTRST X-RAY UPPR GI TRACT	Medicare Non-Facility Rate	\$56.87	\$153.88	37.0%
Radiology	74246	26	CONTRST X-RAY UPPR GI TRACT	Medicare Facility Rate	\$24.38	\$43.83	55.6%
Radiology	74248		X-RAY SM INT F-THRU STD	Medicare Facility/Non-Facility Rate	\$86.76	\$90.43	95.9%
Radiology	74248	26	X-RAY SM INT F-THRU STD	Medicare Facility Rate	\$36.47	\$34.37	106.1%
Radiology	74250		X-RAY EXAM OF SMALL BOWEL	Medicare Non-Facility Rate	\$48.75	\$134.46	36.3%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	74250	26	X-RAY EXAM OF SMALL BOWEL	Medicare Facility Rate	\$19.51	\$39.63	49.2%
Radiology	74251	26	X-RAY EXAM OF SMALL BOWEL	Medicare Facility Rate	\$20.47	\$57.61	35.5%
Radiology	74261		CT COLONOGRAPHY DX	Medicare Non-Facility Rate	\$224.40	\$474.28	47.3%
Radiology	74261	26	CT COLONOGRAPHY DX	Medicare Facility Rate	\$68.49	\$117.22	58.4%
Radiology	74263		CT COLONOGRAPHY SCREENING	Other States' Average Rate	\$563.59	\$769.24	73.3%
Radiology	74263	26	CT COLONOGRAPHY SCREENING	Other States' Average Rate	\$91.32	\$116.08	78.7%
Radiology	74270	26	CONTRAST X-RAY EXAM OF COLON	Medicare Facility Rate	\$24.38	\$50.76	48.0%
Radiology	74270		CONTRAST X-RAY EXAM OF COLON	Medicare Non-Facility Rate	\$56.87	\$169.14	33.6%
Radiology	74280	26	CONTRAST X-RAY EXAM OF COLON	Medicare Facility Rate	\$32.49	\$61.81	52.6%
Radiology	74280		CONTRAST X-RAY EXAM OF COLON	Medicare Non-Facility Rate	\$97.49	\$244.33	39.9%
Radiology	74283	26	THER NMA RDCTJ INTUS/OBSTRCTJ	Medicare Facility Rate	\$26.81	\$103.06	26.0%
Radiology	74300		X-RAY BILE DUCTS/PANCREAS	Medicare Facility/Non-Facility Rate	\$40.62	\$13.51	300.7%
Radiology	74300	26	X-RAY BILE DUCTS/PANCREAS	Medicare Facility Rate	\$13.00	\$13.51	96.2%
Radiology	74328	26	X-RAY BILE DUCT ENDOSCOPY	Medicare Facility Rate	\$24.38	\$23.70	102.9%
Radiology	74329		X-RAY FOR PANCREAS ENDOSCOPY	Medicare Facility Rate	\$56.87	\$23.70	240.0%
Radiology	74329	26	X-RAY FOR PANCREAS ENDOSCOPY	Medicare Facility Rate	\$24.38	\$23.70	102.9%
Radiology	74330	26	X-RAY BILE/PANC ENDOSCOPY	Medicare Facility Rate	\$24.38	\$29.71	82.1%
Radiology	74340	26	X-RAY GUIDE FOR GI TUBE	Medicare Facility Rate	\$24.38	\$26.65	91.5%
Radiology	74400		CONTRST X-RAY URINARY TRACT	Medicare Non-Facility Rate	\$56.87	\$148.57	38.3%
Radiology	74400	26	CONTRST X-RAY URINARY TRACT	Medicare Facility Rate	\$23.95	\$23.66	101.2%
Radiology	74420	26	CONTRST X-RAY URINARY TRACT	Medicare Facility Rate	\$11.38	\$25.07	45.4%
Radiology	74420		CONTRST X-RAY URINARY TRACT	Medicare Facility Rate	\$32.49	\$81.85	39.7%
Radiology	74425		CONTRST X-RAY URINARY TRACT	Medicare Non-Facility Rate	\$56.87	\$149.63	38.0%
Radiology	74425	26	CONTRST X-RAY URINARY TRACT	Medicare Facility Rate	\$18.03	\$24.36	74.0%
Radiology	74430		CONTRAST X-RAY BLADDER	Medicare Non-Facility Rate	\$32.49	\$43.14	75.3%
Radiology	74430	26	CONTRAST X-RAY BLADDER	Medicare Facility Rate	\$15.92	\$15.34	103.8%
Radiology	74450		X-RAY URETHRA/BLADDER	Medicare Facility/Non-Facility Rate	\$32.49	\$16.04	202.6%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	74450	26	X-RAY URETHRA/BLADDER	Medicare Facility/Non-Facility Rate	\$16.26	\$16.04	101.4%
Radiology	74455		X-RAY URETHRA/BLADDER	Medicare Non-Facility Rate	\$32.49	\$114.50	28.4%
Radiology	74455	26	X-RAY URETHRA/BLADDER	Medicare Facility/Non-Facility Rate	\$16.26	\$15.68	103.7%
Radiology	74455	TC	X-RAY URETHRA/BLADDER	Medicare Non-Facility Rate	\$16.26	\$98.82	16.5%
Radiology	74485	26	DILATION URTR/URT RS&I	Medicare Facility/Non-Facility Rate	\$24.04	\$39.43	61.0%
Radiology	74712	26	MRI FETAL SNGL/1ST GESTATION	Medicare Facility/Non-Facility Rate	\$121.79	\$146.60	83.1%
Radiology	74712	TC	MRI FETAL SNGL/1ST GESTATION	Medicare Non-Facility Rate	\$217.33	\$314.47	69.1%
Radiology	74740		X-RAY FEMALE GENITAL TRACT	Medicare Facility/Non-Facility Rate	\$43.88	\$105.63	41.5%
Radiology	74740	26	X-RAY FEMALE GENITAL TRACT	Medicare Facility Rate	\$16.26	\$18.77	86.6%
Radiology	75557		CARDIAC MRI FOR MORPH	Medicare Non-Facility Rate	\$399.64	\$315.22	126.8%
Radiology	75557	26	CARDIAC MRI FOR MORPH	Medicare Facility/Non-Facility Rate	\$94.40	\$113.87	82.9%
Radiology	75557	TC	CARDIAC MRI FOR MORPH	Medicare Non-Facility Rate	\$305.32	\$201.36	151.6%
Radiology	75559	26	CARDIAC MRI W/STRESS IMG	Medicare Facility Rate	\$120.73	\$141.80	85.1%
Radiology	75561		CARDIAC MRI FOR MORPH W/DYE	Medicare Non-Facility Rate	\$573.74	\$414.64	138.4%
Radiology	75561	26	CARDIAC MRI FOR MORPH W/DYE	Medicare Facility/Non-Facility Rate	\$104.40	\$126.05	82.8%
Radiology	75561	TC	CARDIAC MRI FOR MORPH W/DYE	Medicare Non-Facility Rate	\$469.34	\$288.58	162.6%
Radiology	75563	26	CARD MRI W/STRESS IMG & DYE	Medicare Facility Rate	\$125.60	\$144.52	86.9%
Radiology	75565		CARD MRI VELOC FLOW MAPPING	Medicare Non-Facility Rate	\$57.52	\$52.40	109.8%
Radiology	75565	26	CARD MRI VELOC FLOW MAPPING	Medicare Facility/Non-Facility Rate	\$7.80	\$12.19	64.0%
Radiology	75565	TC	CARD MRI VELOC FLOW MAPPING	Medicare Non-Facility Rate	\$49.72	\$40.22	123.6%
Radiology	75571		CT HRT W/O DYE W/CA TEST	Medicare Non-Facility Rate	\$53.37	\$109.46	48.8%
Radiology	75571	26	CT HRT W/O DYE W/CA TEST	Medicare Facility/Non-Facility Rate	\$17.31	\$28.40	61.0%
Radiology	75571	TC	CT HRT W/O DYE W/CA TEST	Medicare Non-Facility Rate	\$36.07	\$81.06	44.5%
Radiology	75572	26	CT HRT W/3D IMAGE	Medicare Facility Rate	\$53.05	\$85.21	62.3%
Radiology	75573	26	CT HRT W/3D IMAGE CONGEN	Medicare Facility Rate	\$75.95	\$124.23	61.1%
Radiology	75574		CT ANGIO HRT W/3D IMAGE	Medicare Non-Facility Rate	\$287.84	\$358.96	80.2%
Radiology	75574	26	CT ANGIO HRT W/3D IMAGE	Medicare Facility Rate	\$72.48	\$116.23	62.4%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	75600	26	CONTRAST EXAM THORACIC AORTA	Medicare Facility Rate	\$16.26	\$24.17	67.3%
Radiology	75605		CONTRAST EXAM THORACIC AORTA	Medicare Non-Facility Rate	\$121.87	\$128.09	95.1%
Radiology	75605	26	CONTRAST EXAM THORACIC AORTA	Medicare Facility Rate	\$32.49	\$54.37	59.8%
Radiology	75625		CONTRAST EXAM ABDOMINL AORTA	Medicare Non-Facility Rate	\$162.49	\$134.08	121.2%
Radiology	75625	26	CONTRAST EXAM ABDOMINL AORTA	Medicare Facility Rate	\$40.62	\$68.24	59.5%
Radiology	75630		X-RAY AORTA LEG ARTERIES	Medicare Non-Facility Rate	\$243.73	\$166.07	146.8%
Radiology	75630	26	X-RAY AORTA LEG ARTERIES	Medicare Facility Rate	\$60.93	\$95.51	63.8%
Radiology	75635		CT ANGIO ABDOMINAL ARTERIES	Medicare Non-Facility Rate	\$368.68	\$456.69	80.7%
Radiology	75635	26	CT ANGIO ABDOMINAL ARTERIES	Medicare Facility Rate	\$87.34	\$115.41	75.7%
Radiology	75705	26	ARTERY X-RAYS SPINE	Medicare Facility Rate	\$40.62	\$115.58	35.1%
Radiology	75710		ARTERY X-RAYS ARM/LEG	Medicare Facility/Non-Facility Rate	\$270.87	\$158.76	170.6%
Radiology	75710	26	ARTERY X-RAYS ARM/LEG	Medicare Facility Rate	\$24.38	\$83.49	29.2%
Radiology	75716		ARTERY X-RAYS ARMS/LEGS	Medicare Non-Facility Rate	\$130.00	\$171.45	75.8%
Radiology	75716	26	ARTERY X-RAYS ARMS/LEGS	Medicare Facility Rate	\$32.49	\$93.74	34.7%
Radiology	75726	26	ARTERY X-RAYS ABDOMEN	Medicare Facility Rate	\$56.55	\$95.21	59.4%
Radiology	75736		ARTERY X-RAYS PELVIS	Medicare Non-Facility Rate	\$162.49	\$149.30	108.8%
Radiology	75736	26	ARTERY X-RAYS PELVIS	Medicare Facility Rate	\$40.62	\$53.11	76.5%
Radiology	75741	26	ARTERY X-RAYS LUNG	Medicare Facility Rate	\$40.62	\$61.17	66.4%
Radiology	75743	26	ARTERY X-RAYS LUNGS	Medicare Facility Rate	\$40.62	\$78.18	52.0%
Radiology	75746	26	ARTERY X-RAYS LUNG	Medicare Facility Rate	\$40.62	\$54.30	74.8%
Radiology	75756	26	ARTERY X-RAYS CHEST	Medicare Facility Rate	\$49.82	\$55.45	89.8%
Radiology	75774		ARTERY X-RAY EACH VESSEL	Medicare Facility/Non-Facility Rate	\$145.83	\$102.86	141.8%
Radiology	75774	26	ARTERY X-RAY EACH VESSEL	Medicare Facility Rate	\$18.03	\$47.16	38.2%
Radiology	75801	26	LYMPH VESSEL X-RAY ARM/LEG	Medicare Facility Rate	\$39.00	\$42.57	91.6%
Radiology	75805	26	LYMPH VESSEL X-RAY TRUNK	Medicare Facility Rate	\$40.46	\$39.63	102.1%
Radiology	75807	26	LYMPH VESSEL X-RAY TRUNK	Medicare Facility Rate	\$40.62	\$53.89	75.4%
Radiology	75809		NONVASCULAR SHUNT X-RAY	Medicare Non-Facility Rate	\$40.21	\$87.90	45.7%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	75809	26	NONVASCULAR SHUNT X-RAY	Medicare Facility/Non-Facility Rate	\$18.77	\$23.50	79.9%
Radiology	75810	26	VEIN X-RAY SPLEEN/LIVER	Medicare Facility Rate	\$21.12	\$48.50	43.5%
Radiology	75820		VEIN X-RAY ARM/LEG	Medicare Non-Facility Rate	\$65.00	\$116.93	55.6%
Radiology	75820	26	VEIN X-RAY ARM/LEG	Medicare Facility Rate	\$16.26	\$50.72	32.1%
Radiology	75822		VEIN X-RAY ARMS/LEGS	Medicare Facility/Non-Facility Rate	\$97.49	\$141.05	69.1%
Radiology	75822	26	VEIN X-RAY ARMS/LEGS	Medicare Facility Rate	\$24.38	\$69.77	34.9%
Radiology	75825		VEIN X-RAY TRUNK	Medicare Facility/Non-Facility Rate	\$121.87	\$120.12	101.5%
Radiology	75825	26	VEIN X-RAY TRUNK	Medicare Facility Rate	\$32.49	\$53.18	61.1%
Radiology	75827	26	VEIN X-RAY CHEST	Medicare Facility Rate	\$32.49	\$53.91	60.3%
Radiology	75827		VEIN X-RAY CHEST	Medicare Non-Facility Rate	\$121.87	\$126.64	96.2%
Radiology	75831	26	VEIN X-RAY KIDNEY	Medicare Facility Rate	\$32.49	\$52.39	62.0%
Radiology	75831		VEIN X-RAY KIDNEY	Medicare Non-Facility Rate	\$121.87	\$126.20	96.6%
Radiology	75833	26	VEIN X-RAY KIDNEYS	Medicare Facility Rate	\$32.49	\$70.89	45.8%
Radiology	75860	26	VEIN X-RAY NECK	Medicare Facility Rate	\$32.49	\$54.56	59.5%
Radiology	75870	26	VEIN X-RAY SKULL	Medicare Facility Rate	\$32.49	\$59.58	54.5%
Radiology	75885	26	VEIN X-RAY LIVER W/HEMODYNAM	Medicare Facility Rate	\$32.49	\$65.68	49.5%
Radiology	75887	26	VEIN X-RAY LIVER W/O HEMODYN	Medicare Facility Rate	\$32.49	\$66.76	48.7%
Radiology	75889	26	VEIN X-RAY LIVER W/HEMODYNAM	Medicare Facility Rate	\$32.49	\$52.58	61.8%
Radiology	75891	26	VEIN X-RAY LIVER	Medicare Facility Rate	\$32.49	\$52.94	61.4%
Radiology	75893	26	VENOUS SAMPLING BY CATHETER	Medicare Facility Rate	\$26.41	\$25.56	103.3%
Radiology	75894	26	X-RAYS TRANSCATH THERAPY	Medicare Facility Rate	\$40.62	\$70.59	57.5%
Radiology	75898	26	FOLLOW-UP ANGIOGRAPHY	Medicare Facility Rate	\$20.32	\$89.30	22.8%
Radiology	75901		REMOVE CVA DEVICE OBSTRUCT	Medicare Non-Facility Rate	\$79.62	\$258.79	30.8%
Radiology	75901	26	REMOVE CVA DEVICE OBSTRUCT	Medicare Facility Rate	\$20.95	\$23.47	89.3%
Radiology	75902	26	REMOVE CVA LUMEN OBSTRUCT	Medicare Facility Rate	\$16.66	\$18.92	88.1%
Radiology	75970	26	VASCULAR BIOPSY	Medicare Facility Rate	\$40.62	\$38.41	105.8%
Radiology	75984	26	XRAY CONTROL CATHETER CHANGE	Medicare Facility Rate	\$24.38	\$38.51	63.3%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	75989	26	ABSCESS DRAINAGE UNDER X-RAY	Medicare Facility Rate	\$58.65	\$56.75	103.3%
Radiology	76000		FLUOROSCOPY <1 HR PHYS/QHP	Medicare Facility/Non-Facility Rate	\$40.62	\$45.42	89.4%
Radiology	76000	26	FLUOROSCOPY <1 HR PHYS/QHP	Medicare Facility/Non-Facility Rate	\$8.28	\$15.44	53.6%
Radiology	76010		X-RAY NOSE TO RECTUM	Medicare Non-Facility Rate	\$26.57	\$31.77	83.6%
Radiology	76010	26	X-RAY NOSE TO RECTUM	Medicare Facility/Non-Facility Rate	\$8.13	\$9.04	89.9%
Radiology	76010	TC	X-RAY NOSE TO RECTUM	Medicare Non-Facility Rate	\$17.55	\$22.73	77.2%
Radiology	76080		X-RAY EXAM OF FISTULA	Medicare Non-Facility Rate	\$40.62	\$64.24	63.2%
Radiology	76080	26	X-RAY EXAM OF FISTULA	Medicare Facility Rate	\$16.26	\$25.56	63.6%
Radiology	76098		X-RAY EXAM SURGICAL SPECIMEN	Medicare Non-Facility Rate	\$16.26	\$43.06	37.8%
Radiology	76098	26	X-RAY EXAM SURGICAL SPECIMEN	Medicare Facility/Non-Facility Rate	\$7.97	\$15.62	51.0%
Radiology	76376		3D RENDER W/INTRP POSTPROCES	Medicare Facility/Non-Facility Rate	\$25.18	\$24.13	104.4%
Radiology	76376	26	3D RENDER W/INTRP POSTPROCES	Medicare Facility Rate	\$8.63	\$9.73	88.7%
Radiology	76377	26	3D RENDER W/INTRP POSTPROCES	Medicare Facility Rate	\$34.60	\$38.94	88.9%
Radiology	76380	26	CAT SCAN FOLLOW-UP STUDY	Medicare Facility Rate	\$47.94	\$46.87	102.3%
Radiology	76390		MR SPECTROSCOPY	Other States' Average Rate	\$404.43	\$399.23	101.3%
Radiology	76390	26	MR SPECTROSCOPY	Other States' Average Rate	\$62.64	\$64.42	97.2%
Radiology	76390	TC	MR SPECTROSCOPY	Other States' Average Rate	\$341.79	\$334.82	102.1%
Radiology	76391		MR ELASTOGRAPHY	Medicare Non-Facility Rate	\$174.35	\$228.37	76.3%
Radiology	76391	26	MR ELASTOGRAPHY	Medicare Facility Rate	\$82.74	\$53.93	153.4%
Radiology	76497	26	CT PROCEDURE	Other States' Average Rate	\$39.89	\$21.39	186.5%
Radiology	76506		ECHO EXAM OF HEAD	Medicare Non-Facility Rate	\$81.24	\$124.14	65.4%
Radiology	76506	26	ECHO EXAM OF HEAD	Medicare Facility/Non-Facility Rate	\$31.52	\$31.48	100.1%
Radiology	76506	TC	ECHO EXAM OF HEAD	Medicare Non-Facility Rate	\$32.49	\$92.66	35.1%
Radiology	76510	26	OPHTH US B & QUANT A	Medicare Facility/Non-Facility Rate	\$73.37	\$40.09	183.0%
Radiology	76510		OPHTH US B & QUANT A	Medicare Non-Facility Rate	\$146.32	\$72.97	200.5%
Radiology	76511		OPHTH US QUANT A ONLY	Medicare Non-Facility Rate	\$89.36	\$59.30	150.7%
Radiology	76511	26	OPHTH US QUANT A ONLY	Medicare Facility Rate	\$40.62	\$36.20	112.2%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	76512		OPHTH US B W/NON-QUANT A	Medicare Non-Facility Rate	\$81.24	\$50.00	162.5%
Radiology	76512	26	OPHTH US B W/NON-QUANT A	Medicare Facility/Non-Facility Rate	\$40.62	\$31.26	129.9%
Radiology	76512	TC	OPHTH US B W/NON-QUANT A	Medicare Non-Facility Rate	\$40.62	\$18.74	216.8%
Radiology	76513		ECHO EXAM OF EYE WATER BATH	Medicare Non-Facility Rate	\$72.87	\$80.01	91.1%
Radiology	76513	26	ECHO EXAM OF EYE WATER BATH	Medicare Facility Rate	\$29.24	\$33.01	88.6%
Radiology	76514		ECHO EXAM OF EYE THICKNESS	Medicare Non-Facility Rate	\$9.75	\$11.90	81.9%
Radiology	76514	26	ECHO EXAM OF EYE THICKNESS	Medicare Facility/Non-Facility Rate	\$7.71	\$8.01	96.3%
Radiology	76514	TC	ECHO EXAM OF EYE THICKNESS	Medicare Non-Facility Rate	\$2.04	\$3.89	52.4%
Radiology	76519		ECHO EXAM OF EYE	Medicare Non-Facility Rate	\$47.13	\$70.69	66.7%
Radiology	76519	26	ECHO EXAM OF EYE	Medicare Facility/Non-Facility Rate	\$22.74	\$30.93	73.5%
Radiology	76519	TC	ECHO EXAM OF EYE	Medicare Non-Facility Rate	\$24.38	\$39.76	61.3%
Radiology	76529	26	ECHO EXAM OF EYE	Medicare Facility Rate	\$28.20	\$32.69	86.3%
Radiology	76536		US EXAM OF HEAD AND NECK	Medicare Non-Facility Rate	\$81.24	\$120.73	67.3%
Radiology	76536	26	US EXAM OF HEAD AND NECK	Medicare Facility/Non-Facility Rate	\$26.81	\$28.07	95.5%
Radiology	76536	TC	US EXAM OF HEAD AND NECK	Medicare Non-Facility Rate	\$40.62	\$92.66	43.8%
Radiology	76604		US EXAM CHEST	Medicare Facility/Non-Facility Rate	\$82.05	\$61.62	133.2%
Radiology	76604	26	US EXAM CHEST	Medicare Facility/Non-Facility Rate	\$26.73	\$28.38	94.2%
Radiology	76604	TC	US EXAM CHEST	Medicare Facility/Non-Facility Rate	\$51.18	\$33.24	154.0%
Radiology	76641		ULTRASOUND BREAST COMPLETE	Medicare Non-Facility Rate	\$86.27	\$110.67	78.0%
Radiology	76641	26	ULTRASOUND BREAST COMPLETE	Medicare Facility/Non-Facility Rate	\$29.33	\$35.77	82.0%
Radiology	76641	TC	ULTRASOUND BREAST COMPLETE	Medicare Non-Facility Rate	\$56.96	\$74.90	76.0%
Radiology	76642		ULTRASOUND BREAST LIMITED	Medicare Facility/Non-Facility Rate	\$70.84	\$90.46	78.3%
Radiology	76642	26	ULTRASOUND BREAST LIMITED	Medicare Facility/Non-Facility Rate	\$27.63	\$33.31	82.9%
Radiology	76642	TC	ULTRASOUND BREAST LIMITED	Medicare Non-Facility Rate	\$43.22	\$57.15	75.6%
Radiology	76700		US EXAM ABDOM COMPLETE	Medicare Non-Facility Rate	\$91.82	\$126.13	72.8%
Radiology	76700	26	US EXAM ABDOM COMPLETE	Medicare Facility/Non-Facility Rate	\$39.49	\$39.63	99.6%
Radiology	76700	TC	US EXAM ABDOM COMPLETE	Medicare Non-Facility Rate	\$48.75	\$86.50	56.4%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	76705		ECHO EXAM OF ABDOMEN	Medicare Facility/Non-Facility Rate	\$71.01	\$94.23	75.4%
Radiology	76705	26	ECHO EXAM OF ABDOMEN	Medicare Facility/Non-Facility Rate	\$25.27	\$29.11	86.8%
Radiology	76705	TC	ECHO EXAM OF ABDOMEN	Medicare Facility/Non-Facility Rate	\$45.75	\$65.12	70.3%
Radiology	76706		US ABDL AORTA SCREEN AAA	Medicare Non-Facility Rate	\$93.76	\$114.95	81.6%
Radiology	76706	26	US ABDL AORTA SCREEN AAA	Medicare Facility Rate	\$37.50	\$27.00	138.9%
Radiology	76706	TC	US ABDL AORTA SCREEN AAA	Medicare Non-Facility Rate	\$56.25	\$87.95	64.0%
Radiology	76770		US EXAM ABDO BACK WALL COMP	Medicare Facility/Non-Facility Rate	\$91.82	\$116.82	78.6%
Radiology	76770	26	US EXAM ABDO BACK WALL COMP	Medicare Facility/Non-Facility Rate	\$36.07	\$36.12	99.9%
Radiology	76770	TC	US EXAM ABDO BACK WALL COMP	Medicare Non-Facility Rate	\$48.75	\$80.70	60.4%
Radiology	76775		US EXAM ABDO BACK WALL LIM	Medicare Facility/Non-Facility Rate	\$83.69	\$61.27	136.6%
Radiology	76775	26	US EXAM ABDO BACK WALL LIM	Medicare Facility/Non-Facility Rate	\$29.08	\$28.40	102.4%
Radiology	76775	TC	US EXAM ABDO BACK WALL LIM	Medicare Facility/Non-Facility Rate	\$47.13	\$32.87	143.4%
Radiology	76776		US EXAM K TRANSPL W/DOPPLER	Medicare Non-Facility Rate	\$106.75	\$160.89	66.3%
Radiology	76776	26	US EXAM K TRANSPL W/DOPPLER	Medicare Facility/Non-Facility Rate	\$30.39	\$37.17	81.8%
Radiology	76776	TC	US EXAM K TRANSPL W/DOPPLER	Medicare Non-Facility Rate	\$76.38	\$123.72	61.7%
Radiology	76800		US EXAM SPINAL CANAL	Medicare Non-Facility Rate	\$43.88	\$155.16	28.3%
Radiology	76800	26	US EXAM SPINAL CANAL	Medicare Facility/Non-Facility Rate	\$18.69	\$59.96	31.2%
Radiology	76800	TC	US EXAM SPINAL CANAL	Medicare Non-Facility Rate	\$25.18	\$95.20	26.4%
Radiology	76801		OB US < 14 WKS SINGLE FETUS	Medicare Facility/Non-Facility Rate	\$77.83	\$125.48	62.0%
Radiology	76801	26	OB US < 14 WKS SINGLE FETUS	Medicare Facility/Non-Facility Rate	\$42.81	\$48.40	88.5%
Radiology	76801	TC	OB US < 14 WKS SINGLE FETUS	Medicare Non-Facility Rate	\$35.01	\$77.08	45.4%
Radiology	76802		OB US < 14 WKS ADDL FETUS	Medicare Non-Facility Rate	\$60.77	\$64.23	94.6%
Radiology	76802	26	OB US < 14 WKS ADDL FETUS	Medicare Facility/Non-Facility Rate	\$36.07	\$41.05	87.9%
Radiology	76802	TC	OB US < 14 WKS ADDL FETUS	Medicare Non-Facility Rate	\$24.70	\$23.19	106.5%
Radiology	76805		OB US >= 14 WKS SNGL FETUS	Medicare Facility/Non-Facility Rate	\$115.13	\$144.68	79.6%
Radiology	76805	26	OB US >= 14 WKS SNGL FETUS	Medicare Facility/Non-Facility Rate	\$46.72	\$48.76	95.8%
Radiology	76805	TC	OB US >= 14 WKS SNGL FETUS	Medicare Facility/Non-Facility Rate	\$68.41	\$95.92	71.3%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	76810		OB US >= 14 WKS ADDL FETUS	Medicare Non-Facility Rate	\$95.47	\$93.25	102.4%
Radiology	76810	26	OB US >= 14 WKS ADDL FETUS	Medicare Facility/Non-Facility Rate	\$46.88	\$48.05	97.6%
Radiology	76810	TC	OB US >= 14 WKS ADDL FETUS	Medicare Non-Facility Rate	\$48.59	\$45.19	107.5%
Radiology	76811		OB US DETAILED SNGL FETUS	Medicare Facility/Non-Facility Rate	\$202.55	\$183.96	110.1%
Radiology	76811	26	OB US DETAILED SNGL FETUS	Medicare Facility/Non-Facility Rate	\$83.85	\$93.76	89.4%
Radiology	76811	TC	OB US DETAILED SNGL FETUS	Medicare Non-Facility Rate	\$118.71	\$90.19	131.6%
Radiology	76812		OB US DETAILED ADDL FETUS	Medicare Non-Facility Rate	\$119.68	\$205.72	58.2%
Radiology	76812	26	OB US DETAILED ADDL FETUS	Medicare Facility/Non-Facility Rate	\$78.41	\$88.16	88.9%
Radiology	76812	TC	OB US DETAILED ADDL FETUS	Medicare Non-Facility Rate	\$41.35	\$117.56	35.2%
Radiology	76813		OB US NUCHAL MEAS 1 GEST	Medicare Facility/Non-Facility Rate	\$107.25	\$125.54	85.4%
Radiology	76813	26	OB US NUCHAL MEAS 1 GEST	Medicare Facility/Non-Facility Rate	\$46.39	\$58.24	79.7%
Radiology	76813	TC	OB US NUCHAL MEAS 1 GEST	Medicare Non-Facility Rate	\$60.93	\$67.30	90.5%
Radiology	76814		OB US NUCHAL MEAS ADD-ON	Medicare Non-Facility Rate	\$70.28	\$79.83	88.0%
Radiology	76814	26	OB US NUCHAL MEAS ADD-ON	Medicare Facility/Non-Facility Rate	\$38.92	\$49.12	79.2%
Radiology	76814	TC	OB US NUCHAL MEAS ADD-ON	Medicare Non-Facility Rate	\$31.44	\$30.70	102.4%
Radiology	76815		OB US LIMITED FETUS(S)	Medicare Facility/Non-Facility Rate	\$73.77	\$86.89	84.9%
Radiology	76815	26	OB US LIMITED FETUS(S)	Medicare Facility/Non-Facility Rate	\$28.01	\$31.91	87.8%
Radiology	76815	TC	OB US LIMITED FETUS(S)	Medicare Facility/Non-Facility Rate	\$45.75	\$54.98	83.2%
Radiology	76816		OB US FOLLOW-UP PER FETUS	Medicare Facility/Non-Facility Rate	\$63.21	\$117.37	53.9%
Radiology	76816	26	OB US FOLLOW-UP PER FETUS	Medicare Facility/Non-Facility Rate	\$26.90	\$42.10	63.9%
Radiology	76816	TC	OB US FOLLOW-UP PER FETUS	Medicare Facility/Non-Facility Rate	\$36.32	\$75.27	48.3%
Radiology	76817		TRANSVAGINAL US OBSTETRIC	Medicare Facility/Non-Facility Rate	\$80.76	\$99.41	81.2%
Radiology	76817	26	TRANSVAGINAL US OBSTETRIC	Medicare Facility/Non-Facility Rate	\$32.41	\$37.19	87.1%
Radiology	76817	TC	TRANSVAGINAL US OBSTETRIC	Medicare Non-Facility Rate	\$48.34	\$62.22	77.7%
Radiology	76818		FETAL BIOPHYS PROFILE W/NST	Medicare Facility/Non-Facility Rate	\$81.24	\$121.66	66.8%
Radiology	76818	26	FETAL BIOPHYS PROFILE W/NST	Medicare Facility/Non-Facility Rate	\$36.56	\$51.93	70.4%
Radiology	76818	TC	FETAL BIOPHYS PROFILE W/NST	Medicare Non-Facility Rate	\$44.69	\$69.74	64.1%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	76819		FETAL BIOPHYS PROFIL W/O NST	Medicare Facility/Non-Facility Rate	\$82.95	\$88.87	93.3%
Radiology	76819	26	FETAL BIOPHYS PROFIL W/O NST	Medicare Facility/Non-Facility Rate	\$29.08	\$38.24	76.0%
Radiology	76819	TC	FETAL BIOPHYS PROFIL W/O NST	Medicare Non-Facility Rate	\$53.87	\$50.63	106.4%
Radiology	76820		UMBILICAL ARTERY ECHO	Medicare Facility/Non-Facility Rate	\$51.35	\$47.83	107.4%
Radiology	76820	26	UMBILICAL ARTERY ECHO	Medicare Facility/Non-Facility Rate	\$23.24	\$24.74	93.9%
Radiology	76820	TC	UMBILICAL ARTERY ECHO	Medicare Non-Facility Rate	\$27.47	\$23.09	119.0%
Radiology	76821		MIDDLE CEREBRAL ARTERY ECHO	Medicare Facility/Non-Facility Rate	\$87.99	\$94.61	93.0%
Radiology	76821	26	MIDDLE CEREBRAL ARTERY ECHO	Medicare Facility/Non-Facility Rate	\$32.34	\$34.56	93.6%
Radiology	76821	TC	MIDDLE CEREBRAL ARTERY ECHO	Medicare Non-Facility Rate	\$55.65	\$60.05	92.7%
Radiology	76825		ECHO EXAM OF FETAL HEART	Medicare Non-Facility Rate	\$124.30	\$283.43	43.9%
Radiology	76825	26	ECHO EXAM OF FETAL HEART	Medicare Facility/Non-Facility Rate	\$62.88	\$81.64	77.0%
Radiology	76825	TC	ECHO EXAM OF FETAL HEART	Medicare Non-Facility Rate	\$61.41	\$201.79	30.4%
Radiology	76826		ECHO EXAM OF FETAL HEART	Medicare Non-Facility Rate	\$52.82	\$170.93	30.9%
Radiology	76826	26	ECHO EXAM OF FETAL HEART	Medicare Facility Rate	\$24.38	\$41.05	59.4%
Radiology	76826	TC	ECHO EXAM OF FETAL HEART	Medicare Non-Facility Rate	\$28.43	\$129.88	21.9%
Radiology	76827		ECHO EXAM OF FETAL HEART	Medicare Facility/Non-Facility Rate	\$68.17	\$75.24	90.6%
Radiology	76827	26	ECHO EXAM OF FETAL HEART	Medicare Facility/Non-Facility Rate	\$27.47	\$28.23	97.3%
Radiology	76827	TC	ECHO EXAM OF FETAL HEART	Medicare Facility/Non-Facility Rate	\$40.70	\$47.01	86.6%
Radiology	76828		ECHO EXAM OF FETAL HEART	Medicare Non-Facility Rate	\$50.45	\$52.44	96.2%
Radiology	76828	26	ECHO EXAM OF FETAL HEART	Medicare Facility Rate	\$26.66	\$27.54	96.8%
Radiology	76828	TC	ECHO EXAM OF FETAL HEART	Medicare Non-Facility Rate	\$23.81	\$24.90	95.6%
Radiology	76830		TRANSVAGINAL US NON-OB	Medicare Facility/Non-Facility Rate	\$81.24	\$129.22	62.9%
Radiology	76830	26	TRANSVAGINAL US NON-OB	Medicare Facility/Non-Facility Rate	\$33.29	\$34.02	97.9%
Radiology	76830	TC	TRANSVAGINAL US NON-OB	Medicare Non-Facility Rate	\$40.62	\$95.20	42.7%
Radiology	76831		ECHO EXAM UTERUS	Medicare Non-Facility Rate	\$78.25	\$125.55	62.3%
Radiology	76831	26	ECHO EXAM UTERUS	Medicare Facility Rate	\$31.61	\$35.79	88.3%
Radiology	76856		US EXAM PELVIC COMPLETE	Medicare Facility/Non-Facility Rate	\$85.30	\$114.00	74.8%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	76856	26	US EXAM PELVIC COMPLETE	Medicare Facility/Non-Facility Rate	\$33.63	\$34.02	98.9%
Radiology	76856	TC	US EXAM PELVIC COMPLETE	Medicare Non-Facility Rate	\$42.24	\$79.98	52.8%
Radiology	76857		US EXAM PELVIC LIMITED	Medicare Facility/Non-Facility Rate	\$73.12	\$50.36	145.2%
Radiology	76857	26	US EXAM PELVIC LIMITED	Medicare Facility/Non-Facility Rate	\$19.00	\$24.01	79.1%
Radiology	76857	TC	US EXAM PELVIC LIMITED	Medicare Non-Facility Rate	\$40.62	\$26.35	154.2%
Radiology	76870		US EXAM SCROTUM	Medicare Non-Facility Rate	\$65.00	\$108.64	59.8%
Radiology	76870	26	US EXAM SCROTUM	Medicare Facility/Non-Facility Rate	\$31.52	\$31.57	99.8%
Radiology	76870	TC	US EXAM SCROTUM	Medicare Non-Facility Rate	\$32.49	\$77.08	42.2%
Radiology	76872		US TRANSRECTAL	Medicare Facility/Non-Facility Rate	\$81.24	\$219.90	36.9%
Radiology	76872	26	US TRANSRECTAL	Medicare Facility Rate	\$34.94	\$33.13	105.5%
Radiology	76881		US COMPL JOINT R-T W/IMG	Medicare Facility/Non-Facility Rate	\$93.35	\$61.75	151.2%
Radiology	76881	26	US COMPL JOINT R-T W/IMG	Medicare Facility/Non-Facility Rate	\$23.24	\$31.05	74.8%
Radiology	76881	TC	US COMPL JOINT R-T W/IMG	Medicare Non-Facility Rate	\$70.12	\$30.70	228.4%
Radiology	76882		US LMTD JT/NONVASC XTR STRUX	Medicare Facility/Non-Facility Rate	\$24.38	\$59.44	41.0%
Radiology	76882	26	US LMTD JT/NONVASC XTR STRUX	Medicare Facility/Non-Facility Rate	\$16.17	\$23.66	68.3%
Radiology	76882	TC	US LMTD JT/NONVASC XTR STRUX	Medicare Facility/Non-Facility Rate	\$8.21	\$35.77	23.0%
Radiology	76885		US EXAM INFANT HIPS DYNAMIC	Medicare Non-Facility Rate	\$78.80	\$148.24	53.2%
Radiology	76885	26	US EXAM INFANT HIPS DYNAMIC	Medicare Facility/Non-Facility Rate	\$32.16	\$36.48	88.2%
Radiology	76885	TC	US EXAM INFANT HIPS DYNAMIC	Medicare Non-Facility Rate	\$46.64	\$111.77	41.7%
Radiology	76886	26	US EXAM INFANT HIPS STATIC	Medicare Facility/Non-Facility Rate	\$27.12	\$30.51	88.9%
Radiology	76886	TC	US EXAM INFANT HIPS STATIC	Medicare Non-Facility Rate	\$43.14	\$77.80	55.4%
Radiology	76932	26	ECHO GUIDE FOR HEART BIOPSY	Medicare Facility Rate	\$32.49	\$36.11	90.0%
Radiology	76936	26	ECHO GUIDE FOR ARTERY REPAIR	Medicare Facility Rate	\$96.43	\$95.43	101.0%
Radiology	76937		US GUIDE VASCULAR ACCESS	Medicare Facility/Non-Facility Rate	\$26.97	\$41.72	64.6%
Radiology	76937	26	US GUIDE VASCULAR ACCESS	Medicare Facility/Non-Facility Rate	\$13.17	\$13.82	95.3%
Radiology	76940	26	US GUIDE TISSUE ABLATION	Medicare Facility Rate	\$81.81	\$100.56	81.4%
Radiology	76941	26	ECHO GUIDE FOR TRANSFUSION	Medicare Facility Rate	\$47.61	\$65.96	72.2%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	76942		ECHO GUIDE FOR BIOPSY	Medicare Facility/Non-Facility Rate	\$81.24	\$60.77	133.7%
Radiology	76942	26	ECHO GUIDE FOR BIOPSY	Medicare Facility/Non-Facility Rate	\$32.98	\$31.16	105.8%
Radiology	76942	TC	ECHO GUIDE FOR BIOPSY	Medicare Non-Facility Rate	\$40.62	\$29.61	137.2%
Radiology	76945		ECHO GUIDE VILLUS SAMPLING	Medicare Non-Facility Rate	\$84.08	\$32.80	256.3%
Radiology	76945	26	ECHO GUIDE VILLUS SAMPLING	Medicare Facility Rate	\$31.94	\$32.80	97.4%
Radiology	76946		ECHO GUIDE FOR AMNIOCENTESIS	Medicare Non-Facility Rate	\$42.24	\$33.62	125.6%
Radiology	76946	26	ECHO GUIDE FOR AMNIOCENTESIS	Medicare Facility Rate	\$18.03	\$18.50	97.5%
Radiology	76946	TC	ECHO GUIDE FOR AMNIOCENTESIS	Medicare Non-Facility Rate	\$24.21	\$15.12	160.1%
Radiology	76965	26	ECHO GUIDANCE RADIOTHERAPY	Medicare Facility Rate	\$66.70	\$68.13	97.9%
Radiology	76978	26	US TRGT DYN MBUBB 1ST LES	Medicare Facility Rate	\$96.42	\$79.52	121.3%
Radiology	76998		US GUIDE INTRAOP	Other States' Average Rate	\$60.52	\$137.89	43.9%
Radiology	76998		US GUIDE INTRAOP	Other States' Average Rate	\$60.52	\$170.04	35.6%
Radiology	76998	26	US GUIDE INTRAOP	Medicare Facility/Non-Facility Rate	\$42.16	\$61.64	68.4%
Radiology	77001		FLUOROGUIDE FOR VEIN DEVICE	Medicare Facility/Non-Facility Rate	\$71.09	\$110.51	64.3%
Radiology	77001	26	FLUOROGUIDE FOR VEIN DEVICE	Medicare Facility/Non-Facility Rate	\$15.60	\$18.57	84.0%
Radiology	77002		NEEDLE LOCALIZATION BY XRAY	Medicare Facility/Non-Facility Rate	\$64.35	\$125.11	51.4%
Radiology	77002	26	NEEDLE LOCALIZATION BY XRAY	Medicare Facility/Non-Facility Rate	\$21.45	\$27.74	77.3%
Radiology	77002	TC	NEEDLE LOCALIZATION BY XRAY	Medicare Facility/Non-Facility Rate	\$42.90	\$97.37	44.1%
Radiology	77003		FLUOROGUIDE FOR SPINE INJECT	Medicare Facility/Non-Facility Rate	\$62.32	\$113.06	55.1%
Radiology	77003	26	FLUOROGUIDE FOR SPINE INJECT	Medicare Facility/Non-Facility Rate	\$23.07	\$29.46	78.3%
Radiology	77011	26	CT SCAN FOR LOCALIZATION	Medicare Facility Rate	\$49.23	\$62.88	78.3%
Radiology	77012		CT SCAN FOR NEEDLE BIOPSY	Medicare Facility/Non-Facility Rate	\$188.49	\$150.63	125.1%
Radiology	77012	26	CT SCAN FOR NEEDLE BIOPSY	Medicare Facility/Non-Facility Rate	\$47.13	\$71.74	65.7%
Radiology	77012	TC	CT SCAN FOR NEEDLE BIOPSY	Medicare Non-Facility Rate	\$131.21	\$78.89	166.3%
Radiology	77013	26	CT GUIDE FOR TISSUE ABLATION	Medicare Facility Rate	\$135.28	\$185.46	72.9%
Radiology	77014		CT SCAN FOR THERAPY GUIDE	Medicare Facility/Non-Facility Rate	\$146.65	\$127.88	114.7%
Radiology	77014	26	CT SCAN FOR THERAPY GUIDE	Medicare Facility/Non-Facility Rate	\$34.94	\$45.72	76.4%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	77022	26	MRI FOR TISSUE ABLATION	Medicare Facility Rate	\$148.11	\$206.61	71.7%
Radiology	77046	26	MRI BREAST C- UNILATERAL	Medicare Facility Rate	\$83.26	\$71.19	117.0%
Radiology	77047		MRI BREAST C- BILATERAL	Medicare Non-Facility Rate	\$238.80	\$246.13	97.0%
Radiology	77047	26	MRI BREAST C- BILATERAL	Medicare Facility Rate	\$88.78	\$78.20	113.5%
Radiology	77048	26	MRI BREAST C++ W/CAD UNI	Medicare Facility Rate	\$93.14	\$102.57	90.8%
Radiology	77049		MRI BREAST C++ W/CAD BI	Medicare Non-Facility Rate	\$419.84	\$387.84	108.3%
Radiology	77049	26	MRI BREAST C++ W/CAD BI	Medicare Facility Rate	\$98.65	\$112.30	87.8%
Radiology	77053	26	X-RAY OF MAMMARY DUCT	Medicare Facility Rate	\$14.86	\$17.71	83.9%
Radiology	77053		X-RAY OF MAMMARY DUCT	Medicare Non-Facility Rate	\$87.75	\$56.75	154.6%
Radiology	77065		DX MAMMO INCL CAD UNI	Medicare Facility/Non-Facility Rate	\$109.44	\$134.46	81.4%
Radiology	77065	26	DX MAMMO INCL CAD UNI	Medicare Facility/Non-Facility Rate	\$30.96	\$39.63	78.1%
Radiology	77065	TC	DX MAMMO INCL CAD UNI	Medicare Non-Facility Rate	\$78.49	\$94.83	82.8%
Radiology	77066		DX MAMMO INCL CAD BI	Medicare Non-Facility Rate	\$139.09	\$169.93	81.9%
Radiology	77066	26	DX MAMMO INCL CAD BI	Medicare Facility/Non-Facility Rate	\$46.97	\$49.01	95.8%
Radiology	77066	TC	DX MAMMO INCL CAD BI	Medicare Non-Facility Rate	\$92.13	\$120.92	76.2%
Radiology	77067		SCR MAMMO BI INCL CAD	Medicare Facility/Non-Facility Rate	\$113.98	\$137.08	83.1%
Radiology	77067	26	SCR MAMMO BI INCL CAD	Medicare Facility/Non-Facility Rate	\$32.75	\$37.17	88.1%
Radiology	77067	TC	SCR MAMMO BI INCL CAD	Medicare Non-Facility Rate	\$81.24	\$99.91	81.3%
Radiology	77071		X-RAY STRESS VIEW	Medicare Facility/Non-Facility Rate	\$24.38	\$58.36	41.8%
Radiology	77072		X-RAYS FOR BONE AGE	Medicare Non-Facility Rate	\$19.19	\$27.77	69.1%
Radiology	77072	26	X-RAYS FOR BONE AGE	Medicare Facility/Non-Facility Rate	\$7.39	\$9.38	78.8%
Radiology	77072	TC	X-RAYS FOR BONE AGE	Medicare Non-Facility Rate	\$11.77	\$18.38	64.0%
Radiology	77073		X-RAYS BONE LENGTH STUDIES	Medicare Non-Facility Rate	\$36.14	\$48.21	75.0%
Radiology	77073	26	X-RAYS BONE LENGTH STUDIES	Medicare Facility/Non-Facility Rate	\$11.06	\$13.52	81.8%
Radiology	77073	TC	X-RAYS BONE LENGTH STUDIES	Medicare Non-Facility Rate	\$25.11	\$34.69	72.4%
Radiology	77074		X-RAYS BONE SURVEY LIMITED	Medicare Non-Facility Rate	\$54.85	\$69.66	78.7%
Radiology	77074	26	X-RAYS BONE SURVEY LIMITED	Medicare Facility Rate	\$18.53	\$21.57	85.9%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	77074	TC	X-RAYS BONE SURVEY LIMITED	Medicare Non-Facility Rate	\$36.32	\$48.09	75.5%
Radiology	77075		X-RAYS BONE SURVEY COMPLETE	Medicare Non-Facility Rate	\$76.54	\$106.61	71.8%
Radiology	77075	26	X-RAYS BONE SURVEY COMPLETE	Medicare Facility Rate	\$22.10	\$27.36	80.8%
Radiology	77075	TC	X-RAYS BONE SURVEY COMPLETE	Medicare Non-Facility Rate	\$54.36	\$79.25	68.6%
Radiology	77076	26	X-RAYS BONE SURVEY INFANT	Medicare Facility/Non-Facility Rate	\$28.35	\$34.37	82.5%
Radiology	77077		JOINT SURVEY SINGLE VIEW	Medicare Non-Facility Rate	\$46.46	\$49.91	93.1%
Radiology	77077	26	JOINT SURVEY SINGLE VIEW	Medicare Facility/Non-Facility Rate	\$12.74	\$17.03	74.8%
Radiology	77078	26	CT BONE DENSITY AXIAL	Medicare Facility Rate	\$10.17	\$12.19	83.4%
Radiology	77080		DXA BONE DENSITY AXIAL	Medicare Non-Facility Rate	\$67.28	\$39.34	171.0%
Radiology	77080	26	DXA BONE DENSITY AXIAL	Medicare Facility/Non-Facility Rate	\$9.02	\$9.73	92.7%
Radiology	77080	TC	DXA BONE DENSITY AXIAL	Medicare Non-Facility Rate	\$57.52	\$29.61	194.3%
Radiology	77081		DXA BONE DENSITY/PERIPHERAL	Medicare Non-Facility Rate	\$28.60	\$32.82	87.1%
Radiology	77081	26	DXA BONE DENSITY/PERIPHERAL	Medicare Facility Rate	\$9.26	\$10.09	91.8%
Radiology	77085		DXA BONE DENSITY STUDY	Medicare Non-Facility Rate	\$45.16	\$54.04	83.6%
Radiology	77085	26	DXA BONE DENSITY STUDY	Medicare Facility Rate	\$12.60	\$15.01	83.9%
Radiology	77085	TC	DXA BONE DENSITY STUDY	Medicare Non-Facility Rate	\$32.49	\$39.03	83.2%
Radiology	77261		RADIATION THERAPY PLANNING	Medicare Facility/Non-Facility Rate	\$60.93	\$72.42	84.1%
Radiology	77263		RADIATION THERAPY PLANNING	Medicare Facility/Non-Facility Rate	\$137.54	\$171.04	80.4%
Radiology	77280		SET RADIATION THERAPY FIELD	Medicare Non-Facility Rate	\$52.82	\$286.81	18.4%
Radiology	77280	26	SET RADIATION THERAPY FIELD	Medicare Facility/Non-Facility Rate	\$21.12	\$38.72	54.5%
Radiology	77285		SET RADIATION THERAPY FIELD	Medicare Non-Facility Rate	\$101.56	\$474.57	21.4%
Radiology	77290		SET RADIATION THERAPY FIELD	Medicare Non-Facility Rate	\$154.37	\$487.96	31.6%
Radiology	77290	26	SET RADIATION THERAPY FIELD	Medicare Facility/Non-Facility Rate	\$61.74	\$84.16	73.4%
Radiology	77290	TC	SET RADIATION THERAPY FIELD	Medicare Non-Facility Rate	\$92.62	\$403.80	22.9%
Radiology	77293		RESPIRATOR MOTION MGMT SIMUL	Medicare Facility/Non-Facility Rate	\$351.86	\$443.75	79.3%
Radiology	77293	26	RESPIRATOR MOTION MGMT SIMUL	Medicare Facility Rate	\$77.34	\$107.54	71.9%
Radiology	77295		3-D RADIOTHERAPY PLAN	Medicare Non-Facility Rate	\$492.51	\$496.29	99.2%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	77295	26	3-D RADIOTHERAPY PLAN	Medicare Facility/Non-Facility Rate	\$109.77	\$229.93	47.7%
Radiology	77295	TC	3-D RADIOTHERAPY PLAN	Medicare Non-Facility Rate	\$382.74	\$266.36	143.7%
Radiology	77300		RADIATION THERAPY DOSE PLAN	Medicare Non-Facility Rate	\$56.07	\$67.93	82.5%
Radiology	77300	26	RADIATION THERAPY DOSE PLAN	Medicare Facility/Non-Facility Rate	\$29.83	\$33.24	89.7%
Radiology	77300	TC	RADIATION THERAPY DOSE PLAN	Medicare Non-Facility Rate	\$16.26	\$34.69	46.9%
Radiology	77301		RADIOTHERAPY DOSE PLAN IMRT	Medicare Non-Facility Rate	\$1,202.56	\$1,932.96	62.2%
Radiology	77301	26	RADIOTHERAPY DOSE PLAN IMRT	Medicare Facility Rate	\$349.27	\$427.60	81.7%
Radiology	77306		TELETHX ISODOSE PLAN SIMPLE	Medicare Non-Facility Rate	\$115.05	\$152.17	75.6%
Radiology	77306	26	TELETHX ISODOSE PLAN SIMPLE	Medicare Facility Rate	\$56.38	\$74.82	75.4%
Radiology	77307		TELETHX ISODOSE PLAN CPLX	Medicare Non-Facility Rate	\$224.32	\$295.39	75.9%
Radiology	77307	26	TELETHX ISODOSE PLAN CPLX	Medicare Facility Rate	\$116.91	\$155.19	75.3%
Radiology	77316		BRACHYTX ISODOSE PLAN SIMPLE	Medicare Non-Facility Rate	\$147.69	\$254.51	58.0%
Radiology	77316	26	BRACHYTX ISODOSE PLAN SIMPLE	Medicare Facility Rate	\$57.61	\$74.82	77.0%
Radiology	77317	26	BRACHYTX ISODOSE INTERMED	Medicare Facility Rate	\$75.41	\$98.49	76.6%
Radiology	77318	26	BRACHYTX ISODOSE COMPLEX	Medicare Facility Rate	\$119.84	\$155.19	77.2%
Radiology	77321		SPECIAL TELETX PORT PLAN	Medicare Non-Facility Rate	\$60.93	\$97.28	62.6%
Radiology	77321	26	SPECIAL TELETX PORT PLAN	Medicare Facility Rate	\$24.38	\$51.00	47.8%
Radiology	77331	26	SPECIAL RADIATION DOSIMETRY	Medicare Facility Rate	\$32.49	\$46.78	69.5%
Radiology	77331		SPECIAL RADIATION DOSIMETRY	Medicare Non-Facility Rate	\$59.87	\$66.61	89.9%
Radiology	77332		RADIATION TREATMENT AID(S)	Medicare Non-Facility Rate	\$60.93	\$39.94	152.6%
Radiology	77332	26	RADIATION TREATMENT AID(S)	Medicare Facility/Non-Facility Rate	\$24.38	\$24.45	99.7%
Radiology	77333	26	RADIATION TREATMENT AID(S)	Medicare Facility Rate	\$32.49	\$40.45	80.3%
Radiology	77333		RADIATION TREATMENT AID(S)	Medicare Non-Facility Rate	\$65.73	\$147.24	44.6%
Radiology	77334		RADIATION TREATMENT AID(S)	Medicare Non-Facility Rate	\$101.56	\$129.57	78.4%
Radiology	77334	26	RADIATION TREATMENT AID(S)	Medicare Facility/Non-Facility Rate	\$40.62	\$61.55	66.0%
Radiology	77334	TC	RADIATION TREATMENT AID(S)	Medicare Non-Facility Rate	\$60.93	\$68.02	89.6%
Radiology	77336		RADIATION PHYSICS CONSULT	Medicare Non-Facility Rate	\$58.73	\$87.27	67.3%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	77338		DESIGN MLC DEVICE FOR IMRT	Medicare Non-Facility Rate	\$298.89	\$478.71	62.4%
Radiology	77338	26	DESIGN MLC DEVICE FOR IMRT	Medicare Facility/Non-Facility Rate	\$140.15	\$229.93	61.0%
Radiology	77370		RADIATION PHYSICS CONSULT	Medicare Non-Facility Rate	\$68.08	\$139.06	49.0%
Radiology	77372		SRS LINEAR BASED	Medicare Non-Facility Rate	\$762.71	\$1,052.26	72.5%
Radiology	77373		SBRT DELIVERY	Medicare Non-Facility Rate	\$1,423.16	\$1,086.76	131.0%
Radiology	77385		NTSTY MODUL RAD TX DLVR SMPL	Other States' Average Rate	\$500.21	\$681.81	73.4%
Radiology	77386		NTSTY MODUL RAD TX DLVR CPLX	Other States' Average Rate	\$420.84	\$770.95	54.6%
Radiology	77387		GUIDANCE FOR RADIAJ TX DLVR	Other States' Average Rate	\$60.04	\$126.13	47.6%
Radiology	77387		GUIDANCE FOR RADIAJ TX DLVR	Other States' Average Rate	\$60.04	\$29.05	206.7%
Radiology	77387	26	GUIDANCE FOR RADIAJ TX DLVR	Other States' Average Rate	\$16.26	\$74.40	21.9%
Radiology	77387	26	GUIDANCE FOR RADIAJ TX DLVR	Other States' Average Rate	\$16.26	\$19.92	81.6%
Radiology	77387	TC	GUIDANCE FOR RADIAJ TX DLVR	Other States' Average Rate	\$43.79	\$19.92	219.8%
Radiology	77401		RADIATION TREATMENT DELIVERY	Medicare Non-Facility Rate	\$30.05	\$44.11	68.1%
Radiology	77412		RADIATION TREATMENT DELIVERY	Other States' Average Rate	\$71.26	\$142.28	50.1%
Radiology	77417		RADIOLOGY PORT IMAGES(S)	Medicare Non-Facility Rate	\$18.03	\$13.31	135.5%
Radiology	77427		RADIATION TX MANAGEMENT X5	Medicare Facility/Non-Facility Rate	\$126.41	\$194.03	65.1%
Radiology	77431		RADIATION THERAPY MANAGEMENT	Medicare Facility/Non-Facility Rate	\$79.54	\$109.00	73.0%
Radiology	77432		STEREOTACTIC RADIATION TRMT	Medicare Facility/Non-Facility Rate	\$387.45	\$431.95	89.7%
Radiology	77435		SBRT MANAGEMENT	Medicare Facility/Non-Facility Rate	\$546.76	\$651.84	83.9%
Radiology	77470		SPECIAL RADIATION TREATMENT	Medicare Non-Facility Rate	\$60.93	\$140.01	43.5%
Radiology	77470	26	SPECIAL RADIATION TREATMENT	Medicare Facility Rate	\$24.38	\$109.30	22.3%
Radiology	77770		HDR RDNCL NTRSTL/ICAV BRCHTX	Medicare Non-Facility Rate	\$244.79	\$364.12	67.2%
Radiology	77770	26	HDR RDNCL NTRSTL/ICAV BRCHTX	Medicare Facility Rate	\$76.54	\$104.82	73.0%
Radiology	77771		HDR RDNCL NTRSTL/ICAV BRCHTX	Medicare Non-Facility Rate	\$456.10	\$625.63	72.9%
Radiology	77771	26	HDR RDNCL NTRSTL/ICAV BRCHTX	Medicare Facility Rate	\$149.57	\$202.94	73.7%
Radiology	77772	26	HDR RDNCL NTRSTL/ICAV BRCHTX	Medicare Facility Rate	\$212.12	\$286.57	74.0%
Radiology	77778	26	APPLY INTERSTIT RADIAT COMPL	Medicare Facility Rate	\$492.74	\$469.07	105.0%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	77790		RADIATION HANDLING	Medicare Non-Facility Rate	\$62.97	\$16.93	371.9%
Radiology	78012		THYROID UPTAKE MEASUREMENT	Medicare Non-Facility Rate	\$68.41	\$85.81	79.7%
Radiology	78012	26	THYROID UPTAKE MEASUREMENT	Medicare Facility Rate	\$7.47	\$9.02	82.8%
Radiology	78013		THYROID IMAGING W/BLOOD FLOW	Medicare Non-Facility Rate	\$138.36	\$198.21	69.8%
Radiology	78014		THYROID IMAGING W/BLOOD FLOW	Medicare Facility/Non-Facility Rate	\$202.13	\$243.19	83.1%
Radiology	78014	26	THYROID IMAGING W/BLOOD FLOW	Medicare Facility Rate	\$19.51	\$24.01	81.3%
Radiology	78015	26	THYROID MET IMAGING	Medicare Facility Rate	\$32.49	\$32.97	98.5%
Radiology	78018	26	THYROID MET IMAGING BODY	Medicare Facility Rate	\$42.33	\$40.64	104.2%
Radiology	78020	26	THYROID MET UPTAKE	Medicare Facility Rate	\$8.94	\$27.47	32.5%
Radiology	78070		PARATHYROID PLANAR IMAGING	Medicare Non-Facility Rate	\$97.49	\$298.32	32.7%
Radiology	78070	26	PARATHYROID PLANAR IMAGING	Medicare Facility Rate	\$40.54	\$38.19	106.2%
Radiology	78071	26	PARATHYRD PLANAR W/WO SUBTRJ	Medicare Facility Rate	\$44.04	\$57.39	76.7%
Radiology	78072	26	PARATHYRD PLANAR W/SPECT&CT	Medicare Facility Rate	\$64.20	\$75.40	85.1%
Radiology	78072		PARATHYRD PLANAR W/SPECT&CT	Medicare Facility Rate	\$330.17	\$447.75	73.7%
Radiology	78195	26	LYMPH SYSTEM IMAGING	Medicare Facility Rate	\$40.62	\$57.03	71.2%
Radiology	78201	26	LIVER IMAGING	Medicare Facility Rate	\$21.12	\$20.85	101.3%
Radiology	78215	26	LIVER AND SPLEEN IMAGING	Medicare Facility Rate	\$23.95	\$23.66	101.2%
Radiology	78226		HEPATOBIILIARY SYSTEM IMAGING	Medicare Non-Facility Rate	\$270.78	\$331.65	81.6%
Radiology	78226	26	HEPATOBIILIARY SYSTEM IMAGING	Medicare Facility/Non-Facility Rate	\$28.68	\$35.75	80.2%
Radiology	78226	TC	HEPATOBIILIARY SYSTEM IMAGING	Medicare Non-Facility Rate	\$242.09	\$295.90	81.8%
Radiology	78227		HEPATOBIL SYST IMAGE W/DRUG	Medicare Non-Facility Rate	\$276.71	\$446.42	62.0%
Radiology	78227	26	HEPATOBIL SYST IMAGE W/DRUG	Medicare Facility/Non-Facility Rate	\$34.60	\$43.47	79.6%
Radiology	78227	TC	HEPATOBIL SYST IMAGE W/DRUG	Medicare Non-Facility Rate	\$242.09	\$402.95	60.1%
Radiology	78230	26	SALIVARY GLAND IMAGING	Medicare Facility Rate	\$21.84	\$21.92	99.6%
Radiology	78261	26	GASTRIC MUCOSA IMAGING	Medicare Facility Rate	\$32.49	\$28.52	113.9%
Radiology	78262		GASTROESOPHAGEAL REFLUX EXAM	Medicare Non-Facility Rate	\$65.00	\$250.32	26.0%
Radiology	78264		GASTRIC EMPTYING IMAG STUDY	Medicare Non-Facility Rate	\$32.49	\$337.01	9.6%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	78264	26	GASTRIC EMPTYING IMAG STUDY	Medicare Facility Rate	\$16.26	\$38.21	42.6%
Radiology	78265	26	GASTRIC EMPTYING IMAG STUDY	Medicare Facility Rate	\$36.97	\$46.97	78.7%
Radiology	78267		BREATH TST ATTAIN/ANAL C-14	Other States' Average Rate	\$11.06	\$10.15	109.0%
Radiology	78268		BREATH TEST ANALYSIS C-14	Other States' Average Rate	\$94.41	\$86.73	108.9%
Radiology	78278	26	ACUTE GI BLOOD LOSS IMAGING	Medicare Facility Rate	\$43.71	\$47.68	91.7%
Radiology	78290	26	MECKELS DIVERT EXAM	Medicare Facility Rate	\$32.49	\$32.59	99.7%
Radiology	78300	26	BONE IMAGING LIMITED AREA	Medicare Facility Rate	\$30.47	\$30.51	99.9%
Radiology	78306		BONE IMAGING WHOLE BODY	Medicare Non-Facility Rate	\$170.61	\$301.85	56.5%
Radiology	78306	26	BONE IMAGING WHOLE BODY	Medicare Facility/Non-Facility Rate	\$42.33	\$41.00	103.2%
Radiology	78315		BONE IMAGING 3 PHASE	Medicare Non-Facility Rate	\$160.85	\$352.22	45.7%
Radiology	78315	26	BONE IMAGING 3 PHASE	Medicare Facility Rate	\$35.76	\$48.71	73.4%
Radiology	78430	26	MYOCDR IMG PET RST/STRS W/CT	Medicare Facility Rate	\$82.81	\$77.66	106.6%
Radiology	78431	26	MYOCDR IMG PET RST&STRS CT	Medicare Facility Rate	\$96.43	\$90.50	106.6%
Radiology	78433	26	MYOCDR IMG PET 2RTRACER CT	Medicare Facility Rate	\$112.22	\$105.41	106.5%
Radiology	78434	26	AQMBF PET REST & RX STRESS	Medicare Facility Rate	\$32.43	\$29.96	108.2%
Radiology	78451		HT MUSCLE IMAGE SPECT SING	Medicare Facility/Non-Facility Rate	\$139.42	\$345.76	40.3%
Radiology	78451	26	HT MUSCLE IMAGE SPECT SING	Medicare Facility Rate	\$41.51	\$66.16	62.7%
Radiology	78452		HT MUSCLE IMAGE SPECT MULT	Medicare Non-Facility Rate	\$238.36	\$482.21	49.4%
Radiology	78452	26	HT MUSCLE IMAGE SPECT MULT	Medicare Facility/Non-Facility Rate	\$49.16	\$78.27	62.8%
Radiology	78452	TC	HT MUSCLE IMAGE SPECT MULT	Medicare Non-Facility Rate	\$189.23	\$403.94	46.8%
Radiology	78453	26	HT MUSCLE IMAGE PLANAR SING	Medicare Facility Rate	\$30.05	\$48.02	62.6%
Radiology	78454	26	HT MUSC IMAGE PLANAR MULT	Medicare Facility Rate	\$39.98	\$65.31	61.2%
Radiology	78459	26	HEART MUSCLE IMAGING (PET)	Medicare Facility Rate	\$76.54	\$74.85	102.3%
Radiology	78469	26	HEART INFARCT IMAGE (3D)	Medicare Facility Rate	\$46.97	\$44.53	105.5%
Radiology	78472		GATED HEART PLANAR SINGLE	Medicare Non-Facility Rate	\$121.87	\$232.45	52.4%
Radiology	78472	26	GATED HEART PLANAR SINGLE	Medicare Facility Rate	\$49.63	\$47.33	104.9%
Radiology	78481	26	HEART FIRST PASS SINGLE	Medicare Facility Rate	\$51.51	\$47.33	108.8%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	78492	26	HEART IMAGE (PET) MULTIPLE	Medicare Facility Rate	\$97.64	\$86.31	113.1%
Radiology	78580	26	LUNG PERFUSION IMAGING	Medicare Facility/Non-Facility Rate	\$36.48	\$35.75	102.0%
Radiology	78582		LUNG VENTILAT&PERFUS IMAGING	Medicare Facility/Non-Facility Rate	\$265.42	\$338.37	78.4%
Radiology	78582	26	LUNG VENTILAT&PERFUS IMAGING	Medicare Facility Rate	\$41.04	\$51.17	80.2%
Radiology	78597	26	LUNG PERFUSION DIFFERENTIAL	Medicare Facility Rate	\$28.20	\$34.48	81.8%
Radiology	78598	26	LUNG PERF&VENTILAT DIFERENTL	Medicare Facility Rate	\$32.08	\$40.29	79.6%
Radiology	78601	26	BRAIN IMAGE W/FLOW < 4 VIEWS	Medicare Facility Rate	\$25.01	\$24.36	102.7%
Radiology	78606	26	BRAIN IMAGE W/FLOW 4 + VIEWS	Medicare Facility Rate	\$31.52	\$30.84	102.2%
Radiology	78608	26	BRAIN IMAGING (PET)	Medicare Facility Rate	\$65.73	\$70.32	93.5%
Radiology	78610	26	BRAIN FLOW IMAGING ONLY	Medicare Facility Rate	\$15.27	\$14.28	106.9%
Radiology	78630	26	CEREBROSPINAL FLUID SCAN	Medicare Facility Rate	\$33.63	\$32.95	102.1%
Radiology	78630		CEREBROSPINAL FLUID SCAN	Medicare Non-Facility Rate	\$86.11	\$344.79	25.0%
Radiology	78645	26	CSF SHUNT EVALUATION	Medicare Facility Rate	\$24.38	\$26.80	91.0%
Radiology	78707	26	K FLOW/FUNCT IMAGE W/O DRUG	Medicare Facility Rate	\$36.56	\$45.19	80.9%
Radiology	78708		K FLOW/FUNCT IMAGE W/DRUG	Medicare Non-Facility Rate	\$185.32	\$184.79	100.3%
Radiology	78708	26	K FLOW/FUNCT IMAGE W/DRUG	Medicare Facility Rate	\$48.90	\$57.74	84.7%
Radiology	78709	26	K FLOW/FUNCT IMAGE MULTIPLE	Medicare Facility Rate	\$54.67	\$67.37	81.1%
Radiology	78725	26	KIDNEY FUNCTION STUDY	Medicare Facility/Non-Facility Rate	\$18.37	\$18.14	101.3%
Radiology	78761	26	TESTICULAR IMAGING W/FLOW	Medicare Facility Rate	\$35.10	\$35.08	100.1%
Radiology	78800	26	TUMOR IMAGING LIMITED AREA	Medicare Facility Rate	\$32.16	\$31.47	102.2%
Radiology	78801	26	TUMOR IMAGING MULT AREAS	Medicare Facility Rate	\$39.00	\$34.68	112.5%
Radiology	78802	26	RP LOCLZJ TUM WHBDY 1 D IMG	Medicare Facility Rate	\$42.33	\$38.19	110.8%
Radiology	78803	26	RP LOCLZJ TUM SPECT 1 AREA	Medicare Facility Rate	\$53.78	\$51.14	105.2%
Radiology	78803		RP LOCLZJ TUM SPECT 1 AREA	Medicare Non-Facility Rate	\$211.23	\$390.88	54.0%
Radiology	78804	26	TUMOR IMAGING WHOLE BODY	Medicare Facility Rate	\$43.79	\$48.37	90.5%
Radiology	78812	26	PET IMAGE SKULL-THIGH	Medicare Facility Rate	\$79.29	\$91.81	86.4%
Radiology	78814	26	PET IMAGE W/CT LMTD	Medicare Facility Rate	\$87.67	\$104.69	83.7%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	78815		PET IMAGE W/CT SKULL-THIGH	Other States' Average Rate	\$1,577.11	\$1,238.82	127.3%
Radiology	78815	26	PET IMAGE W/CT SKULL-THIGH	Medicare Facility/Non-Facility Rate	\$99.60	\$116.16	85.7%
Radiology	78816		PET IMAGE W/CT FULL BODY	Other States' Average Rate	\$1,579.46	\$1,017.87	155.2%
Radiology	78816	26	PET IMAGE W/CT FULL BODY	Medicare Facility/Non-Facility Rate	\$95.47	\$117.25	81.4%
Radiology	78830	26	RP LOCLZJ TUM SPECT W/CT 1	Medicare Facility Rate	\$75.08	\$69.61	107.9%
Radiology	78831	26	RP LOCLZJ TUM SPECT 2 AREAS	Medicare Facility Rate	\$91.61	\$85.82	106.7%
Radiology	78832	26	RP LOCLZJ TUM SPECT W/CT 2	Medicare Facility Rate	\$106.71	\$99.74	107.0%
Radiology	79005		NUCLEAR RX ORAL ADMIN	Medicare Non-Facility Rate	\$146.40	\$141.10	103.8%
Radiology	79005	26	NUCLEAR RX ORAL ADMIN	Medicare Facility/Non-Facility Rate	\$80.18	\$86.58	92.6%
Radiology	79101	26	NUCLEAR RX IV ADMIN	Medicare Facility Rate	\$87.75	\$96.20	91.2%
Radiology	79445	26	NUCLEAR RX INTRA-ARTERIAL	Medicare Facility Rate	\$107.96	\$111.06	97.2%
Radiology	93925		LOWER EXTREMITY STUDY	Medicare Non-Facility Rate	\$216.53	\$261.80	82.7%
Radiology	93925	26	LOWER EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$51.95	\$38.63	134.5%
Radiology	93925	TC	LOWER EXTREMITY STUDY	Medicare Non-Facility Rate	\$164.56	\$223.17	73.7%
Radiology	93926		LOWER EXTREMITY STUDY	Medicare Non-Facility Rate	\$124.39	\$154.69	80.4%
Radiology	93926	26	LOWER EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$17.39	\$23.36	74.4%
Radiology	93926	TC	LOWER EXTREMITY STUDY	Medicare Non-Facility Rate	\$106.98	\$131.33	81.5%
Radiology	93930		UPPER EXTREMITY STUDY	Medicare Non-Facility Rate	\$206.96	\$211.60	97.8%
Radiology	93930	26	UPPER EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$43.45	\$38.80	112.0%
Radiology	93931		UPPER EXTREMITY STUDY	Medicare Non-Facility Rate	\$138.63	\$134.04	103.4%
Radiology	93931	26	UPPER EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$24.94	\$24.08	103.6%
Radiology	93931	TC	UPPER EXTREMITY STUDY	Medicare Non-Facility Rate	\$113.66	\$109.95	103.4%
Radiology	93970		EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$163.15	\$203.09	80.3%
Radiology	93970	26	EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$79.95	\$34.08	234.6%
Radiology	93970	TC	EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$83.19	\$169.01	49.2%
Radiology	93971		EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$104.90	\$128.78	81.5%
Radiology	93971	26	EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$15.90	\$21.72	73.2%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Radiology	93971	TC	EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$89.00	\$107.05	83.1%
Radiology	93975		VASCULAR STUDY	Medicare Facility/Non-Facility Rate	\$311.28	\$286.76	108.6%
Radiology	93975	26	VASCULAR STUDY	Medicare Facility/Non-Facility Rate	\$136.97	\$56.34	243.1%
Radiology	93975	TC	VASCULAR STUDY	Medicare Non-Facility Rate	\$174.27	\$230.41	75.6%
Radiology	93976		VASCULAR STUDY	Medicare Facility/Non-Facility Rate	\$180.56	\$170.25	106.1%
Radiology	93976	26	VASCULAR STUDY	Medicare Facility/Non-Facility Rate	\$50.57	\$38.92	129.9%
Radiology	93976	TC	VASCULAR STUDY	Medicare Non-Facility Rate	\$130.04	\$131.33	99.0%
Radiology	93978		VASCULAR STUDY	Medicare Non-Facility Rate	\$199.93	\$194.84	102.6%
Radiology	93978	26	VASCULAR STUDY	Medicare Facility/Non-Facility Rate	\$51.16	\$38.70	132.2%
Radiology	93978	TC	VASCULAR STUDY	Medicare Non-Facility Rate	\$148.74	\$156.14	95.3%
Radiology	93979		VASCULAR STUDY	Medicare Non-Facility Rate	\$138.29	\$126.43	109.4%
Radiology	93979	26	VASCULAR STUDY	Medicare Facility/Non-Facility Rate	\$28.92	\$23.72	121.9%
Radiology	93979	TC	VASCULAR STUDY	Medicare Non-Facility Rate	\$109.36	\$102.71	106.5%
Radiology	93980		PENILE VASCULAR STUDY	Medicare Non-Facility Rate	\$164.32	\$121.80	134.9%
Radiology	93980	26	PENILE VASCULAR STUDY	Medicare Facility Rate	\$62.70	\$60.31	104.0%
Radiology	93980	TC	PENILE VASCULAR STUDY	Medicare Non-Facility Rate	\$93.59	\$61.50	152.2%
Radiology	93981	26	PENILE VASCULAR STUDY	Medicare Facility/Non-Facility Rate	\$17.79	\$21.21	83.9%
Radiology	93985		DUP-SCAN HEMO COMPL BI STD	Medicare Non-Facility Rate	\$283.34	\$270.83	104.6%
Radiology	93985	26	DUP-SCAN HEMO COMPL BI STD	Medicare Facility Rate	\$40.22	\$38.24	105.2%
Radiology	93986		DUP-SCAN HEMO COMPL UNI STD	Medicare Facility/Non-Facility Rate	\$164.25	\$160.92	102.1%
Radiology	93986	26	DUP-SCAN HEMO COMPL UNI STD	Medicare Facility Rate	\$25.88	\$24.15	107.2%
Radiology	93990		DOPPLER FLOW TESTING	Medicare Facility/Non-Facility Rate	\$177.09	\$159.01	111.4%
Radiology	93990	26	DOPPLER FLOW TESTING	Medicare Facility Rate	\$25.87	\$23.69	109.2%
Respiratory	94760		MEASURE BLOOD OXYGEN LEVEL	Medicare Facility/Non-Facility Rate	\$2.54	\$2.44	104.1%
Respiratory	94010		BREATHING CAPACITY TEST	Medicare Facility/Non-Facility Rate	\$31.58	\$28.16	112.1%
Respiratory	94010	26	BREATHING CAPACITY TEST	Medicare Facility/Non-Facility Rate	\$7.94	\$8.33	95.3%
Respiratory	94060		EVALUATION OF WHEEZING	Medicare Non-Facility Rate	\$40.18	\$41.12	97.7%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Respiratory	94060	26	EVALUATION OF WHEEZING	Medicare Facility/Non-Facility Rate	\$11.48	\$10.42	110.2%
Respiratory	94070	26	EVALUATION OF WHEEZING	Medicare Facility/Non-Facility Rate	\$14.35	\$28.56	50.2%
Respiratory	94375		RESPIRATORY FLOW VOLUME LOOP	Medicare Facility/Non-Facility Rate	\$35.20	\$40.26	87.4%
Respiratory	94375	26	RESPIRATORY FLOW VOLUME LOOP	Medicare Facility/Non-Facility Rate	\$13.88	\$14.63	94.9%
Respiratory	94618		PULMONARY STRESS TESTING	Medicare Facility/Non-Facility Rate	\$36.41	\$34.45	105.7%
Respiratory	94621	26	CARDIOPULM EXERCISE TESTING	Medicare Facility/Non-Facility Rate	\$31.01	\$70.06	44.3%
Respiratory	94640		AIRWAY INHALATION TREATMENT	Medicare Non-Facility Rate	\$13.00	\$11.86	109.6%
Respiratory	94660		POS AIRWAY PRESSURE CPAP	Medicare Non-Facility Rate	\$53.65	\$66.23	81.0%
Respiratory	94664		EVALUATE PT USE OF INHALER	Medicare Non-Facility Rate	\$13.75	\$18.02	76.3%
Respiratory	94726		PULM FUNCT TST PLETHYSMOGRAP	Medicare Non-Facility Rate	\$44.12	\$57.63	76.6%
Respiratory	94726	26	PULM FUNCT TST PLETHYSMOGRAP	Medicare Facility/Non-Facility Rate	\$10.01	\$12.17	82.3%
Respiratory	94727		PULM FUNCTION TEST BY GAS	Medicare Non-Facility Rate	\$34.61	\$46.13	75.0%
Respiratory	94727	26	PULM FUNCTION TEST BY GAS	Medicare Facility/Non-Facility Rate	\$10.01	\$12.17	82.3%
Respiratory	94729		CO/MEMBANE DIFFUSE CAPACITY	Medicare Non-Facility Rate	\$43.87	\$62.19	70.5%
Respiratory	94729	26	CO/MEMBANE DIFFUSE CAPACITY	Medicare Facility/Non-Facility Rate	\$6.63	\$9.02	73.5%
Respiratory	94762		MEASURE BLOOD OXYGEN LEVEL	Medicare Facility/Non-Facility Rate	\$27.29	\$28.16	96.9%
Respiratory	94011		SPIROMETRY UP TO 2 YRS OLD	Medicare Facility Rate	\$59.83	\$87.09	68.7%
Respiratory	94013		MEAS LUNG VOL THRU 2 YRS	Medicare Facility Rate	\$19.39	\$19.61	98.9%
Respiratory	94014		PATIENT RECORDED SPIROMETRY	Medicare Non-Facility Rate	\$30.87	\$57.58	53.6%
Respiratory	94016		REVIEW PATIENT SPIROMETRY	Medicare Facility/Non-Facility Rate	\$19.73	\$25.07	78.7%
Respiratory	94070		EVALUATION OF WHEEZING	Medicare Non-Facility Rate	\$40.18	\$64.70	62.1%
Respiratory	94150		VITAL CAPACITY TEST	Other States' Average Rate	\$7.19	\$18.04	39.9%
Respiratory	94150	26	VITAL CAPACITY TEST	Other States' Average Rate	\$2.29	\$3.71	61.7%
Respiratory	94200		LUNG FUNCTION TEST (MBC/MVV)	Medicare Facility/Non-Facility Rate	\$14.35	\$16.03	89.5%
Respiratory	94200	26	LUNG FUNCTION TEST (MBC/MVV)	Medicare Facility Rate	\$4.31	\$3.08	139.9%
Respiratory	94610		SURFACTANT ADMIN THRU TUBE	Medicare Facility Rate	\$43.96	\$55.98	78.5%
Respiratory	94617		EXERCISE TST BRNCSPSM	Medicare Non-Facility Rate	\$80.36	\$92.80	86.6%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Respiratory	94617	26	EXERCISE TST BRNCSPSM	Medicare Facility/Non-Facility Rate	\$46.57	\$32.85	141.8%
Respiratory	94618	26	PULMONARY STRESS TESTING	Medicare Facility Rate	\$21.18	\$22.59	93.8%
Respiratory	94621		CARDIOPULM EXERCISE TESTING	Medicare Non-Facility Rate	\$70.81	\$162.43	43.6%
Respiratory	94621	TC	CARDIOPULM EXERCISE TESTING	Medicare Non-Facility Rate	\$39.77	\$92.37	43.1%
Respiratory	94642		AEROSOL INHALATION TREATMENT	Other States' Average Rate	\$134.34	\$41.22	325.9%
Respiratory	94644		CBT 1ST HOUR	Medicare Non-Facility Rate	\$26.27	\$65.85	39.9%
Respiratory	94680	26	EXHALED AIR ANALYSIS O2	Medicare Facility Rate	\$11.77	\$13.16	89.4%
Respiratory	94690		EXHALED AIR ANALYSIS	Medicare Non-Facility Rate	\$47.77	\$46.07	103.7%
Respiratory	94690	26	EXHALED AIR ANALYSIS	Medicare Facility Rate	\$3.37	\$3.78	89.2%
Respiratory	94728	26	PULM FUNCT TEST OSCILLOMETRY	Medicare Facility Rate	\$10.01	\$12.53	79.9%
Respiratory	94761		MEASURE BLOOD OXYGEN LEVEL	Medicare Facility/Non-Facility Rate	\$4.83	\$3.53	136.8%
Respiratory	94780		CAR SEAT/BED TEST 60 MIN	Medicare Non-Facility Rate	\$41.56	\$53.92	77.1%
Respiratory	94780		CAR SEAT/BED TEST 60 MIN	Medicare Facility Rate	\$41.56	\$24.21	171.7%
Respiratory	94781		CAR SEAT/BED TEST + 30 MIN	Medicare Facility Rate	\$16.17	\$8.33	194.1%
Respiratory	94781		CAR SEAT/BED TEST + 30 MIN	Medicare Non-Facility Rate	\$16.17	\$21.37	75.7%
Vaccines and Immunizations	0001A		ADM SARSCOV2 30MCG/0.3ML 1ST	Other States' Average Rate	\$61.77	\$46.78	132.0%
Vaccines and Immunizations	0011A		ADM SARSCOV2 100MCG/0.5ML1ST	Other States' Average Rate	\$61.77	\$46.78	132.0%
Vaccines and Immunizations	90376		RABIES IG HEAT TREATED	Other States' Average Rate	\$103.40	\$281.27	36.8%
Vaccines and Immunizations	90378		RSV MAB IM 50MG	Other States' Average Rate	\$1,582.80	\$1,387.91	114.0%
Vaccines and Immunizations	90384		RH IG FULL-DOSE IM	Other States' Average Rate	\$124.47	\$79.04	157.5%
Vaccines and Immunizations	90385		RH IG MINIDOSE IM	Other States' Average Rate	\$56.65	\$19.90	284.7%
Vaccines and Immunizations	90460		IM ADMIN 1ST/ONLY COMPONENT	Medicare Facility/Non-Facility Rate	\$19.75	\$17.39	113.6%
Vaccines and Immunizations	90471		IMMUNIZATION ADMIN	Medicare Facility/Non-Facility Rate	\$19.75	\$17.39	113.6%
Vaccines and Immunizations	90472		IMMUNIZATION ADMIN EACH ADD	Medicare Facility/Non-Facility Rate	\$11.47	\$13.07	87.8%
Vaccines and Immunizations	90473		IMMUNE ADMIN ORAL/NASAL	Medicare Facility/Non-Facility Rate	\$19.75	\$17.39	113.6%
Vaccines and Immunizations	90474		IMMUNE ADMIN ORAL/NASAL ADDL	Medicare Facility/Non-Facility Rate	\$11.47	\$13.07	87.8%
Vaccines and Immunizations	90620		MENB-4C VACC 2 DOSE IM	Other States' Average Rate	\$191.75	\$180.10	106.5%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Vaccines and Immunizations	90621		MENB-FHBP VACC 2/3 DOSE IM	Other States' Average Rate	\$157.35	\$148.03	106.3%
Vaccines and Immunizations	90632		HEPA VACCINE ADULT IM	Other States' Average Rate	\$73.75	\$61.43	120.1%
Vaccines and Immunizations	90632		HEPA VACCINE ADULT IM	Other States' Average Rate	\$73.75	\$60.52	121.9%
Vaccines and Immunizations	90636		HEP A/HEP B VACC ADULT IM	Other States' Average Rate	\$112.35	\$87.16	128.9%
Vaccines and Immunizations	90647		HIB PRP-OMP VACC 3 DOSE IM	Other States' Average Rate	\$27.25	\$25.44	107.1%
Vaccines and Immunizations	90649		4VHPV VACCINE 3 DOSE IM	Other States' Average Rate	\$172.12	\$146.76	117.3%
Vaccines and Immunizations	90650		2VHPV VACCINE 3 DOSE IM	Other States' Average Rate	\$172.12	\$131.13	131.3%
Vaccines and Immunizations	90651		9VHPV VACCINE 2/3 DOSE IM	Other States' Average Rate	\$239.29	\$243.21	98.4%
Vaccines and Immunizations	90651		9VHPV VACCINE 2/3 DOSE IM	Other States' Average Rate	\$239.29	\$253.60	94.4%
Vaccines and Immunizations	90654		FLU VACC IIV3 NO PRESERV ID	Other States' Average Rate	\$20.19	\$17.19	117.5%
Vaccines and Immunizations	90656		IIV3 VACC NO PRSV 0.5 ML IM	Other States' Average Rate	\$17.61	\$16.75	105.1%
Vaccines and Immunizations	90658		IIV3 VACCINE SPLT 0.5 ML IM	Other States' Average Rate	\$16.20	\$15.26	106.2%
Vaccines and Immunizations	90661		CCIIV3 VAC NO PRSV 0.5 ML IM	Other States' Average Rate	\$15.19	\$22.29	68.1%
Vaccines and Immunizations	90662		IIV NO PRSV INCREASED AG IM	Other States' Average Rate	\$57.01	\$63.87	89.3%
Vaccines and Immunizations	90662		IIV NO PRSV INCREASED AG IM	Other States' Average Rate	\$57.01	\$65.26	87.4%
Vaccines and Immunizations	90670		PCV13 VACCINE IM	Other States' Average Rate	\$211.86	\$212.07	99.9%
Vaccines and Immunizations	90670		PCV13 VACCINE IM	Other States' Average Rate	\$211.86	\$190.44	111.3%
Vaccines and Immunizations	90672		LAIV4 VACCINE INTRANASAL	Other States' Average Rate	\$22.98	\$22.06	104.2%
Vaccines and Immunizations	90674		CCIIV4 VAC NO PRSV 0.5 ML IM	Other States' Average Rate	\$22.06	\$29.30	75.3%
Vaccines and Immunizations	90674		CCIIV4 VAC NO PRSV 0.5 ML IM	Other States' Average Rate	\$22.06	\$29.94	73.7%
Vaccines and Immunizations	90675		RABIES VACCINE IM	Other States' Average Rate	\$247.15	\$329.88	74.9%
Vaccines and Immunizations	90682		RIV4 VACC RECOMBINANT DNA IM	Other States' Average Rate	\$54.16	\$63.87	84.8%
Vaccines and Immunizations	90682		RIV4 VACC RECOMBINANT DNA IM	Other States' Average Rate	\$54.16	\$65.26	83.0%
Vaccines and Immunizations	90686		IIV4 VACC NO PRSV 0.5 ML IM	Other States' Average Rate	\$18.42	\$18.86	97.7%
Vaccines and Immunizations	90686		IIV4 VACC NO PRSV 0.5 ML IM	Other States' Average Rate	\$18.42	\$17.84	103.3%
Vaccines and Immunizations	90688		IIV4 VACCINE SPLT 0.5 ML IM	Other States' Average Rate	\$17.24	\$18.37	93.9%
Vaccines and Immunizations	90688		IIV4 VACCINE SPLT 0.5 ML IM	Other States' Average Rate	\$17.24	\$16.82	102.5%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Vaccines and Immunizations	90707		MMR VACCINE SC	Other States' Average Rate	\$82.49	\$72.02	114.5%
Vaccines and Immunizations	90707		MMR VACCINE SC	Other States' Average Rate	\$82.49	\$60.27	136.9%
Vaccines and Immunizations	90713		POLIOVIRUS IPV SC/IM	Other States' Average Rate	\$36.89	\$28.94	127.5%
Vaccines and Immunizations	90714		TD VACC NO PRESV 7 YRS+ IM	Other States' Average Rate	\$36.14	\$25.07	144.1%
Vaccines and Immunizations	90714		TD VACC NO PRESV 7 YRS+ IM	Other States' Average Rate	\$36.14	\$24.07	150.2%
Vaccines and Immunizations	90715		TDAP VACCINE 7 YRS/> IM	Other States' Average Rate	\$48.14	\$35.94	133.9%
Vaccines and Immunizations	90715		TDAP VACCINE 7 YRS/> IM	Other States' Average Rate	\$48.14	\$35.91	134.1%
Vaccines and Immunizations	90716		VAR VACCINE LIVE SUBQ	Other States' Average Rate	\$142.47	\$125.23	113.8%
Vaccines and Immunizations	90716		VAR VACCINE LIVE SUBQ	Other States' Average Rate	\$142.47	\$104.10	136.9%
Vaccines and Immunizations	90732		PPSV23 VACC 2 YRS+ SUBQ/IM	Other States' Average Rate	\$110.45	\$98.87	111.7%
Vaccines and Immunizations	90732		PPSV23 VACC 2 YRS+ SUBQ/IM	Other States' Average Rate	\$110.45	\$72.30	152.8%
Vaccines and Immunizations	90733		MPSV4 VACCINE SUBQ	Other States' Average Rate	\$127.53	\$93.94	135.8%
Vaccines and Immunizations	90734		MCV4 MENACWY VACCINE IM	Other States' Average Rate	\$140.01	\$116.95	119.7%
Vaccines and Immunizations	90736		HZV VACCINE LIVE SUBQ	Other States' Average Rate	\$217.97	\$165.41	131.8%
Vaccines and Immunizations	90739		HEPB VACC 2 DOSE ADULT IM	Other States' Average Rate	\$117.45	\$141.15	83.2%
Vaccines and Immunizations	90746		HEPB VACCINE 3 DOSE ADULT IM	Other States' Average Rate	\$46.83	\$64.25	72.9%
Vaccines and Immunizations	90746		HEPB VACCINE 3 DOSE ADULT IM	Other States' Average Rate	\$46.83	\$60.73	77.1%
Vaccines and Immunizations	90747		HEPB VACC 4 DOSE IMMUNSUP IM	Other States' Average Rate	\$61.86	\$138.51	44.7%
Vaccines and Immunizations	90750		HZV VACC RECOMBINANT IM	Other States' Average Rate	\$162.01	\$156.77	103.3%
Vaccines and Immunizations	90756		CCIIV4 VACC ABX FREE IM	Other States' Average Rate	\$20.82	\$27.77	75.0%
Vascular	36415		ROUTINE VENIPUNCTURE	Other States' Average Rate	\$3.00	\$2.94	102.1%
Vascular	36416		CAPILLARY BLOOD DRAW	Other States' Average Rate	\$3.24	\$3.55	91.4%
Vascular	93880		EXTRACRANIAL BILAT STUDY	Medicare Facility/Non-Facility Rate	\$116.35	\$206.46	56.4%
Vascular	93880	26	EXTRACRANIAL BILAT STUDY	Medicare Facility/Non-Facility Rate	\$27.36	\$39.26	69.7%
Vascular	93880	TC	EXTRACRANIAL BILAT STUDY	Medicare Non-Facility Rate	\$89.00	\$167.20	53.2%
Vascular	93882		EXTRACRANIAL UNI/LTD STUDY	Medicare Non-Facility Rate	\$103.53	\$134.83	76.8%
Vascular	93882	26	EXTRACRANIAL UNI/LTD STUDY	Medicare Facility/Non-Facility Rate	\$19.45	\$24.52	79.3%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Vascular	93882	TC	EXTRACRANIAL UNI/LTD STUDY	Medicare Non-Facility Rate	\$76.18	\$110.32	69.1%
Vascular	93886		INTRACRANIAL COMPLETE STUDY	Medicare Non-Facility Rate	\$155.85	\$290.80	53.6%
Vascular	93886	26	INTRACRANIAL COMPLETE STUDY	Medicare Facility/Non-Facility Rate	\$38.00	\$46.98	80.9%
Vascular	93886	TC	INTRACRANIAL COMPLETE STUDY	Medicare Non-Facility Rate	\$117.91	\$243.82	48.4%
Vascular	93888		INTRACRANIAL LIMITED STUDY	Medicare Non-Facility Rate	\$192.19	\$173.26	110.9%
Vascular	93888	26	INTRACRANIAL LIMITED STUDY	Medicare Facility Rate	\$24.58	\$25.63	95.9%
Vascular	93888	TC	INTRACRANIAL LIMITED STUDY	Medicare Non-Facility Rate	\$161.63	\$147.64	109.5%
Vascular	93893		TCD EMBOLI DETECT W/INJ	Medicare Facility/Non-Facility Rate	\$270.77	\$420.93	64.3%
Vascular	93922		UPR/L XTREMITY ART 2 LEVELS	Medicare Non-Facility Rate	\$79.52	\$87.89	90.5%
Vascular	93922	26	UPR/L XTREMITY ART 2 LEVELS	Medicare Facility/Non-Facility Rate	\$37.36	\$12.26	304.7%
Vascular	93922	TC	UPR/L XTREMITY ART 2 LEVELS	Medicare Non-Facility Rate	\$42.12	\$75.63	55.7%
Vascular	93923		UPR/LXTR ART STDY 3+ LVLS	Medicare Non-Facility Rate	\$123.32	\$137.55	89.7%
Vascular	93923	26	UPR/LXTR ART STDY 3+ LVLS	Medicare Facility/Non-Facility Rate	\$48.08	\$22.16	217.0%
Vascular	93923	TC	UPR/LXTR ART STDY 3+ LVLS	Medicare Non-Facility Rate	\$75.24	\$115.39	65.2%
Vascular	93924		LWR XTR VASC STDY BILAT	Medicare Non-Facility Rate	\$154.63	\$169.88	91.0%
Vascular	93924	26	LWR XTR VASC STDY BILAT	Medicare Facility Rate	\$66.46	\$24.61	270.1%
Vascular	93925		LOWER EXTREMITY STUDY	Medicare Non-Facility Rate	\$216.53	\$261.80	82.7%
Vascular	93925	26	LOWER EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$51.95	\$38.63	134.5%
Vascular	93925	TC	LOWER EXTREMITY STUDY	Medicare Non-Facility Rate	\$164.56	\$223.17	73.7%
Vascular	93926		LOWER EXTREMITY STUDY	Medicare Non-Facility Rate	\$124.39	\$154.69	80.4%
Vascular	93926	26	LOWER EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$17.39	\$23.36	74.4%
Vascular	93926	TC	LOWER EXTREMITY STUDY	Medicare Non-Facility Rate	\$106.98	\$131.33	81.5%
Vascular	93930		UPPER EXTREMITY STUDY	Medicare Non-Facility Rate	\$206.96	\$211.60	97.8%
Vascular	93930	26	UPPER EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$43.45	\$38.80	112.0%
Vascular	93931		UPPER EXTREMITY STUDY	Medicare Non-Facility Rate	\$138.63	\$134.04	103.4%
Vascular	93931	26	UPPER EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$24.94	\$24.08	103.6%
Vascular	93931	TC	UPPER EXTREMITY STUDY	Medicare Non-Facility Rate	\$113.66	\$109.95	103.4%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Vascular	93970		EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$163.15	\$203.09	80.3%
Vascular	93970	26	EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$79.95	\$34.08	234.6%
Vascular	93970	TC	EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$83.19	\$169.01	49.2%
Vascular	93971		EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$104.90	\$128.78	81.5%
Vascular	93971	26	EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$15.90	\$21.72	73.2%
Vascular	93971	TC	EXTREMITY STUDY	Medicare Facility/Non-Facility Rate	\$89.00	\$107.05	83.1%
Vascular	93975		VASCULAR STUDY	Medicare Facility/Non-Facility Rate	\$311.28	\$286.76	108.6%
Vascular	93975	26	VASCULAR STUDY	Medicare Facility/Non-Facility Rate	\$136.97	\$56.34	243.1%
Vascular	93975	TC	VASCULAR STUDY	Medicare Non-Facility Rate	\$174.27	\$230.41	75.6%
Vascular	93976		VASCULAR STUDY	Medicare Facility/Non-Facility Rate	\$180.56	\$170.25	106.1%
Vascular	93976	26	VASCULAR STUDY	Medicare Facility/Non-Facility Rate	\$50.57	\$38.92	129.9%
Vascular	93976	TC	VASCULAR STUDY	Medicare Non-Facility Rate	\$130.04	\$131.33	99.0%
Vascular	93978		VASCULAR STUDY	Medicare Non-Facility Rate	\$199.93	\$194.84	102.6%
Vascular	93978	26	VASCULAR STUDY	Medicare Facility/Non-Facility Rate	\$51.16	\$38.70	132.2%
Vascular	93978	TC	VASCULAR STUDY	Medicare Non-Facility Rate	\$148.74	\$156.14	95.3%
Vascular	93979		VASCULAR STUDY	Medicare Non-Facility Rate	\$138.29	\$126.43	109.4%
Vascular	93979	26	VASCULAR STUDY	Medicare Facility/Non-Facility Rate	\$28.92	\$23.72	121.9%
Vascular	93979	TC	VASCULAR STUDY	Medicare Non-Facility Rate	\$109.36	\$102.71	106.5%
Vascular	93980		PENILE VASCULAR STUDY	Medicare Non-Facility Rate	\$164.32	\$121.80	134.9%
Vascular	93980	26	PENILE VASCULAR STUDY	Medicare Facility Rate	\$62.70	\$60.31	104.0%
Vascular	93980	TC	PENILE VASCULAR STUDY	Medicare Non-Facility Rate	\$93.59	\$61.50	152.2%
Vascular	93981	26	PENILE VASCULAR STUDY	Medicare Facility/Non-Facility Rate	\$17.79	\$21.21	83.9%
Vascular	93985		DUP-SCAN HEMO COMPL BI STD	Medicare Non-Facility Rate	\$283.34	\$270.83	104.6%
Vascular	93985	26	DUP-SCAN HEMO COMPL BI STD	Medicare Facility Rate	\$40.22	\$38.24	105.2%
Vascular	93986		DUP-SCAN HEMO COMPL UNI STD	Medicare Facility/Non-Facility Rate	\$164.25	\$160.92	102.1%
Vascular	93986	26	DUP-SCAN HEMO COMPL UNI STD	Medicare Facility Rate	\$25.88	\$24.15	107.2%
Vascular	93990		DOPPLER FLOW TESTING	Medicare Facility/Non-Facility Rate	\$177.09	\$159.01	111.4%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Vascular	93990	26	DOPPLER FLOW TESTING	Medicare Facility Rate	\$25.87	\$23.69	109.2%
Women's Health and Family Planning	58150		TOTAL HYSTERECTOMY	Medicare Facility Rate	\$698.26	\$1,033.98	67.5%
Women's Health and Family Planning	58152		TOTAL HYSTERECTOMY	Medicare Facility Rate	\$926.26	\$1,264.96	73.2%
Women's Health and Family Planning	58180		PARTIAL HYSTERECTOMY	Medicare Facility Rate	\$356.26	\$980.21	36.3%
Women's Health and Family Planning	58200		EXTENSIVE HYSTERECTOMY	Medicare Facility Rate	\$712.51	\$1,373.01	51.9%
Women's Health and Family Planning	58210		EXTENSIVE HYSTERECTOMY	Medicare Facility Rate	\$1,068.77	\$1,858.30	57.5%
Women's Health and Family Planning	58240		REMOVAL OF PELVIS CONTENTS	Medicare Facility Rate	\$1,282.51	\$3,002.26	42.7%
Women's Health and Family Planning	58260		VAGINAL HYSTERECTOMY	Medicare Facility Rate	\$676.88	\$861.10	78.6%
Women's Health and Family Planning	58262		VAG HYST INCLUDING T/O	Medicare Facility/Non-Facility Rate	\$621.30	\$950.11	65.4%
Women's Health and Family Planning	58290		VAG HYST COMPLEX	Medicare Facility Rate	\$803.02	\$1,177.62	68.2%
Women's Health and Family Planning	58291		VAG HYST INCL T/O COMPLEX	Medicare Facility Rate	\$882.79	\$1,271.96	69.4%
Women's Health and Family Planning	58292		VAG HYST T/O & REPAIR COMPL	Medicare Facility Rate	\$934.82	\$1,339.98	69.8%
Women's Health and Family Planning	58541		LSH UTERUS 250 G OR LESS	Medicare Facility Rate	\$588.90	\$749.48	78.6%
Women's Health and Family Planning	58542		LSH W/T/O UT 250 G OR LESS	Medicare Facility Rate	\$651.95	\$852.42	76.5%
Women's Health and Family Planning	58544		LSH W/T/O UTERUS ABOVE 250 G	Medicare Facility Rate	\$717.14	\$927.75	77.3%
Women's Health and Family Planning	58545		LAPAROSCOPIC MYOMECTOMY	Medicare Facility Rate	\$644.10	\$920.90	69.9%
Women's Health and Family Planning	58546		LAPARO-MYOMECTOMY COMPLEX	Medicare Facility Rate	\$812.97	\$1,136.60	71.5%
Women's Health and Family Planning	58548		LAP RADICAL HYST	Medicare Facility Rate	\$1,254.02	\$1,920.97	65.3%
Women's Health and Family Planning	58550		LAPARO-ASST VAG HYSTERECTOMY	Medicare Facility Rate	\$670.83	\$902.05	74.4%
Women's Health and Family Planning	58552		LAPARO-VAG HYST INCL T/O	Medicare Facility/Non-Facility Rate	\$627.36	\$1,001.80	62.6%
Women's Health and Family Planning	58554		LAPARO-VAG HYST W/T/O COMPL	Medicare Facility Rate	\$799.79	\$1,330.60	60.1%
Women's Health and Family Planning	58570		TLH UTERUS 250 G OR LESS	Medicare Facility Rate	\$564.66	\$825.84	68.4%
Women's Health and Family Planning	58571		TLH W/T/O 250 G OR LESS	Medicare Facility Rate	\$618.82	\$930.21	66.5%
Women's Health and Family Planning	58572		TLH UTERUS OVER 250 G	Medicare Facility Rate	\$700.03	\$1,060.16	66.0%
Women's Health and Family Planning	58573		TLH W/T/O UTERUS OVER 250 G	Medicare Facility Rate	\$790.16	\$1,243.87	63.5%
Women's Health and Family Planning	77067		SCR MAMMO BI INCL CAD	Medicare Facility/Non-Facility Rate	\$113.98	\$137.08	83.1%
Women's Health and Family Planning	77067	26	SCR MAMMO BI INCL CAD	Medicare Facility/Non-Facility Rate	\$32.75	\$37.17	88.1%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Women's Health and Family Planning	77067	TC	SCR MAMMO BI INCL CAD	Medicare Non-Facility Rate	\$81.24	\$99.91	81.3%
Women's Health and Family Planning	77078	26	CT BONE DENSITY AXIAL	Medicare Facility Rate	\$10.17	\$12.19	83.4%
Women's Health and Family Planning	77080		DXA BONE DENSITY AXIAL	Medicare Non-Facility Rate	\$67.28	\$39.34	171.0%
Women's Health and Family Planning	77080	26	DXA BONE DENSITY AXIAL	Medicare Facility/Non-Facility Rate	\$9.02	\$9.73	92.7%
Women's Health and Family Planning	77080	TC	DXA BONE DENSITY AXIAL	Medicare Non-Facility Rate	\$57.52	\$29.61	194.3%
Women's Health and Family Planning	77081		DXA BONE DENSITY/PERIPHERAL	Medicare Non-Facility Rate	\$28.60	\$32.82	87.1%
Women's Health and Family Planning	77081	26	DXA BONE DENSITY/PERIPHERAL	Medicare Facility Rate	\$9.26	\$10.09	91.8%
Women's Health and Family Planning	88141		CYTOPATH C/V INTERPRET	Medicare Facility/Non-Facility Rate	\$15.93	\$23.04	69.1%
Women's Health and Family Planning	88142		CYTOPATH C/V THIN LAYER	Other States' Average Rate	\$20.26	\$14.67	138.1%
Women's Health and Family Planning	88147		CYTOPATH C/V AUTOMATED	Other States' Average Rate	\$50.56	\$34.67	145.8%
Women's Health and Family Planning	88175		CYTOPATH C/V AUTO FLUID REDO	Other States' Average Rate	\$26.61	\$19.04	139.7%
Women's Health and Family Planning	99202		OFFICE O/P NEW SF 15-29 MIN	Medicare Non-Facility Rate	\$68.12	\$75.19	90.6%
Women's Health and Family Planning	99202		OFFICE O/P NEW SF 15-29 MIN	Medicare Facility Rate	\$68.12	\$49.46	137.7%
Women's Health and Family Planning	99202	GT	OFFICE O/P NEW SF 15-29 MIN	Medicare Facility Rate	\$73.20	\$49.46	148.0%
Women's Health and Family Planning	99202	GT	OFFICE O/P NEW SF 15-29 MIN	Medicare Non-Facility Rate	\$73.20	\$75.19	97.4%
Women's Health and Family Planning	99203		OFFICE O/P NEW LOW 30-44 MIN	Medicare Non-Facility Rate	\$98.87	\$115.01	86.0%
Women's Health and Family Planning	99203		OFFICE O/P NEW LOW 30-44 MIN	Medicare Facility Rate	\$98.87	\$84.21	117.4%
Women's Health and Family Planning	99203	GT	OFFICE O/P NEW LOW 30-44 MIN	Medicare Facility Rate	\$103.95	\$84.21	123.4%
Women's Health and Family Planning	99203	GT	OFFICE O/P NEW LOW 30-44 MIN	Medicare Non-Facility Rate	\$103.95	\$115.01	90.4%
Women's Health and Family Planning	99204		OFFICE O/P NEW MOD 45-59 MIN	Medicare Facility Rate	\$151.79	\$136.65	111.1%
Women's Health and Family Planning	99204		OFFICE O/P NEW MOD 45-59 MIN	Medicare Non-Facility Rate	\$151.79	\$171.08	88.7%
Women's Health and Family Planning	99204	GT	OFFICE O/P NEW MOD 45-59 MIN	Medicare Facility Rate	\$156.87	\$136.65	114.8%
Women's Health and Family Planning	99204	GT	OFFICE O/P NEW MOD 45-59 MIN	Medicare Non-Facility Rate	\$156.87	\$171.08	91.7%
Women's Health and Family Planning	99205		OFFICE O/P NEW HI 60-74 MIN	Medicare Non-Facility Rate	\$189.08	\$226.12	83.6%
Women's Health and Family Planning	99205		OFFICE O/P NEW HI 60-74 MIN	Medicare Facility Rate	\$189.08	\$185.53	101.9%
Women's Health and Family Planning	99205	GT	OFFICE O/P NEW HI 60-74 MIN	Medicare Facility Rate	\$194.16	\$185.53	104.7%
Women's Health and Family Planning	99205	GT	OFFICE O/P NEW HI 60-74 MIN	Medicare Non-Facility Rate	\$194.16	\$226.12	85.9%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Women's Health and Family Planning	99211		OFFICE O/P EST MINIMAL PROB	Medicare Non-Facility Rate	\$18.37	\$24.25	75.8%
Women's Health and Family Planning	99211		OFFICE O/P EST MINIMAL PROB	Medicare Facility Rate	\$18.37	\$9.04	203.2%
Women's Health and Family Planning	99211	GT	OFFICE O/P EST MINIMAL PROB	Medicare Facility Rate	\$23.44	\$9.04	259.3%
Women's Health and Family Planning	99211	GT	OFFICE O/P EST MINIMAL PROB	Medicare Non-Facility Rate	\$23.44	\$24.25	96.7%
Women's Health and Family Planning	99212		OFFICE O/P EST SF 10-19 MIN	Medicare Facility Rate	\$39.98	\$36.61	109.2%
Women's Health and Family Planning	99212		OFFICE O/P EST SF 10-19 MIN	Medicare Non-Facility Rate	\$39.98	\$58.35	68.5%
Women's Health and Family Planning	99212	GT	OFFICE O/P EST SF 10-19 MIN	Medicare Facility Rate	\$45.05	\$36.61	123.1%
Women's Health and Family Planning	99212	GT	OFFICE O/P EST SF 10-19 MIN	Medicare Non-Facility Rate	\$45.05	\$58.35	77.2%
Women's Health and Family Planning	99213		OFFICE O/P EST LOW 20-29 MIN	Medicare Non-Facility Rate	\$66.78	\$93.34	71.5%
Women's Health and Family Planning	99213		OFFICE O/P EST LOW 20-29 MIN	Medicare Facility Rate	\$66.78	\$67.62	98.8%
Women's Health and Family Planning	99213	GT	OFFICE O/P EST LOW 20-29 MIN	Medicare Facility Rate	\$71.85	\$67.62	106.3%
Women's Health and Family Planning	99213	GT	OFFICE O/P EST LOW 20-29 MIN	Medicare Non-Facility Rate	\$71.85	\$93.34	77.0%
Women's Health and Family Planning	99214		OFFICE O/P EST MOD 30-39 MIN	Medicare Non-Facility Rate	\$98.54	\$131.65	74.8%
Women's Health and Family Planning	99214		OFFICE O/P EST MOD 30-39 MIN	Medicare Facility Rate	\$98.54	\$99.41	99.1%
Women's Health and Family Planning	99214	GT	OFFICE O/P EST MOD 30-39 MIN	Medicare Facility Rate	\$103.62	\$99.41	104.2%
Women's Health and Family Planning	99214	GT	OFFICE O/P EST MOD 30-39 MIN	Medicare Non-Facility Rate	\$103.62	\$131.65	78.7%
Women's Health and Family Planning	99215		OFFICE O/P EST HI 40-54 MIN	Medicare Non-Facility Rate	\$131.91	\$185.18	71.2%
Women's Health and Family Planning	99215		OFFICE O/P EST HI 40-54 MIN	Medicare Facility Rate	\$131.91	\$147.50	89.4%
Women's Health and Family Planning	99215	GT	OFFICE O/P EST HI 40-54 MIN	Medicare Facility Rate	\$136.98	\$147.50	92.9%
Women's Health and Family Planning	99215	GT	OFFICE O/P EST HI 40-54 MIN	Medicare Non-Facility Rate	\$136.98	\$185.18	74.0%
Women's Health and Family Planning	99384		PREV VISIT NEW AGE 12-17	Other States' Average Rate	\$125.56	\$114.73	109.4%
Women's Health and Family Planning	99384		PREV VISIT NEW AGE 12-17	Other States' Average Rate	\$125.56	\$98.12	128.0%
Women's Health and Family Planning	99385		PREV VISIT NEW AGE 18-39	Other States' Average Rate	\$121.93	\$115.73	105.4%
Women's Health and Family Planning	99385		PREV VISIT NEW AGE 18-39	Other States' Average Rate	\$121.93	\$95.63	127.5%
Women's Health and Family Planning	99386		PREV VISIT NEW AGE 40-64	Other States' Average Rate	\$140.66	\$134.77	104.4%
Women's Health and Family Planning	99386		PREV VISIT NEW AGE 40-64	Other States' Average Rate	\$140.66	\$111.52	126.1%
Women's Health and Family Planning	99387		INIT PM E/M NEW PAT 65+ YRS	Other States' Average Rate	\$152.86	\$145.86	104.8%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Women's Health and Family Planning	99387		INIT PM E/M NEW PAT 65+ YRS	Other States' Average Rate	\$152.86	\$112.15	136.3%
Women's Health and Family Planning	99394		PREV VISIT EST AGE 12-17	Other States' Average Rate	\$107.10	\$83.82	127.8%
Women's Health and Family Planning	99394		PREV VISIT EST AGE 12-17	Other States' Average Rate	\$107.10	\$98.45	108.8%
Women's Health and Family Planning	99395		PREV VISIT EST AGE 18-39	Other States' Average Rate	\$109.41	\$101.31	108.0%
Women's Health and Family Planning	99395		PREV VISIT EST AGE 18-39	Other States' Average Rate	\$109.41	\$84.63	129.3%
Women's Health and Family Planning	99396		PREV VISIT EST AGE 40-64	Other States' Average Rate	\$116.63	\$110.33	105.7%
Women's Health and Family Planning	99396		PREV VISIT EST AGE 40-64	Other States' Average Rate	\$116.63	\$90.57	128.8%
Women's Health and Family Planning	99397		PER PM REEVAL EST PAT 65+ YR	Other States' Average Rate	\$125.56	\$117.92	106.5%
Women's Health and Family Planning	99397		PER PM REEVAL EST PAT 65+ YR	Other States' Average Rate	\$125.56	\$95.70	131.2%
Women's Health and Family Planning	99401		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$33.62	\$28.43	118.2%
Women's Health and Family Planning	99401		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$33.62	\$34.54	97.3%
Women's Health and Family Planning	99402		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$57.64	\$41.89	137.6%
Women's Health and Family Planning	99402		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$57.64	\$54.11	106.5%
Women's Health and Family Planning	99403		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$80.32	\$62.34	128.8%
Women's Health and Family Planning	99403		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$80.32	\$74.56	107.7%
Women's Health and Family Planning	99404		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$103.03	\$82.78	124.5%
Women's Health and Family Planning	99404		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$103.03	\$95.00	108.5%
Women's Health and Family Planning	99406		BEHAV CHNG SMOKING 3-10 MIN	Medicare Facility Rate	\$12.74	\$12.11	105.2%
Women's Health and Family Planning	99406		BEHAV CHNG SMOKING 3-10 MIN	Medicare Non-Facility Rate	\$12.74	\$15.73	81.0%
Women's Health and Family Planning	99406	HD	BEHAV CHNG SMOKING 3-10 MIN	Medicare Non-Facility Rate	\$11.11	\$15.73	70.6%
Women's Health and Family Planning	99406	HD	BEHAV CHNG SMOKING 3-10 MIN	Medicare Facility Rate	\$11.11	\$12.11	91.7%
Women's Health and Family Planning	99407		BEHAV CHNG SMOKING > 10 MIN	Medicare Facility Rate	\$25.17	\$25.63	98.2%
Women's Health and Family Planning	99407		BEHAV CHNG SMOKING > 10 MIN	Medicare Non-Facility Rate	\$25.17	\$28.89	87.1%
Women's Health and Family Planning	99407	HD	BEHAV CHNG SMOKING > 10 MIN	Medicare Non-Facility Rate	\$10.79	\$28.89	37.3%
Women's Health and Family Planning	99408		AUDIT/DAST 15-30 MIN	Other States' Average Rate	\$32.76	\$29.18	112.3%
Women's Health and Family Planning	99408		AUDIT/DAST 15-30 MIN	Other States' Average Rate	\$32.76	\$30.43	107.7%
Women's Health and Family Planning	99409		AUDIT/DAST OVER 30 MIN	Other States' Average Rate	\$67.05	\$56.57	118.5%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Women's Health and Family Planning	99409		AUDIT/DAST OVER 30 MIN	Other States' Average Rate	\$67.05	\$57.36	116.9%
Women's Health and Family Planning	99411		PREVENTIVE COUNSELING GROUP	Other States' Average Rate	\$15.17	\$16.52	91.8%
Women's Health and Family Planning	99412		PREVENTIVE COUNSELING GROUP	Other States' Average Rate	\$19.79	\$10.67	185.5%
Women's Health and Family Planning	G0101		CA SCREEN;PELVIC/BREAST EXAM	Medicare Non-Facility Rate	\$19.66	\$40.54	48.5%
Women's Health and Family Planning	G0101		CA SCREEN;PELVIC/BREAST EXAM	Medicare Facility Rate	\$19.66	\$28.22	69.7%
Women's Health and Family Planning	G0123		SCREEN CERV/VAG THIN LAYER	Other States' Average Rate	\$20.26	\$14.18	142.9%
Women's Health and Family Planning	G0124		SCREEN C/V THIN LAYER BY MD	Medicare Non-Facility Rate	\$26.43	\$23.04	114.7%
Women's Health and Family Planning	G0145		SCR C/V CYTO,THINLAYER,RESCR	Other States' Average Rate	\$26.49	\$18.54	142.9%
Women's Health and Family Planning	Q0091		OBTAINING SCREEN PAP SMEAR	Medicare Non-Facility Rate	\$39.87	\$45.04	88.5%
Other Physician Services	95004		PERCUT ALLERGY SKIN TESTS	Medicare Facility/Non-Facility Rate	\$2.29	\$4.24	54.0%
Other Physician Services	95012		EXHALED NITRIC OXIDE MEAS	Medicare Non-Facility Rate	\$13.67	\$20.19	67.7%
Other Physician Services	95017		PERQ & ICUT ALLG TEST VENOMS	Medicare Non-Facility Rate	\$7.24	\$9.21	78.6%
Other Physician Services	95018		PERQ&IC ALLG TEST DRUGS/BIOL	Medicare Non-Facility Rate	\$17.86	\$21.78	82.0%
Other Physician Services	95018		PERQ&IC ALLG TEST DRUGS/BIOL	Medicare Facility Rate	\$17.86	\$7.29	245.0%
Other Physician Services	95024		ICUT ALLERGY TEST DRUG/BUG	Medicare Non-Facility Rate	\$3.52	\$8.95	39.3%
Other Physician Services	95024		ICUT ALLERGY TEST DRUG/BUG	Medicare Facility Rate	\$3.52	\$0.97	362.9%
Other Physician Services	95027		ICUT ALLERGY TITRATE-AIRBORN	Medicare Non-Facility Rate	\$4.40	\$5.32	82.7%
Other Physician Services	95044		ALLERGY PATCH TESTS	Medicare Non-Facility Rate	\$3.72	\$5.34	69.7%
Other Physician Services	95070		BRONCHIAL ALLERGY TESTS	Medicare Facility/Non-Facility Rate	\$40.18	\$37.85	106.2%
Other Physician Services	95076		INGEST CHALLENGE INI 120 MIN	Medicare Non-Facility Rate	\$95.94	\$124.11	77.3%
Other Physician Services	95076		INGEST CHALLENGE INI 120 MIN	Medicare Facility Rate	\$95.94	\$75.20	127.6%
Other Physician Services	95079		INGEST CHALLENGE ADDL 60 MIN	Medicare Non-Facility Rate	\$67.39	\$86.81	77.6%
Other Physician Services	95079		INGEST CHALLENGE ADDL 60 MIN	Medicare Facility Rate	\$67.39	\$69.06	97.6%
Other Physician Services	95115		IMMUNOTHERAPY ONE INJECTION	Medicare Non-Facility Rate	\$9.16	\$10.05	91.1%
Other Physician Services	95117		IMMUNOTHERAPY INJECTIONS	Medicare Non-Facility Rate	\$12.65	\$12.22	103.5%
Other Physician Services	95120		IMMUNOTHERAPY ONE INJECTION	Other States' Average Rate	\$5.75	\$14.66	39.2%
Other Physician Services	95134		IMMNTX 5 STING INSECTS	Other States' Average Rate	\$28.70	\$47.74	60.1%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Other Physician Services	95145		ANTIGEN THERAPY SERVICES	Medicare Non-Facility Rate	\$7.46	\$36.76	20.3%
Other Physician Services	95146		ANTIGEN THERAPY SERVICES	Medicare Non-Facility Rate	\$12.06	\$67.56	17.9%
Other Physician Services	95147		ANTIGEN THERAPY SERVICES	Medicare Non-Facility Rate	\$12.06	\$65.03	18.5%
Other Physician Services	95148		ANTIGEN THERAPY SERVICES	Medicare Non-Facility Rate	\$12.06	\$96.55	12.5%
Other Physician Services	95149		ANTIGEN THERAPY SERVICES	Medicare Non-Facility Rate	\$12.06	\$128.43	9.4%
Other Physician Services	95165		ANTIGEN THERAPY SERVICES	Medicare Non-Facility Rate	\$3.60	\$16.47	21.9%
Other Physician Services	95180		RAPID DESENSITIZATION	Medicare Non-Facility Rate	\$56.69	\$140.50	40.3%
Other Physician Services	95180		RAPID DESENSITIZATION	Medicare Facility Rate	\$56.69	\$104.26	54.4%
Other Physician Services	95250		CONT GLUC MNTR PHYS/QHP EQP	Medicare Non-Facility Rate	\$40.04	\$158.31	25.3%
Other Physician Services	95251		CONT GLUC MNTR ANALYSIS I&R	Medicare Facility/Non-Facility Rate	\$19.19	\$35.46	54.1%
Other Physician Services	95812		EEG 41-60 MINUTES	Medicare Non-Facility Rate	\$382.41	\$369.88	103.4%
Other Physician Services	95812	26	EEG 41-60 MINUTES	Medicare Facility Rate	\$206.49	\$57.94	356.4%
Other Physician Services	95813		EEG OVER 1 HOUR	Medicare Non-Facility Rate	\$439.40	\$457.03	96.1%
Other Physician Services	95813	26	EEG OVER 1 HOUR	Medicare Facility/Non-Facility Rate	\$272.42	\$88.20	308.9%
Other Physician Services	95813	TC	EEG OVER 1 HOUR	Medicare Non-Facility Rate	\$166.95	\$368.82	45.3%
Other Physician Services	95816		EEG AWAKE AND DROWSY	Medicare Non-Facility Rate	\$98.75	\$408.29	24.2%
Other Physician Services	95816	26	EEG AWAKE AND DROWSY	Medicare Facility/Non-Facility Rate	\$41.01	\$57.94	70.8%
Other Physician Services	95819		EEG AWAKE AND ASLEEP	Medicare Facility/Non-Facility Rate	\$79.57	\$479.57	16.6%
Other Physician Services	95819	26	EEG AWAKE AND ASLEEP	Medicare Facility/Non-Facility Rate	\$26.71	\$58.30	45.8%
Other Physician Services	95822	26	EEG COMA OR SLEEP ONLY	Medicare Facility Rate	\$12.90	\$58.30	22.1%
Other Physician Services	95829	26	SURGERY ELECTROCORTICOGRAM	Medicare Facility Rate	\$175.56	\$337.52	52.0%
Other Physician Services	95836		ECOG IMPLTD BRN NPGT <30 D	Medicare Facility Rate	\$115.14	\$108.42	106.2%
Other Physician Services	95851		RANGE OF MOTION MEASUREMENTS	Medicare Non-Facility Rate	\$11.48	\$21.75	52.8%
Other Physician Services	95860		MUSCLE TEST ONE LIMB	Medicare Facility/Non-Facility Rate	\$51.66	\$120.82	42.8%
Other Physician Services	95860	26	MUSCLE TEST ONE LIMB	Medicare Facility Rate	\$38.75	\$52.07	74.4%
Other Physician Services	95861		MUSCLE TEST 2 LIMBS	Medicare Facility/Non-Facility Rate	\$66.01	\$174.22	37.9%
Other Physician Services	95861	26	MUSCLE TEST 2 LIMBS	Medicare Facility Rate	\$49.63	\$83.37	59.5%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Other Physician Services	95863		MUSCLE TEST 3 LIMBS	Medicare Non-Facility Rate	\$80.36	\$228.04	35.2%
Other Physician Services	95864		MUSCLE TEST 4 LIMBS	Medicare Non-Facility Rate	\$94.72	\$254.83	37.2%
Other Physician Services	95864	26	MUSCLE TEST 4 LIMBS	Medicare Facility Rate	\$71.17	\$108.18	65.8%
Other Physician Services	95865	26	MUSCLE TEST LARYNX	Medicare Facility Rate	\$63.57	\$84.51	75.2%
Other Physician Services	95865		MUSCLE TEST LARYNX	Medicare Facility Rate	\$82.38	\$161.95	50.9%
Other Physician Services	95866		MUSCLE TEST HEMIDIAPHRAGM	Medicare Non-Facility Rate	\$55.30	\$138.83	39.8%
Other Physician Services	95867		MUSCLE TEST CRAN NERV UNILAT	Medicare Facility Rate	\$51.66	\$115.29	44.8%
Other Physician Services	95867	26	MUSCLE TEST CRAN NERV UNILAT	Medicare Facility Rate	\$38.75	\$42.56	91.0%
Other Physician Services	95868		MUSCLE TEST CRAN NERVE BILAT	Medicare Facility Rate	\$66.01	\$152.62	43.3%
Other Physician Services	95868	26	MUSCLE TEST CRAN NERVE BILAT	Medicare Facility Rate	\$49.63	\$63.94	77.6%
Other Physician Services	95869		MUSCLE TEST THOR PARASPINAL	Medicare Facility/Non-Facility Rate	\$32.72	\$106.73	30.7%
Other Physician Services	95869	26	MUSCLE TEST THOR PARASPINAL	Medicare Facility Rate	\$17.95	\$20.23	88.7%
Other Physician Services	95870		MUSCLE TEST NONPARASPINAL	Medicare Facility/Non-Facility Rate	\$24.94	\$92.24	27.0%
Other Physician Services	95870	26	MUSCLE TEST NONPARASPINAL	Medicare Facility Rate	\$17.95	\$19.87	90.3%
Other Physician Services	95873		GUIDE NERV DESTR ELEC STIM	Medicare Facility/Non-Facility Rate	\$65.98	\$81.56	80.9%
Other Physician Services	95873	26	GUIDE NERV DESTR ELEC STIM	Medicare Facility Rate	\$47.16	\$19.97	236.2%
Other Physician Services	95874		GUIDE NERV DESTR NEEDLE EMG	Medicare Facility/Non-Facility Rate	\$63.39	\$85.91	73.8%
Other Physician Services	95874	26	GUIDE NERV DESTR NEEDLE EMG	Medicare Facility Rate	\$45.56	\$19.97	228.1%
Other Physician Services	95885		MUSC TST DONE W/NERV TST LIM	Medicare Facility/Non-Facility Rate	\$45.81	\$68.91	66.5%
Other Physician Services	95885	26	MUSC TST DONE W/NERV TST LIM	Medicare Facility/Non-Facility Rate	\$14.46	\$18.91	76.5%
Other Physician Services	95886		MUSC TEST DONE W/N TEST COMP	Medicare Facility/Non-Facility Rate	\$71.72	\$106.22	67.5%
Other Physician Services	95886	26	MUSC TEST DONE W/N TEST COMP	Medicare Facility/Non-Facility Rate	\$38.71	\$46.43	83.4%
Other Physician Services	95887		MUSC TST DONE W/N TST NONEXT	Medicare Non-Facility Rate	\$37.58	\$91.60	41.0%
Other Physician Services	95887	26	MUSC TST DONE W/N TST NONEXT	Medicare Facility Rate	\$30.37	\$38.34	79.2%
Other Physician Services	95905		MOTOR &/ SENS NRVE CNDJ TEST	Medicare Non-Facility Rate	\$47.64	\$41.03	116.1%
Other Physician Services	95907		NVR CNDJ TST 1-2 STUDIES	Medicare Facility/Non-Facility Rate	\$77.47	\$96.48	80.3%
Other Physician Services	95907	26	NVR CNDJ TST 1-2 STUDIES	Medicare Facility Rate	\$42.32	\$54.18	78.1%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Other Physician Services	95908		NRV CNDJ TST 3-4 STUDIES	Medicare Facility/Non-Facility Rate	\$95.61	\$120.26	79.5%
Other Physician Services	95908	26	NRV CNDJ TST 3-4 STUDIES	Medicare Facility Rate	\$53.19	\$67.82	78.4%
Other Physician Services	95909		NRV CNDJ TST 5-6 STUDIES	Medicare Facility/Non-Facility Rate	\$114.56	\$144.30	79.4%
Other Physician Services	95909	26	NRV CNDJ TST 5-6 STUDIES	Medicare Facility/Non-Facility Rate	\$63.52	\$81.36	78.1%
Other Physician Services	95910		NRV CNDJ TEST 7-8 STUDIES	Medicare Facility/Non-Facility Rate	\$150.76	\$188.61	79.9%
Other Physician Services	95910	26	NRV CNDJ TEST 7-8 STUDIES	Medicare Facility/Non-Facility Rate	\$84.92	\$108.63	78.2%
Other Physician Services	95911		NRV CNDJ TEST 9-10 STUDIES	Medicare Facility/Non-Facility Rate	\$182.53	\$226.84	80.5%
Other Physician Services	95911	26	NRV CNDJ TEST 9-10 STUDIES	Medicare Facility/Non-Facility Rate	\$106.11	\$134.91	78.7%
Other Physician Services	95912		NRV CNDJ TEST 11-12 STUDIES	Medicare Facility/Non-Facility Rate	\$234.22	\$263.90	88.8%
Other Physician Services	95912	26	NRV CNDJ TEST 11-12 STUDIES	Medicare Facility/Non-Facility Rate	\$206.49	\$160.83	128.4%
Other Physician Services	95913		NRV CNDJ TEST 13/> STUDIES	Medicare Facility/Non-Facility Rate	\$247.70	\$305.11	81.2%
Other Physician Services	95913	26	NRV CNDJ TEST 13/> STUDIES	Medicare Facility Rate	\$272.42	\$190.81	142.8%
Other Physician Services	95921		AUTONOMIC NRV PARASYM INERVJ	Medicare Non-Facility Rate	\$69.78	\$93.74	74.4%
Other Physician Services	95922	26	AUTONOMIC NRV ADRENRG INERVJ	Medicare Facility Rate	\$38.90	\$47.72	81.5%
Other Physician Services	95923		AUTONOMIC NRV SYST FUNJ TEST	Medicare Non-Facility Rate	\$96.79	\$133.96	72.3%
Other Physician Services	95923	26	AUTONOMIC NRV SYST FUNJ TEST	Medicare Facility Rate	\$36.44	\$45.64	79.8%
Other Physician Services	95924		ANS PARASYMP & SYMP W/TILT	Medicare Non-Facility Rate	\$120.96	\$157.78	76.7%
Other Physician Services	95925	26	SOMATOSENSORY TESTING	Medicare Facility Rate	\$21.89	\$29.19	75.0%
Other Physician Services	95926	26	SOMATOSENSORY TESTING	Medicare Facility Rate	\$25.88	\$28.30	91.4%
Other Physician Services	95929	26	C MOTOR EVOKED LWR LIMBS	Medicare Facility Rate	\$115.56	\$80.99	142.7%
Other Physician Services	95930		VISUAL EP TEST CNS W/I&R	Medicare Facility/Non-Facility Rate	\$31.31	\$69.54	45.0%
Other Physician Services	95930	26	VISUAL EP TEST CNS W/I&R	Medicare Facility Rate	\$16.89	\$18.91	89.3%
Other Physician Services	95933		BLINK REFLEX TEST	Medicare Non-Facility Rate	\$17.79	\$90.25	19.7%
Other Physician Services	95933	26	BLINK REFLEX TEST	Medicare Facility Rate	\$13.50	\$32.01	42.2%
Other Physician Services	95937		NEUROMUSCULAR JUNCTION TEST	Medicare Facility/Non-Facility Rate	\$18.06	\$114.06	15.8%
Other Physician Services	95937	26	NEUROMUSCULAR JUNCTION TEST	Medicare Facility Rate	\$13.50	\$35.17	38.4%
Other Physician Services	95938		SOMATOSENSORY TESTING	Medicare Facility Rate	\$243.04	\$388.44	62.6%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Other Physician Services	95938	26	SOMATOSENSORY TESTING	Medicare Facility Rate	\$35.62	\$46.43	76.7%
Other Physician Services	95939		C MOTOR EVOKED UPR&LWR LIMBS	Medicare Facility Rate	\$380.07	\$585.20	64.9%
Other Physician Services	95939	26	C MOTOR EVOKED UPR&LWR LIMBS	Medicare Facility Rate	\$93.72	\$121.18	77.3%
Other Physician Services	95955	26	EEG DURING SURGERY	Medicare Facility Rate	\$39.89	\$54.53	73.2%
Other Physician Services	95955		EEG DURING SURGERY	Medicare Facility Rate	\$94.49	\$217.84	43.4%
Other Physician Services	95957		EEG DIGITAL ANALYSIS	Medicare Non-Facility Rate	\$127.81	\$275.30	46.4%
Other Physician Services	95957	26	EEG DIGITAL ANALYSIS	Medicare Facility Rate	\$80.74	\$103.95	77.7%
Other Physician Services	95957	TC	EEG DIGITAL ANALYSIS	Medicare Non-Facility Rate	\$47.07	\$171.36	27.5%
Other Physician Services	95958	26	EEG MONITORING/FUNCTION TEST	Medicare Facility Rate	\$386.50	\$230.68	167.5%
Other Physician Services	95961		ELECTRODE STIMULATION BRAIN	Medicare Facility Rate	\$146.75	\$341.19	43.0%
Other Physician Services	95961	26	ELECTRODE STIMULATION BRAIN	Medicare Facility Rate	\$114.09	\$163.84	69.6%
Other Physician Services	95962	26	ELECTRODE STIM BRAIN ADD-ON	Medicare Facility Rate	\$120.41	\$175.81	68.5%
Other Physician Services	95965		MEG SPONTANEOUS	Other States' Average Rate	\$524.54	\$1,560.45	33.6%
Other Physician Services	95970		ALYS NPGT W/O PRGRMG	Medicare Facility Rate	\$16.86	\$18.98	88.8%
Other Physician Services	95970		ALYS NPGT W/O PRGRMG	Medicare Non-Facility Rate	\$16.86	\$19.35	87.1%
Other Physician Services	95971		ANALYZE NEUROSTIM SIMPLE	Medicare Non-Facility Rate	\$27.91	\$50.16	55.6%
Other Physician Services	95971		ANALYZE NEUROSTIM SIMPLE	Medicare Facility Rate	\$27.91	\$40.38	69.1%
Other Physician Services	95972		ALYS CPLX SP/PN NPGT W/PRGRM	Medicare Non-Facility Rate	\$51.81	\$57.64	89.9%
Other Physician Services	95972		ALYS CPLX SP/PN NPGT W/PRGRM	Medicare Facility Rate	\$51.81	\$40.97	126.5%
Other Physician Services	95976		ALYS SMPL CN NPGT PRGRMG	Medicare Non-Facility Rate	\$34.98	\$41.18	84.9%
Other Physician Services	95976		ALYS SMPL CN NPGT PRGRMG	Medicare Facility Rate	\$34.98	\$40.45	86.5%
Other Physician Services	95977		ALYS CPLX CN NPGT PRGRMG	Medicare Non-Facility Rate	\$51.94	\$54.37	95.5%
Other Physician Services	95977		ALYS CPLX CN NPGT PRGRMG	Medicare Facility Rate	\$51.94	\$53.29	97.5%
Other Physician Services	95980		IO ANAL GAST N-STIM INIT	Medicare Facility/Non-Facility Rate	\$25.94	\$45.44	57.1%
Other Physician Services	95981		IO ANAL GAST N-STIM SUBSQ	Medicare Non-Facility Rate	\$18.66	\$39.98	46.7%
Other Physician Services	95982		IO GA N-STIM SUBSQ W/REPROG	Medicare Non-Facility Rate	\$27.98	\$60.58	46.2%
Other Physician Services	95982		IO GA N-STIM SUBSQ W/REPROG	Medicare Facility Rate	\$27.98	\$36.67	76.3%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Other Physician Services	95983		ALYS BRN NPGT PRGRMG 15 MIN	Medicare Non-Facility Rate	\$49.78	\$51.93	95.9%
Other Physician Services	95983		ALYS BRN NPGT PRGRMG 15 MIN	Medicare Facility Rate	\$49.78	\$50.84	97.9%
Other Physician Services	95984		ALYS BRN NPGT PRGRMG ADDL 15	Medicare Non-Facility Rate	\$49.78	\$45.32	109.8%
Other Physician Services	95984		ALYS BRN NPGT PRGRMG ADDL 15	Medicare Facility Rate	\$49.78	\$44.59	111.6%
Other Physician Services	95991		SPIN/BRAIN PUMP REFIL & MAIN	Medicare Non-Facility Rate	\$59.49	\$116.02	51.3%
Other Physician Services	95991		SPIN/BRAIN PUMP REFIL & MAIN	Medicare Facility Rate	\$59.49	\$40.66	146.3%
Other Physician Services	95992		CANALITH REPOSITIONING PROC	Medicare Non-Facility Rate	\$41.40	\$44.80	92.4%
Other Physician Services	95992		CANALITH REPOSITIONING PROC	Medicare Facility Rate	\$41.40	\$37.19	111.3%
Other Physician Services	96004		PHYS REVIEW OF MOTION TESTS	Medicare Facility Rate	\$71.07	\$112.24	63.3%
Other Physician Services	96020	26	FUNCTIONAL BRAIN MAPPING	Medicare Facility Rate	\$80.11	\$161.86	49.5%
Other Physician Services	96040		GENETIC COUNSELING 30 MIN	Other States' Average Rate	\$28.56	\$35.34	80.8%
Other Physician Services	96372		THER/PROPH/DIAG INJ SC/IM	Medicare Facility/Non-Facility Rate	\$15.90	\$14.85	107.1%
Other Physician Services	96373		THER/PROPH/DIAG INJ IA	Medicare Facility/Non-Facility Rate	\$13.61	\$18.84	72.2%
Other Physician Services	96374		THER/PROPH/DIAG INJ IV PUSH	Medicare Facility/Non-Facility Rate	\$41.17	\$41.55	99.1%
Other Physician Services	96375		TX/PRO/DX INJ NEW DRUG ADDON	Medicare Facility/Non-Facility Rate	\$17.79	\$16.77	106.1%
Other Physician Services	96376		TX/PRO/DX INJ SAME DRUG ADON	Other States' Average Rate	\$31.88	\$15.01	212.4%
Other Physician Services	96376		TX/PRO/DX INJ SAME DRUG ADON	Other States' Average Rate	\$31.88	\$13.02	244.9%
Other Physician Services	96377		APPLICATON ON-BODY INJECTOR	Medicare Non-Facility Rate	\$19.81	\$19.92	99.4%
Other Physician Services	96379		THER/PROP/DIAG INJ/INF PROC	Other States' Average Rate	\$23.62	\$20.97	112.6%
Other Physician Services	96401		CHEMO ANTI-NEOPL SQ/IM	Medicare Facility/Non-Facility Rate	\$46.59	\$80.70	57.7%
Other Physician Services	96402		CHEMO HORMON ANTINEOPL SQ/IM	Medicare Non-Facility Rate	\$24.97	\$35.01	71.3%
Other Physician Services	96405		CHEMO INTRALESIONAL UP TO 7	Medicare Non-Facility Rate	\$25.02	\$89.73	27.9%
Other Physician Services	96405		CHEMO INTRALESIONAL UP TO 7	Medicare Facility Rate	\$25.02	\$29.22	85.6%
Other Physician Services	96406		CHEMO INTRALESIONAL OVER 7	Medicare Non-Facility Rate	\$37.85	\$141.89	26.7%
Other Physician Services	96409		CHEMO IV PUSH SNGL DRUG	Medicare Facility/Non-Facility Rate	\$85.81	\$111.89	76.7%
Other Physician Services	96411		CHEMO IV PUSH ADDL DRUG	Medicare Non-Facility Rate	\$49.52	\$60.89	81.3%
Other Physician Services	96413		CHEMO IV INFUSION 1 HR	Medicare Non-Facility Rate	\$121.19	\$145.42	83.3%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Other Physician Services	96415		CHEMO IV INFUSION ADDL HR	Medicare Non-Facility Rate	\$27.02	\$30.66	88.1%
Other Physician Services	96416		CHEMO PROLONG INFUSE W/PUMP	Medicare Non-Facility Rate	\$130.30	\$142.73	91.3%
Other Physician Services	96417		CHEMO IV INFUS EACH ADDL SEQ	Medicare Non-Facility Rate	\$59.07	\$70.66	83.6%
Other Physician Services	96420		CHEMO IA PUSH TECHNIQUE	Medicare Facility Rate	\$22.39	\$114.90	19.5%
Other Physician Services	96450		CHEMOTHERAPY INTO CNS	Medicare Facility Rate	\$151.99	\$77.56	196.0%
Other Physician Services	96521		REFILL/MAINT PORTABLE PUMP	Medicare Non-Facility Rate	\$107.46	\$147.71	72.8%
Other Physician Services	96522		REFILL/MAINT PUMP/RESVR SYST	Medicare Non-Facility Rate	\$77.56	\$129.96	59.7%
Other Physician Services	96523		IRRIG DRUG DELIVERY DEVICE	Medicare Non-Facility Rate	\$19.68	\$28.37	69.4%
Other Physician Services	96542		CHEMOTHERAPY INJECTION	Medicare Facility Rate	\$66.58	\$43.06	154.6%
Other Physician Services	96567		PDT DSTR PRMLG LES SKN	Medicare Non-Facility Rate	\$45.68	\$155.34	29.4%
Other Physician Services	96900		ULTRAVIOLET LIGHT THERAPY	Medicare Non-Facility Rate	\$5.75	\$25.63	22.4%
Other Physician Services	96904		WHOLE BODY PHOTOGRAPHY	Medicare Non-Facility Rate	\$51.90	\$76.72	67.6%
Other Physician Services	96910		PHOTOCHEMOTHERAPY WITH UV-B	Medicare Non-Facility Rate	\$5.75	\$126.62	4.5%
Other Physician Services	96912		PHOTOCHEMOTHERAPY WITH UV-A	Medicare Non-Facility Rate	\$5.75	\$108.60	5.3%
Other Physician Services	96920		LASER TX SKIN < 250 SQ CM	Medicare Non-Facility Rate	\$108.11	\$166.89	64.8%
Other Physician Services	96921		LASER TX SKIN 250-500 SQ CM	Medicare Non-Facility Rate	\$110.76	\$182.23	60.8%
Other Physician Services	97802		MEDICAL NUTRITION INDIV IN	Medicare Facility Rate	\$30.76	\$33.38	92.2%
Other Physician Services	97802		MEDICAL NUTRITION INDIV IN	Medicare Non-Facility Rate	\$30.76	\$38.09	80.8%
Other Physician Services	97803		MED NUTRITION INDIV SUBSEQ	Medicare Facility Rate	\$26.21	\$28.44	92.2%
Other Physician Services	97803		MED NUTRITION INDIV SUBSEQ	Medicare Non-Facility Rate	\$26.21	\$33.15	79.1%
Other Physician Services	97804		MEDICAL NUTRITION GROUP	Medicare Facility Rate	\$13.42	\$15.81	84.9%
Other Physician Services	97804		MEDICAL NUTRITION GROUP	Medicare Non-Facility Rate	\$13.42	\$17.62	76.2%
Other Physician Services	98925		OSTEOPATH MANJ 1-2 REGIONS	Medicare Non-Facility Rate	\$14.35	\$32.58	44.0%
Other Physician Services	98925		OSTEOPATH MANJ 1-2 REGIONS	Medicare Facility Rate	\$14.35	\$23.88	60.1%
Other Physician Services	98926		OSTEOPATH MANJ 3-4 REGIONS	Medicare Non-Facility Rate	\$20.09	\$45.95	43.7%
Other Physician Services	98926		OSTEOPATH MANJ 3-4 REGIONS	Medicare Facility Rate	\$20.09	\$35.80	56.1%
Other Physician Services	98927		OSTEOPATH MANJ 5-6 REGIONS	Medicare Non-Facility Rate	\$25.84	\$59.95	43.1%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Other Physician Services	98927		OSTEOPATH MANJ 5-6 REGIONS	Medicare Facility Rate	\$25.84	\$47.26	54.7%
Other Physician Services	98928		OSTEOPATH MANJ 7-8 REGIONS	Medicare Non-Facility Rate	\$31.58	\$73.48	43.0%
Other Physician Services	98928		OSTEOPATH MANJ 7-8 REGIONS	Medicare Facility Rate	\$31.58	\$59.72	52.9%
Other Physician Services	98929		OSTEOPATH MANJ 9-10 REGIONS	Medicare Non-Facility Rate	\$41.01	\$87.02	47.1%
Other Physician Services	98966		HC PRO PHONE CALL 5-10 MIN	Medicare Facility Rate	\$14.73	\$11.46	128.5%
Other Physician Services	98966		HC PRO PHONE CALL 5-10 MIN	Medicare Non-Facility Rate	\$14.73	\$13.27	111.0%
Other Physician Services	98967		HC PRO PHONE CALL 11-20 MIN	Medicare Facility Rate	\$28.67	\$22.20	129.1%
Other Physician Services	98967		HC PRO PHONE CALL 11-20 MIN	Medicare Non-Facility Rate	\$28.67	\$24.37	117.6%
Other Physician Services	98968		HC PRO PHONE CALL 21-30 MIN	Medicare Non-Facility Rate	\$41.94	\$34.29	122.3%
Other Physician Services	98968		HC PRO PHONE CALL 21-30 MIN	Medicare Facility Rate	\$41.94	\$32.11	130.6%
Other Physician Services	99000		SPECIMEN HANDLING OFFICE-LAB	Other States' Average Rate	\$3.10	\$8.13	38.1%
Other Physician Services	99050		MEDICAL SERVICES AFTER HRS	Other States' Average Rate	\$7.49	\$16.90	44.3%
Other Physician Services	99050		MEDICAL SERVICES AFTER HRS	Other States' Average Rate	\$7.49	\$16.31	45.9%
Other Physician Services	99070		SPECIAL SUPPLIES PHYS/QHP	Other States' Average Rate	\$24.64	\$15.32	160.8%
Other Physician Services	99151		MOD SED SAME PHYS/QHP <5 YRS	Medicare Non-Facility Rate	\$26.42	\$73.46	36.0%
Other Physician Services	99151		MOD SED SAME PHYS/QHP <5 YRS	Medicare Facility Rate	\$26.42	\$25.27	104.6%
Other Physician Services	99152		MOD SED SAME PHYS/QHP 5/>YRS	Medicare Non-Facility Rate	\$26.42	\$53.93	49.0%
Other Physician Services	99152		MOD SED SAME PHYS/QHP 5/>YRS	Medicare Facility Rate	\$26.42	\$12.62	209.4%
Other Physician Services	99153		MOD SED SAME PHYS/QHP EA	Medicare Facility/Non-Facility Rate	\$26.42	\$11.40	231.8%
Other Physician Services	99155		MOD SED OTH PHYS/QHP <5 YRS	Medicare Facility Rate	\$51.55	\$82.99	62.1%
Other Physician Services	99156		MOD SED OTH PHYS/QHP 5/>YRS	Medicare Facility/Non-Facility Rate	\$51.55	\$76.43	67.4%
Other Physician Services	99157		MOD SED OTHER PHYS/QHP EA	Medicare Facility/Non-Facility Rate	\$26.42	\$62.89	42.0%
Other Physician Services	99172		OCULAR FUNCTION SCREEN	Other States' Average Rate	\$15.61	\$63.32	24.7%
Other Physician Services	99173		VISUAL ACUITY SCREEN	Other States' Average Rate	\$10.34	\$2.43	425.5%
Other Physician Services	99173		VISUAL ACUITY SCREEN	Other States' Average Rate	\$10.34	\$2.50	414.4%
Other Physician Services	99174		OCULAR INSTRUMNT SCREEN BIL	Other States' Average Rate	\$17.36	\$6.10	284.6%
Other Physician Services	99177		OCULAR INSTRUMNT SCREEN BIL	Other States' Average Rate	\$17.36	\$4.33	401.4%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Other Physician Services	99183		HYPERBARIC OXYGEN THERAPY	Medicare Facility/Non-Facility Rate	\$104.06	\$107.99	96.4%
Other Physician Services	99195		PHLEBOTOMY	Medicare Facility/Non-Facility Rate	\$4.31	\$108.38	4.0%
Other Physician Services	99202		OFFICE O/P NEW SF 15-29 MIN	Medicare Non-Facility Rate	\$68.12	\$75.19	90.6%
Other Physician Services	99202		OFFICE O/P NEW SF 15-29 MIN	Medicare Facility Rate	\$68.12	\$49.46	137.7%
Other Physician Services	99202	FP	OFFICE O/P NEW SF 15-29 MIN	Medicare Non-Facility Rate	\$84.71	\$75.19	112.7%
Other Physician Services	99202	FP	OFFICE O/P NEW SF 15-29 MIN	Medicare Facility Rate	\$84.71	\$49.46	171.3%
Other Physician Services	99202	GT	OFFICE O/P NEW SF 15-29 MIN	Medicare Facility Rate	\$73.20	\$49.46	148.0%
Other Physician Services	99202	GT	OFFICE O/P NEW SF 15-29 MIN	Medicare Non-Facility Rate	\$73.20	\$75.19	97.4%
Other Physician Services	99203		OFFICE O/P NEW LOW 30-44 MIN	Medicare Non-Facility Rate	\$98.87	\$115.01	86.0%
Other Physician Services	99203		OFFICE O/P NEW LOW 30-44 MIN	Medicare Facility Rate	\$98.87	\$84.21	117.4%
Other Physician Services	99203	FP	OFFICE O/P NEW LOW 30-44 MIN	Medicare Facility Rate	\$84.71	\$84.21	100.6%
Other Physician Services	99203	FP	OFFICE O/P NEW LOW 30-44 MIN	Medicare Non-Facility Rate	\$84.71	\$115.01	73.7%
Other Physician Services	99203	GT	OFFICE O/P NEW LOW 30-44 MIN	Medicare Facility Rate	\$103.95	\$84.21	123.4%
Other Physician Services	99203	GT	OFFICE O/P NEW LOW 30-44 MIN	Medicare Non-Facility Rate	\$103.95	\$115.01	90.4%
Other Physician Services	99204		OFFICE O/P NEW MOD 45-59 MIN	Medicare Facility Rate	\$151.79	\$136.65	111.1%
Other Physician Services	99204		OFFICE O/P NEW MOD 45-59 MIN	Medicare Non-Facility Rate	\$151.79	\$171.08	88.7%
Other Physician Services	99204	FP	OFFICE O/P NEW MOD 45-59 MIN	Medicare Facility Rate	\$186.73	\$136.65	136.6%
Other Physician Services	99204	FP	OFFICE O/P NEW MOD 45-59 MIN	Medicare Non-Facility Rate	\$186.73	\$171.08	109.1%
Other Physician Services	99204	GT	OFFICE O/P NEW MOD 45-59 MIN	Medicare Facility Rate	\$156.87	\$136.65	114.8%
Other Physician Services	99204	GT	OFFICE O/P NEW MOD 45-59 MIN	Medicare Non-Facility Rate	\$156.87	\$171.08	91.7%
Other Physician Services	99205		OFFICE O/P NEW HI 60-74 MIN	Medicare Non-Facility Rate	\$189.08	\$226.12	83.6%
Other Physician Services	99205		OFFICE O/P NEW HI 60-74 MIN	Medicare Facility Rate	\$189.08	\$185.53	101.9%
Other Physician Services	99205	GT	OFFICE O/P NEW HI 60-74 MIN	Medicare Facility Rate	\$194.16	\$185.53	104.7%
Other Physician Services	99205	FP	OFFICE O/P NEW HI 60-74 MIN	Medicare Facility Rate	\$186.43	\$185.53	100.5%
Other Physician Services	99205	FP	OFFICE O/P NEW HI 60-74 MIN	Medicare Non-Facility Rate	\$186.43	\$226.12	82.4%
Other Physician Services	99205	GT	OFFICE O/P NEW HI 60-74 MIN	Medicare Non-Facility Rate	\$194.16	\$226.12	85.9%
Other Physician Services	99211		OFFICE O/P EST MINIMAL PROB	Medicare Non-Facility Rate	\$18.37	\$24.25	75.8%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Other Physician Services	99211		OFFICE O/P EST MINIMAL PROB	Medicare Facility Rate	\$18.37	\$9.04	203.2%
Other Physician Services	99211	FP	OFFICE O/P EST MINIMAL PROB	Medicare Facility Rate	\$23.27	\$9.04	257.4%
Other Physician Services	99211	FP	OFFICE O/P EST MINIMAL PROB	Medicare Non-Facility Rate	\$23.27	\$24.25	96.0%
Other Physician Services	99211	GT	OFFICE O/P EST MINIMAL PROB	Medicare Facility Rate	\$23.44	\$9.04	259.3%
Other Physician Services	99211	GT	OFFICE O/P EST MINIMAL PROB	Medicare Non-Facility Rate	\$23.44	\$24.25	96.7%
Other Physician Services	99212		OFFICE O/P EST SF 10-19 MIN	Medicare Facility Rate	\$39.98	\$36.61	109.2%
Other Physician Services	99212		OFFICE O/P EST SF 10-19 MIN	Medicare Non-Facility Rate	\$39.98	\$58.35	68.5%
Other Physician Services	99212	FP	OFFICE O/P EST SF 10-19 MIN	Medicare Facility Rate	\$49.91	\$36.61	136.3%
Other Physician Services	99212	GT	OFFICE O/P EST SF 10-19 MIN	Medicare Facility Rate	\$45.05	\$36.61	123.1%
Other Physician Services	99212	GT	OFFICE O/P EST SF 10-19 MIN	Medicare Non-Facility Rate	\$45.05	\$58.35	77.2%
Other Physician Services	99212	FP	OFFICE O/P EST SF 10-19 MIN	Medicare Non-Facility Rate	\$49.91	\$58.35	85.5%
Other Physician Services	99213		OFFICE O/P EST LOW 20-29 MIN	Medicare Non-Facility Rate	\$66.78	\$93.34	71.5%
Other Physician Services	99213		OFFICE O/P EST LOW 20-29 MIN	Medicare Facility Rate	\$66.78	\$67.62	98.8%
Other Physician Services	99213	FP	OFFICE O/P EST LOW 20-29 MIN	Medicare Facility Rate	\$82.75	\$67.62	122.4%
Other Physician Services	99213	FP	OFFICE O/P EST LOW 20-29 MIN	Medicare Non-Facility Rate	\$82.75	\$93.34	88.7%
Other Physician Services	99213	GT	OFFICE O/P EST LOW 20-29 MIN	Medicare Facility Rate	\$71.85	\$67.62	106.3%
Other Physician Services	99213	GT	OFFICE O/P EST LOW 20-29 MIN	Medicare Non-Facility Rate	\$71.85	\$93.34	77.0%
Other Physician Services	99214		OFFICE O/P EST MOD 30-39 MIN	Medicare Non-Facility Rate	\$98.54	\$131.65	74.8%
Other Physician Services	99214		OFFICE O/P EST MOD 30-39 MIN	Medicare Facility Rate	\$98.54	\$99.41	99.1%
Other Physician Services	99214	FP	OFFICE O/P EST MOD 30-39 MIN	Medicare Facility Rate	\$121.41	\$99.41	122.1%
Other Physician Services	99214	FP	OFFICE O/P EST MOD 30-39 MIN	Medicare Non-Facility Rate	\$121.41	\$131.65	92.2%
Other Physician Services	99214	GT	OFFICE O/P EST MOD 30-39 MIN	Medicare Facility Rate	\$103.62	\$99.41	104.2%
Other Physician Services	99214	GT	OFFICE O/P EST MOD 30-39 MIN	Medicare Non-Facility Rate	\$103.62	\$131.65	78.7%
Other Physician Services	99215		OFFICE O/P EST HI 40-54 MIN	Medicare Non-Facility Rate	\$131.91	\$185.18	71.2%
Other Physician Services	99215		OFFICE O/P EST HI 40-54 MIN	Medicare Facility Rate	\$131.91	\$147.50	89.4%
Other Physician Services	99215	FP	OFFICE O/P EST HI 40-54 MIN	Medicare Non-Facility Rate	\$165.78	\$185.18	89.5%
Other Physician Services	99215	FP	OFFICE O/P EST HI 40-54 MIN	Medicare Facility Rate	\$165.78	\$147.50	112.4%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Other Physician Services	99215	GT	OFFICE O/P EST HI 40-54 MIN	Medicare Facility Rate	\$136.98	\$147.50	92.9%
Other Physician Services	99215	GT	OFFICE O/P EST HI 40-54 MIN	Medicare Non-Facility Rate	\$136.98	\$185.18	74.0%
Other Physician Services	99217		OBSERVATION CARE DISCHARGE	Medicare Facility Rate	\$58.06	\$72.09	80.5%
Other Physician Services	99218		INITIAL OBSERVATION CARE	Medicare Facility Rate	\$54.56	\$97.74	55.8%
Other Physician Services	99219		INITIAL OBSERVATION CARE	Medicare Facility Rate	\$89.69	\$132.69	67.6%
Other Physician Services	99220		INITIAL OBSERVATION CARE	Medicare Facility Rate	\$126.17	\$179.23	70.4%
Other Physician Services	99221		INITIAL HOSPITAL CARE	Medicare Facility Rate	\$76.18	\$100.35	75.9%
Other Physician Services	99222		INITIAL HOSPITAL CARE	Medicare Facility Rate	\$104.84	\$135.38	77.4%
Other Physician Services	99223		INITIAL HOSPITAL CARE	Medicare Facility Rate	\$154.18	\$198.66	77.6%
Other Physician Services	99224		SUBSEQUENT OBSERVATION CARE	Medicare Facility/Non-Facility Rate	\$21.50	\$39.05	55.1%
Other Physician Services	99225		SUBSEQUENT OBSERVATION CARE	Medicare Facility/Non-Facility Rate	\$38.15	\$71.10	53.7%
Other Physician Services	99226		SUBSEQUENT OBSERVATION CARE	Medicare Facility/Non-Facility Rate	\$57.05	\$101.45	56.2%
Other Physician Services	99231		SUBSEQUENT HOSPITAL CARE	Medicare Facility Rate	\$31.76	\$38.69	82.1%
Other Physician Services	99232		SUBSEQUENT HOSPITAL CARE	Medicare Facility/Non-Facility Rate	\$56.84	\$71.46	79.5%
Other Physician Services	99233		SUBSEQUENT HOSPITAL CARE	Medicare Facility Rate	\$81.45	\$102.71	79.3%
Other Physician Services	99234		OBSERV/HOSP SAME DATE	Medicare Facility Rate	\$109.39	\$130.39	83.9%
Other Physician Services	99235		OBSERV/HOSP SAME DATE	Medicare Facility Rate	\$144.27	\$165.71	87.1%
Other Physician Services	99236		OBSERV/HOSP SAME DATE	Medicare Facility Rate	\$179.46	\$212.05	84.6%
Other Physician Services	99238		HOSPITAL DISCHARGE DAY	Medicare Facility/Non-Facility Rate	\$58.14	\$72.45	80.2%
Other Physician Services	99239		HOSPITAL DISCHARGE DAY	Medicare Facility Rate	\$83.44	\$105.96	78.7%
Other Physician Services	99245		OFFICE CONSULTATION	Other States' Average Rate	\$206.11	\$187.14	110.1%
Other Physician Services	99245		OFFICE CONSULTATION	Other States' Average Rate	\$206.11	\$174.21	118.3%
Other Physician Services	99281		EMERGENCY DEPT VISIT	Medicare Facility/Non-Facility Rate	\$17.39	\$21.94	79.3%
Other Physician Services	99282		EMERGENCY DEPT VISIT	Medicare Facility/Non-Facility Rate	\$32.70	\$42.48	77.0%
Other Physician Services	99283		EMERGENCY DEPT VISIT	Medicare Facility/Non-Facility Rate	\$52.56	\$72.16	72.8%
Other Physician Services	99284		EMERGENCY DEPT VISIT	Medicare Facility/Non-Facility Rate	\$97.20	\$121.91	79.7%
Other Physician Services	99285		EMERGENCY DEPT VISIT	Medicare Facility Rate	\$144.90	\$176.89	81.9%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Other Physician Services	99291		CRITICAL CARE FIRST HOUR	Medicare Non-Facility Rate	\$225.21	\$284.52	79.2%
Other Physician Services	99291		CRITICAL CARE FIRST HOUR	Medicare Facility Rate	\$225.21	\$218.22	103.2%
Other Physician Services	99292		CRITICAL CARE ADDL 30 MIN	Medicare Facility Rate	\$100.28	\$109.60	91.5%
Other Physician Services	99304		NURSING FACILITY CARE INIT	Medicare Facility/Non-Facility Rate	\$69.01	\$89.44	77.2%
Other Physician Services	99305		NURSING FACILITY CARE INIT	Medicare Facility/Non-Facility Rate	\$95.92	\$129.33	74.2%
Other Physician Services	99306		NURSING FACILITY CARE INIT	Medicare Facility/Non-Facility Rate	\$122.81	\$165.66	74.1%
Other Physician Services	99307		NURSING FAC CARE SUBSEQ	Medicare Facility/Non-Facility Rate	\$34.11	\$43.96	77.6%
Other Physician Services	99308		NURSING FAC CARE SUBSEQ	Medicare Facility/Non-Facility Rate	\$52.42	\$69.38	75.6%
Other Physician Services	99309		NURSING FAC CARE SUBSEQ	Medicare Facility/Non-Facility Rate	\$69.96	\$91.49	76.5%
Other Physician Services	99310		NURSING FAC CARE SUBSEQ	Medicare Facility/Non-Facility Rate	\$102.44	\$134.76	76.0%
Other Physician Services	99315		NURSING FAC DISCHARGE DAY	Medicare Facility/Non-Facility Rate	\$50.92	\$72.82	69.9%
Other Physician Services	99316		NURSING FAC DISCHARGE DAY	Medicare Facility/Non-Facility Rate	\$66.50	\$104.25	63.8%
Other Physician Services	99318		ANNUAL NURSING FAC ASSESSMNT	Medicare Facility/Non-Facility Rate	\$72.15	\$95.85	75.3%
Other Physician Services	99324		DOMICIL/R-HOME VISIT NEW PAT	Medicare Non-Facility Rate	\$48.19	\$54.43	88.5%
Other Physician Services	99325		DOMICIL/R-HOME VISIT NEW PAT	Medicare Facility/Non-Facility Rate	\$69.87	\$79.32	88.1%
Other Physician Services	99326		DOMICIL/R-HOME VISIT NEW PAT	Medicare Non-Facility Rate	\$113.33	\$137.77	82.3%
Other Physician Services	99327		DOMICIL/R-HOME VISIT NEW PAT	Medicare Non-Facility Rate	\$147.13	\$185.31	79.4%
Other Physician Services	99328		DOMICIL/R-HOME VISIT NEW PAT	Medicare Non-Facility Rate	\$173.91	\$217.88	79.8%
Other Physician Services	99334		DOMICIL/R-HOME VISIT EST PAT	Medicare Facility/Non-Facility Rate	\$48.27	\$61.03	79.1%
Other Physician Services	99335		DOMICIL/R-HOME VISIT EST PAT	Medicare Non-Facility Rate	\$74.13	\$95.93	77.3%
Other Physician Services	99336		DOMICIL/R-HOME VISIT EST PAT	Medicare Non-Facility Rate	\$105.08	\$135.67	77.5%
Other Physician Services	99337		DOMICIL/R-HOME VISIT EST PAT	Medicare Non-Facility Rate	\$150.60	\$193.99	77.6%
Other Physician Services	99341		HOME VISIT NEW PATIENT	Medicare Non-Facility Rate	\$50.62	\$54.43	93.0%
Other Physician Services	99342		HOME VISIT NEW PATIENT	Medicare Non-Facility Rate	\$69.87	\$77.24	90.5%
Other Physician Services	99343		HOME VISIT NEW PATIENT	Medicare Non-Facility Rate	\$110.56	\$125.61	88.0%
Other Physician Services	99344		HOME VISIT NEW PATIENT	Medicare Non-Facility Rate	\$144.68	\$180.90	80.0%
Other Physician Services	99345		HOME VISIT NEW PATIENT	Medicare Non-Facility Rate	\$173.91	\$219.04	79.4%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Other Physician Services	99347		HOME VISIT EST PATIENT	Medicare Non-Facility Rate	\$45.83	\$55.17	83.1%
Other Physician Services	99348		HOME VISIT EST PATIENT	Medicare Non-Facility Rate	\$68.90	\$83.60	82.4%
Other Physician Services	99349		HOME VISIT EST PATIENT	Medicare Non-Facility Rate	\$100.58	\$129.00	78.0%
Other Physician Services	99350		HOME VISIT EST PATIENT	Medicare Non-Facility Rate	\$140.85	\$178.42	78.9%
Other Physician Services	99354		PROLNG SVC O/P 1ST HOUR	Medicare Non-Facility Rate	\$80.27	\$129.07	62.2%
Other Physician Services	99354		PROLNG SVC O/P 1ST HOUR	Medicare Facility Rate	\$80.27	\$120.37	66.7%
Other Physician Services	99355		PROLNG SVC O/P EA ADDL 30	Medicare Non-Facility Rate	\$78.95	\$93.22	84.7%
Other Physician Services	99355		PROLNG SVC O/P EA ADDL 30	Medicare Facility Rate	\$78.95	\$84.89	93.0%
Other Physician Services	99356		PROLNG SVC I/P/OBS 1ST HOUR	Medicare Facility/Non-Facility Rate	\$73.10	\$90.78	80.5%
Other Physician Services	99357		PROLNG SVC I/P/OBS EA ADDL	Medicare Facility Rate	\$73.34	\$91.14	80.5%
Other Physician Services	99360		PHYSICIAN STANDBY SERVICES	Other States' Average Rate	\$58.51	\$54.03	108.3%
Other Physician Services	99381		INIT PM E/M NEW PAT INFANT	Other States' Average Rate	\$102.18	\$93.82	108.9%
Other Physician Services	99381		INIT PM E/M NEW PAT INFANT	Other States' Average Rate	\$102.18	\$76.87	132.9%
Other Physician Services	99382		INIT PM E/M NEW PAT 1-4 YRS	Other States' Average Rate	\$106.47	\$97.95	108.7%
Other Physician Services	99382		INIT PM E/M NEW PAT 1-4 YRS	Other States' Average Rate	\$106.47	\$80.99	131.5%
Other Physician Services	99383		PREV VISIT NEW AGE 5-11	Other States' Average Rate	\$111.07	\$85.28	130.2%
Other Physician Services	99383		PREV VISIT NEW AGE 5-11	Other States' Average Rate	\$111.07	\$101.89	109.0%
Other Physician Services	99384		PREV VISIT NEW AGE 12-17	Other States' Average Rate	\$125.56	\$114.73	109.4%
Other Physician Services	99384		PREV VISIT NEW AGE 12-17	Other States' Average Rate	\$125.56	\$98.12	128.0%
Other Physician Services	99385		PREV VISIT NEW AGE 18-39	Other States' Average Rate	\$121.93	\$115.73	105.4%
Other Physician Services	99385		PREV VISIT NEW AGE 18-39	Other States' Average Rate	\$121.93	\$95.63	127.5%
Other Physician Services	99386		PREV VISIT NEW AGE 40-64	Other States' Average Rate	\$140.66	\$134.77	104.4%
Other Physician Services	99386		PREV VISIT NEW AGE 40-64	Other States' Average Rate	\$140.66	\$111.52	126.1%
Other Physician Services	99387		INIT PM E/M NEW PAT 65+ YRS	Other States' Average Rate	\$152.86	\$145.86	104.8%
Other Physician Services	99387		INIT PM E/M NEW PAT 65+ YRS	Other States' Average Rate	\$152.86	\$112.15	136.3%
Other Physician Services	99391		PER PM REEVAL EST PAT INFANT	Other States' Average Rate	\$91.94	\$84.37	109.0%
Other Physician Services	99391		PER PM REEVAL EST PAT INFANT	Other States' Average Rate	\$91.94	\$69.58	132.1%

Appendix B2: Professional Services Rate Ratio Results CBIZ Optumas

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Other Physician Services	99392		PREV VISIT EST AGE 1-4	Other States' Average Rate	\$98.21	\$90.16	108.9%
Other Physician Services	99392		PREV VISIT EST AGE 1-4	Other States' Average Rate	\$98.21	\$75.36	130.3%
Other Physician Services	99393		PREV VISIT EST AGE 5-11	Other States' Average Rate	\$97.89	\$89.86	108.9%
Other Physician Services	99393		PREV VISIT EST AGE 5-11	Other States' Average Rate	\$97.89	\$75.24	130.1%
Other Physician Services	99394		PREV VISIT EST AGE 12-17	Other States' Average Rate	\$107.10	\$83.82	127.8%
Other Physician Services	99394		PREV VISIT EST AGE 12-17	Other States' Average Rate	\$107.10	\$98.45	108.8%
Other Physician Services	99395		PREV VISIT EST AGE 18-39	Other States' Average Rate	\$109.41	\$101.31	108.0%
Other Physician Services	99395		PREV VISIT EST AGE 18-39	Other States' Average Rate	\$109.41	\$84.63	129.3%
Other Physician Services	99396		PREV VISIT EST AGE 40-64	Other States' Average Rate	\$116.63	\$110.33	105.7%
Other Physician Services	99396		PREV VISIT EST AGE 40-64	Other States' Average Rate	\$116.63	\$90.57	128.8%
Other Physician Services	99397		PER PM REEVAL EST PAT 65+ YR	Other States' Average Rate	\$125.56	\$117.92	106.5%
Other Physician Services	99397		PER PM REEVAL EST PAT 65+ YR	Other States' Average Rate	\$125.56	\$95.70	131.2%
Other Physician Services	99401		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$33.62	\$28.43	118.2%
Other Physician Services	99401		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$33.62	\$34.54	97.3%
Other Physician Services	99402		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$57.64	\$41.89	137.6%
Other Physician Services	99402		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$57.64	\$54.11	106.5%
Other Physician Services	99403		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$80.32	\$62.34	128.8%
Other Physician Services	99403		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$80.32	\$74.56	107.7%
Other Physician Services	99404		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$103.03	\$82.78	124.5%
Other Physician Services	99404		PREVENTIVE COUNSELING INDIV	Other States' Average Rate	\$103.03	\$95.00	108.5%
Other Physician Services	99406		BEHAV CHNG SMOKING 3-10 MIN	Medicare Facility Rate	\$12.74	\$12.11	105.2%
Other Physician Services	99406		BEHAV CHNG SMOKING 3-10 MIN	Medicare Non-Facility Rate	\$12.74	\$15.73	81.0%
Other Physician Services	99406	HD	BEHAV CHNG SMOKING 3-10 MIN	Medicare Non-Facility Rate	\$11.11	\$15.73	70.6%
Other Physician Services	99406	HD	BEHAV CHNG SMOKING 3-10 MIN	Medicare Facility Rate	\$11.11	\$12.11	91.7%
Other Physician Services	99407		BEHAV CHNG SMOKING > 10 MIN	Medicare Facility Rate	\$25.17	\$25.63	98.2%
Other Physician Services	99407		BEHAV CHNG SMOKING > 10 MIN	Medicare Non-Facility Rate	\$25.17	\$28.89	87.1%
Other Physician Services	99407	HD	BEHAV CHNG SMOKING > 10 MIN	Medicare Non-Facility Rate	\$10.79	\$28.89	37.3%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Other Physician Services	99408		AUDIT/DAST 15-30 MIN	Other States' Average Rate	\$32.76	\$29.18	112.3%
Other Physician Services	99408		AUDIT/DAST 15-30 MIN	Other States' Average Rate	\$32.76	\$30.43	107.7%
Other Physician Services	99409		AUDIT/DAST OVER 30 MIN	Other States' Average Rate	\$67.05	\$56.57	118.5%
Other Physician Services	99409		AUDIT/DAST OVER 30 MIN	Other States' Average Rate	\$67.05	\$57.36	116.9%
Other Physician Services	99411		PREVENTIVE COUNSELING GROUP	Other States' Average Rate	\$15.17	\$16.52	91.8%
Other Physician Services	99412		PREVENTIVE COUNSELING GROUP	Other States' Average Rate	\$19.79	\$10.67	185.5%
Other Physician Services	99415		PROLONG CLINCL STAFF SVC	Medicare Non-Facility Rate	\$7.22	\$10.77	67.0%
Other Physician Services	99416		PROLONG CLINCL STAFF SVC ADD	Medicare Non-Facility Rate	\$4.04	\$6.16	65.6%
Other Physician Services	99441		PHONE E/M PHYS/QHP 5-10 MIN	Medicare Facility Rate	\$14.73	\$36.08	40.8%
Other Physician Services	99441		PHONE E/M PHYS/QHP 5-10 MIN	Medicare Non-Facility Rate	\$14.73	\$57.82	25.5%
Other Physician Services	99442		PHONE E/M PHYS/QHP 11-20 MIN	Medicare Facility Rate	\$28.67	\$67.35	42.6%
Other Physician Services	99442		PHONE E/M PHYS/QHP 11-20 MIN	Medicare Non-Facility Rate	\$28.67	\$93.08	30.8%
Other Physician Services	99443		PHONE E/M PHYS/QHP 21-30 MIN	Medicare Facility Rate	\$41.94	\$99.41	42.2%
Other Physician Services	99443		PHONE E/M PHYS/QHP 21-30 MIN	Medicare Non-Facility Rate	\$41.94	\$131.65	31.9%
Other Physician Services	99460		INIT NB EM PER DAY HOSP	Medicare Facility/Non-Facility Rate	\$89.64	\$95.42	93.9%
Other Physician Services	99461		INIT NB EM PER DAY NON-FAC	Medicare Non-Facility Rate	\$93.21	\$94.95	98.2%
Other Physician Services	99462		SBSQ NB EM PER DAY HOSP	Medicare Facility Rate	\$39.90	\$42.19	94.6%
Other Physician Services	99463		SAME DAY NB DISCHARGE	Medicare Facility/Non-Facility Rate	\$108.61	\$110.30	98.5%
Other Physician Services	99464		ATTENDANCE AT DELIVERY	Medicare Facility/Non-Facility Rate	\$67.29	\$74.91	89.8%
Other Physician Services	99465		NB RESUSCITATION	Medicare Facility/Non-Facility Rate	\$139.97	\$145.94	95.9%
Other Physician Services	99468		NEONATE CRIT CARE INITIAL	Medicare Facility Rate	\$884.38	\$918.76	96.3%
Other Physician Services	99469		NEONATE CRIT CARE SUBSQ	Medicare Facility Rate	\$409.05	\$398.00	102.8%
Other Physician Services	99471		PED CRITICAL CARE INITIAL	Medicare Facility Rate	\$810.03	\$795.47	101.8%
Other Physician Services	99472		PED CRITICAL CARE SUBSQ	Medicare Facility Rate	\$381.14	\$405.39	94.0%
Other Physician Services	99475		PED CRIT CARE AGE 2-5 INIT	Medicare Facility Rate	\$546.43	\$571.43	95.6%
Other Physician Services	99476		PED CRIT CARE AGE 2-5 SUBSQ	Medicare Facility Rate	\$330.36	\$342.75	96.4%
Other Physician Services	99477		INIT DAY HOSP NEONATE CARE	Medicare Facility Rate	\$329.07	\$347.91	94.6%

Appendix B2: Professional Services Rate Ratio Results **CBIZ Optumas**

Physician Service	Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
Other Physician Services	99478		IC LBW INF < 1500 GM SUBSQ	Medicare Facility Rate	\$130.52	\$137.26	95.1%
Other Physician Services	99479		IC LBW INF 1500-2500 G SUBSQ	Medicare Facility Rate	\$118.35	\$125.08	94.6%
Other Physician Services	99480		IC INF PBW 2501-5000 G SUBSQ	Medicare Facility Rate	\$113.96	\$119.90	95.0%
Other Physician Services	99485		SUPRV INTERFACILITY TRANSPORT	Other States' Average Rate	\$73.47	\$68.45	107.3%
Other Physician Services	99486		SUPRV INTERFAC TRNSPORT ADDL	Other States' Average Rate	\$63.93	\$59.26	107.9%
Other Physician Services	99497		ADVNC D CARE PLAN 30 MIN	Medicare Non-Facility Rate	\$41.99	\$86.14	48.7%
Other Physician Services	99497		ADVNC D CARE PLAN 30 MIN	Medicare Facility Rate	\$41.99	\$78.17	53.7%
Other Physician Services	J7321		HYALGAN SUPARTZ VISCO-3 DOSE	Other States' Average Rate	\$80.04	\$75.94	105.4%
Other Physician Services	J7323		EUFLEXA INJ PER DOSE	Other States' Average Rate	\$141.04	\$135.24	104.3%
Other Physician Services	J7324		ORTHOVISC INJ PER DOSE	Other States' Average Rate	\$137.71	\$147.75	93.2%
Other Physician Services	J7325		SYNVISC OR SYNVISC-ONE	Other States' Average Rate	\$13.36	\$10.43	128.1%
Other Physician Services	J7327		MONOVISC INJ PER DOSE	Other States' Average Rate	\$1,011.65	\$762.80	132.6%
Other Physician Services	S0265		GENETIC COUNSEL 15 MINS	Other States' Average Rate	\$16.15	\$16.12	100.2%

Appendix C – Year Two (Cycle Two) Methodologies and Data

Executive Summary

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

The following service groups were reviewed by **Optumas** as part of the 2022 Medicaid Provider Rate Review Analysis Report:

- Non-Facility Dialysis/Nephrology
- Facility Dialysis/Nephrology
- Laboratory/Pathology
- Injections/Miscellaneous J-Codes
- Vision

The work performed on Year Two (Cycle Two) services comprised three analyses:

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

The data validation process includes:

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

The rate comparison benchmark analysis for January 1, 2020, through December 31, 2020 (CY 2020) compares Colorado Medicaid's latest fee schedule estimated reimbursement with the estimated reimbursement of the overall benchmark(s). The rate comparison benchmark analysis for Year 2 (Cycle 2) considers Medicare rates the primary comparator. In cases where Medicare rates were not used for comparison, an average rate from a selected group of other states was used.

All else being equal, if Colorado Medicaid were to reimburse at 100.0% of the overall benchmark, expenditures for CY 2020 would see the estimated total funds impacts summarized in **Table 1**:

Table 1. Colorado as a Percent of the Benchmark and Estimated CY 2020 Fund Impact

Service Group	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark	Estimated CY 2020 Total Fund Impact
Non-Facility Dialysis/Nephrology	\$910,930	\$1,490,140	61.1%	\$579,210
Facility Dialysis/Nephrology	\$8,444,228	\$10,761,508	78.5%	\$2,317,280
Laboratory/Pathology	\$115,872,840	\$89,507,716	129.5%	\$(26,365,123)

Service Group	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark	Estimated CY 2020 Total Fund Impact
Injections/J-Codes	\$1,250,195	\$1,307,505	95.6%	\$57,310
Vision	\$51,452,059	\$89,604,100	57.4%	\$38,152,040

The access to care analysis consists of a set of metrics to assist the Department in determining the ease in which members can obtain needed medical services by county classification over time and for the CY 2020 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 Definitions

Metric	Definition	Time Period
Utilizers	The count of distinct utilizers	January 2018 – December 2020, Monthly
Providers	The count of active providers	January 2018 – December 2020, Monthly
Utilizers Per Provider (Panel Size)	Panel Size is the ratio of utilizers to active providers, and estimates average Medicaid members seen per provider	January 2018 – December 2020, Monthly
Member to Provider Ratio	Expressed as providers per 1,000 members, and allows for comparison across areas with large differences in population size	CY 2020
Utilizer Density Map	Utilizer count by county of residence	CY 2020
Penetration Rate Map	The estimated share of total Medicaid members that received the service by county of residence expressed as per 1,000 members	CY 2020

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

Data Validation

The Department provided three years (January 2018 through December 2020) of eligibility data and fee-for-service (FFS) claims data to **Optumas**. The data validation process included utilization and dollar volume summaries over time which were validated against the Department's expectations, as well as **Optumas'** expectations based on prior analyses to identify potential inconsistencies. In addition, a frequency analysis was performed to examine valid values appearing across all fields contained in the data. Overall, results of this process suggested that the CY 2020 claims data 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:¹

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

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

- Procedure codes that are manually priced, and therefore not comparable;
- Procedure codes that were in the data, but the most recent Colorado fee schedule lists them as “not a benefit;”
- Procedure codes that were in the data, but they are not found on the most recent Colorado fee schedule; and
- Procedure codes that do not have a comparable Medicare or other states’ average rate

The list of procedure codes that were excluded from this analysis are shown in **Table 3(a)** below.

Table 3(a). List of Procedure Codes Excluded

Service Group	Procedure Code	Modifier	Procedure Description	Reason for Removal
Dialysis/Nephrology (Non-Facility)	90999		DIALYSIS PROCEDURE	manually priced
Laboratory/Pathology	88399	26	SURGICAL PATHOLOGY PROCEDURE	manually priced
Laboratory/Pathology	81545		ONCOLOGY THYROID	not a benefit
Injections/J-Codes	J0131		ACETAMINOPHEN INJECTION	manually priced
Injections/J-Codes	J7999		COMPOUNDED DRUG, NOC	manually priced
Vision	V2615		TELESCOP/OTHR COMPOUND LENS	no comparable rate
Vision	V2787		ASTIGMATISM-CORRECT FUNCTION	no comparable rate
Vision	92499		EYE SERVICE OR PROCEDURE	manually priced
Vision	V2785		CORNEAL TISSUE PROCESSING	manually priced
Vision	V2599		CONTACT LENS/ES OTHER TYPE	manually priced

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

¹ See the [Rate Review Schedule](#) on the Department’s Medicaid Provider Rate Review Advisory Committee (MPRRAC) website.

Table 3(b). Count of Procedure Codes Excluded

Service Group	Manually Priced	Not a Benefit	No Comparable Rate Available
Dialysis/Nephrology (Non-Facility)	1	0	0
Laboratory/Pathology	1	1	0
Injections/J-Codes	2	0	0
Vision	3	0	2

Services were priced to the Colorado Medicaid fee schedules at the procedure code and modifier level. The summary of exclusions from the CY 2020 base data can be found in **Appendix C1**.

CY 2020 claims data was selected as the base data of the repricing analysis because it yields an annualized result derived from the most recent experience.² There is an inherent processing lag in claims between the time a claim is incurred and 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 Two (Cycle Two) services were provided with ten months of claims runout. The raw claims data reflects the vast majority of FFS experience for Year Two (Cycle Two) services in CY 2020; for this reason, no IBNR adjustments were made to the data.

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

Rate Comparison Benchmark Analysis

The first step in the rate comparison benchmark analysis was a repricing exercise using the most recent Colorado Medicaid fee schedules with rates effective July 1, 2021, by procedure code and the first modifier to obtain a Colorado repriced amount. The first modifier was considered to align with the repricing step using the Medicare physician fee schedule. *It should be noted that repricing for Dialysis/Nephrology for Facility is a different process from the other Year Two (Cycle Two) services and will be addressed in the service-specific section below.*

It was then necessary to identify other payer sources that would be used in the rate comparison benchmark analysis. Many of the Year Two (Cycle Two) 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.³ Rates were assigned by considering the procedure code and first modifier present on each claim and included consideration as to whether the service was performed at a facility or non-facility. Medicare's base rate which is listed by

² The Department is aware that CY 2020 data will show the impact of the global health emergency that occurred in 2020; however, the Department wanted to use the most recent experience to capture the data and will take this into consideration as the data is compiled, analyzed, and conclusions are developed.

³ The payment rate comparison is influenced by the choice of fee schedule since Colorado-specific Medicare rates are higher than those derived from unadjusted national relative value units. All Medicare rates and relevant information were effective calendar year 2022.

procedure code and the first modifier includes a breakout for facility versus non-facility and is considered to compare an appropriate rate.

For services without a comparable Medicare rate, supplemental rates were drawn from other state Medicaid programs. The states' rates are averaged and then linked to the Colorado Medicaid claims on a procedure code and first modifier basis. The states used for comparison are shown in the service-specific sections below.

This left a small portion of the data for which a comparable rate could not be found under the Year Two (Cycle Two) 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 final step consisted of applying the base utilization to Colorado Medicaid's latest available fee schedule as well as the matched rates from Medicare or other states. This entailed multiplication of utilization and the corresponding rates from each source, followed by subtraction of third-party liability (TPL) and copayments, to calculate the estimated total dollars that would theoretically be reimbursed by each source.

The distribution of procedure codes compared across benchmark sources for each service group is shown in **Table 4**. Note that for Dialysis/Nephrology (Facility), all of the encounters were compared with Medicare and nothing was excluded.

Table 4. Count of Codes by Comparison Source

Service Group	Medicare	Other States	No Comparable Rate Available
Dialysis/Nephrology (Non-Facility)	18	1	1
Laboratory/Pathology	1,059	71	2
Injections/J-Codes	9	3	2
Vision	106	13	5

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

Table 5. Rate Ratio Ranges by Comparison Source

Service Group	Medicare	Other States
Dialysis/Nephrology (Non-Facility)	26.9% - 99.9%	104.0%
Dialysis/Nephrology (Facility)	75.5% - 80.1%	N/A
Laboratory/Pathology	6.9% - 178.3%	18.8% - 1,138.1%
Injections/J-Codes	5.0% - 146.6%	83.5% - 184.9%
Vision	14.2% - 112.2%	51.9% - 191.6%

As an example, the figures in Table 5 can be interpreted to mean that when comparing Laboratory/Pathology services to Medicare rates by procedure code and modifier, the Colorado Medicaid rates were anywhere from 26.9% to 99.9% of the Medicare rate. For the Laboratory/Pathology procedure codes where Medicare did not have a comparative rate, the Colorado Medicaid rates were anywhere from 18.8% to 1,138.1% of the other states' average rates.

Estimated expenditures were only compared for the subset of Year Two (Cycle Two) services that are common between Colorado Medicaid and another source. In other words, if no comparable rate could be found for a specific service offered in Colorado Medicaid, then the associated utilization and costs were not shown within the comparison results.

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

Dialysis/Nephrology Payment Comparison

Non-Facility

There is a matching Medicare rate for over 99.2% of the Non-Facility Dialysis/Nephrology Services utilization in CY 2020. Other States' average Medicaid rates were utilized for one procedure code and modifier 1 combinations and are shown in **Table 6** below. The states' rates used for Non-Facility Dialysis and Nephrology are Arizona, Oklahoma, Nebraska, Utah, Nevada, and Oregon. The Benchmark repriced amount shown below is the combination of Medicare and Other States' repriced amount combined.

Table 6. Procedure Codes/Modifiers Repriced Using Other States' Average

Procedure Code	Modifier	Procedure Description
90989		DIALYSIS TRAINING COMPLETE

Table 7 summarizes the Non-Facility Dialysis/Nephrology Services rate benchmark by the comparison sources.

Table 7. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$7,175	\$6,898	104.0%
Medicare	\$903,755	\$1,483,241	60.9%
Total	\$910,930	\$1,490,140	61.1%

Table 8 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 8. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	61.1%
Colorado Repriced Amount	\$910,930
Benchmark Repriced Amount	\$1,490,140
Est. CY 2020 Total Fund Impact	\$579,210

Table 8 can be interpreted to mean that for Non-Facility Dialysis/Nephrology services under review, Colorado Medicaid pays an estimated 61.1% of the benchmark. Had Colorado Medicaid reimbursed at 100.0% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$579,210. Detailed comparison results can be found in **Appendix C2**.

Facility

The rate comparison analysis for Dialysis claims performed in a facility assigns Medicare rates to the base utilization based on information available on the claim. For this service group, 100.0% of the services were compared to a Medicare benchmark.

Dialysis treatment performed at Dialysis Centers is “bundled” into a single per diem facility payment that includes geographic adjustment based on the county where the dialysis facility is located.

The Health First Colorado Dialysis fee schedule, effective July 1, 2021, assigns a single rate per dialysis service that is split by geographic region, and prescribes which counties are categorized into the different regions. The per diem rate based on the county where the service was performed is applied to the paid units for these services to obtain a Colorado Repriced amount. The Health First Colorado dialysis per diem rates are shown in **Table 9**:

Table 9. Health First Colorado Dialysis (Facility) Per Diem Rates

Wage Index Region	FY2021-22 Rate
Boulder, CO	\$202.32
Colorado Springs, CO	\$193.24
Denver, Aurora, Lakewood	\$208.29
Fort Collins, CO	\$207.65
Grand Junction, CO	\$200.09
Greeley, CO	\$197.09
Pueblo, CO	\$181.50
Rural Colorado	\$200.89

Beginning July 1, 2020, per diem rates were added to the Health First Colorado Dialysis fee schedule for services performed at an in-home setting. The rates are shown below in **Table 10**.

Table 10. Health First Colorado Dialysis (Facility) In-home Per Diem Rates

Wage Index Region	FY2021-22 Rate
Boulder, CO	\$86.71
Colorado Springs, CO	\$82.82
Denver, Aurora, Lakewood	\$89.27
Fort Collins, CO	\$88.99
Grand Junction, CO	\$85.75
Greeley, CO	\$84.47
Pueblo, CO	\$77.79
Rural Colorado	\$86.10

Medicare reimburses Dialysis facility claims using a Prospective Payment System (PPS). The Medicare PPS prices dialysis with a national base rate, currently at \$257.90 and applies three types of payment adjustments: Provider adjustments, Claims adjustments, and Patient adjustments. A subset of the adjustments is included in the Medicare benchmark analysis based on the data fields available. **Table 11** lists the Medicare PPS Adjustments applied and **Table 12** lists those adjustments not incorporated:

Table 11. Dialysis PPS Adjustments

Adjustment Group	Medicare PPS Adjustments Applied
Provider	Wage Index Adjustment, Rural Adjustment
Claim	Training Add-On, Home Dialysis, Acute Kidney Failure Adjustment, Modality Adjustment
Patient	Age, Comorbidity

Table 12. Dialysis PPS Adjustments Not Incorporated

Adjustment Group	Medicare PPS Adjustments Not Incorporated
Provider	Low Volume Adjustment, Blended Payment Adjustment, QIP Reduction
Claim	Dialysis Onset, High-Cost Outlier Payments, Transitional Drug Add-On Payment Adjustment
Patient	Body Mass Index (BMI), Body Surface Area (BSA)

Table 13 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 13. Estimated Fiscal Impact

Colorado as a Percentage of Medicare PPS Benchmark	78.5%
Colorado Repriced Amount	\$8,444,228
Medicare PPS Benchmark Repriced Amount	\$10,761,508
Est. CY2020 Total Fund Impact	\$2,317,279

Table 13 can be interpreted to mean that for Dialysis facility services under review, Health First Colorado pays an estimated 78.5% of the Medicare benchmark. Had Health First Colorado reimbursed at 100.0% of the benchmark rates in CY2020, the estimated impact to the Total Fund would be \$2,317,279. Detailed comparison results can be found in **Appendix C2**.

Laboratory/Pathology Payment Comparison

There is a matching Medicare rate for over 61.4% of the Laboratory/Pathology Services utilization in CY 2020. Other States' average Medicaid rates were utilized for seventy-four procedure code and modifier 1 combinations and are shown in **Table 14** below. The states' rates used for Laboratory/Pathology are Arizona, California, Oklahoma, Nebraska, Utah, Nevada, and Oregon. The Benchmark repriced amount shown below is the combination of Medicare and Other States' repriced amount combined.

Table 14. Procedure Codes/Modifiers Repriced Using Other States' Average

Procedure Code	Modifier	Procedure Description
80321		ALCOHOLS BIOMARKERS 1OR 2
80324		DRUG SCREEN AMPHETAMINES 1/2
80336		ANTIDEPRESSANT TRICYCLIC 3-5
80345		DRUG SCREENING BARBITURATES
80346		BENZODIAZEPINES1-12
80348		DRUG SCREENING BUPRENORPHINE
80349		CANNABINOIDS NATURAL
80352		CANNABINOID SYNTHETIC 7/MORE
80353		DRUG SCREENING COCAINE
80354		DRUG SCREENING FENTANYL
80356		HEROIN METABOLITE
80357		KETAMINE AND NORKETAMINE
80358		DRUG SCREENING METHADONE
80359		METHYLENEDIOXYAMPHETAMINES

Procedure Code	Modifier	Procedure Description
80361		OPIATES 1 OR MORE
80365		DRUG SCREENING OXYCODONE
80371		STIMULANTS SYNTHETIC
83992		ASSAY FOR PHENCYCLIDINE
99000		SPECIMEN HANDLING OFFICE-LAB
80050		GENERAL HEALTH PANEL
80320		DRUG SCREEN QUANTALCOHOLS
80323		ALKALOIDS NOS
80325		AMPHETAMINES 3OR 4
80326		AMPHETAMINES 5 OR MORE
80329		ANALGESICS NON-OPIOID 1 OR 2
80330		ANALGESICS NON-OPIOID 3-5
80331		ANALGESICS NON-OPIOID 6/MORE
80332		ANTIDEPRESSANTS CLASS 1 OR 2
80333		ANTIDEPRESSANTS CLASS 3-5
80334		ANTIDEPRESSANTS CLASS 6/MORE
80335		ANTIDEPRESSANT TRICYCLIC 1/2
80337		TRICYCLIC & CYCLICALS 6/MORE
80338		ANTIDEPRESSANT NOT SPECIFIED
80339		ANTIEPILEPTICS NOS 1-3
80340		ANTIEPILEPTICS NOS 4-6
80341		ANTIEPILEPTICS NOS 7/MORE
80342		ANTIPSYCHOTICS NOS 1-3
80343		ANTIPSYCHOTICS NOS 4-6
80344		ANTIPSYCHOTICS NOS 7/MORE
80347		BENZODIAZEPINES 13 OR MORE
80350		CANNABINOIDS SYNTHETIC 1-3
80351		CANNABINOIDS SYNTHETIC 4-6
80355		GABAPENTIN NON-BLOOD
80360		METHYLPHENIDATE
80362		OPIOIDS & OPIATE ANALOGS 1/2
80363		OPIOIDS & OPIATE ANALOGS 3/4
80364		OPIOID & OPIATE ANALOG 5/MORE
80366		DRUG SCREENING PREGABALIN
80367		DRUG SCREENING PROPOXYPHENE
80368		SEDATIVE HYPNOTICS
80369		SKELETAL MUSCLE RELAXANT 1/2

Procedure Code	Modifier	Procedure Description
80370		SKEL MUSC RELAXANT 3 OR MORE
80372		DRUG SCREENING TAPENTADOL
80373		DRUG SCREENING TRAMADOL
80374		STEREOISOMER ANALYSIS
80375		DRUG/SUBSTANCE NOS 1-3
80377		DRUG/SUBSTANCE NOS 7/MORE
80500		LAB PATHOLOGY CONSULTATION
86870		RBC ANTIBODY IDENTIFICATION
80322		ALCOHOLS BIOMARKERS 3/MORE
80376		DRUG/SUBSTANCE NOS 4-6
80502		LAB PATHOLOGY CONSULTATION
86920		COMPATIBILITY TEST SPIN
86923		COMPATIBILITY TEST ELECTRIC
87015	26	SPECIMEN INFECT AGNT CONCNTJ
87075	26	CULTR BACTERIA EXCEPT BLOOD
87076	26	CULTURE ANAEROBE IDENT EACH
87205	26	SMEAR GRAM STAIN
87206	26	SMEAR FLUORESCENT/ACID STAI
87210	26	SMEAR WET MOUNT SALINE/INK
P9041		ALBUMIN (HUMAN),5%, 50ML
P9045		ALBUMIN (HUMAN), 5%, 250 ML
P9047		ALBUMIN (HUMAN), 25%, 50ML
S3620		NEWBORN METABOLIC SCREENING

Table 15 summarizes the Laboratory/Pathology Services 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	\$44,288,168	\$12,433,851	356.2%
Medicare	\$71,366,774	\$77,073,865	92.6%
Total	\$115,654,942	\$89,507,716	129.2%

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

Table 16. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	129.2%
Colorado Repriced Amount	\$115,654,942
Benchmark Repriced Amount	\$89,507,716
Est. CY 2020 Total Fund Impact	\$(26,147,226)

Table 16 can be interpreted to mean that for Laboratory/Pathology services under review, Colorado Medicaid pays an estimated 129.2% of the benchmark. Had Colorado Medicaid reimbursed at 100.0% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$(26,147,226). Detailed comparison results can be found in **Appendix C3**.

Injections/Miscellaneous J-Codes Payment Comparison

There is a matching Medicare rate for over 61.4% of the Injections/Miscellaneous J-Codes Services utilization in CY 2020. Other States' average Medicaid rates were utilized for three procedure code and modifier 1 combinations and are shown in **Table 17** below. The states' rates used for Laboratory/Pathology are Arizona, California, Oklahoma, Nebraska, Utah, Nevada, and Oregon. The Benchmark repriced amount shown below is the combination of Medicare and Other States' repriced amount combined.

Table 17. Procedure Codes/Modifiers Repriced Using Other States' Average

Procedure Code	Modifier	Procedure Description
J2805		SINCALIDE INJECTION
Q9950		INJ SULF HEXA LIPID MICROSPH
Q9957		INJ PERFLUTREN LIP MICROS,ML

Table 18 summarizes the Injections/Miscellaneous J-Codes Services rate benchmark by the comparison sources.

Table 18. Benchmark Comparison Results by Comparison Source

Comparison Source	Colorado Repriced	Benchmark Repriced	Colorado as a Percent of Benchmark
Other States Average	\$4,392	\$4,508	97.4%
Medicare	\$1,245,804	\$1,302,997	95.6%
Total	\$1,250,195	\$1,307,505	95.6%

Table 19 summarizes the payment comparison and estimated fiscal impact in aggregate.

Table 19. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	95.6%
Colorado Repriced Amount	\$1,250,195
Benchmark Repriced Amount	\$1,307,505
Est. CY 2020 Total Fund Impact	\$57,310

Table 19 can be interpreted to mean that for Injections/Miscellaneous J-Codes services under review, Colorado Medicaid pays an estimated 95.6% of the benchmark. Had Colorado Medicaid reimbursed at 100.0% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$57,310. Detailed comparison results can be found in **Appendix C4**.

Vision Payment Comparison

There is a matching Medicare rate for over 93.1% of the Vision Services utilization in CY 2020. Other States' average Medicaid rates were utilized for ten procedure code and modifier 1 combinations and are shown in **Table 20** below. The states' rates used for Vision are Arizona, California, Louisiana, Nevada, and Oklahoma. The Benchmark repriced amount shown below is the combination of Medicare and Other States' repriced amount combined.

Table 20. Procedure Codes/Modifiers Repriced Using Other States' Average

Procedure Code	Modifier	Procedure Description
V2025		EYEGLASSES DELUX FRAMES
V2781		PROGRESSIVE LENS PER LENS
92310		CONTACT LENS FITTING
92340		FIT SPECTACLES MONOFOCAL
92015		DETERMINE REFRACTIVE STATE
92341		FIT SPECTACLES BIFOCAL
92314		PRESCRIPTION OF CONTACT LENS
92342		FIT SPECTACLES MULTIFOCAL
92354		FIT SPECTACLES SINGLE SYSTEM
92370		REPAIR & ADJUST SPECTACLES

Table 21 summarizes the Vision Services 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	\$3,535,487	\$5,345,705	66.1%
Medicare	\$47,916,573	\$84,258,395	56.9%
Total	\$51,452,060	\$89,604,100	57.4%

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

Table 22. Estimated Fiscal Impact

Colorado as a Percentage of Benchmark	57.4%
Colorado Repriced Amount	\$51,452,060
Benchmark Repriced Amount	\$89,604,100
Est. CY 2020 Total Fund Impact	\$38,152,040

Table 22 can be interpreted to mean that for Vision services under review, Colorado Medicaid pays an estimated 57.4% of the benchmark. Had Colorado Medicaid reimbursed at 100.0% of the benchmark rates in CY 2020, the estimated impact to the Total Fund would be \$38,152,040. Detailed comparison results can be found in **Appendix C5**.

Access to Care

This year, the Department contracted with **Optumas** to analyze access to care metrics for Year Two (Cycle Two) 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. **Optumas** also included utilizers aggregated by year between CY 2018-2020
2. **Distinct utilizers by gender and age in CY 2018-2020** provides insight into the demographics of members that received services and allows the state to create distributions to understand discrepancies of utilization by gender and age bands.
3. **Top diagnosis codes for distinct utilizers in CY 2018-2020** identifies the most common diagnosis codes within each service group. This information is helpful for the state to identify what providers' resources are most likely going to be used for.

4. **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 billing provider's Medicaid ID which was considered the unique provider identifier;
5. **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;
6. **Member-to-Provider Ratios by county classification in CY 2020** which is useful in normalizing, and eventually standardizing, the supply of active providers relative to total membership in different county classifications;
7. **Utilizer Density by county in CY 2018-2020** showing on a map the geographic distribution and prevalence of members utilizing each service group, and;
8. **Penetration Rates by county in CY 2018-2020** 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 2022 Medicaid Provider Rate Review Analysis Report (the report).

Data Validation

The access to care analysis applies the following exclusion criteria to the Year Two (Cycle Two) services January 2018 through December 2020 FFS claims data the Department provided as part of the rate review analysis:

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

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

Interpretation of Results

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

Geographic Partitions

Geographic partitions are arranged in the access metrics because they provide important distinctions when comparing and evaluating access to care for members residing in similar and dissimilar geographic locations. The utilizer and member counts grouped by county and county classification are nonduplicative when analyzed over

time on a monthly basis and may be duplicative at the CY 2020 aggregate level. However, the active provider counts grouped by county and county classification maintain potential for duplication even within a single month because these geographic partitions represent the county of residence for the utilizers in the data. For example, if a member resided in both an urban and rural county during the CY 2020 time period, that member would contribute to both the urban CY 2020 total utilizer counts as well as the rural CY 2020 total utilizer counts for the service groups applicable to this member. To the degree that members residing in multiple counties were able to access a single provider within a given month, that provider contributes to the active provider counts for all counties in which that provider's panel resides. Although this duplication does not adversely impact the informational value of the annualized access metrics, it should be considered when interpreting the aggregated results.

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

Appendix C1: Base Data Summary

	Dialysis/ Nephrology (Non-Facility)	Dialysis/ Nephrology (Facility)	Laboratory/ Pathology	Injections/ J-Codes	Vision
CY 2020 Paid Amount	\$1,107,528	\$12,013,282	\$112,812,411	\$1,425,681	\$48,654,219
Exclusions					
Non-TXIX	\$149,660	\$1,855,827	\$234,675	\$3,901	\$7,422
No Eligibility Span	\$2,439	\$12,610	\$162,054	\$569	\$37,050
Dual Eligible	\$57,591	\$447,129	\$365,902	\$13,856	\$79,675
Child Health Plan Plus (CHP+)	\$0	\$0	\$1,042	\$0	\$5,862
Manually Priced	\$4,613	\$0	\$82	\$749	\$92,291
Not A Benefit	\$0	\$0	\$280,454	\$0	\$0
No CO Medicaid Rate Found	\$0	\$0	\$0	\$0	\$0
No Comparable Rate	\$0	\$0	\$0	\$0	\$1,515
Total Exclusions	\$214,303	\$2,315,566	\$1,044,209	\$19,075	\$223,815
Repricing Base					
Year Two (Cycle Two) Base Data	\$893,225	\$9,697,716	\$111,768,202	\$1,406,606	\$48,430,404
Percentage of Raw	80.7%	80.7%	99.1%	98.7%	99.5%

Note: as an example, the Dialysis/Nephrology (Non-Facility) final figures in the above table can be interpreted to mean that 80.7% (accounting for \$893,225 in unadjusted paid dollars) of the CY 2020 data provided by the Department was appropriate for use in the payment rate comparison analysis.

Appendix C2: Dialysis/Nephrology Rate Ratio Results

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

The Dialysis/Nephrology Non-Facility rate comparison benchmark analysis was repriced using methodology that incorporates the following data elements:

- Procedure Code
- Modifier 1
- Facility/Non-facility

Dialysis/Nephrology Non-Facility Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
90935		HEMODIALYSIS ONE EVALUATION	Medicare Facility/Non-Facility Rate	\$63.90	\$73.22	87.3%
90937		HEMODIALYSIS REPEATED EVAL	Medicare Facility Rate	\$104.84	\$104.90	99.9%
90945		DIALYSIS ONE EVALUATION	Medicare Facility/Non-Facility Rate	\$23.51	\$87.49	26.9%
90947		DIALYSIS REPEATED EVAL	Medicare Facility Rate	\$104.76	\$125.77	83.3%
90954		ESRD SERV 4 VSTS P MO 2-11	Medicare Non-Facility Rate	\$599.07	\$1,034.80	57.9%
90958		ESRD SRV 2-3 VSTS P MO 12-19	Medicare Non-Facility Rate	\$325.04	\$515.97	63.0%
90959		ESRD SERV 1 VST P MO 12-19	Medicare Non-Facility Rate	\$213.26	\$333.84	63.9%
90960		ESRD SRV 4 VISITS P MO 20+	Medicare Non-Facility Rate	\$214.31	\$363.52	59.0%
90961		ESRD SRV 2-3 VSTS P MO 20+	Medicare Facility/Non-Facility Rate	\$172.88	\$301.69	57.3%
90962		ESRD SERV 1 VISIT P MO 20+	Medicare Non-Facility Rate	\$124.89	\$207.77	60.1%
90963		ESRD HOME PT SERV P MO <2YRS	Medicare Non-Facility Rate	\$413.04	\$622.58	66.3%
90964		ESRD HOME PT SERV P MO 2-11	Medicare Non-Facility Rate	\$343.98	\$534.28	64.4%

Dialysis/Nephrology Non-Facility Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
90965		ESRD HOME PT SERV P MO 12-19	Medicare Non-Facility Rate	\$327.23	\$513.55	63.7%
90966		ESRD HOME PT SERV P MO 20+	Medicare Non-Facility Rate	\$170.94	\$301.69	56.7%
90967		ESRD SVC PR DAY PT <2	Medicare Non-Facility Rate	\$14.84	\$18.09	82.0%
90968		ESRD HOME PT SRV P DAY 2-11	Medicare Non-Facility Rate	\$11.53	\$17.74	65.0%
90969		ESRD SVC PR DAY PT 12-19	Medicare Facility/Non-Facility Rate	\$11.24	\$17.40	64.6%
90970		ESRD SVC PR DAY PT 20+	Medicare Facility/Non-Facility Rate	\$5.98	\$9.76	61.3%
90989		DIALYSIS TRAINING COMPLETE	Other States' Average Rate	\$512.50	\$492.75	104.0%

The Dialysis/Nephrology Facility rate comparison benchmark analysis was repriced using methodology that incorporates the following data elements:

- Assigned Rate Area
- Condition Codes
- Revenue Codes

The benchmark rate is a function of the following factors: a geographic factor, a rural adjustment factor, a training add-on, an age factor, diagnosis, and whether the service was performed at a facility or an in-home setting.

Dialysis/Nephrology Facility Rate Ratio Results							
Assigned Rate Area	Condition Code 1	Condition Code 2	Condition Code 3	Revenue Code	Colorado Rate	Benchmark Rate	Rate Ratio
Boulder, CO	59			0821	\$202.32	\$265.57	76.2%
Boulder, CO	59			0821	\$202.32	\$258.40	78.3%
Boulder, CO	71			0821	\$202.32	\$268.22	75.4%

Appendix C2: Dialysis/Nephrology Rate Ratio Results

Dialysis/Nephrology Facility Rate Ratio Results							
Assigned Rate Area	Condition Code 1	Condition Code 2	Condition Code 3	Revenue Code	Colorado Rate	Benchmark Rate	Rate Ratio
Boulder, CO	71			0821	\$202.32	\$265.05	76.3%
Boulder, CO	71			0821	\$202.32	\$265.57	76.2%
Boulder, CO	71			0821	\$202.32	\$258.40	78.3%
Boulder, CO	71			0821	\$202.32	\$244.89	82.6%
Boulder, CO	84			0821	\$202.32	\$257.12	78.7%
Boulder, CO	84			0821	\$202.32	\$264.25	76.6%
Boulder, CO	84			0821	\$202.32	\$257.62	78.5%
Boulder, CO	84			0821	\$202.32	\$265.05	76.3%
Boulder, CO	84			0821	\$202.32	\$258.40	78.3%
Boulder, CO	D9			0821	\$202.32	\$265.05	76.3%
Boulder, CO	DR			0821	\$202.32	\$268.22	75.4%
Boulder, CO	74	74		0841	\$86.71	\$114.95	75.4%
Boulder, CO	74	74		0841	\$86.71	\$113.82	76.2%
Boulder, CO	73			0851	\$202.32	\$360.35	56.1%
Boulder, CO	74	74		0851	\$86.71	\$113.82	76.2%
Boulder, CO	74	74		0851	\$86.71	\$114.95	75.4%
Boulder, CO	74	74		0851	\$86.71	\$125.60	69.0%
Boulder, CO	74			0851	\$86.71	\$113.82	76.2%
Boulder, CO	74			0851	\$86.71	\$114.95	75.4%
Boulder, CO	74			0851	\$86.71	\$120.39	72.0%
Boulder, CO	71			0881	\$202.32	\$268.22	75.4%
Colorado Springs, CO	59			0821	\$193.24	\$255.39	75.7%
Colorado Springs, CO	59			0821	\$193.24	\$244.40	79.1%
Colorado Springs, CO	59			0821	\$193.24	\$252.87	76.4%

Appendix C2: Dialysis/Nephrology Rate Ratio Results

Dialysis/Nephrology Facility Rate Ratio Results							
Assigned Rate Area	Condition Code 1	Condition Code 2	Condition Code 3	Revenue Code	Colorado Rate	Benchmark Rate	Rate Ratio
Colorado Springs, CO	71			0821	\$193.24	\$252.87	76.4%
Colorado Springs, CO	71			0821	\$193.24	\$252.37	76.6%
Colorado Springs, CO	71			0821	\$193.24	\$255.39	75.7%
Colorado Springs, CO	71			0821	\$193.24	\$258.40	74.8%
Colorado Springs, CO	71			0821	\$193.24	\$247.33	78.1%
Colorado Springs, CO	71			0821	\$193.24	\$244.40	79.1%
Colorado Springs, CO	71			0821	\$193.24	\$261.48	73.9%
Colorado Springs, CO	73			0821	\$193.24	\$346.53	55.8%
Colorado Springs, CO	74	74		0821	\$193.24	\$255.39	75.7%
Colorado Springs, CO	76			0821	\$193.24	\$255.39	75.7%
Colorado Springs, CO	84			0821	\$193.24	\$244.40	79.1%
Colorado Springs, CO	84			0821	\$193.24	\$252.87	76.4%
Colorado Springs, CO	84			0821	\$193.24	\$255.39	75.7%
Colorado Springs, CO	84			0821	\$193.24	\$252.37	76.6%
Colorado Springs, CO	D2	74		0821	\$193.24	\$255.39	75.7%
Colorado Springs, CO	D9			0821	\$193.24	\$252.87	76.4%
Colorado Springs, CO	DR			0821	\$193.24	\$255.39	75.7%
Colorado Springs, CO	DR			0821	\$193.24	\$252.37	76.6%
Colorado Springs, CO	DR			0821	\$193.24	\$252.87	76.4%
Colorado Springs, CO	73			0841	\$193.24	\$346.53	55.8%
Colorado Springs, CO	6			0851	\$193.24	\$252.87	76.4%
Colorado Springs, CO	73			0851	\$193.24	\$346.53	55.8%
Colorado Springs, CO	73			0851	\$193.24	\$344.02	56.2%
Colorado Springs, CO	74	74		0851	\$82.82	\$109.45	75.7%

Appendix C2: Dialysis/Nephrology Rate Ratio Results **CBIZ Optumas**

Dialysis/Nephrology Facility Rate Ratio Results							
Assigned Rate Area	Condition Code 1	Condition Code 2	Condition Code 3	Revenue Code	Colorado Rate	Benchmark Rate	Rate Ratio
Colorado Springs, CO	74	74		0851	\$82.82	\$108.16	76.6%
Colorado Springs, CO	74	74		0851	\$82.82	\$108.37	76.4%
Colorado Springs, CO	74	74		0851	\$82.82	\$114.63	72.3%
Colorado Springs, CO	74			0851	\$82.82	\$109.45	75.7%
Colorado Springs, CO	74			0851	\$82.82	\$108.16	76.6%
Colorado Springs, CO	74			0851	\$82.82	\$108.37	76.4%
Colorado Springs, CO	74			0851	\$82.82	\$114.63	72.3%
Colorado Springs, CO	71			0881	\$193.24	\$252.37	76.6%
Colorado Springs, CO	71			0881	\$193.24	\$255.39	75.7%
Denver, Aurora, Lakewood	17			0821	\$208.29	\$258.40	80.6%
Denver, Aurora, Lakewood	59			0821	\$208.29	\$244.89	85.1%
Denver, Aurora, Lakewood	59			0821	\$208.29	\$258.40	80.6%
Denver, Aurora, Lakewood	59			0821	\$208.29	\$260.97	79.8%
Denver, Aurora, Lakewood	59			0821	\$208.29	\$231.98	89.8%
Denver, Aurora, Lakewood	59			0821	\$208.29	\$257.89	80.8%
Denver, Aurora, Lakewood	59			0821	\$208.29	\$257.12	81.0%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$258.40	80.6%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$268.22	77.7%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$257.89	80.8%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$260.97	79.8%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$244.89	85.1%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$341.20	61.0%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$244.40	85.2%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$257.12	81.0%

Appendix C2: Dialysis/Nephrology Rate Ratio Results **CBIZ Optumas**

Dialysis/Nephrology Facility Rate Ratio Results							
Assigned Rate Area	Condition Code 1	Condition Code 2	Condition Code 3	Revenue Code	Colorado Rate	Benchmark Rate	Rate Ratio
Denver, Aurora, Lakewood	71			0821	\$208.29	\$231.98	89.8%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$258.90	80.5%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$247.33	84.2%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$285.14	73.0%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$341.86	60.9%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$261.48	79.7%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$264.25	78.8%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$252.87	82.4%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$335.80	62.0%
Denver, Aurora, Lakewood	71			0821	\$208.29	\$258.39	80.6%
Denver, Aurora, Lakewood	73		74	0821	\$208.29	\$353.45	58.9%
Denver, Aurora, Lakewood	73			0821	\$208.29	\$353.45	58.9%
Denver, Aurora, Lakewood	73			0821	\$208.29	\$356.02	58.5%
Denver, Aurora, Lakewood	74	74		0821	\$208.29	\$260.97	79.8%
Denver, Aurora, Lakewood	74	74		0821	\$208.29	\$341.20	61.0%
Denver, Aurora, Lakewood	74	74		0821	\$208.29	\$232.44	89.6%
Denver, Aurora, Lakewood	74		74	0821	\$208.29	\$258.40	80.6%
Denver, Aurora, Lakewood	74			0821	\$208.29	\$260.97	79.8%
Denver, Aurora, Lakewood	76		74	0821	\$208.29	\$258.40	80.6%
Denver, Aurora, Lakewood	76			0821	\$208.29	\$258.40	80.6%
Denver, Aurora, Lakewood	76			0821	\$208.29	\$260.97	79.8%
Denver, Aurora, Lakewood	84			0821	\$208.29	\$257.12	81.0%
Denver, Aurora, Lakewood	84			0821	\$208.29	\$257.89	80.8%
Denver, Aurora, Lakewood	84			0821	\$208.29	\$260.97	79.8%

Appendix C2: Dialysis/Nephrology Rate Ratio Results

Dialysis/Nephrology Facility Rate Ratio Results							
Assigned Rate Area	Condition Code 1	Condition Code 2	Condition Code 3	Revenue Code	Colorado Rate	Benchmark Rate	Rate Ratio
Denver, Aurora, Lakewood	84			0821	\$208.29	\$258.40	80.6%
Denver, Aurora, Lakewood	84			0821	\$208.29	\$255.39	81.6%
Denver, Aurora, Lakewood	A6			0821	\$208.29	\$260.97	79.8%
Denver, Aurora, Lakewood	D0			0821	\$208.29	\$260.97	79.8%
Denver, Aurora, Lakewood	D0			0821	\$208.29	\$258.40	80.6%
Denver, Aurora, Lakewood	D9			0821	\$208.29	\$258.40	80.6%
Denver, Aurora, Lakewood	D9			0821	\$208.29	\$257.89	80.8%
Denver, Aurora, Lakewood	D9			0821	\$208.29	\$247.33	84.2%
Denver, Aurora, Lakewood	D9			0821	\$208.29	\$258.90	80.5%
Denver, Aurora, Lakewood	DR			0821	\$208.29	\$258.40	80.6%
Denver, Aurora, Lakewood	DR			0821	\$208.29	\$257.89	80.8%
Denver, Aurora, Lakewood	DR			0821	\$208.29	\$260.97	79.8%
Denver, Aurora, Lakewood	DR			0821	\$208.29	\$247.33	84.2%
Denver, Aurora, Lakewood				0821	\$208.29	\$260.97	79.8%
Denver, Aurora, Lakewood	74	74		0829	\$208.29	\$257.89	80.8%
Denver, Aurora, Lakewood				0829	\$208.29	\$260.97	79.8%
Denver, Aurora, Lakewood	71			0831	\$208.29	\$260.97	79.8%
Denver, Aurora, Lakewood	73		74	0841	\$89.27	\$353.45	25.3%
Denver, Aurora, Lakewood	73			0841	\$208.29	\$343.40	60.7%
Denver, Aurora, Lakewood	73			0841	\$208.29	\$356.02	58.5%
Denver, Aurora, Lakewood	73			0841	\$208.29	\$353.45	58.9%
Denver, Aurora, Lakewood	74	74		0841	\$89.27	\$111.85	79.8%
Denver, Aurora, Lakewood	74	74		0841	\$89.27	\$110.74	80.6%
Denver, Aurora, Lakewood	74		74	0841	\$89.27	\$110.74	80.6%

Appendix C2: Dialysis/Nephrology Rate Ratio Results

Dialysis/Nephrology Facility Rate Ratio Results							
Assigned Rate Area	Condition Code 1	Condition Code 2	Condition Code 3	Revenue Code	Colorado Rate	Benchmark Rate	Rate Ratio
Denver, Aurora, Lakewood	74			0841	\$89.27	\$110.52	80.8%
Denver, Aurora, Lakewood	74			0841	\$89.27	\$111.85	79.8%
Denver, Aurora, Lakewood	76		74	0841	\$89.27	\$258.40	34.5%
Denver, Aurora, Lakewood	76			0841	\$208.29	\$258.40	80.6%
Denver, Aurora, Lakewood	DR			0841	\$208.29	\$258.40	80.6%
Denver, Aurora, Lakewood				0841	\$208.29	\$260.97	79.8%
Denver, Aurora, Lakewood	71			0851	\$208.29	\$260.97	79.8%
Denver, Aurora, Lakewood	73		74	0851	\$89.27	\$353.45	25.3%
Denver, Aurora, Lakewood	73			0851	\$208.29	\$378.39	55.0%
Denver, Aurora, Lakewood	73			0851	\$208.29	\$343.40	60.7%
Denver, Aurora, Lakewood	73			0851	\$208.29	\$356.02	58.5%
Denver, Aurora, Lakewood	73			0851	\$208.29	\$353.45	58.9%
Denver, Aurora, Lakewood	74	74		0851	\$89.27	\$117.14	76.2%
Denver, Aurora, Lakewood	74	74		0851	\$89.27	\$111.85	79.8%
Denver, Aurora, Lakewood	74	74		0851	\$89.27	\$121.43	73.5%
Denver, Aurora, Lakewood	74	74		0851	\$89.27	\$110.74	80.6%
Denver, Aurora, Lakewood	74	74		0851	\$89.27	\$111.85	79.8%
Denver, Aurora, Lakewood	74	74		0851	\$89.27	\$117.14	76.2%
Denver, Aurora, Lakewood	74	74		0851	\$89.27	\$121.43	73.5%
Denver, Aurora, Lakewood	74	74		0851	\$89.27	\$110.52	80.8%
Denver, Aurora, Lakewood	74	74		0851	\$89.27	\$122.20	73.0%
Denver, Aurora, Lakewood	74	74		0851	\$89.27	\$112.06	79.7%
Denver, Aurora, Lakewood	74	74		0851	\$89.27	\$110.41	80.9%
Denver, Aurora, Lakewood	74		74	0851	\$89.27	\$110.74	80.6%

Appendix C2: Dialysis/Nephrology Rate Ratio Results **CBIZ Optumas**

Dialysis/Nephrology Facility Rate Ratio Results							
Assigned Rate Area	Condition Code 1	Condition Code 2	Condition Code 3	Revenue Code	Colorado Rate	Benchmark Rate	Rate Ratio
Denver, Aurora, Lakewood	74			0851	\$89.27	\$111.85	79.8%
Denver, Aurora, Lakewood	74			0851	\$89.27	\$110.52	80.8%
Denver, Aurora, Lakewood	74			0851	\$89.27	\$121.43	73.5%
Denver, Aurora, Lakewood	74			0851	\$89.27	\$117.14	76.2%
Denver, Aurora, Lakewood	74			0851	\$89.27	\$110.74	80.6%
Denver, Aurora, Lakewood	74			0851	\$89.27	\$122.20	73.0%
Denver, Aurora, Lakewood	74			0851	\$89.27	\$112.06	79.7%
Denver, Aurora, Lakewood	76		74	0851	\$89.27	\$258.40	34.5%
Denver, Aurora, Lakewood	D0	74		0851	\$89.27	\$257.89	34.6%
Denver, Aurora, Lakewood	D1			0851	\$208.29	\$258.40	80.6%
Denver, Aurora, Lakewood	D1			0851	\$208.29	\$257.89	80.8%
Denver, Aurora, Lakewood	D2	74		0851	\$89.27	\$258.40	34.5%
Denver, Aurora, Lakewood	D2	74		0851	\$89.27	\$260.97	34.2%
Denver, Aurora, Lakewood	D2			0851	\$208.29	\$260.97	79.8%
Denver, Aurora, Lakewood	DR			0851	\$208.29	\$258.40	80.6%
Denver, Aurora, Lakewood				0851	\$208.29	\$258.40	80.6%
Denver, Aurora, Lakewood				0851	\$208.29	\$260.97	79.8%
Denver, Aurora, Lakewood				0851	\$208.29	\$257.89	80.8%
Denver, Aurora, Lakewood	71			0881	\$208.29	\$257.89	80.8%
Denver, Aurora, Lakewood	71			0881	\$208.29	\$244.40	85.2%
Denver, Aurora, Lakewood	71			0881	\$208.29	\$258.40	80.6%
Denver, Aurora, Lakewood	71			0881	\$208.29	\$258.90	80.5%
Denver, Aurora, Lakewood	71			0881	\$208.29	\$247.33	84.2%
Denver, Aurora, Lakewood	71			0881	\$208.29	\$260.97	79.8%

Appendix C2: Dialysis/Nephrology Rate Ratio Results

Dialysis/Nephrology Facility Rate Ratio Results							
Assigned Rate Area	Condition Code 1	Condition Code 2	Condition Code 3	Revenue Code	Colorado Rate	Benchmark Rate	Rate Ratio
Fort Collins, CO	59			0821	\$207.65	\$260.59	79.7%
Fort Collins, CO	59			0821	\$207.65	\$258.02	80.5%
Fort Collins, CO	71			0821	\$207.65	\$244.40	85.0%
Fort Collins, CO	71			0821	\$207.65	\$247.33	84.0%
Fort Collins, CO	71			0821	\$207.65	\$258.02	80.5%
Fort Collins, CO	71			0821	\$207.65	\$284.72	72.9%
Fort Collins, CO	71			0821	\$207.65	\$260.59	79.7%
Fort Collins, CO	84			0821	\$207.65	\$260.59	79.7%
Fort Collins, CO	84			0821	\$207.65	\$257.51	80.6%
Fort Collins, CO	DR			0821	\$207.65	\$247.33	84.0%
Fort Collins, CO	DR			0821	\$207.65	\$260.59	79.7%
Fort Collins, CO				0829	\$207.65	\$260.59	79.7%
Fort Collins, CO	74			0851	\$88.99	\$111.68	79.7%
Grand Junction, CO	71			0821	\$200.09	\$250.23	80.0%
Greeley, CO	6			0821	\$197.09	\$244.89	80.5%
Greeley, CO	59			0821	\$197.09	\$244.89	80.5%
Greeley, CO	71			0821	\$197.09	\$244.40	80.6%
Greeley, CO	71			0821	\$197.09	\$244.89	80.5%
Greeley, CO	71			0821	\$197.09	\$243.67	80.9%
Greeley, CO	71			0821	\$197.09	\$247.33	79.7%
Greeley, CO	71			0821	\$197.09	\$270.23	72.9%
Greeley, CO	71			0821	\$197.09	\$258.02	76.4%
Greeley, CO	74	74		0821	\$197.09	\$243.67	80.9%
Greeley, CO	76			0821	\$197.09	\$244.40	80.6%

Appendix C2: Dialysis/Nephrology Rate Ratio Results

Dialysis/Nephrology Facility Rate Ratio Results							
Assigned Rate Area	Condition Code 1	Condition Code 2	Condition Code 3	Revenue Code	Colorado Rate	Benchmark Rate	Rate Ratio
Greeley, CO	84			0821	\$197.09	\$244.40	80.6%
Greeley, CO	84			0821	\$197.09	\$265.05	74.4%
Greeley, CO	84			0821	\$197.09	\$264.25	74.6%
Greeley, CO	84			0821	\$197.09	\$244.89	80.5%
Greeley, CO	A6			0821	\$197.09	\$244.89	80.5%
Greeley, CO	D9			0821	\$197.09	\$258.02	76.4%
Greeley, CO	DR			0821	\$197.09	\$244.89	80.5%
Greeley, CO	73			0841	\$197.09	\$344.50	57.2%
Greeley, CO	74	74		0851	\$84.47	\$104.43	80.9%
Greeley, CO	74	74		0851	\$84.47	\$104.95	80.5%
Greeley, CO	74			0851	\$84.47	\$104.95	80.5%
Greeley, CO	71			0881	\$197.09	\$244.89	80.5%
Greeley, CO	71			0881	\$197.09	\$258.02	76.4%
Greeley, CO	D9			0881	\$197.09	\$258.02	76.4%
Pueblo, CO	59			0821	\$181.50	\$234.76	77.3%
Pueblo, CO	59			0821	\$181.50	\$231.98	78.2%
Pueblo, CO	71			0821	\$181.50	\$234.76	77.3%
Pueblo, CO	71			0821	\$181.50	\$232.44	78.1%
Pueblo, CO	71			0821	\$181.50	\$231.98	78.2%
Pueblo, CO	71			0821	\$181.50	\$255.39	71.1%
Pueblo, CO	71			0821	\$181.50	\$306.92	59.1%
Pueblo, CO	71			0821	\$181.50	\$231.29	78.5%
Pueblo, CO	74	74		0821	\$181.50	\$234.76	77.3%
Pueblo, CO	74	74		0821	\$181.50	\$232.44	78.1%

Appendix C2: Dialysis/Nephrology Rate Ratio Results

Dialysis/Nephrology Facility Rate Ratio Results							
Assigned Rate Area	Condition Code 1	Condition Code 2	Condition Code 3	Revenue Code	Colorado Rate	Benchmark Rate	Rate Ratio
Pueblo, CO	74			0821	\$181.50	\$232.44	78.1%
Pueblo, CO	84			0821	\$181.50	\$234.76	77.3%
Pueblo, CO	84			0821	\$181.50	\$232.44	78.1%
Pueblo, CO	84			0821	\$181.50	\$231.98	78.2%
Pueblo, CO	A6			0821	\$181.50	\$232.44	78.1%
Pueblo, CO	A6			0821	\$181.50	\$231.98	78.2%
Pueblo, CO	73			0841	\$181.50	\$311.50	58.3%
Pueblo, CO	73			0851	\$181.50	\$311.50	58.3%
Pueblo, CO	74	74		0851	\$77.79	\$99.62	78.1%
Pueblo, CO	74	74		0851	\$77.79	\$99.62	78.1%
Pueblo, CO	74			0851	\$77.79	\$99.62	78.1%
Pueblo, CO	74			0851	\$77.79	\$100.61	77.3%
Rural Colorado	17			0821	\$200.89	\$260.85	77.0%
Rural Colorado	59			0821	\$200.89	\$260.33	77.2%
Rural Colorado	59			0821	\$200.89	\$263.44	76.3%
Rural Colorado	71			0821	\$200.89	\$281.13	71.5%
Rural Colorado	71			0821	\$200.89	\$287.28	69.9%
Rural Colorado	71			0821	\$200.89	\$287.84	69.8%
Rural Colorado	71			0821	\$200.89	\$260.85	77.0%
Rural Colorado	71			0821	\$200.89	\$249.18	80.6%
Rural Colorado	71			0821	\$200.89	\$260.33	77.2%
Rural Colorado	71			0821	\$200.89	\$263.44	76.3%
Rural Colorado	71			0821	\$200.89	\$259.82	77.3%
Rural Colorado	71			0821	\$200.89	\$249.62	80.5%

Appendix C2: Dialysis/Nephrology Rate Ratio Results

Dialysis/Nephrology Facility Rate Ratio Results							
Assigned Rate Area	Condition Code 1	Condition Code 2	Condition Code 3	Revenue Code	Colorado Rate	Benchmark Rate	Rate Ratio
Rural Colorado	71			0821	\$200.89	\$262.93	76.4%
Rural Colorado	71			0821	\$200.89	\$234.19	85.8%
Rural Colorado	71			0821	\$200.89	\$246.72	81.4%
Rural Colorado	71			0821	\$200.89	\$259.55	77.4%
Rural Colorado	71			0821	\$200.89	\$233.72	86.0%
Rural Colorado	71			0821	\$200.89	\$341.86	58.8%
Rural Colorado	73			0821	\$200.89	\$340.18	59.1%
Rural Colorado	74	74		0821	\$200.89	\$263.44	76.3%
Rural Colorado	74	74		0821	\$200.89	\$260.85	77.0%
Rural Colorado	74			0821	\$200.89	\$263.44	76.3%
Rural Colorado	74			0821	\$200.89	\$260.85	77.0%
Rural Colorado	76	74		0821	\$200.89	\$260.85	77.0%
Rural Colorado	84			0821	\$200.89	\$257.62	78.0%
Rural Colorado	84			0821	\$200.89	\$260.33	77.2%
Rural Colorado	84			0821	\$200.89	\$260.85	77.0%
Rural Colorado	84			0821	\$200.89	\$257.12	78.1%
Rural Colorado	84			0821	\$200.89	\$260.34	77.2%
Rural Colorado	D0			0821	\$200.89	\$260.85	77.0%
Rural Colorado	DR			0821	\$200.89	\$260.85	77.0%
Rural Colorado				0821	\$200.89	\$260.85	77.0%
Rural Colorado				0821	\$200.89	\$234.19	85.8%
Rural Colorado	73			0841	\$200.89	\$337.07	59.6%
Rural Colorado	73			0841	\$200.89	\$337.58	59.5%
Rural Colorado	73			0841	\$200.89	\$356.25	56.4%

Dialysis/Nephrology Facility Rate Ratio Results							
Assigned Rate Area	Condition Code 1	Condition Code 2	Condition Code 3	Revenue Code	Colorado Rate	Benchmark Rate	Rate Ratio
Rural Colorado	74	74		0841	\$86.10	\$111.79	77.0%
Rural Colorado	74			0841	\$86.10	\$111.79	77.0%
Rural Colorado	71			0851	\$200.89	\$260.85	77.0%
Rural Colorado	73			0851	\$200.89	\$337.07	59.6%
Rural Colorado	73			0851	\$200.89	\$337.58	59.5%
Rural Colorado	73			0851	\$200.89	\$356.25	56.4%
Rural Colorado	74	74		0851	\$86.10	\$111.79	77.0%
Rural Colorado	74	74		0851	\$86.10	\$112.90	76.3%
Rural Colorado	74	74		0851	\$86.10	\$121.67	70.8%
Rural Colorado	74			0851	\$86.10	\$111.79	77.0%
Rural Colorado	74			0851	\$86.10	\$111.57	77.2%
Rural Colorado	74			0851	\$86.10	\$112.90	76.3%
Rural Colorado	74			0851	\$86.10	\$121.67	70.8%
Rural Colorado	76	74		0851	\$86.10	\$260.85	33.0%
Rural Colorado	D0	74		0851	\$86.10	\$263.44	32.7%
Rural Colorado	D2	74		0851	\$86.10	\$260.85	33.0%
Rural Colorado	D2	74		0851	\$86.10	\$263.44	32.7%
Rural Colorado	D2			0851	\$200.89	\$263.44	76.3%
Rural Colorado	71			0881	\$200.89	\$260.85	77.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

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

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

- Procedure Code
- Modifier 1
- Facility/Non-Facility

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
80047		METABOLIC PANEL IONIZED CA	Medicare Non-Facility Rate	\$13.73	\$13.73	100.0%
80048		METABOLIC PANEL TOTAL CA	Medicare Facility/Non-Facility Rate	\$8.46	\$8.46	100.0%
80050		GENERAL HEALTH PANEL	Other States' Average Rate	\$46.70	\$36.00	129.7%
80051		ELECTROLYTE PANEL	Medicare Facility/Non-Facility Rate	\$7.01	\$7.01	100.0%
80053		COMPREHEN METABOLIC PANEL	Medicare Facility/Non-Facility Rate	\$10.56	\$10.56	100.0%
80055		OBSTETRIC PANEL	Medicare Facility/Non-Facility Rate	\$47.81	\$47.81	100.0%
80061		LIPID PANEL	Medicare Facility/Non-Facility Rate	\$13.39	\$13.39	100.0%
80069		RENAL FUNCTION PANEL	Medicare Facility/Non-Facility Rate	\$8.68	\$8.68	100.0%
80074		ACUTE HEPATITIS PANEL	Medicare Facility/Non-Facility Rate	\$47.63	\$47.63	100.0%
80076		HEPATIC FUNCTION PANEL	Medicare Facility/Non-Facility Rate	\$8.17	\$8.17	100.0%
80081		OBSTETRIC PANEL	Medicare Non-Facility Rate	\$74.86	\$74.86	100.0%
80145		DRUG ASSAY ADALIMUMAB	Medicare Non-Facility Rate	\$38.57	\$38.57	100.0%
80150		ASSAY OF AMIKACIN	Medicare Non-Facility Rate	\$15.08	\$15.08	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
80155		DRUG ASSAY CAFFEINE	Medicare Non-Facility Rate	\$38.57	\$38.57	100.0%
80156		ASSAY CARBAMAZEPINE TOTAL	Medicare Facility/Non-Facility Rate	\$14.57	\$14.57	100.0%
80157		ASSAY CARBAMAZEPINE FREE	Medicare Non-Facility Rate	\$13.25	\$13.25	100.0%
80158		DRUG ASSAY CYCLOSPORINE	Medicare Non-Facility Rate	\$18.05	\$18.05	100.0%
80159		DRUG ASSAY CLOZAPINE	Medicare Facility/Non-Facility Rate	\$20.15	\$20.15	100.0%
80162		ASSAY OF DIGOXIN TOTAL	Medicare Non-Facility Rate	\$13.28	\$13.28	100.0%
80164		ASSAY DIPROPYLACETIC ACD TOT	Medicare Facility/Non-Facility Rate	\$13.54	\$13.54	100.0%
80165		DIPROPYLACETIC ACID FREE	Medicare Non-Facility Rate	\$13.54	\$13.54	100.0%
80168		ASSAY OF ETHOSUXIMIDE	Medicare Non-Facility Rate	\$16.34	\$16.34	100.0%
80169		DRUG ASSAY EVEROLIMUS	Medicare Non-Facility Rate	\$13.73	\$13.73	100.0%
80170		ASSAY OF GENTAMICIN	Medicare Non-Facility Rate	\$16.38	\$16.38	100.0%
80171		DRUG SCREEN QUANT GABAPENTIN	Medicare Non-Facility Rate	\$21.67	\$21.67	100.0%
80173		ASSAY OF HALOPERIDOL	Medicare Non-Facility Rate	\$15.78	\$15.78	100.0%
80175		DRUG SCREEN QUAN LAMOTRIGINE	Medicare Non-Facility Rate	\$13.25	\$13.25	100.0%
80177		DRUG SCR N QUAN LEVETIRACETAM	Medicare Non-Facility Rate	\$13.25	\$13.25	100.0%
80178		ASSAY OF LITHIUM	Medicare Facility/Non-Facility Rate	\$6.61	\$6.61	100.0%
80180		DRUG SCR N QUAN MYCOPHENOLATE	Medicare Non-Facility Rate	\$18.05	\$18.05	100.0%
80183		DRUG SCR N QUANT OXCARBAZEPIN	Medicare Non-Facility Rate	\$13.25	\$13.25	100.0%
80184		ASSAY OF PHENOBARBITAL	Medicare Non-Facility Rate	\$15.30	\$15.30	100.0%
80185		ASSAY OF PHENYTOIN TOTAL	Medicare Non-Facility Rate	\$13.25	\$13.25	100.0%
80186		ASSAY OF PHENYTOIN FREE	Medicare Non-Facility Rate	\$13.76	\$13.76	100.0%
80187		DRUG ASSAY POSACONAZOLE	Medicare Non-Facility Rate	\$27.11	\$27.11	100.0%
80188		ASSAY OF PRIMIDONE	Medicare Non-Facility Rate	\$16.59	\$16.59	100.0%
80195		ASSAY OF SIROLIMUS	Medicare Non-Facility Rate	\$13.73	\$13.73	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
80197		ASSAY OF TACROLIMUS	Medicare Non-Facility Rate	\$13.73	\$13.73	100.0%
80198		ASSAY OF THEOPHYLLINE	Medicare Non-Facility Rate	\$14.14	\$14.14	100.0%
80200		ASSAY OF TOBRAMYCIN	Medicare Non-Facility Rate	\$16.13	\$16.13	100.0%
80201		ASSAY OF TOPIRAMATE	Medicare Non-Facility Rate	\$11.92	\$11.92	100.0%
80202		ASSAY OF VANCOMYCIN	Medicare Non-Facility Rate	\$13.54	\$13.54	100.0%
80203		DRUG SCREEN QUANT ZONISAMIDE	Medicare Non-Facility Rate	\$13.25	\$13.25	100.0%
80230		DRUG ASSAY INFliximab	Medicare Non-Facility Rate	\$38.57	\$38.57	100.0%
80235		DRUG ASSAY LACOSAMIDE	Medicare Non-Facility Rate	\$27.11	\$27.11	100.0%
80280		DRUG ASSAY VEDOLIZUMAB	Medicare Non-Facility Rate	\$38.57	\$38.57	100.0%
80285		DRUG ASSAY VORICONAZOLE	Medicare Non-Facility Rate	\$27.11	\$27.11	100.0%
80299		QUANTITATIVE ASSAY DRUG	Medicare Non-Facility Rate	\$18.64	\$18.64	100.0%
80305		DRUG TEST PRSMV DIR OPT OBS	Medicare Facility/Non-Facility Rate	\$12.60	\$12.60	100.0%
80306		DRUG TEST PRSMV INSTRMNT	Medicare Non-Facility Rate	\$17.14	\$17.14	100.0%
80307		DRUG TEST PRSMV CHEM ANALYZR	Medicare Facility/Non-Facility Rate	\$16.18	\$62.14	26.0%
80320		DRUG SCREEN QUANTALCOHOLS	Medicare Facility/Non-Facility Rate	\$17.51	\$3.66	478.4%
80321		ALCOHOLS BIOMARKERS 1OR 2	Other States' Average Rate	\$17.51	\$4.19	417.9%
80322		ALCOHOLS BIOMARKERS 3/MORE	Other States' Average Rate	\$17.51	\$3.51	498.9%
80323		ALKALOIDS NOS	Other States' Average Rate	\$17.51	\$4.11	426.0%
80324		DRUG SCREEN AMPHETAMINES 1/2	Other States' Average Rate	\$17.51	\$4.19	417.9%
80325		AMPHETAMINES 3OR 4	Other States' Average Rate	\$17.51	\$1.54	1137.0%
80326		AMPHETAMINES 5 OR MORE	Other States' Average Rate	\$17.51	\$4.11	426.0%
80329		ANALGESICS NON-OPIOID 1 OR 2	Medicare Facility/Non-Facility Rate	\$17.51	\$3.66	478.4%
80330		ANALGESICS NON-OPIOID 3-5	Other States' Average Rate	\$17.51	\$4.79	365.6%
80331		ANALGESICS NON-OPIOID 6/MORE	Other States' Average Rate	\$17.51	\$3.51	498.9%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
80332		ANTIDEPRESSANTS CLASS 1 OR 2	Other States' Average Rate	\$17.51	\$3.66	478.4%
80333		ANTIDEPRESSANTS CLASS 3-5	Other States' Average Rate	\$17.51	\$4.79	365.6%
80334		ANTIDEPRESSANTS CLASS 6/MORE	Other States' Average Rate	\$17.51	\$3.51	498.9%
80335		ANTIDEPRESSANT TRICYCLIC 1/2	Other States' Average Rate	\$17.51	\$1.54	1137.0%
80336		ANTIDEPRESSANT TRICYCLIC 3-5	Other States' Average Rate	\$17.51	\$1.54	1137.0%
80337		TRICYCLIC & CYCLICALS 6/MORE	Other States' Average Rate	\$17.51	\$3.66	478.4%
80338		ANTIDEPRESSANT NOT SPECIFIED	Other States' Average Rate	\$17.51	\$3.66	478.4%
80339		ANTIEPILEPTICS NOS 1-3	Other States' Average Rate	\$17.51	\$3.29	532.2%
80340		ANTIEPILEPTICS NOS 4-6	Other States' Average Rate	\$17.51	\$4.79	365.6%
80341		ANTIEPILEPTICS NOS 7/MORE	Other States' Average Rate	\$17.51	\$3.51	498.9%
80342		ANTIPSYCHOTICS NOS 1-3	Other States' Average Rate	\$17.51	\$3.66	478.4%
80343		ANTIPSYCHOTICS NOS 4-6	Other States' Average Rate	\$17.51	\$3.51	498.9%
80344		ANTIPSYCHOTICS NOS 7/MORE	Other States' Average Rate	\$17.51	\$4.79	365.6%
80345		DRUG SCREENING BARBITURATES	Other States' Average Rate	\$17.51	\$4.11	426.0%
80346		BENZODIAZEPINES1-12	Other States' Average Rate	\$17.51	\$4.19	417.9%
80347		BENZODIAZEPINES 13 OR MORE	Other States' Average Rate	\$17.51	\$1.54	1137.0%
80348		DRUG SCREENING BUPRENORPHINE	Other States' Average Rate	\$17.51	\$4.19	417.9%
80349		CANNABINOIDS NATURAL	Other States' Average Rate	\$17.51	\$4.19	417.9%
80350		CANNABINOIDS SYNTHETIC 1-3	Other States' Average Rate	\$17.51	\$3.51	498.9%
80351		CANNABINOIDS SYNTHETIC 4-6	Other States' Average Rate	\$17.51	\$1.54	1137.0%
80352		CANNABINOID SYNTHETIC 7/MORE	Other States' Average Rate	\$17.51	\$1.54	1137.0%
80353		DRUG SCREENING COCAINE	Other States' Average Rate	\$17.51	\$4.19	417.9%
80354		DRUG SCREENING FENTANYL	Other States' Average Rate	\$17.51	\$4.19	417.9%
80355		GABAPENTIN NON-BLOOD	Other States' Average Rate	\$17.51	\$4.79	365.6%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
80356		HEROIN METABOLITE	Other States' Average Rate	\$17.51	\$3.61	485.0%
80357		KETAMINE AND NORKETAMINE	Other States' Average Rate	\$17.51	\$3.17	552.4%
80358		DRUG SCREENING METHADONE	Other States' Average Rate	\$17.51	\$4.11	426.0%
80359		METHYLENEDIOXYAMPHETAMINES	Other States' Average Rate	\$17.51	\$4.19	417.9%
80360		METHYLPHENIDATE	Other States' Average Rate	\$17.51	\$3.17	552.4%
80361		OPIATES 1 OR MORE	Other States' Average Rate	\$17.51	\$4.19	417.9%
80362		OPIOIDS & OPIATE ANALOGS 1/2	Other States' Average Rate	\$17.51	\$4.19	417.9%
80363		OPIOIDS & OPIATE ANALOGS 3/4	Other States' Average Rate	\$17.51	\$3.29	532.2%
80364		OPIOID & OPIATE ANALOG 5/MORE	Other States' Average Rate	\$17.51	\$4.79	365.6%
80365		DRUG SCREENING OXYCODONE	Other States' Average Rate	\$17.51	\$4.11	426.0%
80366		DRUG SCREENING PREGABALIN	Other States' Average Rate	\$17.51	\$3.17	552.4%
80367		DRUG SCREENING PROPOXYPHENE	Other States' Average Rate	\$17.51	\$4.19	417.9%
80368		SEDATIVE HYPNOTICS	Other States' Average Rate	\$17.51	\$3.66	478.4%
80369		SKELETAL MUSCLE RELAXANT 1/2	Other States' Average Rate	\$17.51	\$3.66	478.4%
80370		SKEL MUSC RELAXANT 3 OR MORE	Other States' Average Rate	\$17.51	\$3.66	478.4%
80371		STIMULANTS SYNTHETIC	Other States' Average Rate	\$17.51	\$1.54	1137.0%
80372		DRUG SCREENING TAPENTADOL	Other States' Average Rate	\$17.51	\$4.19	417.9%
80373		DRUG SCREENING TRAMADOL	Other States' Average Rate	\$17.51	\$4.19	417.9%
80374		STEREISOMER ANALYSIS	Other States' Average Rate	\$17.51	\$1.54	1137.0%
80375		DRUG/SUBSTANCE NOS 1-3	Other States' Average Rate	\$17.51	\$3.66	478.4%
80376		DRUG/SUBSTANCE NOS 4-6	Other States' Average Rate	\$17.51	\$3.51	498.9%
80377		DRUG/SUBSTANCE NOS 7/MORE	Other States' Average Rate	\$17.51	\$3.66	478.4%
80400		ACTH STIMULATION PANEL	Medicare Non-Facility Rate	\$32.62	\$32.62	100.0%
80406		ACTH STIMULATION PANEL	Medicare Non-Facility Rate	\$78.26	\$78.26	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
80500		LAB PATHOLOGY CONSULTATION	Medicare Facility/Non-Facility Rate	\$19.91	\$10.82	184.0%
80502		LAB PATHOLOGY CONSULTATION	Other States' Average Rate	\$52.56	\$34.87	150.7%
81000		URINALYSIS NONAUTO W/SCOPE	Medicare Non-Facility Rate	\$4.02	\$4.02	100.0%
81001		URINALYSIS AUTO W/SCOPE	Medicare Facility/Non-Facility Rate	\$3.17	\$3.17	100.0%
81002		URINALYSIS NONAUTO W/O SCOPE	Medicare Facility/Non-Facility Rate	\$3.48	\$3.48	100.0%
81003		URINALYSIS AUTO W/O SCOPE	Medicare Facility/Non-Facility Rate	\$2.25	\$2.25	100.0%
81005		URINALYSIS	Medicare Non-Facility Rate	\$2.17	\$2.17	100.0%
81007		URINE SCREEN FOR BACTERIA	Medicare Non-Facility Rate	\$29.98	\$29.98	100.0%
81015		MICROSCOPIC EXAM OF URINE	Medicare Non-Facility Rate	\$3.05	\$3.05	100.0%
81025		URINE PREGNANCY TEST	Medicare Facility/Non-Facility Rate	\$8.61	\$8.61	100.0%
81050		URINALYSIS VOLUME MEASURE	Medicare Non-Facility Rate	\$3.64	\$3.64	100.0%
81120		IDH1 COMMON VARIANTS	Medicare Non-Facility Rate	\$193.25	\$193.25	100.0%
81121		IDH2 COMMON VARIANTS	Medicare Non-Facility Rate	\$295.79	\$295.79	100.0%
81162		BRCA1&2 GEN FULL SEQ DUP/DEL	Medicare Non-Facility Rate	\$1,824.88	\$1,824.88	100.0%
81170		ABL1 GENE	Medicare Non-Facility Rate	\$300.00	\$300.00	100.0%
81173		AR GENE FULL GENE SEQUENCE	Medicare Non-Facility Rate	\$301.35	\$301.35	100.0%
81184		CACNA1A GEN DETC ABNOR ALLEL	Medicare Non-Facility Rate	\$137.00	\$137.00	100.0%
81185		CACNA1A GENE FULL GENE SEQ	Medicare Non-Facility Rate	\$846.27	\$846.27	100.0%
81187		CNBP GENE DETC ABNOR ALLELE	Medicare Non-Facility Rate	\$137.00	\$137.00	100.0%
81189		CSTB GENE FULL GENE SEQUENCE	Medicare Non-Facility Rate	\$274.83	\$274.83	100.0%
81200		ASPA GENE	Medicare Non-Facility Rate	\$47.25	\$47.25	100.0%
81202		APC GENE KNOWN FAM VARIANTS	Medicare Non-Facility Rate	\$280.00	\$280.00	100.0%
81203		APC GENE DUP/DELET VARIANTS	Medicare Non-Facility Rate	\$200.00	\$200.00	100.0%
81206		BCR/ABL1 GENE MAJOR BP	Medicare Non-Facility Rate	\$163.96	\$163.96	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
81207		BCR/ABL1 GENE MINOR BP	Medicare Non-Facility Rate	\$144.84	\$144.84	100.0%
81208		BCR/ABL1 GENE OTHER BP	Medicare Non-Facility Rate	\$214.62	\$214.62	100.0%
81209		BLM GENE	Medicare Non-Facility Rate	\$39.31	\$39.31	100.0%
81210		BRAF GENE	Medicare Facility/Non-Facility Rate	\$175.40	\$175.40	100.0%
81212		BRCA1&2 185&5385&6174 VRNT	Medicare Non-Facility Rate	\$440.00	\$440.00	100.0%
81218		CEBPA GENE FULL SEQUENCE	Medicare Non-Facility Rate	\$241.90	\$241.90	100.0%
81219		CALR GENE COM VARIANTS	Medicare Non-Facility Rate	\$121.63	\$121.63	100.0%
81220		CFTR GENE COM VARIANTS	Medicare Non-Facility Rate	\$556.60	\$556.60	100.0%
81222		CFTR GENE DUP/DELET VARIANTS	Medicare Non-Facility Rate	\$435.07	\$435.07	100.0%
81223		CFTR GENE FULL SEQUENCE	Medicare Non-Facility Rate	\$499.00	\$499.00	100.0%
81224		CFTR GENE INTRON POLY T	Medicare Non-Facility Rate	\$168.75	\$168.75	100.0%
81229		CYTOGEN M ARRAY COPY NO&SNP	Medicare Non-Facility Rate	\$1,160.00	\$1,160.00	100.0%
81234		DMPK GENE DETC ABNOR ALLELE	Medicare Non-Facility Rate	\$137.00	\$137.00	100.0%
81235		EGFR GENE COM VARIANTS	Medicare Non-Facility Rate	\$324.58	\$324.58	100.0%
81236		EZH2 GENE FULL GENE SEQUENCE	Medicare Non-Facility Rate	\$282.88	\$282.88	100.0%
81238		F9 FULL GENE SEQUENCE	Medicare Non-Facility Rate	\$600.00	\$600.00	100.0%
81240		F2 GENE	Medicare Non-Facility Rate	\$65.69	\$65.69	100.0%
81241		F5 GENE	Medicare Non-Facility Rate	\$73.37	\$73.37	100.0%
81242		FANCC GENE	Medicare Non-Facility Rate	\$36.62	\$36.62	100.0%
81243		FMR1 GENE DETECTION	Medicare Non-Facility Rate	\$57.04	\$57.04	100.0%
81244		FMR1 GENE CHARAC ALLELES	Medicare Non-Facility Rate	\$44.89	\$44.89	100.0%
81245		FLT3 GENE	Medicare Non-Facility Rate	\$165.51	\$165.51	100.0%
81249		G6PD FULL GENE SEQUENCE	Medicare Non-Facility Rate	\$600.00	\$600.00	100.0%
81250		G6PC GENE	Medicare Non-Facility Rate	\$58.49	\$58.49	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
81251		GBA GENE	Medicare Non-Facility Rate	\$47.25	\$47.25	100.0%
81252		GJB2 GENE FULL SEQUENCE	Medicare Non-Facility Rate	\$101.12	\$101.12	100.0%
81255		HEXA GENE	Medicare Non-Facility Rate	\$51.45	\$51.45	100.0%
81256		HFE GENE	Medicare Non-Facility Rate	\$65.36	\$65.36	100.0%
81257		HBA1/HBA2 GENE	Medicare Non-Facility Rate	\$102.26	\$102.26	100.0%
81259		HBA1/HBA2 FULL GENE SEQUENCE	Medicare Non-Facility Rate	\$600.00	\$600.00	100.0%
81260		IKBKAP GENE	Medicare Non-Facility Rate	\$39.31	\$39.31	100.0%
81261		IGH GENE REARRANGE AMP METH	Medicare Non-Facility Rate	\$197.99	\$197.99	100.0%
81264		IGK REARRANGEABN CLONAL POP	Medicare Non-Facility Rate	\$172.73	\$172.73	100.0%
81265		STR MARKERS SPECIMEN ANAL	Medicare Non-Facility Rate	\$233.07	\$233.07	100.0%
81270		JAK2 GENE	Medicare Non-Facility Rate	\$91.66	\$91.66	100.0%
81271		HTT GENE DETC ABNOR ALLELES	Medicare Non-Facility Rate	\$137.00	\$137.00	100.0%
81272		KIT GENE TARGETED SEQ ANALYS	Medicare Facility/Non-Facility Rate	\$329.51	\$329.51	100.0%
81273		KIT GENE ANALYS D816 VARIANT	Medicare Non-Facility Rate	\$124.87	\$124.87	100.0%
81275		KRAS GENE VARIANTS EXON 2	Medicare Non-Facility Rate	\$193.25	\$193.25	100.0%
81276		KRAS GENE ADDL VARIANTS	Medicare Non-Facility Rate	\$193.25	\$193.25	100.0%
81283		IFNL3 GENE	Medicare Non-Facility Rate	\$73.37	\$73.37	100.0%
81286		FXN GENE FULL GENE SEQUENCE	Medicare Non-Facility Rate	\$274.83	\$274.83	100.0%
81290		MCOLN1 GENE	Medicare Non-Facility Rate	\$39.31	\$39.31	100.0%
81292		MLH1 GENE FULL SEQ	Medicare Non-Facility Rate	\$675.40	\$675.40	100.0%
81294		MLH1 GENE DUP/DELETE VARIANT	Medicare Non-Facility Rate	\$202.40	\$202.40	100.0%
81295		MSH2 GENE FULL SEQ	Medicare Non-Facility Rate	\$381.70	\$381.70	100.0%
81297		MSH2 GENE DUP/DELETE VARIANT	Medicare Non-Facility Rate	\$213.30	\$213.30	100.0%
81298		MSH6 GENE FULL SEQ	Medicare Non-Facility Rate	\$641.85	\$641.85	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
81300		MSH6 GENE DUP/DELETE VARIANT	Medicare Non-Facility Rate	\$238.00	\$238.00	100.0%
81301		MICROSATELLITE INSTABILITY	Medicare Non-Facility Rate	\$348.56	\$348.56	100.0%
81302		MECP2 GENE FULL SEQ	Medicare Non-Facility Rate	\$527.87	\$527.87	100.0%
81304		MECP2 GENE DUP/DELET VARIANT	Medicare Non-Facility Rate	\$150.00	\$150.00	100.0%
81305		MYD88 GENE P.LEU265PRO VRNT	Medicare Non-Facility Rate	\$175.40	\$175.40	100.0%
81307		PALB2 GENE FULL GENE SEQ	Medicare Non-Facility Rate	\$287.05	\$676.50	42.4%
81311		NRAS GENE VARIANTS EXON 2&3	Medicare Facility/Non-Facility Rate	\$295.79	\$295.79	100.0%
81314		PDGFRA GENE	Medicare Non-Facility Rate	\$329.51	\$329.51	100.0%
81315		PML/RARALPHA COM BREAKPOINTS	Medicare Non-Facility Rate	\$207.31	\$207.31	100.0%
81316		PML/RARALPHA 1 BREAKPOINT	Medicare Non-Facility Rate	\$207.31	\$207.31	100.0%
81317		PMS2 GENE FULL SEQ ANALYSIS	Medicare Non-Facility Rate	\$676.50	\$676.50	100.0%
81319		PMS2 GENE DUP/DELET VARIANTS	Medicare Non-Facility Rate	\$203.50	\$203.50	100.0%
81323		PTEN GENE DUP/DELET VARIANT	Medicare Non-Facility Rate	\$300.00	\$300.00	100.0%
81324		PMP22 GENE DUP/DELET	Medicare Non-Facility Rate	\$758.36	\$758.36	100.0%
81329		SMN1 GENE DOS/DELETION ALYS	Medicare Non-Facility Rate	\$137.00	\$137.00	100.0%
81330		SMPD1 GENE COMMON VARIANTS	Medicare Non-Facility Rate	\$47.00	\$47.00	100.0%
81331		SNRPN/UBE3A GENE	Medicare Non-Facility Rate	\$51.07	\$51.07	100.0%
81332		SERPINA1 GENE	Medicare Non-Facility Rate	\$43.65	\$43.65	100.0%
81334		RUNX1 GENE TARGETED SEQ ALYS	Medicare Non-Facility Rate	\$329.51	\$329.51	100.0%
81336		SMN1 GENE FULL GENE SEQUENCE	Medicare Non-Facility Rate	\$301.35	\$301.35	100.0%
81345		TERT GENE TARGETED SEQ ALYS	Medicare Non-Facility Rate	\$185.20	\$185.20	100.0%
81373		HLA I TYPING 1 LOCUS LR	Medicare Non-Facility Rate	\$127.43	\$127.43	100.0%
81376		HLA II TYPING 1 LOCUS LR	Medicare Non-Facility Rate	\$122.22	\$122.22	100.0%
81378		HLA I & II TYPING HR	Medicare Non-Facility Rate	\$345.57	\$345.57	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
81380		HLA I TYPING 1 LOCUS HR	Medicare Non-Facility Rate	\$177.25	\$177.25	100.0%
81382		HLA II TYPING 1 LOC HR	Medicare Non-Facility Rate	\$123.68	\$123.68	100.0%
81400		MOPATH PROCEDURE LEVEL 1	Medicare Non-Facility Rate	\$63.96	\$63.96	100.0%
81401		MOPATH PROCEDURE LEVEL 2	Medicare Non-Facility Rate	\$137.00	\$137.00	100.0%
81402		MOPATH PROCEDURE LEVEL 3	Medicare Non-Facility Rate	\$150.33	\$150.33	100.0%
81403		MOPATH PROCEDURE LEVEL 4	Medicare Non-Facility Rate	\$185.20	\$185.20	100.0%
81404		MOPATH PROCEDURE LEVEL 5	Medicare Non-Facility Rate	\$274.83	\$274.83	100.0%
81405		MOPATH PROCEDURE LEVEL 6	Medicare Non-Facility Rate	\$301.35	\$301.35	100.0%
81406		MOPATH PROCEDURE LEVEL 7	Medicare Non-Facility Rate	\$282.88	\$282.88	100.0%
81407		MOPATH PROCEDURE LEVEL 8	Medicare Non-Facility Rate	\$846.27	\$846.27	100.0%
81412		ASHKENAZI JEWISH ASSOC DIS	Medicare Non-Facility Rate	\$2,448.56	\$2,448.56	100.0%
81413		CAR ION CHNNLPATH INC 10 GNS	Medicare Non-Facility Rate	\$584.90	\$584.90	100.0%
81414		CAR ION CHNNLPATH INC 2 GNS	Medicare Non-Facility Rate	\$584.90	\$584.90	100.0%
81420		FETAL CHRMOML ANEUPLOIDY	Medicare Non-Facility Rate	\$759.05	\$759.05	100.0%
81422		FETAL CHRMOML MICRODEL TJ	Medicare Non-Facility Rate	\$759.05	\$759.05	100.0%
81432		HRDTRY BRST CA-RLATD DSORDRS	Medicare Non-Facility Rate	\$679.05	\$679.05	100.0%
81433		HRDTRY BRST CA-RLATD DSORDRS	Medicare Non-Facility Rate	\$438.93	\$438.93	100.0%
81437		HEREDTRY NURONDCRN TUM DSRDR	Medicare Non-Facility Rate	\$438.93	\$438.93	100.0%
81439		HRDTRY CARDMYPY GENE PANEL	Medicare Non-Facility Rate	\$584.90	\$584.90	100.0%
81442		NOONAN SPECTRUM DISORDERS	Medicare Non-Facility Rate	\$2,143.60	\$2,143.60	100.0%
81443		GENETIC TSTG SEVERE INH COND	Medicare Non-Facility Rate	\$2,448.56	\$2,448.56	100.0%
81507		FETAL ANEUPLOIDY TRISOM RISK	Medicare Non-Facility Rate	\$795.00	\$795.00	100.0%
81518		ONC BRST MRNA 11 GENES	Medicare Non-Facility Rate	\$3,873.00	\$3,873.00	100.0%
81519		ONCOLOGY BREAST MRNA	Medicare Non-Facility Rate	\$3,873.00	\$3,873.00	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
81521		ONC BREAST MRNA 70 GENES	Medicare Non-Facility Rate	\$3,873.00	\$3,873.00	100.0%
81525		ONCOLOGY COLON MRNA	Medicare Non-Facility Rate	\$3,116.00	\$3,116.00	100.0%
81528		ONCOLOGY COLORECTAL SCR	Medicare Non-Facility Rate	\$508.87	\$508.87	100.0%
81539		ONCOLOGY PROSTATE PROB SCORE	Medicare Non-Facility Rate	\$760.00	\$760.00	100.0%
81540		ONCOLOGY TUM UNKNOWN ORIGIN	Medicare Non-Facility Rate	\$3,750.00	\$3,750.00	100.0%
81541		ONC PROSTATE MRNA 46 GENES	Medicare Non-Facility Rate	\$3,873.00	\$3,873.00	100.0%
81596		NFCT DS CHRNC HCV 6 ASSAYS	Medicare Non-Facility Rate	\$72.19	\$72.19	100.0%
82010		ACETONE ASSAY	Medicare Facility/Non-Facility Rate	\$8.17	\$8.17	100.0%
82016		ACYLCARNITINES QUAL	Medicare Non-Facility Rate	\$16.49	\$16.49	100.0%
82017		ACYLCARNITINES QUANT	Medicare Non-Facility Rate	\$16.87	\$16.87	100.0%
82024		ASSAY OF ACTH	Medicare Non-Facility Rate	\$38.62	\$38.62	100.0%
82040		ASSAY OF SERUM ALBUMIN	Medicare Facility/Non-Facility Rate	\$4.95	\$4.95	100.0%
82042		OTHER SOURCE ALBUMIN QUAN EA	Medicare Facility/Non-Facility Rate	\$7.78	\$7.78	100.0%
82043		UR ALBUMIN QUANTITATIVE	Medicare Non-Facility Rate	\$5.78	\$5.78	100.0%
82044		UR ALBUMIN SEMIQUANTITATIVE	Medicare Non-Facility Rate	\$6.23	\$6.23	100.0%
82075		ASSAY OF BREATH ETHANOL	Medicare Non-Facility Rate	\$30.00	\$30.00	100.0%
82085		ASSAY OF ALDOLASE	Medicare Non-Facility Rate	\$9.71	\$9.71	100.0%
82088		ASSAY OF ALDOSTERONE	Medicare Non-Facility Rate	\$40.75	\$40.75	100.0%
82103		ALPHA-1-ANTITRYPSIN TOTAL	Medicare Non-Facility Rate	\$13.44	\$13.44	100.0%
82104		ALPHA-1-ANTITRYPSIN PHENO	Medicare Non-Facility Rate	\$14.46	\$14.46	100.0%
82105		ALPHA-FETOPROTEIN SERUM	Medicare Non-Facility Rate	\$16.77	\$16.77	100.0%
82106		ALPHA-FETOPROTEIN AMNIOTIC	Medicare Non-Facility Rate	\$17.00	\$17.00	100.0%
82107		ALPHA-FETOPROTEIN L3	Medicare Non-Facility Rate	\$64.41	\$64.41	100.0%
82108		ASSAY OF ALUMINUM	Medicare Non-Facility Rate	\$25.48	\$25.48	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
82127		AMINO ACID SINGLE QUAL	Medicare Non-Facility Rate	\$14.18	\$14.18	100.0%
82128		AMINO ACIDS MULT QUAL	Medicare Non-Facility Rate	\$13.87	\$13.87	100.0%
82131		AMINO ACIDS SINGLE QUANT	Medicare Non-Facility Rate	\$22.98	\$22.98	100.0%
82135		ASSAY AMINOLEVULINIC ACID	Medicare Non-Facility Rate	\$16.45	\$16.45	100.0%
82136		AMINO ACIDS QUANT 2-5	Medicare Non-Facility Rate	\$19.61	\$19.61	100.0%
82139		AMINO ACIDS QUAN 6 OR MORE	Medicare Non-Facility Rate	\$16.87	\$16.87	100.0%
82140		ASSAY OF AMMONIA	Medicare Facility/Non-Facility Rate	\$14.57	\$14.57	100.0%
82150		ASSAY OF AMYLASE	Medicare Facility/Non-Facility Rate	\$6.48	\$6.48	100.0%
82157		ASSAY OF ANDROSTENEDIONE	Medicare Non-Facility Rate	\$29.28	\$29.28	100.0%
82160		ASSAY OF ANDROSTERONE	Medicare Non-Facility Rate	\$25.55	\$25.55	100.0%
82164		ANGIOTENSIN I ENZYME TEST	Medicare Non-Facility Rate	\$14.60	\$14.60	100.0%
82172		ASSAY OF APOLIPOPROTEIN	Medicare Non-Facility Rate	\$21.09	\$21.09	100.0%
82175		ASSAY OF ARSENIC	Medicare Non-Facility Rate	\$18.97	\$18.97	100.0%
82180		ASSAY OF ASCORBIC ACID	Medicare Non-Facility Rate	\$9.89	\$9.89	100.0%
82232		ASSAY OF BETA-2 PROTEIN	Medicare Non-Facility Rate	\$16.18	\$16.18	100.0%
82239		BILE ACIDS TOTAL	Medicare Non-Facility Rate	\$17.12	\$17.12	100.0%
82247		BILIRUBIN TOTAL	Medicare Facility/Non-Facility Rate	\$5.02	\$5.02	100.0%
82248		BILIRUBIN DIRECT	Medicare Facility/Non-Facility Rate	\$5.02	\$5.02	100.0%
82261		ASSAY OF BIOTINIDASE	Medicare Non-Facility Rate	\$16.87	\$16.87	100.0%
82270		OCCULT BLOOD FECES	Medicare Non-Facility Rate	\$4.38	\$4.38	100.0%
82271		OCCULT BLOOD OTHER SOURCES	Medicare Non-Facility Rate	\$5.32	\$5.32	100.0%
82272		OCCULT BLD FECES 1-3 TESTS	Medicare Facility/Non-Facility Rate	\$4.23	\$4.23	100.0%
82274		ASSAY TEST FOR BLOOD FECAL	Medicare Facility/Non-Facility Rate	\$15.92	\$15.92	100.0%
82300		ASSAY OF CADMIUM	Medicare Non-Facility Rate	\$23.64	\$23.64	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
82306		VITAMIN D 25 HYDROXY	Medicare Facility/Non-Facility Rate	\$29.60	\$29.60	100.0%
82308		ASSAY OF CALCITONIN	Medicare Non-Facility Rate	\$26.79	\$26.79	100.0%
82310		ASSAY OF CALCIUM	Medicare Facility/Non-Facility Rate	\$5.16	\$5.16	100.0%
82330		ASSAY OF CALCIUM	Medicare Facility/Non-Facility Rate	\$13.68	\$13.68	100.0%
82331		CALCIUM INFUSION TEST	Medicare Non-Facility Rate	\$13.34	\$13.34	100.0%
82340		ASSAY OF CALCIUM IN URINE	Medicare Non-Facility Rate	\$6.03	\$6.03	100.0%
82355		CALCULUS ANALYSIS QUAL	Medicare Non-Facility Rate	\$11.58	\$11.58	100.0%
82360		CALCULUS ASSAY QUANT	Medicare Non-Facility Rate	\$12.87	\$12.87	100.0%
82365		CALCULUS SPECTROSCOPY	Medicare Non-Facility Rate	\$12.90	\$12.90	100.0%
82373		ASSAY C-D TRANSFER MEASURE	Medicare Non-Facility Rate	\$18.06	\$18.06	100.0%
82374		ASSAY BLOOD CARBON DIOXIDE	Medicare Non-Facility Rate	\$4.88	\$4.88	100.0%
82375		ASSAY CARBOXYHB QUANT	Medicare Non-Facility Rate	\$12.32	\$12.32	100.0%
82378		CARCINOEMBRYONIC ANTIGEN	Medicare Non-Facility Rate	\$18.96	\$18.96	100.0%
82379		ASSAY OF CARNITINE	Medicare Non-Facility Rate	\$16.87	\$16.87	100.0%
82380		ASSAY OF CAROTENE	Medicare Non-Facility Rate	\$9.22	\$9.22	100.0%
82382		ASSAY URINE CATECHOLAMINES	Medicare Non-Facility Rate	\$27.30	\$27.30	100.0%
82384		ASSAY THREE CATECHOLAMINES	Medicare Non-Facility Rate	\$25.25	\$25.25	100.0%
82390		ASSAY OF CERULOPLASMIN	Medicare Non-Facility Rate	\$10.74	\$10.74	100.0%
82397		CHEMILUMINESCENT ASSAY	Medicare Non-Facility Rate	\$14.12	\$14.12	100.0%
82435		ASSAY OF BLOOD CHLORIDE	Medicare Non-Facility Rate	\$4.60	\$4.60	100.0%
82436		ASSAY OF URINE CHLORIDE	Medicare Non-Facility Rate	\$5.75	\$5.75	100.0%
82438		ASSAY OTHER FLUID CHLORIDES	Medicare Non-Facility Rate	\$5.00	\$5.00	100.0%
82441		TEST FOR CHLOROHYDROCARBONS	Medicare Non-Facility Rate	\$6.01	\$6.01	100.0%
82465		ASSAY BLD/SERUM CHOLESTEROL	Medicare Non-Facility Rate	\$4.35	\$4.35	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
82480		ASSAY SERUM CHOLINESTERASE	Medicare Non-Facility Rate	\$7.87	\$7.87	100.0%
82495		ASSAY OF CHROMIUM	Medicare Non-Facility Rate	\$20.28	\$20.28	100.0%
82507		ASSAY OF CITRATE	Medicare Non-Facility Rate	\$27.80	\$27.80	100.0%
82523		COLLAGEN CROSSLINKS	Medicare Non-Facility Rate	\$18.68	\$18.68	100.0%
82525		ASSAY OF COPPER	Medicare Non-Facility Rate	\$12.41	\$12.41	100.0%
82528		ASSAY OF CORTICOSTERONE	Medicare Non-Facility Rate	\$22.52	\$22.52	100.0%
82530		CORTISOL FREE	Medicare Non-Facility Rate	\$16.71	\$16.71	100.0%
82533		TOTAL CORTISOL	Medicare Facility/Non-Facility Rate	\$16.30	\$16.30	100.0%
82540		ASSAY OF CREATINE	Medicare Non-Facility Rate	\$4.64	\$4.64	100.0%
82542		COL CHROMOTOGRAPHY QUAL/QUAN	Medicare Non-Facility Rate	\$24.09	\$24.09	100.0%
82550		ASSAY OF CK (CPK)	Medicare Facility/Non-Facility Rate	\$6.51	\$6.51	100.0%
82552		ASSAY OF CPK IN BLOOD	Medicare Non-Facility Rate	\$13.39	\$13.39	100.0%
82553		CREATINE MB FRACTION	Medicare Non-Facility Rate	\$11.55	\$11.55	100.0%
82565		ASSAY OF CREATININE	Medicare Facility/Non-Facility Rate	\$5.12	\$5.12	100.0%
82570		ASSAY OF URINE CREATININE	Medicare Facility/Non-Facility Rate	\$5.18	\$5.18	100.0%
82575		CREATININE CLEARANCE TEST	Medicare Non-Facility Rate	\$9.46	\$9.46	100.0%
82585		ASSAY OF CRYOFIBRINOGEN	Medicare Non-Facility Rate	\$14.14	\$14.14	100.0%
82595		ASSAY OF CRYOGLOBULIN	Medicare Non-Facility Rate	\$6.47	\$6.47	100.0%
82600		ASSAY OF CYANIDE	Medicare Non-Facility Rate	\$19.40	\$19.40	100.0%
82607		VITAMIN B-12	Medicare Facility/Non-Facility Rate	\$15.08	\$15.08	100.0%
82608		B-12 BINDING CAPACITY	Medicare Non-Facility Rate	\$14.32	\$14.32	100.0%
82610		CYSTATIN C	Medicare Non-Facility Rate	\$18.52	\$18.52	100.0%
82615		TEST FOR URINE CYSTINES	Medicare Non-Facility Rate	\$9.55	\$9.55	100.0%
82626		DEHYDROEPIANDROSTERONE	Medicare Non-Facility Rate	\$25.27	\$25.27	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
82627		DEHYDROEPIANDROSTERONE	Medicare Non-Facility Rate	\$22.23	\$22.23	100.0%
82633		DESOXYCORTICOSTERONE	Medicare Non-Facility Rate	\$30.98	\$30.98	100.0%
82634		DEOXYCORTISOL	Medicare Non-Facility Rate	\$29.28	\$29.28	100.0%
82642		DIHYDROTESTOSTERONE	Medicare Non-Facility Rate	\$29.28	\$29.28	100.0%
82652		VIT D 1 25-DIHYDROXY	Medicare Non-Facility Rate	\$38.50	\$38.50	100.0%
82656		PANCREATIC ELASTASE FECAL	Medicare Non-Facility Rate	\$11.53	\$11.53	100.0%
82657		ENZYME CELL ACTIVITY	Medicare Non-Facility Rate	\$22.17	\$22.17	100.0%
82664		ELECTROPHORETIC TEST	Medicare Non-Facility Rate	\$61.50	\$61.50	100.0%
82668		ASSAY OF ERYTHROPOIETIN	Medicare Non-Facility Rate	\$18.79	\$18.79	100.0%
82670		ASSAY OF ESTRADIOL	Medicare Non-Facility Rate	\$27.94	\$27.94	100.0%
82671		ASSAY OF ESTROGENS	Medicare Non-Facility Rate	\$32.30	\$32.30	100.0%
82672		ASSAY OF ESTROGEN	Medicare Non-Facility Rate	\$21.70	\$21.70	100.0%
82677		ASSAY OF ESTRIOL	Medicare Non-Facility Rate	\$24.18	\$24.18	100.0%
82679		ASSAY OF ESTRONE	Medicare Non-Facility Rate	\$24.95	\$24.95	100.0%
82693		ASSAY OF ETHYLENE GLYCOL	Medicare Non-Facility Rate	\$14.90	\$14.90	100.0%
82705		FATS/LIPIDS FECES QUAL	Medicare Non-Facility Rate	\$5.10	\$5.10	100.0%
82710		FATS/LIPIDS FECES QUANT	Medicare Non-Facility Rate	\$16.80	\$16.80	100.0%
82725		ASSAY OF BLOOD FATTY ACIDS	Medicare Non-Facility Rate	\$18.77	\$18.77	100.0%
82726		LONG CHAIN FATTY ACIDS	Medicare Non-Facility Rate	\$19.75	\$19.75	100.0%
82728		ASSAY OF FERRITIN	Medicare Non-Facility Rate	\$13.63	\$13.63	100.0%
82731		ASSAY OF FETAL FIBRONECTIN	Medicare Non-Facility Rate	\$64.41	\$64.41	100.0%
82735		ASSAY OF FLUORIDE	Medicare Non-Facility Rate	\$18.54	\$18.54	100.0%
82746		ASSAY OF FOLIC ACID SERUM	Medicare Facility/Non-Facility Rate	\$14.70	\$14.70	100.0%
82747		ASSAY OF FOLIC ACID RBC	Medicare Non-Facility Rate	\$17.65	\$17.65	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
82776		GALACTOSE TRANSFERASE TEST	Medicare Non-Facility Rate	\$11.74	\$11.74	100.0%
82784		ASSAY IGA/IGD/IGG/IGM EACH	Medicare Non-Facility Rate	\$9.30	\$9.30	100.0%
82785		ASSAY OF IGE	Medicare Facility/Non-Facility Rate	\$16.46	\$16.46	100.0%
82787		IGG 1 2 3 OR 4 EACH	Medicare Non-Facility Rate	\$8.02	\$8.02	100.0%
82803		BLOOD GASES ANY COMBINATION	Medicare Facility/Non-Facility Rate	\$26.07	\$26.07	100.0%
82805		BLOOD GASES W/O2 SATURATION	Medicare Non-Facility Rate	\$78.77	\$78.77	100.0%
82820		HEMOGLOBIN-OXYGEN AFFINITY	Medicare Non-Facility Rate	\$13.34	\$13.34	100.0%
82941		ASSAY OF GASTRIN	Medicare Non-Facility Rate	\$17.63	\$17.63	100.0%
82943		ASSAY OF GLUCAGON	Medicare Non-Facility Rate	\$14.29	\$14.29	100.0%
82945		GLUCOSE OTHER FLUID	Medicare Facility/Non-Facility Rate	\$3.93	\$3.93	100.0%
82947		ASSAY GLUCOSE BLOOD QUANT	Medicare Facility/Non-Facility Rate	\$3.93	\$3.93	100.0%
82948		REAGENT STRIP/BLOOD GLUCOSE	Medicare Facility/Non-Facility Rate	\$5.04	\$5.04	100.0%
82950		GLUCOSE TEST	Medicare Non-Facility Rate	\$4.75	\$4.75	100.0%
82951		GLUCOSE TOLERANCE TEST (GTT)	Medicare Non-Facility Rate	\$12.87	\$12.87	100.0%
82952		GTT-ADDED SAMPLES	Medicare Non-Facility Rate	\$3.92	\$3.92	100.0%
82955		ASSAY OF G6PD ENZYME	Medicare Non-Facility Rate	\$9.70	\$9.70	100.0%
82962		GLUCOSE BLOOD TEST	Medicare Non-Facility Rate	\$3.28	\$3.28	100.0%
82977		ASSAY OF GGT	Medicare Facility/Non-Facility Rate	\$7.20	\$7.20	100.0%
82985		ASSAY OF GLYCATED PROTEIN	Medicare Non-Facility Rate	\$16.76	\$16.76	100.0%
83001		ASSAY OF GONADOTROPIN (FSH)	Medicare Non-Facility Rate	\$18.58	\$18.58	100.0%
83002		ASSAY OF GONADOTROPIN (LH)	Medicare Non-Facility Rate	\$18.52	\$18.52	100.0%
83003		ASSAY GROWTH HORMONE (HGH)	Medicare Non-Facility Rate	\$16.67	\$16.67	100.0%
83010		ASSAY OF HAPTOGLOBIN QUANT	Medicare Facility/Non-Facility Rate	\$12.58	\$12.58	100.0%
83013		H PYLORI (C-13) BREATH	Medicare Non-Facility Rate	\$67.36	\$67.36	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
83014		H PYLORI DRUG ADMIN	Medicare Non-Facility Rate	\$7.86	\$7.86	100.0%
83018		HEAVY METAL QUANT EACH NES	Medicare Non-Facility Rate	\$21.96	\$21.96	100.0%
83020		HEMOGLOBIN ELECTROPHORESIS	Medicare Non-Facility Rate	\$12.87	\$12.87	100.0%
83020	26	HEMOGLOBIN ELECTROPHORESIS	Medicare Facility Rate	\$13.84	\$18.42	75.1%
83021		HEMOGLOBIN CHROMOTOGRAPHY	Medicare Non-Facility Rate	\$18.06	\$18.06	100.0%
83036		GLYCOSYLATED HEMOGLOBIN TEST	Medicare Facility/Non-Facility Rate	\$9.71	\$9.71	100.0%
83037		GLYCOSYLATED HB HOME DEVICE	Medicare Non-Facility Rate	\$9.71	\$9.71	100.0%
83050		BLOOD METHEMOGLOBIN ASSAY	Medicare Non-Facility Rate	\$8.20	\$8.20	100.0%
83051		ASSAY OF PLASMA HEMOGLOBIN	Medicare Non-Facility Rate	\$7.31	\$7.31	100.0%
83065		ASSAY OF HEMOGLOBIN HEAT	Medicare Non-Facility Rate	\$9.00	\$9.00	100.0%
83068		HEMOGLOBIN STABILITY SCREEN	Medicare Non-Facility Rate	\$9.47	\$9.47	100.0%
83069		ASSAY OF URINE HEMOGLOBIN	Medicare Non-Facility Rate	\$3.95	\$3.95	100.0%
83070		ASSAY OF HEMOSIDERIN QUAL	Medicare Non-Facility Rate	\$4.75	\$4.75	100.0%
83080		ASSAY OF B HEXOSAMINIDASE	Medicare Non-Facility Rate	\$16.87	\$16.87	100.0%
83088		ASSAY OF HISTAMINE	Medicare Non-Facility Rate	\$29.53	\$29.53	100.0%
83090		ASSAY OF HOMOCYSTINE	Medicare Non-Facility Rate	\$17.92	\$17.92	100.0%
83150		ASSAY OF HOMOVANILLIC ACID	Medicare Non-Facility Rate	\$22.41	\$22.41	100.0%
83491		ASSAY OF CORTICOSTEROIDS 17	Medicare Non-Facility Rate	\$17.90	\$17.90	100.0%
83497		ASSAY OF 5-HIAA	Medicare Non-Facility Rate	\$12.90	\$12.90	100.0%
83498		ASSAY OF PROGESTERONE 17-D	Medicare Non-Facility Rate	\$27.17	\$27.17	100.0%
83516		IMMUNOASSAY NONANTIBODY	Medicare Non-Facility Rate	\$11.53	\$11.53	100.0%
83518		IMMUNOASSAY DIPSTICK	Medicare Non-Facility Rate	\$9.64	\$9.64	100.0%
83519		RIA NONANTIBODY	Medicare Non-Facility Rate	\$18.40	\$18.40	100.0%
83520		IMMUNOASSAY QUANT NOS NONAB	Medicare Non-Facility Rate	\$17.27	\$17.27	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
83525		ASSAY OF INSULIN	Medicare Non-Facility Rate	\$11.43	\$11.43	100.0%
83527		ASSAY OF INSULIN	Medicare Non-Facility Rate	\$12.95	\$12.95	100.0%
83540		ASSAY OF IRON	Medicare Facility/Non-Facility Rate	\$6.47	\$6.47	100.0%
83550		IRON BINDING TEST	Medicare Facility/Non-Facility Rate	\$8.74	\$8.74	100.0%
83586		ASSAY 17- KETOSTEROIDS	Medicare Non-Facility Rate	\$12.80	\$12.80	100.0%
83605		ASSAY OF LACTIC ACID	Medicare Facility/Non-Facility Rate	\$11.57	\$11.57	100.0%
83615		LACTATE (LD) (LDH) ENZYME	Medicare Facility/Non-Facility Rate	\$6.04	\$6.04	100.0%
83625		ASSAY OF LDH ENZYMES	Medicare Non-Facility Rate	\$12.79	\$12.79	100.0%
83630		LACTOFERRIN FECAL (QUAL)	Medicare Non-Facility Rate	\$19.70	\$19.70	100.0%
83631		LACTOFERRIN FECAL (QUANT)	Medicare Non-Facility Rate	\$19.63	\$19.63	100.0%
83655		ASSAY OF LEAD	Medicare Non-Facility Rate	\$12.11	\$12.11	100.0%
83690		ASSAY OF LIPASE	Medicare Facility/Non-Facility Rate	\$6.89	\$6.89	100.0%
83695		ASSAY OF LIPOPROTEIN(A)	Medicare Non-Facility Rate	\$14.32	\$14.32	100.0%
83698		ASSAY LIPOPROTEIN PLA2	Medicare Non-Facility Rate	\$46.31	\$46.31	100.0%
83700		LIOPRO BLD ELECTROPHORETIC	Medicare Non-Facility Rate	\$11.26	\$11.26	100.0%
83701		LIOPROTEIN BLD HR FRACTION	Medicare Non-Facility Rate	\$33.86	\$33.86	100.0%
83704		LIOPROTEIN BLD QUAN PART	Medicare Non-Facility Rate	\$34.19	\$34.19	100.0%
83718		ASSAY OF LIPOPROTEIN	Medicare Non-Facility Rate	\$8.19	\$8.19	100.0%
83721		ASSAY OF BLOOD LIPOPROTEIN	Medicare Non-Facility Rate	\$10.50	\$10.50	100.0%
83727		ASSAY OF LRH HORMONE	Medicare Non-Facility Rate	\$17.19	\$17.19	100.0%
83735		ASSAY OF MAGNESIUM	Medicare Facility/Non-Facility Rate	\$6.70	\$6.70	100.0%
83785		ASSAY OF MANGANESE	Medicare Non-Facility Rate	\$26.65	\$26.65	100.0%
83789		MASS SPECTROMETRY QUAL/QUAN	Medicare Facility/Non-Facility Rate	\$24.11	\$24.11	100.0%
83825		ASSAY OF MERCURY	Medicare Non-Facility Rate	\$16.26	\$16.26	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
83835		ASSAY OF METANEPHRINES	Medicare Non-Facility Rate	\$16.94	\$16.94	100.0%
83861		MICROFLUID ANALY TEARS	Medicare Non-Facility Rate	\$22.48	\$22.48	100.0%
83872		ASSAY SYNOVIAL FLUID MUCIN	Medicare Non-Facility Rate	\$5.86	\$5.86	100.0%
83873		ASSAY OF CSF PROTEIN	Medicare Non-Facility Rate	\$17.20	\$17.20	100.0%
83874		ASSAY OF MYOGLOBIN	Medicare Non-Facility Rate	\$12.92	\$12.92	100.0%
83876		ASSAY MYELOPEROXIDASE	Medicare Non-Facility Rate	\$50.86	\$50.86	100.0%
83880		ASSAY OF NATRIURETIC PEPTIDE	Medicare Facility/Non-Facility Rate	\$39.26	\$39.26	100.0%
83883		ASSAY NEPHELOMETRY NOT SPEC	Medicare Non-Facility Rate	\$13.60	\$13.60	100.0%
83885		ASSAY OF NICKEL	Medicare Non-Facility Rate	\$24.51	\$24.51	100.0%
83915		ASSAY OF NUCLEOTIDASE	Medicare Non-Facility Rate	\$11.15	\$11.15	100.0%
83916		OLIGOCLONAL BANDS	Medicare Non-Facility Rate	\$27.39	\$27.39	100.0%
83918		ORGANIC ACIDS TOTAL QUANT	Medicare Non-Facility Rate	\$23.60	\$23.60	100.0%
83919		ORGANIC ACIDS QUAL EACH	Medicare Non-Facility Rate	\$16.45	\$16.45	100.0%
83921		ORGANIC ACID SINGLE QUANT	Medicare Non-Facility Rate	\$21.21	\$21.21	100.0%
83930		ASSAY OF BLOOD OSMOLALITY	Medicare Facility/Non-Facility Rate	\$6.61	\$6.61	100.0%
83935		ASSAY OF URINE OSMOLALITY	Medicare Facility/Non-Facility Rate	\$6.82	\$6.82	100.0%
83937		ASSAY OF OSTEOCALCIN	Medicare Non-Facility Rate	\$29.85	\$29.85	100.0%
83945		ASSAY OF OXALATE	Medicare Non-Facility Rate	\$14.45	\$14.45	100.0%
83970		ASSAY OF PARATHORMONE	Medicare Non-Facility Rate	\$41.28	\$41.28	100.0%
83986		ASSAY PH BODY FLUID NOS	Medicare Non-Facility Rate	\$3.58	\$3.58	100.0%
83992		ASSAY FOR PHENCYCLIDINE	Other States' Average Rate	\$19.86	\$10.63	186.8%
83993		ASSAY FOR CALPROTECTIN FECAL	Medicare Non-Facility Rate	\$19.63	\$19.63	100.0%
84030		ASSAY OF BLOOD PKU	Medicare Facility/Non-Facility Rate	\$5.50	\$5.50	100.0%
84066		ASSAY PROSTATE PHOSPHATASE	Medicare Non-Facility Rate	\$9.66	\$9.66	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
84075		ASSAY ALKALINE PHOSPHATASE	Medicare Facility/Non-Facility Rate	\$5.18	\$5.18	100.0%
84080		ASSAY ALKALINE PHOSPHATASES	Medicare Non-Facility Rate	\$14.78	\$14.78	100.0%
84100		ASSAY OF PHOSPHORUS	Medicare Facility/Non-Facility Rate	\$4.74	\$4.74	100.0%
84105		ASSAY OF URINE PHOSPHORUS	Medicare Non-Facility Rate	\$5.78	\$5.78	100.0%
84110		ASSAY OF PORPHOBILINOGEN	Medicare Non-Facility Rate	\$8.44	\$8.44	100.0%
84112		EVAL AMNIOTIC FLUID PROTEIN	Medicare Facility Rate	\$98.11	\$98.11	100.0%
84120		ASSAY OF URINE PORPHYRINS	Medicare Non-Facility Rate	\$14.71	\$14.71	100.0%
84126		ASSAY OF FECES PORPHYRINS	Medicare Non-Facility Rate	\$39.11	\$39.11	100.0%
84132		ASSAY OF SERUM POTASSIUM	Medicare Facility/Non-Facility Rate	\$4.76	\$4.76	100.0%
84133		ASSAY OF URINE POTASSIUM	Medicare Non-Facility Rate	\$4.73	\$4.73	100.0%
84134		ASSAY OF PREALBUMIN	Medicare Non-Facility Rate	\$14.59	\$14.59	100.0%
84140		ASSAY OF PREGNENOLONE	Medicare Non-Facility Rate	\$20.67	\$20.67	100.0%
84143		ASSAY OF 17-HYDROXYPREGNENO	Medicare Non-Facility Rate	\$22.81	\$22.81	100.0%
84144		ASSAY OF PROGESTERONE	Medicare Non-Facility Rate	\$20.86	\$20.86	100.0%
84145		PROCALCITONIN (PCT)	Medicare Non-Facility Rate	\$27.22	\$27.22	100.0%
84146		ASSAY OF PROLACTIN	Medicare Facility/Non-Facility Rate	\$19.38	\$19.38	100.0%
84152		ASSAY OF PSA COMPLEXED	Medicare Non-Facility Rate	\$18.39	\$18.39	100.0%
84153		ASSAY OF PSA TOTAL	Medicare Non-Facility Rate	\$18.39	\$18.39	100.0%
84154		ASSAY OF PSA FREE	Medicare Non-Facility Rate	\$18.39	\$18.39	100.0%
84155		ASSAY OF PROTEIN SERUM	Medicare Facility/Non-Facility Rate	\$3.67	\$3.67	100.0%
84156		ASSAY OF PROTEIN URINE	Medicare Facility/Non-Facility Rate	\$3.67	\$3.67	100.0%
84157		ASSAY OF PROTEIN OTHER	Medicare Facility/Non-Facility Rate	\$4.00	\$4.00	100.0%
84160		ASSAY OF PROTEIN ANY SOURCE	Medicare Non-Facility Rate	\$5.61	\$5.61	100.0%
84163		PAPPA SERUM	Medicare Non-Facility Rate	\$15.05	\$15.05	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
84165		PROTEIN E-PHORESIS SERUM	Medicare Non-Facility Rate	\$10.74	\$10.74	100.0%
84165	26	PROTEIN E-PHORESIS SERUM	Medicare Facility Rate	\$12.11	\$18.42	65.7%
84166		PROTEIN E-PHORESIS/URINE/CSF	Medicare Non-Facility Rate	\$17.83	\$17.83	100.0%
84166	26	PROTEIN E-PHORESIS/URINE/CSF	Medicare Facility Rate	\$12.27	\$18.42	66.6%
84181		WESTERN BLOT TEST	Medicare Non-Facility Rate	\$17.03	\$17.03	100.0%
84182		PROTEIN WESTERN BLOT TEST	Medicare Non-Facility Rate	\$29.21	\$29.21	100.0%
84202		ASSAY RBC PROTOPORPHYRIN	Medicare Non-Facility Rate	\$14.35	\$14.35	100.0%
84206		ASSAY OF PROINSULIN	Medicare Non-Facility Rate	\$26.69	\$26.69	100.0%
84207		ASSAY OF VITAMIN B-6	Medicare Non-Facility Rate	\$28.10	\$28.10	100.0%
84210		ASSAY OF PYRUVATE	Medicare Non-Facility Rate	\$14.48	\$14.48	100.0%
84220		ASSAY OF PYRUVATE KINASE	Medicare Non-Facility Rate	\$9.44	\$9.44	100.0%
84228		ASSAY OF QUININE	Medicare Non-Facility Rate	\$11.63	\$11.63	100.0%
84238		ASSAY NONENDOCRINE RECEPTOR	Medicare Non-Facility Rate	\$36.57	\$36.57	100.0%
84244		ASSAY OF RENIN	Medicare Non-Facility Rate	\$21.99	\$21.99	100.0%
84252		ASSAY OF VITAMIN B-2	Medicare Non-Facility Rate	\$20.24	\$20.24	100.0%
84255		ASSAY OF SELENIUM	Medicare Non-Facility Rate	\$25.53	\$25.53	100.0%
84260		ASSAY OF SEROTONIN	Medicare Non-Facility Rate	\$30.98	\$30.98	100.0%
84270		ASSAY OF SEX HORMONE GLOBUL	Medicare Non-Facility Rate	\$21.73	\$21.73	100.0%
84275		ASSAY OF SIALIC ACID	Medicare Non-Facility Rate	\$13.44	\$13.44	100.0%
84295		ASSAY OF SERUM SODIUM	Medicare Non-Facility Rate	\$4.81	\$4.81	100.0%
84300		ASSAY OF URINE SODIUM	Medicare Facility/Non-Facility Rate	\$5.06	\$5.06	100.0%
84302		ASSAY OF SWEAT SODIUM	Medicare Non-Facility Rate	\$4.86	\$4.86	100.0%
84305		ASSAY OF SOMATOMEDIN	Medicare Non-Facility Rate	\$21.26	\$21.26	100.0%
84307		ASSAY OF SOMATOSTATIN	Medicare Non-Facility Rate	\$18.28	\$18.28	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
84311		SPECTROPHOTOMETRY	Medicare Non-Facility Rate	\$8.10	\$8.10	100.0%
84315		BODY FLUID SPECIFIC GRAVITY	Medicare Non-Facility Rate	\$3.28	\$3.28	100.0%
84376		SUGARS SINGLE QUAL	Medicare Non-Facility Rate	\$5.50	\$5.50	100.0%
84377		SUGARS MULTIPLE QUAL	Medicare Non-Facility Rate	\$5.50	\$5.50	100.0%
84378		SUGARS SINGLE QUANT	Medicare Non-Facility Rate	\$11.53	\$11.53	100.0%
84392		ASSAY OF URINE SULFATE	Medicare Non-Facility Rate	\$5.49	\$5.49	100.0%
84402		ASSAY OF FREE TESTOSTERONE	Medicare Non-Facility Rate	\$25.47	\$25.47	100.0%
84403		ASSAY OF TOTAL TESTOSTERONE	Medicare Non-Facility Rate	\$25.81	\$25.81	100.0%
84410		TESTOSTERONE BIOAVAILABLE	Medicare Non-Facility Rate	\$51.28	\$51.28	100.0%
84425		ASSAY OF VITAMIN B-1	Medicare Non-Facility Rate	\$21.23	\$21.23	100.0%
84431		THROMBOXANE URINE	Medicare Non-Facility Rate	\$35.11	\$35.11	100.0%
84432		ASSAY OF THYROGLOBULIN	Medicare Non-Facility Rate	\$16.06	\$16.06	100.0%
84436		ASSAY OF TOTAL THYROXINE	Medicare Facility/Non-Facility Rate	\$6.87	\$6.87	100.0%
84437		ASSAY OF NEONATAL THYROXINE	Medicare Non-Facility Rate	\$6.47	\$6.47	100.0%
84439		ASSAY OF FREE THYROXINE	Medicare Facility/Non-Facility Rate	\$9.02	\$9.02	100.0%
84442		ASSAY OF THYROID ACTIVITY	Medicare Non-Facility Rate	\$14.78	\$14.78	100.0%
84443		ASSAY THYROID STIM HORMONE	Medicare Facility/Non-Facility Rate	\$16.80	\$16.80	100.0%
84445		ASSAY OF TSI GLOBULIN	Medicare Non-Facility Rate	\$50.86	\$50.86	100.0%
84446		ASSAY OF VITAMIN E	Medicare Non-Facility Rate	\$14.18	\$14.18	100.0%
84449		ASSAY OF TRANSFCORTIN	Medicare Non-Facility Rate	\$18.00	\$18.00	100.0%
84450		TRANSFERASE (AST) (SGOT)	Medicare Facility/Non-Facility Rate	\$5.18	\$5.18	100.0%
84460		ALANINE AMINO (ALT) (SGPT)	Medicare Facility/Non-Facility Rate	\$5.30	\$5.30	100.0%
84466		ASSAY OF TRANSFERRIN	Medicare Non-Facility Rate	\$12.76	\$12.76	100.0%
84478		ASSAY OF TRIGLYCERIDES	Medicare Facility/Non-Facility Rate	\$5.74	\$5.74	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
84479		ASSAY OF THYROID (T3 OR T4)	Medicare Facility/Non-Facility Rate	\$6.47	\$6.47	100.0%
84480		ASSAY TRIIODOTHYRONINE (T3)	Medicare Non-Facility Rate	\$14.18	\$14.18	100.0%
84481		FREE ASSAY (FT-3)	Medicare Non-Facility Rate	\$16.94	\$16.94	100.0%
84482		T3 REVERSE	Medicare Non-Facility Rate	\$15.76	\$15.76	100.0%
84484		ASSAY OF TROPONIN QUANT	Medicare Non-Facility Rate	\$12.47	\$12.47	100.0%
84510		ASSAY OF TYROSINE	Medicare Non-Facility Rate	\$10.63	\$10.63	100.0%
84520		ASSAY OF UREA NITROGEN	Medicare Non-Facility Rate	\$3.95	\$3.95	100.0%
84540		ASSAY OF URINE/UREA-N	Medicare Facility/Non-Facility Rate	\$5.56	\$5.56	100.0%
84545		UREA-N CLEARANCE TEST	Medicare Non-Facility Rate	\$7.20	\$7.20	100.0%
84550		ASSAY OF BLOOD/URIC ACID	Medicare Facility/Non-Facility Rate	\$4.52	\$4.52	100.0%
84560		ASSAY OF URINE/URIC ACID	Medicare Non-Facility Rate	\$5.08	\$5.08	100.0%
84585		ASSAY OF URINE VMA	Medicare Non-Facility Rate	\$15.50	\$15.50	100.0%
84586		ASSAY OF VIP	Medicare Non-Facility Rate	\$35.33	\$35.33	100.0%
84588		ASSAY OF VASOPRESSIN	Medicare Non-Facility Rate	\$33.94	\$33.94	100.0%
84590		ASSAY OF VITAMIN A	Medicare Non-Facility Rate	\$11.61	\$11.61	100.0%
84591		ASSAY OF NOS VITAMIN	Medicare Non-Facility Rate	\$17.06	\$17.06	100.0%
84597		ASSAY OF VITAMIN K	Medicare Facility/Non-Facility Rate	\$13.72	\$13.72	100.0%
84600		ASSAY OF VOLATILES	Medicare Non-Facility Rate	\$17.11	\$17.11	100.0%
84630		ASSAY OF ZINC	Medicare Non-Facility Rate	\$11.39	\$11.39	100.0%
84681		ASSAY OF C-PEPTIDE	Medicare Non-Facility Rate	\$20.81	\$20.81	100.0%
84702		CHORIONIC GONADOTROPIN TEST	Medicare Facility/Non-Facility Rate	\$15.05	\$15.05	100.0%
84703		CHORIONIC GONADOTROPIN ASSAY	Medicare Facility/Non-Facility Rate	\$7.52	\$7.52	100.0%
84704		HCG FREE BETACHAIN TEST	Medicare Non-Facility Rate	\$15.29	\$15.29	100.0%
85004		AUTOMATED DIFF WBC COUNT	Medicare Non-Facility Rate	\$6.47	\$6.47	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
85007		BL SMEAR W/DIFF WBC COUNT	Medicare Facility/Non-Facility Rate	\$3.80	\$3.80	100.0%
85013		SPUN MICROHEMATOCRIT	Medicare Non-Facility Rate	\$7.00	\$7.00	100.0%
85014		HEMATOCRIT	Medicare Facility/Non-Facility Rate	\$2.37	\$2.37	100.0%
85018		HEMOGLOBIN	Medicare Facility/Non-Facility Rate	\$2.37	\$2.37	100.0%
85025		COMPLETE CBC W/AUTO DIFF WBC	Medicare Facility/Non-Facility Rate	\$7.77	\$7.77	100.0%
85027		COMPLETE CBC AUTOMATED	Medicare Facility/Non-Facility Rate	\$6.47	\$6.47	100.0%
85041		AUTOMATED RBC COUNT	Medicare Non-Facility Rate	\$3.02	\$3.02	100.0%
85045		AUTOMATED RETICULOCYTE COUNT	Medicare Facility/Non-Facility Rate	\$3.99	\$3.99	100.0%
85046		RETICYTE/HGB CONCENTRATE	Medicare Non-Facility Rate	\$5.57	\$5.57	100.0%
85048		AUTOMATED LEUKOCYTE COUNT	Medicare Facility/Non-Facility Rate	\$2.54	\$2.54	100.0%
85049		AUTOMATED PLATELET COUNT	Medicare Non-Facility Rate	\$4.48	\$4.48	100.0%
85055		RETICULATED PLATELET ASSAY	Medicare Non-Facility Rate	\$35.74	\$35.74	100.0%
85060		BLOOD SMEAR INTERPRETATION	Medicare Facility/Non-Facility Rate	\$17.24	\$24.62	70.0%
85097		BONE MARROW INTERPRETATION	Medicare Facility Rate	\$36.34	\$48.74	74.6%
85097		BONE MARROW INTERPRETATION	Medicare Non-Facility Rate	\$36.34	\$70.85	51.3%
85210		CLOT FACTOR II PROTHROM SPEC	Medicare Non-Facility Rate	\$12.98	\$12.98	100.0%
85220		BLOOC CLOT FACTOR V TEST	Medicare Non-Facility Rate	\$17.65	\$17.65	100.0%
85230		CLOT FACTOR VII PROCONVERTIN	Medicare Non-Facility Rate	\$17.90	\$17.90	100.0%
85240		CLOT FACTOR VIII AHG 1 STAGE	Medicare Non-Facility Rate	\$17.90	\$17.90	100.0%
85244		CLOT FACTOR VIII RELTD ANTGN	Medicare Non-Facility Rate	\$20.42	\$20.42	100.0%
85245		CLOT FACTOR VIII VW RISTOCTN	Medicare Non-Facility Rate	\$22.94	\$22.94	100.0%
85246		CLOT FACTOR VIII VW ANTIGEN	Medicare Non-Facility Rate	\$22.94	\$22.94	100.0%
85247		CLOT FACTOR VIII MULTIMETRIC	Medicare Non-Facility Rate	\$22.94	\$22.94	100.0%
85250		CLOT FACTOR IX PTC/CHRSTMAS	Medicare Non-Facility Rate	\$19.04	\$19.04	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
85260		CLOT FACTOR X STUART-POWER	Medicare Non-Facility Rate	\$17.90	\$17.90	100.0%
85270		CLOT FACTOR XI PTA	Medicare Non-Facility Rate	\$17.90	\$17.90	100.0%
85280		CLOT FACTOR XII HAGEMAN	Medicare Non-Facility Rate	\$19.35	\$19.35	100.0%
85290		CLOT FACTOR XIII FIBRIN STAB	Medicare Non-Facility Rate	\$16.34	\$16.34	100.0%
85291		CLOT FACTOR XIII FIBRIN SCRIN	Medicare Non-Facility Rate	\$9.11	\$9.11	100.0%
85292		CLOT FACTOR FLETCHER FACT	Medicare Non-Facility Rate	\$18.93	\$18.93	100.0%
85300		ANTITHROMBIN III ACTIVITY	Medicare Facility/Non-Facility Rate	\$11.85	\$11.85	100.0%
85301		ANTITHROMBIN III ANTIGEN	Medicare Non-Facility Rate	\$10.81	\$10.81	100.0%
85302		CLOT INHIBIT PROT C ANTIGEN	Medicare Non-Facility Rate	\$12.01	\$12.01	100.0%
85303		CLOT INHIBIT PROT C ACTIVITY	Medicare Non-Facility Rate	\$13.84	\$13.84	100.0%
85305		CLOT INHIBIT PROT S TOTAL	Medicare Non-Facility Rate	\$11.61	\$11.61	100.0%
85306		CLOT INHIBIT PROT S FREE	Medicare Non-Facility Rate	\$15.32	\$15.32	100.0%
85307		ASSAY ACTIVATED PROTEIN C	Medicare Non-Facility Rate	\$15.32	\$15.32	100.0%
85335		FACTOR INHIBITOR TEST	Medicare Non-Facility Rate	\$12.87	\$12.87	100.0%
85360		EUGLOBULIN LYSIS	Medicare Non-Facility Rate	\$8.41	\$8.41	100.0%
85362		FIBRIN DEGRADATION PRODUCTS	Medicare Non-Facility Rate	\$6.89	\$6.89	100.0%
85378		FIBRIN DEGRADE SEMIQUANT	Medicare Non-Facility Rate	\$9.72	\$9.72	100.0%
85379		FIBRIN DEGRADATION QUANT	Medicare Non-Facility Rate	\$10.18	\$10.18	100.0%
85384		FIBRINOGEN ACTIVITY	Medicare Non-Facility Rate	\$9.72	\$9.72	100.0%
85385		FIBRINOGEN ANTIGEN	Medicare Non-Facility Rate	\$14.46	\$14.46	100.0%
85390		FIBRINOLYSINS SCREEN I&R	Medicare Facility/Non-Facility Rate	\$15.48	\$15.48	100.0%
85390	26	FIBRINOLYSINS SCREEN I&R	Medicare Facility/Non-Facility Rate	\$12.81	\$37.55	34.1%
85396		CLOTTING ASSAY WHOLE BLOOD	Medicare Facility Rate	\$18.16	\$19.87	91.4%
85397		CLOTTING FUNCT ACTIVITY	Medicare Non-Facility Rate	\$30.86	\$30.86	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
85410		FIBRINOLYTIC ANTIPLASMIN	Medicare Non-Facility Rate	\$7.71	\$7.71	100.0%
85415		FIBRINOLYTIC PLASMINOGEN	Medicare Non-Facility Rate	\$17.19	\$17.19	100.0%
85420		FIBRINOLYTIC PLASMINOGEN	Medicare Non-Facility Rate	\$6.53	\$6.53	100.0%
85421		FIBRINOLYTIC PLASMINOGEN	Medicare Non-Facility Rate	\$10.18	\$10.18	100.0%
85441		HEINZ BODIES DIRECT	Medicare Non-Facility Rate	\$4.20	\$4.20	100.0%
85445		HEINZ BODIES INDUCED	Medicare Non-Facility Rate	\$6.82	\$6.82	100.0%
85460		HEMOGLOBIN FETAL	Medicare Facility/Non-Facility Rate	\$7.73	\$7.73	100.0%
85520		HEPARIN ASSAY	Medicare Facility/Non-Facility Rate	\$13.09	\$13.09	100.0%
85540		WBC ALKALINE PHOSPHATASE	Medicare Non-Facility Rate	\$8.60	\$8.60	100.0%
85549		MURAMIDASE	Medicare Non-Facility Rate	\$18.75	\$18.75	100.0%
85555		RBC OSMOTIC FRAGILITY	Medicare Non-Facility Rate	\$7.47	\$7.47	100.0%
85557		RBC OSMOTIC FRAGILITY	Medicare Non-Facility Rate	\$13.36	\$13.36	100.0%
85576		BLOOD PLATELET AGGREGATION	Medicare Non-Facility Rate	\$24.91	\$24.91	100.0%
85576	26	BLOOD PLATELET AGGREGATION	Medicare Facility/Non-Facility Rate	\$13.87	\$18.42	75.3%
85597		PHOSPHOLIPID PLTTLT NEUTRALIZ	Medicare Non-Facility Rate	\$17.98	\$17.98	100.0%
85598		HEXAGNAL PHOSPH PLTTLT NEUTRL	Medicare Non-Facility Rate	\$17.98	\$17.98	100.0%
85610		PROTHROMBIN TIME	Medicare Facility/Non-Facility Rate	\$4.29	\$4.29	100.0%
85611		PROTHROMBIN TEST	Medicare Non-Facility Rate	\$3.94	\$3.94	100.0%
85612		VIPER VENOM PROTHROMBIN TIME	Medicare Non-Facility Rate	\$17.49	\$17.49	100.0%
85613		RUSSELL VIPER VENOM DILUTED	Medicare Non-Facility Rate	\$9.58	\$9.58	100.0%
85635		REPTILASE TEST	Medicare Non-Facility Rate	\$9.85	\$9.85	100.0%
85651		RBC SED RATE NONAUTOMATED	Medicare Non-Facility Rate	\$4.27	\$4.27	100.0%
85652		RBC SED RATE AUTOMATED	Medicare Non-Facility Rate	\$2.70	\$2.70	100.0%
85660		RBC SICKLE CELL TEST	Medicare Non-Facility Rate	\$5.51	\$5.51	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
85670		THROMBIN TIME PLASMA	Medicare Non-Facility Rate	\$5.77	\$5.77	100.0%
85705		THROMBOPLASTIN INHIBITION	Medicare Non-Facility Rate	\$9.63	\$9.63	100.0%
85730		THROMBOPLASTIN TIME PARTIAL	Medicare Facility/Non-Facility Rate	\$6.01	\$6.01	100.0%
85732		THROMBOPLASTIN TIME PARTIAL	Medicare Non-Facility Rate	\$6.47	\$6.47	100.0%
85810		BLOOD VISCOSITY EXAMINATION	Medicare Non-Facility Rate	\$11.67	\$11.67	100.0%
86001		ALLERGEN SPECIFIC IGG	Medicare Non-Facility Rate	\$7.82	\$7.82	100.0%
86003		ALLG SPEC IGE CRUDE XTRC EA	Medicare Facility/Non-Facility Rate	\$5.22	\$5.22	100.0%
86005		ALLG SPEC IGE MULTIALLG SCR	Medicare Non-Facility Rate	\$7.97	\$7.97	100.0%
86008		ALLG SPEC IGE RECOMB EA	Medicare Non-Facility Rate	\$17.93	\$17.93	100.0%
86021		WBC ANTIBODY IDENTIFICATION	Medicare Non-Facility Rate	\$15.05	\$15.05	100.0%
86022		PLATELET ANTIBODIES	Medicare Non-Facility Rate	\$18.37	\$18.37	100.0%
86023		IMMUNOGLOBULIN ASSAY	Medicare Non-Facility Rate	\$12.46	\$12.46	100.0%
86038		ANTINUCLEAR ANTIBODIES	Medicare Non-Facility Rate	\$12.09	\$12.09	100.0%
86039		ANTINUCLEAR ANTIBODIES (ANA)	Medicare Non-Facility Rate	\$11.16	\$11.16	100.0%
86060		ANTISTREPTOLYSIN O TITER	Medicare Facility/Non-Facility Rate	\$7.30	\$7.30	100.0%
86077		PHYS BLOOD BANK SERV XMATCH	Medicare Facility Rate	\$37.95	\$50.19	75.6%
86077		PHYS BLOOD BANK SERV XMATCH	Medicare Non-Facility Rate	\$37.95	\$54.18	70.0%
86078		PHYS BLOOD BANK SERV REACTJ	Medicare Facility Rate	\$38.73	\$50.19	77.2%
86078		PHYS BLOOD BANK SERV REACTJ	Medicare Non-Facility Rate	\$38.73	\$54.18	71.5%
86079		PHYS BLOOD BANK SERV AUTHRJ	Medicare Facility Rate	\$38.47	\$50.19	76.6%
86140		C-REACTIVE PROTEIN	Medicare Facility/Non-Facility Rate	\$5.18	\$5.18	100.0%
86141		C-REACTIVE PROTEIN HS	Medicare Non-Facility Rate	\$12.95	\$12.95	100.0%
86146		BETA-2 GLYCOPROTEIN ANTIBODY	Medicare Non-Facility Rate	\$25.45	\$25.45	100.0%
86147		CARDIOLIPIN ANTIBODY EA IG	Medicare Non-Facility Rate	\$25.45	\$25.45	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
86148		ANTI-PHOSPHOLIPID ANTIBODY	Medicare Non-Facility Rate	\$16.07	\$16.07	100.0%
86157		COLD AGGLUTININ TITER	Medicare Non-Facility Rate	\$8.06	\$8.06	100.0%
86160		COMPLEMENT ANTIGEN	Medicare Non-Facility Rate	\$12.00	\$12.00	100.0%
86161		COMPLEMENT/FUNCTION ACTIVITY	Medicare Non-Facility Rate	\$12.00	\$12.00	100.0%
86162		COMPLEMENT TOTAL (CH50)	Medicare Non-Facility Rate	\$20.32	\$20.32	100.0%
86200		CCP ANTIBODY	Medicare Non-Facility Rate	\$12.95	\$12.95	100.0%
86215		DEOXYRIBONUCLEASE ANTIBODY	Medicare Non-Facility Rate	\$13.25	\$13.25	100.0%
86225		DNA ANTIBODY NATIVE	Medicare Non-Facility Rate	\$13.74	\$13.74	100.0%
86226		DNA ANTIBODY SINGLE STRAND	Medicare Non-Facility Rate	\$12.11	\$12.11	100.0%
86235		NUCLEAR ANTIGEN ANTIBODY	Medicare Non-Facility Rate	\$17.93	\$17.93	100.0%
86255		FLUORESCENT ANTIBODY SCREEN	Medicare Non-Facility Rate	\$12.05	\$12.05	100.0%
86255	26	FLUORESCENT ANTIBODY SCREEN	Medicare Facility Rate	\$13.59	\$18.42	73.8%
86256		FLUORESCENT ANTIBODY TITER	Medicare Non-Facility Rate	\$12.05	\$12.05	100.0%
86256	26	FLUORESCENT ANTIBODY TITER	Medicare Facility Rate	\$13.59	\$18.42	73.8%
86277		GROWTH HORMONE ANTIBODY	Medicare Non-Facility Rate	\$15.74	\$15.74	100.0%
86300		IMMUNOASSAY TUMOR CA 15-3	Medicare Non-Facility Rate	\$20.81	\$20.81	100.0%
86301		IMMUNOASSAY TUMOR CA 19-9	Medicare Non-Facility Rate	\$20.81	\$20.81	100.0%
86304		IMMUNOASSAY TUMOR CA 125	Medicare Facility/Non-Facility Rate	\$20.81	\$20.81	100.0%
86305		HUMAN EPIDIDYMIS PROTEIN 4	Medicare Non-Facility Rate	\$20.81	\$20.81	100.0%
86308		HETEROPHILE ANTIBODY SCREEN	Medicare Non-Facility Rate	\$5.18	\$5.18	100.0%
86309		HETEROPHILE ANTIBODY TITER	Medicare Non-Facility Rate	\$6.47	\$6.47	100.0%
86316		IMMUNOASSAY TUMOR OTHER	Medicare Non-Facility Rate	\$20.81	\$20.81	100.0%
86317		IMMUNOASSAY INFECTIOUS AGENT	Medicare Non-Facility Rate	\$14.99	\$14.99	100.0%
86318		IMMUNOASSAY INFECTIOUS AGENT	Medicare Non-Facility Rate	\$18.09	\$18.09	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
86320	26	SERUM IMMUNOELECTROPHORESIS	Medicare Facility Rate	\$14.12	\$18.42	76.7%
86325		OTHER IMMUNOELECTROPHORESIS	Medicare Non-Facility Rate	\$23.13	\$23.13	100.0%
86325	26	OTHER IMMUNOELECTROPHORESIS	Medicare Facility/Non-Facility Rate	\$14.12	\$18.42	76.7%
86328		SARS CORONAVIRUS 2	Medicare Non-Facility Rate	\$20.81	\$45.28	46.0%
86329		IMMUNODIFFUSION NES	Medicare Non-Facility Rate	\$14.05	\$14.05	100.0%
86331		IMMUNODIFFUSION OUCHTERLONY	Medicare Non-Facility Rate	\$11.98	\$11.98	100.0%
86332		IMMUNE COMPLEX ASSAY	Medicare Non-Facility Rate	\$24.37	\$24.37	100.0%
86334		IMMUNOFIX E-PHORESIS SERUM	Medicare Non-Facility Rate	\$22.34	\$22.34	100.0%
86334	26	IMMUNOFIX E-PHORESIS SERUM	Medicare Facility Rate	\$14.12	\$18.42	76.7%
86335		IMMUNIFIX E-PHORSIS/URINE/CSF	Medicare Non-Facility Rate	\$29.35	\$29.35	100.0%
86335	26	IMMUNIFIX E-PHORSIS/URINE/CSF	Medicare Facility Rate	\$17.47	\$18.42	94.8%
86336		INHIBIN A	Medicare Non-Facility Rate	\$15.59	\$15.59	100.0%
86337		INSULIN ANTIBODIES	Medicare Non-Facility Rate	\$21.41	\$21.41	100.0%
86340		INTRINSIC FACTOR ANTIBODY	Medicare Non-Facility Rate	\$15.08	\$15.08	100.0%
86341		ISLET CELL ANTIBODY	Medicare Non-Facility Rate	\$23.57	\$23.57	100.0%
86343		LEUKOCYTE HISTAMINE RELEASE	Medicare Non-Facility Rate	\$12.46	\$12.46	100.0%
86352		CELL FUNCTION ASSAY W/STIM	Medicare Non-Facility Rate	\$135.86	\$135.86	100.0%
86353		LYMPHOCYTE TRANSFORMATION	Medicare Non-Facility Rate	\$49.03	\$49.03	100.0%
86355		B CELLS TOTAL COUNT	Medicare Non-Facility Rate	\$37.73	\$37.73	100.0%
86356		MONONUCLEAR CELL ANTIGEN	Medicare Non-Facility Rate	\$26.78	\$26.78	100.0%
86357		NK CELLS TOTAL COUNT	Medicare Non-Facility Rate	\$37.73	\$37.73	100.0%
86359		T CELLS TOTAL COUNT	Medicare Non-Facility Rate	\$37.73	\$37.73	100.0%
86360		T CELL ABSOLUTE COUNT/RATIO	Medicare Non-Facility Rate	\$46.98	\$46.98	100.0%
86361		T CELL ABSOLUTE COUNT	Medicare Non-Facility Rate	\$26.78	\$26.78	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
86376		MICROSOMAL ANTIBODY EACH	Medicare Non-Facility Rate	\$14.55	\$14.55	100.0%
86382		NEUTRALIZATION TEST VIRAL	Medicare Non-Facility Rate	\$16.91	\$16.91	100.0%
86403		PARTICLE AGGLUT ANTBDY SCRIN	Medicare Non-Facility Rate	\$11.54	\$11.54	100.0%
86413		SARS-COV-2 ANTB QUANTITATIVE	Medicare Non-Facility Rate	\$43.18	\$0.00	#DIV/0!
86430		RHEUMATOID FACTOR TEST QUAL	Medicare Non-Facility Rate	\$6.14	\$6.14	100.0%
86431		RHEUMATOID FACTOR QUANT	Medicare Non-Facility Rate	\$5.67	\$5.67	100.0%
86480		TB TEST CELL IMMUN MEASURE	Medicare Non-Facility Rate	\$61.98	\$61.98	100.0%
86481		TB AG RESPONSE T-CELL SUSP	Medicare Non-Facility Rate	\$100.00	\$100.00	100.0%
86486		SKIN TEST NOS ANTIGEN	Medicare Non-Facility Rate	\$3.74	\$6.42	58.3%
86510		HISTOPLASMOSIS SKIN TEST	Medicare Non-Facility Rate	\$8.36	\$7.87	106.2%
86580		TB INTRADERMAL TEST	Medicare Facility/Non-Facility Rate	\$6.77	\$11.14	60.8%
86592		SYPHILIS TEST NON-TREP QUAL	Medicare Facility/Non-Facility Rate	\$4.27	\$4.27	100.0%
86593		SYPHILIS TEST NON-TREP QUANT	Medicare Non-Facility Rate	\$4.40	\$4.40	100.0%
86602		ANTINOMYCES ANTIBODY	Medicare Non-Facility Rate	\$10.18	\$10.18	100.0%
86603		ADENOVIRUS ANTIBODY	Medicare Non-Facility Rate	\$12.87	\$12.87	100.0%
86606		ASPERGILLUS ANTIBODY	Medicare Non-Facility Rate	\$15.05	\$15.05	100.0%
86609		BACTERIUM ANTIBODY	Medicare Non-Facility Rate	\$12.88	\$12.88	100.0%
86611		BARTONELLA ANTIBODY	Medicare Non-Facility Rate	\$10.18	\$10.18	100.0%
86612		BLASTOMYCES ANTIBODY	Medicare Non-Facility Rate	\$12.90	\$12.90	100.0%
86615		BORDETELLA ANTIBODY	Medicare Non-Facility Rate	\$13.19	\$13.19	100.0%
86617		LYME DISEASE ANTIBODY	Medicare Non-Facility Rate	\$15.49	\$15.49	100.0%
86618		LYME DISEASE ANTIBODY	Medicare Non-Facility Rate	\$17.03	\$17.03	100.0%
86619		BORRELIA ANTIBODY	Medicare Non-Facility Rate	\$13.38	\$13.38	100.0%
86622		BRUCELLA ANTIBODY	Medicare Non-Facility Rate	\$8.93	\$8.93	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
86625		CAMPYLOBACTER ANTIBODY	Medicare Non-Facility Rate	\$13.12	\$13.12	100.0%
86628		CANDIDA ANTIBODY	Medicare Non-Facility Rate	\$12.01	\$12.01	100.0%
86631		CHLAMYDIA ANTIBODY	Medicare Non-Facility Rate	\$11.82	\$11.82	100.0%
86632		CHLAMYDIA IGM ANTIBODY	Medicare Non-Facility Rate	\$12.68	\$12.68	100.0%
86635		COCCIDIOIDES ANTIBODY	Medicare Non-Facility Rate	\$11.47	\$11.47	100.0%
86638		Q FEVER ANTIBODY	Medicare Non-Facility Rate	\$12.12	\$12.12	100.0%
86644		CMV ANTIBODY	Medicare Non-Facility Rate	\$14.39	\$14.39	100.0%
86645		CMV ANTIBODY IGM	Medicare Non-Facility Rate	\$16.85	\$16.85	100.0%
86648		DIPHTHERIA ANTIBODY	Medicare Non-Facility Rate	\$15.21	\$15.21	100.0%
86658		ENTEROVIRUS ANTIBODY	Medicare Non-Facility Rate	\$13.03	\$13.03	100.0%
86663		EPSTEIN-BARR ANTIBODY	Medicare Non-Facility Rate	\$13.12	\$13.12	100.0%
86664		EPSTEIN-BARR NUCLEAR ANTIGEN	Medicare Non-Facility Rate	\$15.29	\$15.29	100.0%
86665		EPSTEIN-BARR CAPSID VCA	Medicare Non-Facility Rate	\$18.14	\$18.14	100.0%
86666		EHRlichia ANTIBODY	Medicare Non-Facility Rate	\$10.18	\$10.18	100.0%
86668		FRANCISELLA TULARENSIS	Medicare Non-Facility Rate	\$14.16	\$14.16	100.0%
86671		FUNGUS NES ANTIBODY	Medicare Non-Facility Rate	\$12.25	\$12.25	100.0%
86674		GIARDIA LAMBLIA ANTIBODY	Medicare Non-Facility Rate	\$14.72	\$14.72	100.0%
86677		HELICOBACTER PYLORI ANTIBODY	Medicare Non-Facility Rate	\$16.85	\$16.85	100.0%
86682		HELMINTH ANTIBODY	Medicare Non-Facility Rate	\$13.01	\$13.01	100.0%
86684		HEMOPHILUS INFLUENZA ANTIBDY	Medicare Non-Facility Rate	\$15.84	\$15.84	100.0%
86687		HTLV-I ANTIBODY	Medicare Non-Facility Rate	\$9.09	\$9.09	100.0%
86688		HTLV-II ANTIBODY	Medicare Non-Facility Rate	\$14.00	\$14.00	100.0%
86689		HTLV/HIV CONFIRMJ ANTIBODY	Medicare Non-Facility Rate	\$19.35	\$19.35	100.0%
86692		HEPATITIS DELTA AGENT ANTBDY	Medicare Non-Facility Rate	\$17.16	\$17.16	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
86694		HERPES SIMPLEX NES ANTBDY	Medicare Non-Facility Rate	\$14.39	\$14.39	100.0%
86695		HERPES SIMPLEX TYPE 1 TEST	Medicare Non-Facility Rate	\$13.19	\$13.19	100.0%
86696		HERPES SIMPLEX TYPE 2 TEST	Medicare Non-Facility Rate	\$19.35	\$19.35	100.0%
86698		HISTOPLASMA ANTIBODY	Medicare Non-Facility Rate	\$13.79	\$13.79	100.0%
86701		HIV-1ANTIBODY	Medicare Non-Facility Rate	\$8.89	\$8.89	100.0%
86702		HIV-2 ANTIBODY	Medicare Non-Facility Rate	\$13.52	\$13.52	100.0%
86703		HIV-1/HIV-2 1 RESULT ANTBDY	Medicare Non-Facility Rate	\$13.71	\$13.71	100.0%
86704		HEP B CORE ANTIBODY TOTAL	Medicare Facility/Non-Facility Rate	\$12.05	\$12.05	100.0%
86705		HEP B CORE ANTIBODY IGM	Medicare Non-Facility Rate	\$11.77	\$11.77	100.0%
86706		HEP B SURFACE ANTIBODY	Medicare Facility/Non-Facility Rate	\$10.74	\$10.74	100.0%
86707		HEPATITIS BE ANTIBODY	Medicare Non-Facility Rate	\$11.57	\$11.57	100.0%
86708		HEPATITIS A ANTIBODY	Medicare Non-Facility Rate	\$12.39	\$12.39	100.0%
86709		HEPATITIS A IGM ANTIBODY	Medicare Non-Facility Rate	\$11.26	\$11.26	100.0%
86710		INFLUENZA VIRUS ANTIBODY	Medicare Non-Facility Rate	\$13.55	\$13.55	100.0%
86713		LEGIONELLA ANTIBODY	Medicare Non-Facility Rate	\$15.30	\$15.30	100.0%
86717		LEISHMANIA ANTIBODY	Medicare Non-Facility Rate	\$12.25	\$12.25	100.0%
86720		LEPTOSPIRA ANTIBODY	Medicare Non-Facility Rate	\$16.20	\$16.20	100.0%
86727		LYMPH CHORIOMENINGITIS AB	Medicare Non-Facility Rate	\$12.87	\$12.87	100.0%
86735		MUMPS ANTIBODY	Medicare Non-Facility Rate	\$13.05	\$13.05	100.0%
86738		MYCOPLASMA ANTIBODY	Medicare Non-Facility Rate	\$13.24	\$13.24	100.0%
86741		NEISSERIA MENINGITIDIS	Medicare Non-Facility Rate	\$13.19	\$13.19	100.0%
86747		PARVOVIRUS ANTIBODY	Medicare Non-Facility Rate	\$15.03	\$15.03	100.0%
86753		PROTOZOA ANTIBODY NOS	Medicare Non-Facility Rate	\$12.39	\$12.39	100.0%
86757		RICKETTSIA ANTIBODY	Medicare Non-Facility Rate	\$19.35	\$19.35	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
86762		RUBELLA ANTIBODY	Medicare Non-Facility Rate	\$14.39	\$14.39	100.0%
86769		SARS-COV-2 COVID-19 ANTIBODY	Medicare Non-Facility Rate	\$42.75	\$42.13	101.5%
86774		TETANUS ANTIBODY	Medicare Non-Facility Rate	\$14.80	\$14.80	100.0%
86777		TOXOPLASMA ANTIBODY	Medicare Non-Facility Rate	\$14.39	\$14.39	100.0%
86778		TOXOPLASMA ANTIBODY IGM	Medicare Non-Facility Rate	\$14.41	\$14.41	100.0%
86780		TREPONEMA PALLIDUM	Medicare Facility/Non-Facility Rate	\$13.24	\$13.24	100.0%
86787		VARICELLA-ZOSTER ANTIBODY	Medicare Non-Facility Rate	\$12.88	\$12.88	100.0%
86788		WEST NILE VIRUS AB IGM	Medicare Non-Facility Rate	\$16.85	\$16.85	100.0%
86789		WEST NILE VIRUS ANTIBODY	Medicare Non-Facility Rate	\$14.39	\$14.39	100.0%
86790		VIRUS ANTIBODY NOS	Medicare Non-Facility Rate	\$12.88	\$12.88	100.0%
86793		YERSINIA ANTIBODY	Medicare Non-Facility Rate	\$13.19	\$13.19	100.0%
86794		ZIKA VIRUS IGM ANTIBODY	Medicare Non-Facility Rate	\$16.85	\$16.85	100.0%
86800		THYROGLOBULIN ANTIBODY	Medicare Non-Facility Rate	\$15.91	\$15.91	100.0%
86803		HEPATITIS C AB TEST	Medicare Facility/Non-Facility Rate	\$14.27	\$14.27	100.0%
86804		HEP C AB TEST CONFIRM	Medicare Non-Facility Rate	\$15.49	\$15.49	100.0%
86812		HLA TYPING A B OR C	Medicare Non-Facility Rate	\$25.81	\$25.81	100.0%
86832		HLA CLASS I HIGH DEFIN QUAL	Medicare Non-Facility Rate	\$323.75	\$323.75	100.0%
86833		HLA CLASS II HIGH DEFIN QUAL	Medicare Non-Facility Rate	\$325.80	\$325.80	100.0%
86850		RBC ANTIBODY SCREEN	Medicare Non-Facility Rate	\$9.77	\$9.77	100.0%
86870		RBC ANTIBODY IDENTIFICATION	Other States' Average Rate	\$20.97	\$33.93	61.8%
86880		COOMBS TEST DIRECT	Medicare Non-Facility Rate	\$5.39	\$5.39	100.0%
86885		COOMBS TEST INDIRECT QUAL	Medicare Non-Facility Rate	\$5.72	\$5.72	100.0%
86886		COOMBS TEST INDIRECT TITER	Medicare Non-Facility Rate	\$5.18	\$5.18	100.0%
86900		BLOOD TYPING SEROLOGIC ABO	Medicare Non-Facility Rate	\$2.99	\$2.99	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
86901		BLOOD TYPING SEROLOGIC RH(D)	Medicare Non-Facility Rate	\$2.99	\$2.99	100.0%
86905		BLOOD TYPING RBC ANTIGENS	Medicare Non-Facility Rate	\$3.83	\$3.83	100.0%
86906		BLD TYPING SEROLOGIC RH PHNT	Medicare Non-Facility Rate	\$7.75	\$7.75	100.0%
86920		COMPATIBILITY TEST SPIN	Other States' Average Rate	\$12.28	\$27.76	44.2%
86923		COMPATIBILITY TEST ELECTRIC	Other States' Average Rate	\$7.41	\$14.29	51.9%
86940		HEMOLYSINS/AGGLUTININS AUTO	Medicare Non-Facility Rate	\$8.77	\$8.77	100.0%
86941		HEMOLYSINS/AGGLUTININS	Medicare Non-Facility Rate	\$12.11	\$12.11	100.0%
87015		SPECIMEN INFECT AGNT CONCNTJ	Medicare Non-Facility Rate	\$6.68	\$6.68	100.0%
87015	26	SPECIMEN INFECT AGNT CONCNTJ	Other States' Average Rate	\$7.53	\$6.57	114.6%
87040		BLOOD CULTURE FOR BACTERIA	Medicare Facility/Non-Facility Rate	\$10.32	\$10.32	100.0%
87045		FECES CULTURE AEROBIC BACT	Medicare Facility/Non-Facility Rate	\$9.44	\$9.44	100.0%
87046		STOOL CULTR AEROBIC BACT EA	Medicare Facility/Non-Facility Rate	\$9.44	\$9.44	100.0%
87070		CULTURE OTHR SPECIMN AEROBIC	Medicare Facility/Non-Facility Rate	\$8.62	\$8.62	100.0%
87071		CULTURE AEROBIC QUANT OTHER	Medicare Non-Facility Rate	\$9.89	\$9.89	100.0%
87075		CULTR BACTERIA EXCEPT BLOOD	Medicare Non-Facility Rate	\$9.47	\$9.47	100.0%
87075	26	CULTR BACTERIA EXCEPT BLOOD	Other States' Average Rate	\$9.30	\$8.39	110.8%
87076		CULTURE ANAEROBE IDENT EACH	Medicare Non-Facility Rate	\$8.08	\$8.08	100.0%
87076	26	CULTURE ANAEROBE IDENT EACH	Other States' Average Rate	\$6.97	\$6.67	104.5%
87077		CULTURE AEROBIC IDENTIFY	Medicare Facility/Non-Facility Rate	\$8.08	\$8.08	100.0%
87081		CULTURE SCREEN ONLY	Medicare Facility/Non-Facility Rate	\$6.63	\$6.63	100.0%
87084		CULTURE OF SPECIMEN BY KIT	Medicare Non-Facility Rate	\$27.07	\$27.07	100.0%
87086		URINE CULTURE/COLONY COUNT	Medicare Facility/Non-Facility Rate	\$8.07	\$8.07	100.0%
87088		URINE BACTERIA CULTURE	Medicare Facility/Non-Facility Rate	\$8.09	\$8.09	100.0%
87101		SKIN FUNGI CULTURE	Medicare Non-Facility Rate	\$7.71	\$7.71	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
87102		FUNGUS ISOLATION CULTURE	Medicare Facility/Non-Facility Rate	\$8.41	\$8.41	100.0%
87103		BLOOD FUNGUS CULTURE	Medicare Non-Facility Rate	\$20.46	\$20.46	100.0%
87106		FUNGI IDENTIFICATION YEAST	Medicare Non-Facility Rate	\$10.32	\$10.32	100.0%
87107		FUNGI IDENTIFICATION MOLD	Medicare Non-Facility Rate	\$10.32	\$10.32	100.0%
87109		MYCOPLASMA	Medicare Non-Facility Rate	\$15.39	\$15.39	100.0%
87110		CHLAMYDIA CULTURE	Medicare Non-Facility Rate	\$19.60	\$19.60	100.0%
87116		MYCOBACTERIA CULTURE	Medicare Facility/Non-Facility Rate	\$10.80	\$10.80	100.0%
87118		MYCOBACTERIC IDENTIFICATION	Medicare Non-Facility Rate	\$14.61	\$14.61	100.0%
87140		CULTURE TYPE IMMUNOFLUORESC	Medicare Non-Facility Rate	\$5.57	\$5.57	100.0%
87147		CULTURE TYPE IMMUNOLOGIC	Medicare Non-Facility Rate	\$5.18	\$5.18	100.0%
87149		DNA/RNA DIRECT PROBE	Medicare Non-Facility Rate	\$20.05	\$20.05	100.0%
87150		DNA/RNA AMPLIFIED PROBE	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87153		DNA/RNA SEQUENCING	Medicare Non-Facility Rate	\$115.36	\$115.36	100.0%
87168		MACROSCOPIC EXAM ARTHROPOD	Medicare Non-Facility Rate	\$4.27	\$4.27	100.0%
87169		MACROSCOPIC EXAM PARASITE	Medicare Non-Facility Rate	\$4.31	\$4.31	100.0%
87172		PINWORM EXAM	Medicare Non-Facility Rate	\$4.27	\$4.27	100.0%
87176		TISSUE HOMOGENIZATION CULTR	Medicare Facility/Non-Facility Rate	\$5.88	\$5.88	100.0%
87177		OVA AND PARASITES SMEARS	Medicare Non-Facility Rate	\$8.90	\$8.90	100.0%
87181		MICROBE SUSCEPTIBLE DIFFUSE	Medicare Non-Facility Rate	\$4.75	\$4.75	100.0%
87184		MICROBE SUSCEPTIBLE DISK	Medicare Non-Facility Rate	\$7.48	\$7.48	100.0%
87185		MICROBE SUSCEPTIBLE ENZYME	Medicare Facility/Non-Facility Rate	\$4.75	\$4.75	100.0%
87186		MICROBE SUSCEPTIBLE MIC	Medicare Facility/Non-Facility Rate	\$8.65	\$8.65	100.0%
87205		SMEAR GRAM STAIN	Medicare Non-Facility Rate	\$4.27	\$4.27	100.0%
87205	26	SMEAR GRAM STAIN	Other States' Average Rate	\$4.82	\$4.20	114.8%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
87206		SMEAR FLUORESCENT/ACID STAI	Medicare Non-Facility Rate	\$5.39	\$5.39	100.0%
87206	26	SMEAR FLUORESCENT/ACID STAI	Other States' Average Rate	\$5.29	\$5.29	100.0%
87207		SMEAR SPECIAL STAIN	Medicare Non-Facility Rate	\$5.99	\$5.99	100.0%
87207	26	SMEAR SPECIAL STAIN	Medicare Facility Rate	\$6.75	\$18.42	36.6%
87209		SMEAR COMPLEX STAIN	Medicare Non-Facility Rate	\$17.98	\$17.98	100.0%
87210		SMEAR WET MOUNT SALINE/INK	Medicare Non-Facility Rate	\$5.82	\$5.82	100.0%
87210	26	SMEAR WET MOUNT SALINE/INK	Other States' Average Rate	\$4.20	\$4.64	90.6%
87220		TISSUE EXAM FOR FUNGI	Medicare Non-Facility Rate	\$4.27	\$4.27	100.0%
87230		ASSAY TOXIN OR ANTITOXIN	Medicare Non-Facility Rate	\$19.74	\$19.74	100.0%
87252		VIRUS INOCULATION TISSUE	Medicare Facility/Non-Facility Rate	\$26.07	\$26.07	100.0%
87253		VIRUS INOCULATE TISSUE ADDL	Medicare Non-Facility Rate	\$20.20	\$20.20	100.0%
87254		VIRUS INOCULATION SHELL VIA	Medicare Non-Facility Rate	\$19.56	\$19.56	100.0%
87255		GENET VIRUS ISOLATE HSV	Medicare Non-Facility Rate	\$33.86	\$33.86	100.0%
87270		CHLAMYDIA TRACHOMATIS AG IF	Medicare Non-Facility Rate	\$11.98	\$11.98	100.0%
87272		CRYPTOSPORIDIUM AG IF	Medicare Non-Facility Rate	\$11.98	\$11.98	100.0%
87273		HERPES SIMPLEX 2 AG IF	Medicare Non-Facility Rate	\$11.98	\$11.98	100.0%
87274		HERPES SIMPLEX 1 AG IF	Medicare Non-Facility Rate	\$11.98	\$11.98	100.0%
87275		INFLUENZA B AG IF	Medicare Non-Facility Rate	\$12.25	\$12.25	100.0%
87276		INFLUENZA A AG IF	Medicare Non-Facility Rate	\$16.07	\$16.07	100.0%
87278		LEGION PNEUMOPHILIA AG IF	Medicare Non-Facility Rate	\$15.60	\$15.60	100.0%
87281		PNEUMOCYSTIS CARINII AG IF	Medicare Non-Facility Rate	\$11.98	\$11.98	100.0%
87283		RUBEOLA AG IF	Medicare Non-Facility Rate	\$60.80	\$60.80	100.0%
87290		VARICELLA ZOSTER AG IF	Medicare Non-Facility Rate	\$13.42	\$13.42	100.0%
87299		ANTIBODY DETECTION NOS IF	Medicare Non-Facility Rate	\$16.10	\$16.10	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
87301		ADENOVIRUS AG IA	Medicare Non-Facility Rate	\$11.98	\$11.98	100.0%
87305		ASPERGILLUS AG IA	Medicare Non-Facility Rate	\$11.98	\$11.98	100.0%
87324		CLOSTRIDIUM AG IA	Medicare Non-Facility Rate	\$11.98	\$11.98	100.0%
87327		CRYPTOCOCCUS NEOFORM AG IA	Medicare Non-Facility Rate	\$13.42	\$13.42	100.0%
87328		CRYPTOSPORIDIUM AG IA	Medicare Non-Facility Rate	\$13.82	\$13.82	100.0%
87329		GIARDIA AG IA	Medicare Non-Facility Rate	\$11.98	\$11.98	100.0%
87337		ENTAMOEBA HIST GROUP AG IA	Medicare Non-Facility Rate	\$11.98	\$11.98	100.0%
87338		HPYLORI STOOL IA	Medicare Non-Facility Rate	\$14.38	\$14.38	100.0%
87340		HEPATITIS B SURFACE AG IA	Medicare Facility/Non-Facility Rate	\$10.33	\$10.33	100.0%
87341		HEPATITIS B SURFACE AG IA	Medicare Non-Facility Rate	\$10.33	\$10.33	100.0%
87350		HEPATITIS BE AG IA	Medicare Non-Facility Rate	\$11.53	\$11.53	100.0%
87385		HISTOPLASMA CAPSUL AG IA	Medicare Non-Facility Rate	\$13.25	\$13.25	100.0%
87389		HIV-1 AG W/HIV-1 & HIV-2 AB	Medicare Facility/Non-Facility Rate	\$24.08	\$24.08	100.0%
87400		INFLUENZA A/B AG IA	Medicare Non-Facility Rate	\$14.13	\$14.13	100.0%
87420		RESP SYNCYTIAL AG IA	Medicare Non-Facility Rate	\$13.91	\$13.91	100.0%
87425		ROTAVIRUS AG IA	Medicare Non-Facility Rate	\$11.98	\$11.98	100.0%
87426		SARSCOV CORONAVIRUS AG IA	Medicare Facility/Non-Facility Rate	\$46.36	\$0.00	#DIV/0!
87427		SHIGA-LIKE TOXIN AG IA	Medicare Non-Facility Rate	\$11.98	\$11.98	100.0%
87430		STREP A AG IA	Medicare Non-Facility Rate	\$16.81	\$16.81	100.0%
87449		AG DETECT NOS IA MULT	Medicare Non-Facility Rate	\$11.98	\$11.98	100.0%
87471		BARTONELLA DNA AMP PROBE	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87476		LYME DIS DNA AMP PROBE	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87480		CANDIDA DNA DIR PROBE	Medicare Non-Facility Rate	\$20.05	\$20.05	100.0%
87481		CANDIDA DNA AMP PROBE	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
87482		CANDIDA DNA QUANT	Medicare Non-Facility Rate	\$55.74	\$55.74	100.0%
87483		CNS DNA AMP PROBE TYPE 12-25	Medicare Non-Facility Rate	\$416.78	\$416.78	100.0%
87486		CHYLM D PNEUM DNA AMP PROBE	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87490		CHYLM D TRACH DNA DIR PROBE	Medicare Non-Facility Rate	\$22.75	\$22.75	100.0%
87491		CHYLM D TRACH DNA AMP PROBE	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87492		CHYLM D TRACH DNA QUANT	Medicare Non-Facility Rate	\$53.47	\$53.47	100.0%
87493		C DIFF AMPLIFIED PROBE	Medicare Non-Facility Rate	\$37.27	\$37.27	100.0%
87496		CYTOMEG DNA AMP PROBE	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87497		CYTOMEG DNA QUANT	Medicare Non-Facility Rate	\$42.84	\$42.84	100.0%
87498		ENTEROVIRUS PROBE&REVRS TRNS	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87500		VANOMYCIN DNA AMP PROBE	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87501		INFLUENZA DNA AMP PROB 1+	Medicare Non-Facility Rate	\$51.31	\$51.31	100.0%
87502		INFLUENZA DNA AMP PROBE	Medicare Facility/Non-Facility Rate	\$95.80	\$95.80	100.0%
87503		INFLUENZA DNA AMP PROB ADDL	Medicare Facility/Non-Facility Rate	\$29.22	\$29.22	100.0%
87507		IADNA-DNA/RNA PROBE TQ 12-25	Medicare Non-Facility Rate	\$416.78	\$416.78	100.0%
87510		GARDNER VAG DNA DIR PROBE	Medicare Non-Facility Rate	\$20.05	\$20.05	100.0%
87511		GARDNER VAG DNA AMP PROBE	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87512		GARDNER VAG DNA QUANT	Medicare Non-Facility Rate	\$41.76	\$41.76	100.0%
87517		HEPATITIS B DNA QUANT	Medicare Non-Facility Rate	\$42.84	\$42.84	100.0%
87521		HEPATITIS C PROBE&RVRS TRNSC	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87522		HEPATITIS C REVRS TRNSCRPJ	Medicare Non-Facility Rate	\$42.84	\$42.84	100.0%
87529		HSV DNA AMP PROBE	Medicare Facility/Non-Facility Rate	\$35.09	\$35.09	100.0%
87530		HSV DNA QUANT	Medicare Non-Facility Rate	\$42.84	\$42.84	100.0%
87532		HHV-6 DNA AMP PROBE	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
87533		HHV-6 DNA QUANT	Medicare Non-Facility Rate	\$41.76	\$41.76	100.0%
87535		HIV-1 PROBE&REVERSE TRNSCRPJ	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87536		HIV-1 QUANT&REVRSE TRNSCRPJ	Medicare Facility/Non-Facility Rate	\$85.10	\$85.10	100.0%
87538		HIV-2 PROBE&REVRSE TRNSCRIPJ	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87541		LEGION PNEUMO DNA AMP PROB	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87551		MYCOBACTERIA DNA AMP PROBE	Medicare Non-Facility Rate	\$48.24	\$48.24	100.0%
87556		M.TUBERCULO DNA AMP PROBE	Medicare Non-Facility Rate	\$41.68	\$41.68	100.0%
87561		M.AVIUM-INTRA DNA AMP PROB	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87563		M. GENITALIUM AMP PROBE	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87581		M.PNEUMON DNA AMP PROBE	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87590		N.GONORRHOEAE DNA DIR PROB	Medicare Non-Facility Rate	\$26.88	\$26.88	100.0%
87591		N.GONORRHOEAE DNA AMP PROB	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87592		N.GONORRHOEAE DNA QUANT	Medicare Non-Facility Rate	\$42.84	\$42.84	100.0%
87624		HPV HIGH-RISK TYPES	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87625		HPV TYPES 16 & 18 ONLY	Medicare Non-Facility Rate	\$40.55	\$40.55	100.0%
87631		RESP VIRUS 3-5 TARGETS	Medicare Facility/Non-Facility Rate	\$142.63	\$142.63	100.0%
87633		RESP VIRUS 12-25 TARGETS	Medicare Facility/Non-Facility Rate	\$416.78	\$416.78	100.0%
87634		RSV DNA/RNA AMP PROBE	Medicare Non-Facility Rate	\$70.20	\$70.20	100.0%
87635		SARS-COV-2 COVID-19 AMP PRB	Medicare Facility/Non-Facility Rate	\$50.82	\$51.31	99.0%
87636		SARSCOV2 / INF A/B AMP PRB	Medicare Non-Facility Rate	\$146.20	\$142.63	102.5%
87637		SARSCOV2&INF A&B&RSV AMP PRB	Medicare Non-Facility Rate	\$146.20	\$142.63	102.5%
87640		STAPH A DNA AMP PROBE	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87641		MR-STAPH DNA AMP PROBE	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87650		STREP A DNA DIR PROBE	Medicare Non-Facility Rate	\$20.05	\$20.05	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
87651		STREP A DNA AMP PROBE	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87652		STREP A DNA QUANT	Medicare Non-Facility Rate	\$41.76	\$41.76	100.0%
87653		STREP B DNA AMP PROBE	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87660		TRICHOMONAS VAGIN DIR PROBE	Medicare Non-Facility Rate	\$20.05	\$20.05	100.0%
87661		TRICHOMONAS VAGINALIS AMPLIF	Medicare Non-Facility Rate	\$35.09	\$35.09	100.0%
87662		ZIKA VIRUS DNA/RNA AMP PROBE	Medicare Non-Facility Rate	\$51.31	\$51.31	100.0%
87798		DETECT AGENT NOS DNA AMP	Medicare Facility/Non-Facility Rate	\$35.09	\$35.09	100.0%
87799		DETECT AGENT NOS DNA QUANT	Medicare Non-Facility Rate	\$42.84	\$42.84	100.0%
87800		DETECT AGNT MULT DNA DIREC	Medicare Non-Facility Rate	\$43.67	\$43.67	100.0%
87801		DETECT AGNT MULT DNA AMPLI	Medicare Non-Facility Rate	\$70.20	\$70.20	100.0%
87804		INFLUENZA ASSAY W/OPTIC	Medicare Facility/Non-Facility Rate	\$16.55	\$16.55	100.0%
87806		HIV ANTIGEN W/HIV ANTIBODIES	Medicare Facility/Non-Facility Rate	\$32.77	\$32.77	100.0%
87807		RSV ASSAY W/OPTIC	Medicare Non-Facility Rate	\$13.10	\$13.10	100.0%
87808		TRICHOMONAS ASSAY W/OPTIC	Medicare Non-Facility Rate	\$15.29	\$15.29	100.0%
87809		ADENOVIRUS ASSAY W/OPTIC	Medicare Non-Facility Rate	\$21.76	\$21.76	100.0%
87811		SARS-COV-2 COVID19 W/OPTIC	Medicare Non-Facility Rate	\$42.41	\$0.00	#DIV/0!
87880		STREP A ASSAY W/OPTIC	Medicare Facility/Non-Facility Rate	\$16.53	\$16.53	100.0%
87899		AGENT NOS ASSAY W/OPTIC	Medicare Non-Facility Rate	\$16.07	\$16.07	100.0%
87900		PHENOTYPE INFECT AGENT DRUG	Medicare Non-Facility Rate	\$130.35	\$130.35	100.0%
87901		GENOTYPE DNA HIV REVERSE T	Medicare Non-Facility Rate	\$257.45	\$257.45	100.0%
87902		GENOTYPE DNA/RNA HEP C	Medicare Non-Facility Rate	\$257.45	\$257.45	100.0%
87903		PHENOTYPE DNA HIV W/CULTURE	Medicare Non-Facility Rate	\$488.66	\$488.66	100.0%
87904		PHENOTYPE DNA HIV W/CLT ADD	Medicare Non-Facility Rate	\$26.07	\$26.07	100.0%
87905		SIALIDASE ENZYME ASSAY	Medicare Non-Facility Rate	\$12.22	\$12.22	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
87906		GENOTYPE DNA/RNA HIV	Medicare Non-Facility Rate	\$128.73	\$128.73	100.0%
87910		GENOTYPE CYTOMEGALOVIRUS	Medicare Non-Facility Rate	\$257.45	\$257.45	100.0%
87912		GENOTYPE DNA HEPATITIS B	Medicare Non-Facility Rate	\$257.45	\$257.45	100.0%
88104		CYTOPATH FL NONGYN SMEARS	Medicare Non-Facility Rate	\$42.24	\$70.29	60.1%
88104	26	CYTOPATH FL NONGYN SMEARS	Medicare Facility/Non-Facility Rate	\$21.13	\$27.64	76.4%
88104	TC	CYTOPATH FL NONGYN SMEARS	Medicare Non-Facility Rate	\$21.13	\$42.66	49.5%
88108		CYTOPATH CONCENTRATE TECH	Medicare Non-Facility Rate	\$42.24	\$67.59	62.5%
88108	26	CYTOPATH CONCENTRATE TECH	Medicare Facility/Non-Facility Rate	\$25.35	\$22.75	111.4%
88108	TC	CYTOPATH CONCENTRATE TECH	Medicare Non-Facility Rate	\$16.89	\$44.83	37.7%
88112		CYTOPATH CELL ENHANCE TECH	Medicare Facility/Non-Facility Rate	\$82.81	\$69.57	119.0%
88112	26	CYTOPATH CELL ENHANCE TECH	Medicare Facility/Non-Facility Rate	\$44.35	\$28.00	158.4%
88112	TC	CYTOPATH CELL ENHANCE TECH	Medicare Non-Facility Rate	\$38.36	\$41.57	92.3%
88120		CYTP URINE 3-5 PROBES EA SPEC	Medicare Non-Facility Rate	\$371.20	\$657.67	56.4%
88121		CYTP URINE 3-5 PROBES CMPTR	Medicare Non-Facility Rate	\$313.50	\$462.98	67.7%
88121	26	CYTP URINE 3-5 PROBES CMPTR	Medicare Non-Facility Rate	\$37.76	\$48.58	77.7%
88121	TC	CYTP URINE 3-5 PROBES CMPTR	Medicare Non-Facility Rate	\$275.70	\$414.41	66.5%
88141		CYTOPATH C/V INTERPRET	Medicare Facility/Non-Facility Rate	\$15.93	\$23.04	69.1%
88142		CYTOPATH C/V THIN LAYER	Medicare Non-Facility Rate	\$20.26	\$20.26	100.0%
88147		CYTOPATH C/V AUTOMATED	Medicare Non-Facility Rate	\$50.56	\$50.56	100.0%
88160	26	CYTOPATH SMEAR OTHER SOURCE	Medicare Facility Rate	\$21.13	\$25.92	81.5%
88161		CYTOPATH SMEAR OTHER SOURCE	Medicare Non-Facility Rate	\$42.24	\$77.27	54.7%
88161	26	CYTOPATH SMEAR OTHER SOURCE	Medicare Facility Rate	\$21.13	\$25.56	82.7%
88172		CYTP DX EVAL FNA 1ST EA SITE	Medicare Facility/Non-Facility Rate	\$50.03	\$56.32	88.8%
88172	26	CYTP DX EVAL FNA 1ST EA SITE	Medicare Facility/Non-Facility Rate	\$28.57	\$35.76	79.9%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
88172	TC	CYTP DX EVAL FNA 1ST EA SITE	Medicare Non-Facility Rate	\$21.13	\$20.56	102.8%
88173		CYTOPATH EVAL FNA REPORT	Medicare Facility/Non-Facility Rate	\$71.48	\$164.04	43.6%
88173	26	CYTOPATH EVAL FNA REPORT	Medicare Facility/Non-Facility Rate	\$52.31	\$70.95	73.7%
88173	TC	CYTOPATH EVAL FNA REPORT	Medicare Non-Facility Rate	\$19.19	\$93.09	20.6%
88175		CYTOPATH C/V AUTO FLUID REDO	Medicare Non-Facility Rate	\$26.61	\$26.61	100.0%
88177		CYTP FNA EVAL EA ADDL	Medicare Facility/Non-Facility Rate	\$22.56	\$29.67	76.0%
88177	26	CYTP FNA EVAL EA ADDL	Medicare Facility/Non-Facility Rate	\$17.40	\$22.06	78.9%
88177	TC	CYTP FNA EVAL EA ADDL	Medicare Non-Facility Rate	\$5.16	\$7.61	67.8%
88182		CELL MARKER STUDY	Medicare Non-Facility Rate	\$97.26	\$154.45	63.0%
88182	26	CELL MARKER STUDY	Medicare Facility Rate	\$34.13	\$38.90	87.7%
88184		FLOWCYTOMETRY/ TC 1 MARKER	Medicare Facility/Non-Facility Rate	\$37.18	\$72.27	51.4%
88185		FLOWCYTOMETRY/TC ADD-ON	Medicare Facility/Non-Facility Rate	\$18.26	\$23.19	78.7%
88187		FLOWCYTOMETRY/READ 2-8	Medicare Facility/Non-Facility Rate	\$50.44	\$36.12	139.6%
88188		FLOWCYTOMETRY/READ 9-15	Medicare Facility/Non-Facility Rate	\$62.95	\$63.26	99.5%
88189		FLOWCYTOMETRY/READ 16 & >	Medicare Facility/Non-Facility Rate	\$82.89	\$84.83	97.7%
88230		TISSUE CULTURE LYMPHOCYTE	Medicare Non-Facility Rate	\$116.49	\$116.49	100.0%
88233		TISSUE CULTURE SKIN/BIOPSY	Medicare Non-Facility Rate	\$140.73	\$140.73	100.0%
88235		TISSUE CULTURE PLACENTA	Medicare Non-Facility Rate	\$150.30	\$150.30	100.0%
88237		TISSUE CULTURE BONE MARROW	Medicare Facility/Non-Facility Rate	\$143.75	\$143.75	100.0%
88239		TISSUE CULTURE TUMOR	Medicare Non-Facility Rate	\$147.52	\$147.52	100.0%
88240		CELL CRYOPRESERVE/STORAGE	Medicare Non-Facility Rate	\$13.07	\$13.07	100.0%
88261		CHROMOSOME ANALYSIS 5	Medicare Non-Facility Rate	\$264.34	\$264.34	100.0%
88262		CHROMOSOME ANALYSIS 15-20	Medicare Non-Facility Rate	\$125.49	\$125.49	100.0%
88264		CHROMOSOME ANALYSIS 20-25	Medicare Facility/Non-Facility Rate	\$144.61	\$144.61	100.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
88267		CHROMOSOME ANALYS PLACENTA	Medicare Non-Facility Rate	\$188.57	\$188.57	100.0%
88269		CHROMOSOME ANALYS AMNIOTIC	Medicare Non-Facility Rate	\$173.66	\$173.66	100.0%
88271		CYTOGENETICS DNA PROBE	Medicare Non-Facility Rate	\$21.42	\$21.42	100.0%
88273		CYTOGENETICS 10-30	Medicare Non-Facility Rate	\$34.81	\$34.81	100.0%
88274		CYTOGENETICS 25-99	Medicare Non-Facility Rate	\$42.38	\$42.38	100.0%
88275		CYTOGENETICS 100-300	Medicare Non-Facility Rate	\$51.19	\$51.19	100.0%
88280		CHROMOSOME KARYOTYPE STUDY	Medicare Non-Facility Rate	\$33.47	\$33.47	100.0%
88285		CHROMOSOME COUNT ADDITIONAL	Medicare Non-Facility Rate	\$26.91	\$26.91	100.0%
88289		CHROMOSOME STUDY ADDITIONAL	Medicare Non-Facility Rate	\$34.43	\$34.43	100.0%
88291		CYTO/MOLECULAR REPORT	Medicare Facility/Non-Facility Rate	\$19.70	\$33.93	58.1%
88300		SURGICAL PATH GROSS	Medicare Facility/Non-Facility Rate	\$15.21	\$15.98	95.2%
88300	26	SURGICAL PATH GROSS	Medicare Facility/Non-Facility Rate	\$4.05	\$4.49	90.2%
88300	TC	SURGICAL PATH GROSS	Medicare Non-Facility Rate	\$10.99	\$11.50	95.6%
88302		TISSUE EXAM BY PATHOLOGIST	Medicare Facility/Non-Facility Rate	\$34.65	\$33.30	104.1%
88302	26	TISSUE EXAM BY PATHOLOGIST	Medicare Facility/Non-Facility Rate	\$6.17	\$6.94	88.9%
88302	TC	TISSUE EXAM BY PATHOLOGIST	Medicare Facility/Non-Facility Rate	\$10.15	\$26.35	38.5%
88304		TISSUE EXAM BY PATHOLOGIST	Medicare Facility/Non-Facility Rate	\$43.94	\$43.66	100.6%
88304	26	TISSUE EXAM BY PATHOLOGIST	Medicare Facility/Non-Facility Rate	\$10.39	\$11.51	90.3%
88304	TC	TISSUE EXAM BY PATHOLOGIST	Medicare Non-Facility Rate	\$13.52	\$32.15	42.1%
88305		TISSUE EXAM BY PATHOLOGIST	Medicare Facility/Non-Facility Rate	\$61.68	\$73.98	83.4%
88305	26	TISSUE EXAM BY PATHOLOGIST	Medicare Facility/Non-Facility Rate	\$35.83	\$37.84	94.7%
88305	TC	TISSUE EXAM BY PATHOLOGIST	Medicare Facility/Non-Facility Rate	\$18.59	\$36.14	51.4%
88307		TISSUE EXAM BY PATHOLOGIST	Medicare Facility/Non-Facility Rate	\$85.34	\$301.05	28.3%
88307	26	TISSUE EXAM BY PATHOLOGIST	Medicare Facility/Non-Facility Rate	\$60.00	\$83.32	72.0%

Appendix C3: Laboratory/Pathology Rate Ratio Results

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
88307	TC	TISSUE EXAM BY PATHOLOGIST	Medicare Non-Facility Rate	\$25.35	\$217.73	11.6%
88309		TISSUE EXAM BY PATHOLOGIST	Medicare Facility/Non-Facility Rate	\$113.21	\$457.00	24.8%
88309	26	TISSUE EXAM BY PATHOLOGIST	Medicare Facility/Non-Facility Rate	\$79.44	\$146.51	54.2%
88309	TC	TISSUE EXAM BY PATHOLOGIST	Medicare Non-Facility Rate	\$33.80	\$310.49	10.9%
88311		DECALCIFY TISSUE	Medicare Facility/Non-Facility Rate	\$6.77	\$21.53	31.4%
88311	26	DECALCIFY TISSUE	Medicare Facility/Non-Facility Rate	\$1.69	\$12.56	13.5%
88311	TC	DECALCIFY TISSUE	Medicare Facility/Non-Facility Rate	\$5.07	\$8.96	56.6%
88312		SPECIAL STAINS GROUP 1	Medicare Facility/Non-Facility Rate	\$14.37	\$118.88	12.1%
88312	26	SPECIAL STAINS GROUP 1	Medicare Facility/Non-Facility Rate	\$4.23	\$26.58	15.9%
88312	TC	SPECIAL STAINS GROUP 1	Medicare Non-Facility Rate	\$10.15	\$92.30	11.0%
88313		SPECIAL STAINS GROUP 2	Medicare Facility/Non-Facility Rate	\$6.77	\$85.66	7.9%
88313	26	SPECIAL STAINS GROUP 2	Medicare Facility/Non-Facility Rate	\$1.69	\$12.20	13.9%
88313	TC	SPECIAL STAINS GROUP 2	Medicare Facility/Non-Facility Rate	\$5.07	\$73.46	6.9%
88314		HISTOCHEMICAL STAINS ADD-ON	Medicare Non-Facility Rate	\$42.24	\$104.16	40.6%
88314	26	HISTOCHEMICAL STAINS ADD-ON	Medicare Facility Rate	\$10.15	\$21.29	47.7%
88319		ENZYME HISTOCHEMISTRY	Medicare Non-Facility Rate	\$38.04	\$147.78	25.7%
88319	26	ENZYME HISTOCHEMISTRY	Medicare Facility Rate	\$19.44	\$27.32	71.2%
88321		MICROSLIDE CONSULTATION	Medicare Facility Rate	\$51.55	\$84.58	60.9%
88321		MICROSLIDE CONSULTATION	Medicare Non-Facility Rate	\$51.55	\$99.07	52.0%
88323		MICROSLIDE CONSULTATION	Medicare Non-Facility Rate	\$89.75	\$116.36	77.1%
88323	26	MICROSLIDE CONSULTATION	Medicare Facility/Non-Facility Rate	\$53.74	\$87.84	61.2%
88325		COMPREHENSIVE REVIEW OF DATA	Medicare Facility Rate	\$86.18	\$136.33	63.2%
88325		COMPREHENSIVE REVIEW OF DATA	Medicare Non-Facility Rate	\$86.18	\$160.61	53.7%
88329		PATH CONSULT INTROP	Medicare Facility Rate	\$30.61	\$35.87	85.3%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
88329		PATH CONSULT INTROP	Medicare Non-Facility Rate	\$30.61	\$59.42	51.5%
88331		PATH CONSULT INTRAOP 1 BLOC	Medicare Facility/Non-Facility Rate	\$62.12	\$106.15	58.5%
88331	26	PATH CONSULT INTRAOP 1 BLOC	Medicare Facility/Non-Facility Rate	\$47.31	\$62.77	75.4%
88331	TC	PATH CONSULT INTRAOP 1 BLOC	Medicare Non-Facility Rate	\$14.78	\$43.38	34.1%
88332		PATH CONSULT INTRAOP ADDL	Medicare Facility/Non-Facility Rate	\$31.09	\$56.48	55.0%
88332	26	PATH CONSULT INTRAOP ADDL	Medicare Facility/Non-Facility Rate	\$23.67	\$30.85	76.7%
88332	TC	PATH CONSULT INTRAOP ADDL	Medicare Non-Facility Rate	\$7.43	\$25.63	29.0%
88333		INTRAOP CYTO PATH CONSULT 1	Medicare Non-Facility Rate	\$62.43	\$96.71	64.6%
88333	26	INTRAOP CYTO PATH CONSULT 1	Medicare Facility/Non-Facility Rate	\$46.82	\$62.39	75.0%
88333	TC	INTRAOP CYTO PATH CONSULT 1	Medicare Non-Facility Rate	\$15.63	\$34.32	45.5%
88334	26	INTRAOP CYTO PATH CONSULT 2	Medicare Facility Rate	\$22.98	\$37.87	60.7%
88341		IMMUNOHISTO ANTB ADDL SLIDE	Medicare Facility/Non-Facility Rate	\$54.42	\$92.85	58.6%
88341	26	IMMUNOHISTO ANTB ADDL SLIDE	Medicare Facility/Non-Facility Rate	\$44.12	\$28.36	155.6%
88341	TC	IMMUNOHISTO ANTB ADDL SLIDE	Medicare Facility/Non-Facility Rate	\$10.31	\$64.49	16.0%
88342		IMMUNOHISTO ANTB 1ST STAIN	Medicare Facility/Non-Facility Rate	\$56.70	\$105.94	53.5%
88342	26	IMMUNOHISTO ANTB 1ST STAIN	Medicare Facility/Non-Facility Rate	\$32.27	\$35.02	92.1%
88342	TC	IMMUNOHISTO ANTB 1ST STAIN	Medicare Facility/Non-Facility Rate	\$24.43	\$70.92	34.4%
88344		IMMUNOHISTO ANTIBODY SLIDE	Medicare Non-Facility Rate	\$56.70	\$179.74	31.5%
88344	26	IMMUNOHISTO ANTIBODY SLIDE	Medicare Facility/Non-Facility Rate	\$32.27	\$38.53	83.8%
88344	TC	IMMUNOHISTO ANTIBODY SLIDE	Medicare Non-Facility Rate	\$24.43	\$141.21	17.3%
88346		IMMUNOFLUOR ANTB 1ST STAIN	Medicare Facility/Non-Facility Rate	\$56.34	\$161.68	34.8%
88346	26	IMMUNOFLUOR ANTB 1ST STAIN	Medicare Facility/Non-Facility Rate	\$34.47	\$36.41	94.7%
88346	TC	IMMUNOFLUOR ANTB 1ST STAIN	Medicare Non-Facility Rate	\$21.96	\$125.27	17.5%
88348		ELECTRON MICROSCOPY	Medicare Facility/Non-Facility Rate	\$121.59	\$481.59	25.2%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
88348	26	ELECTRON MICROSCOPY	Medicare Facility Rate	\$71.40	\$78.37	91.1%
88350		IMMUNOFLUOR ANTB ADDL STAIN	Medicare Facility/Non-Facility Rate	\$65.74	\$124.59	52.8%
88350	26	IMMUNOFLUOR ANTB ADDL STAIN	Medicare Facility/Non-Facility Rate	\$26.28	\$29.40	89.4%
88350	TC	IMMUNOFLUOR ANTB ADDL STAIN	Medicare Non-Facility Rate	\$39.37	\$95.20	41.4%
88356		ANALYSIS NERVE	Medicare Non-Facility Rate	\$198.74	\$255.55	77.8%
88360		TUMOR IMMUNOHISTOCHEM/MANUAL	Medicare Non-Facility Rate	\$80.36	\$126.72	63.4%
88360	26	TUMOR IMMUNOHISTOCHEM/MANUAL	Medicare Facility/Non-Facility Rate	\$44.87	\$42.03	106.8%
88360	TC	TUMOR IMMUNOHISTOCHEM/MANUAL	Medicare Non-Facility Rate	\$35.49	\$84.69	41.9%
88361		TUMOR IMMUNOHISTOCHEM/COMPUT	Medicare Non-Facility Rate	\$94.38	\$126.20	74.8%
88361	26	TUMOR IMMUNOHISTOCHEM/COMPUT	Medicare Facility/Non-Facility Rate	\$36.77	\$44.04	83.5%
88361	TC	TUMOR IMMUNOHISTOCHEM/COMPUT	Medicare Non-Facility Rate	\$57.63	\$82.15	70.2%
88363		XM ARCHIVE TISSUE MOLEC ANAL	Medicare Facility Rate	\$30.84	\$19.51	158.1%
88363		XM ARCHIVE TISSUE MOLEC ANAL	Medicare Non-Facility Rate	\$30.84	\$23.49	131.3%
88364		INSITU HYBRIDIZATION (FISH)	Medicare Non-Facility Rate	\$77.15	\$145.43	53.0%
88364	26	INSITU HYBRIDIZATION (FISH)	Medicare Facility/Non-Facility Rate	\$21.64	\$34.66	62.4%
88364	TC	INSITU HYBRIDIZATION (FISH)	Medicare Non-Facility Rate	\$56.11	\$110.78	50.6%
88365		INSITU HYBRIDIZATION (FISH)	Medicare Non-Facility Rate	\$93.81	\$189.52	49.5%
88365	26	INSITU HYBRIDIZATION (FISH)	Medicare Facility/Non-Facility Rate	\$38.88	\$44.06	88.2%
88365	TC	INSITU HYBRIDIZATION (FISH)	Medicare Non-Facility Rate	\$54.93	\$145.46	37.8%
88368		INSITU HYBRIDIZATION MANUAL	Medicare Non-Facility Rate	\$138.82	\$142.88	97.2%
88368	26	INSITU HYBRIDIZATION MANUAL	Medicare Facility Rate	\$56.87	\$41.62	136.6%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
88369		M/PHMTRC ALYSISHQUANT/SEMIQ	Medicare Non-Facility Rate	\$58.81	\$121.16	48.5%
88374		M/PHMTRC ALYS ISHQUANT/SEMIQ	Medicare Facility/Non-Facility Rate	\$163.33	\$345.80	47.2%
88374	26	M/PHMTRC ALYS ISHQUANT/SEMIQ	Medicare Facility/Non-Facility Rate	\$35.75	\$43.71	81.8%
88374	TC	M/PHMTRC ALYS ISHQUANT/SEMIQ	Medicare Facility/Non-Facility Rate	\$127.58	\$302.08	42.2%
88377		M/PHMTRC ALYS ISHQUANT/SEMIQ	Medicare Facility/Non-Facility Rate	\$170.60	\$428.55	39.8%
88377	26	M/PHMTRC ALYS ISHQUANT/SEMIQ	Medicare Facility/Non-Facility Rate	\$51.89	\$64.25	80.8%
88377	TC	M/PHMTRC ALYS ISHQUANT/SEMIQ	Medicare Non-Facility Rate	\$118.63	\$364.31	32.6%
88380		MICRODISSECTION LASER	Medicare Non-Facility Rate	\$134.18	\$132.95	100.9%
88381		MICRODISSECTION MANUAL	Medicare Non-Facility Rate	\$141.37	\$222.59	63.5%
88381	26	MICRODISSECTION MANUAL	Medicare Facility/Non-Facility Rate	\$35.16	\$24.06	146.1%
88381	TC	MICRODISSECTION MANUAL	Medicare Non-Facility Rate	\$105.71	\$198.53	53.2%
88720		BILIRUBIN TOTAL TRANSCUT	Medicare Non-Facility Rate	\$5.02	\$5.02	100.0%
88738		HGB QUANT TRANSCUTANEOUS	Medicare Non-Facility Rate	\$5.02	\$5.02	100.0%
89050		BODY FLUID CELL COUNT	Medicare Non-Facility Rate	\$4.72	\$4.72	100.0%
89051		BODY FLUID CELL COUNT	Medicare Facility/Non-Facility Rate	\$5.60	\$5.60	100.0%
89055		LEUKOCYTE ASSESSMENT FECAL	Medicare Non-Facility Rate	\$4.27	\$4.27	100.0%
89060		EXAM SYNOVIAL FLUID CRYSTALS	Medicare Facility/Non-Facility Rate	\$7.33	\$7.33	100.0%
89060	26	EXAM SYNOVIAL FLUID CRYSTALS	Medicare Facility Rate	\$9.62	\$18.42	52.2%
89125		SPECIMEN FAT STAIN	Medicare Non-Facility Rate	\$5.88	\$5.88	100.0%
89160		EXAM FECES FOR MEAT FIBERS	Medicare Non-Facility Rate	\$4.85	\$4.85	100.0%
89320		SEMEN ANAL VOL/COUNT/MOT	Medicare Non-Facility Rate	\$12.31	\$12.31	100.0%
89321		SEMEN ANAL SPERM DETECTION	Medicare Non-Facility Rate	\$12.05	\$12.05	100.0%
89322		SEMEN ANAL STRICT CRITERIA	Medicare Non-Facility Rate	\$15.50	\$15.50	100.0%
99000		SPECIMEN HANDLING OFFICE-LAB	Other States' Average Rate	\$3.10	\$11.78	26.3%

Appendix C3: Laboratory/Pathology Rate Ratio Results **CBIZ Optumas**

Laboratory/Pathology Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
G0416		PROSTATE BIOPSY, ANY MTHD	Medicare Non-Facility Rate	\$481.80	\$368.57	130.7%
G0416	26	PROSTATE BIOPSY, ANY MTHD	Medicare Facility/Non-Facility Rate	\$144.59	\$179.46	80.6%
G0416	TC	PROSTATE BIOPSY, ANY MTHD	Medicare Non-Facility Rate	\$337.24	\$189.11	178.3%
G0433		ELISA HIV-1/HIV-2 SCREEN	Medicare Non-Facility Rate	\$11.25	\$18.29	61.5%
G0452		MOLECULAR PATHOLOGY INTERPR	Medicare Facility Rate	\$15.31	\$49.49	30.9%
G0452	26	MOLECULAR PATHOLOGY INTERPR	Medicare Facility/Non-Facility Rate	\$15.31	\$46.32	33.1%
P9041		ALBUMIN (HUMAN),5%, 50ML	Other States' Average Rate	\$2.54	\$9.82	25.9%
P9045		ALBUMIN (HUMAN), 5%, 250 ML	Other States' Average Rate	\$9.25	\$49.11	18.8%
P9047		ALBUMIN (HUMAN), 25%, 50ML	Other States' Average Rate	\$13.95	\$49.11	28.4%
P9612		CATHETERIZE FOR URINE SPEC	Medicare Non-Facility Rate	\$3.00	\$3.00	100.0%
P9615		URINE SPECIMEN COLLECT MULT	Medicare Non-Facility Rate	\$3.00	\$3.00	100.0%
Q0091		OBTAINING SCREEN PAP SMEAR	Medicare Non-Facility Rate	\$39.87	\$45.04	88.5%
Q0111		WET MOUNTS/ W PREPARATIONS	Medicare Non-Facility Rate	\$6.07	\$15.92	38.1%
Q0112		POTASSIUM HYDROXIDE PREPS	Medicare Non-Facility Rate	\$5.83	\$5.83	100.0%
Q0114		FERN TEST	Medicare Non-Facility Rate	\$9.74	\$9.74	100.0%
S3620		NEWBORN METABOLIC SCREENING	Other States' Average Rate	\$113.78	\$74.62	152.5%

Appendix C4: Injections/Miscellaneous J-Codes Rate Ratio Results

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

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

- Procedure Code
- Modifier 1

Injections/Miscellaneous J-Codes Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
11900		INJECT SKIN LESIONS </W 7	Medicare Non-Facility Rate	\$17.80	\$59.56	29.9%
64612		DESTROY NERVE FACE MUSCLE	Medicare Non-Facility Rate	\$98.32	\$141.06	69.7%
64615		CHEMODENERV MUSC MIGRAINE	Medicare Non-Facility Rate	\$116.50	\$157.55	73.9%
67028		INJECTION EYE DRUG	Medicare Non-Facility Rate	\$165.66	\$116.21	142.6%
11901		INJECT SKIN LESIONS >7	Medicare Non-Facility Rate	\$3.56	\$73.58	4.8%
67345		DESTROY NERVE OF EYE MUSCLE	Medicare Non-Facility Rate	\$106.52	\$248.58	42.9%
67500		INJECT/TREAT EYE SOCKET	Medicare Non-Facility Rate	\$53.43	\$77.69	68.8%
67515		INJECT/TREAT EYE SOCKET	Medicare Non-Facility Rate	\$32.06	\$53.20	60.3%
68200		TREAT EYELID BY INJECTION	Medicare Non-Facility Rate	\$21.38	\$43.04	49.7%
J2805		SINCALIDE INJECTION	Other States' Average Rate	\$104.65	\$123.31	84.9%
Q9950		INJ SULF HEXA LIPID MICROSPH	Other States' Average Rate	\$34.71	\$18.77	184.9%
Q9957		INJ PERFLUTREN LIP MICROS,ML	Other States' Average Rate	\$49.38	\$46.15	107.0%

Appendix C5: 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 level. Procedure codes are duplicated to the extent that Medicare's rate break-out of facility and non-facility rates are applied.

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

- Procedure Code
- Modifier 1
- Facility/Non-Facility

Vision Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
70030	26	X-RAY EYE FOR FOREIGN BODY	Medicare Non-Facility PFS Rate	\$9.04	\$8.13	111.2%
70030	26	X-RAY EYE FOR FOREIGN BODY	Medicare Facility PFS Rate	\$8.13	\$9.04	89.9%
70030	TC	X-RAY EYE FOR FOREIGN BODY	Medicare Non-Facility PFS Rate	\$25.63	\$16.26	157.6%
70030		X-RAY EYE FOR FOREIGN BODY	Medicare Non-Facility PFS Rate	\$34.67	\$24.38	142.2%
92002		EYE EXAM NEW PATIENT	Medicare Non-Facility PFS Rate	\$89.88	\$69.75	128.9%
92002		EYE EXAM NEW PATIENT	Medicare Facility PFS Rate	\$69.75	\$47.49	146.9%
92004		EYE EXAM NEW PATIENT	Medicare Non-Facility PFS Rate	\$155.68	\$127.22	122.4%
92004		EYE EXAM NEW PATIENT	Medicare Facility PFS Rate	\$127.22	\$96.98	131.2%
92012		EYE EXAM ESTABLISH PATIENT	Medicare Non-Facility PFS Rate	\$93.08	\$73.48	126.7%
92012		EYE EXAM ESTABLISH PATIENT	Medicare Facility PFS Rate	\$73.48	\$51.77	141.9%
92014		EYE EXAM&TX ESTAB PT 1/>VST	Medicare Non-Facility PFS Rate	\$131.68	\$106.06	124.2%
92014		EYE EXAM&TX ESTAB PT 1/>VST	Medicare Facility PFS Rate	\$106.06	\$78.05	135.9%
92015		DETERMINE REFRACTIVE STATE	Other States' Non-Facility Average Rate	\$10.05	\$19.16	52.4%

Appendix C5: Vision Rate Ratio Results **CBIZ Optumas**

Vision Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
92015		DETERMINE REFRACTIVE STATE	Other States' Facility Average Rate	\$10.05	\$19.03	52.8%
92018		NEW EYE EXAM & TREATMENT	Medicare Non-Facility PFS Rate	\$140.71	\$120.39	116.9%
92018		NEW EYE EXAM & TREATMENT	Medicare Facility PFS Rate	\$120.39	\$140.71	85.6%
92019		EYE EXAM & TREATMENT	Medicare Non-Facility PFS Rate	\$72.79	\$58.49	124.4%
92019		EYE EXAM & TREATMENT	Medicare Facility PFS Rate	\$58.49	\$72.79	80.4%
92065		ORTHOPTIC/PLEOPTIC TRAINING	Medicare Non-Facility PFS Rate	\$55.38	\$62.13	89.1%
92065		ORTHOPTIC/PLEOPTIC TRAINING	Medicare Facility PFS Rate	\$62.13	\$55.38	112.2%
92071		CONTACT LENS FITTING FOR TX	Medicare Non-Facility PFS Rate	\$37.60	\$30.64	122.7%
92072		FIT CONTAC LENS FOR MANAGMNT	Medicare Non-Facility PFS Rate	\$131.62	\$97.66	134.8%
92072		FIT CONTAC LENS FOR MANAGMNT	Medicare Facility PFS Rate	\$97.66	\$97.20	100.5%
92081	26	VISUAL FIELD EXAMINATION(S)	Medicare Facility PFS Rate	\$13.98	\$16.09	86.9%
92081		VISUAL FIELD EXAMINATION(S)	Medicare Non-Facility PFS Rate	\$34.47	\$26.89	128.2%
92082	26	VISUAL FIELD EXAMINATION(S)	Medicare Facility PFS Rate	\$19.60	\$21.01	93.3%
92082		VISUAL FIELD EXAMINATION(S)	Medicare Non-Facility PFS Rate	\$48.45	\$42.56	113.8%
92083	26	VISUAL FIELD EXAMINATION(S)	Medicare Non-Facility PFS Rate	\$27.37	\$24.37	112.3%
92083	26	VISUAL FIELD EXAMINATION(S)	Medicare Facility PFS Rate	\$24.37	\$27.37	89.0%
92083	TC	VISUAL FIELD EXAMINATION(S)	Medicare Non-Facility PFS Rate	\$38.31	\$14.35	267.0%
92083		VISUAL FIELD EXAMINATION(S)	Medicare Non-Facility PFS Rate	\$65.68	\$42.70	153.8%
92310		CONTACT LENS FITTING	Other States' Non-Facility Average Rate	\$143.51	\$95.44	150.4%
92310		CONTACT LENS FITTING	Other States' Facility Average Rate	\$143.51	\$57.33	250.3%
92311		CONTACT LENS FITTING	Medicare Non-Facility PFS Rate	\$111.50	\$82.06	135.9%
92311		CONTACT LENS FITTING	Medicare Facility PFS Rate	\$82.06	\$53.52	153.3%
92312		CONTACT LENS FITTING	Medicare Non-Facility PFS Rate	\$129.33	\$93.24	138.7%
92313		CONTACT LENS FITTING	Medicare Non-Facility PFS Rate	\$105.69	\$79.01	133.8%

Appendix C5: Vision Rate Ratio Results **CBIZ Optumas**

Vision Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
92314		PRESCRIPTION OF CONTACT LENS	Other States' Non-Facility Average Rate	\$94.72	\$80.48	117.7%
92325		MODIFICATION OF CONTACT LENS	Medicare Non-Facility PFS Rate	\$49.18	\$13.50	364.3%
92326		REPLACEMENT OF CONTACT LENS	Medicare Non-Facility PFS Rate	\$41.93	\$24.66	170.0%
92340		FIT SPECTACLES MONOFOCAL	Other States' Non-Facility Average Rate	\$17.23	\$33.21	51.9%
92341		FIT SPECTACLES BIFOCAL	Other States' Non-Facility Average Rate	\$21.27	\$37.91	56.1%
92341		FIT SPECTACLES BIFOCAL	Other States' Facility Average Rate	\$21.27	\$23.11	92.0%
92342		FIT SPECTACLES MULTIFOCAL	Other States' Non-Facility Average Rate	\$24.13	\$40.71	59.3%
92354		FIT SPECTACLES SINGLE SYSTEM	Other States' Non-Facility Average Rate	\$25.25	\$13.18	191.6%
92370		REPAIR & ADJUST SPECTACLES	Other States' Non-Facility Average Rate	\$14.35	\$23.43	61.2%
V2020		VISION SVCS FRAMES PURCHASES	Medicare DME Non-Rural Rate	\$36.56	\$77.21	47.4%
V2025		EYEGLASSES DELUX FRAMES	Other States' Non-Facility Average Rate	\$124.22	\$74.23	167.3%
V2100		LENS SPHER SINGLE PLANO 4.00	Medicare DME Non-Rural Rate	\$23.85	\$54.89	43.5%
V2101		SINGLE VISN SPHERE 4.12-7.00	Medicare DME Non-Rural Rate	\$23.85	\$57.84	41.2%
V2102		SINGL VISN SPHERE 7.12-20.00	Medicare DME Non-Rural Rate	\$23.85	\$81.36	29.3%
V2103		SPHEROCYLINDR 4.00D/12-2.00D	Medicare DME Non-Rural Rate	\$23.85	\$44.24	53.9%
V2104		SPHEROCYLINDR 4.00D/2.12-4D	Medicare DME Non-Rural Rate	\$30.02	\$50.44	59.5%
V2105		SPHEROCYLINDER 4.00D/4.25-6D	Medicare DME Non-Rural Rate	\$37.84	\$43.10	87.8%
V2106		SPHEROCYLINDER 4.00D/>6.00D	Medicare DME Non-Rural Rate	\$42.05	\$47.83	87.9%
V2107		SPHEROCYLINDER 4.25D/12-2D	Medicare DME Non-Rural Rate	\$30.02	\$49.06	61.2%
V2108		SPHEROCYLINDER 4.25D/2.12-4D	Medicare DME Non-Rural Rate	\$36.25	\$59.70	60.7%
V2109		SPHEROCYLINDER 4.25D/4.25-6D	Medicare DME Non-Rural Rate	\$42.08	\$52.11	80.8%
V2110		SPHEROCYLINDER 4.25D/OVER 6D	Medicare DME Non-Rural Rate	\$48.20	\$51.42	93.7%
V2111		SPHEROCYLINDR 7.25D/.25-2.25	Medicare DME Non-Rural Rate	\$36.25	\$53.60	67.6%
V2112		SPHEROCYLINDR 7.25D/2.25-4D	Medicare DME Non-Rural Rate	\$42.05	\$58.52	71.9%

Appendix C5: Vision Rate Ratio Results **CBIZ Optumas**

Vision Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
V2113		SPHEROCYLINDR 7.25D/4.25-6D	Medicare DME Non-Rural Rate	\$48.20	\$66.84	72.1%
V2114		SPHEROCYLINDER OVER 12.00D	Medicare DME Non-Rural Rate	\$54.44	\$87.71	62.1%
V2115		LENS LENTICULAR BIFOCAL	Medicare DME Non-Rural Rate	\$74.78	\$92.68	80.7%
V2118		LENS ANISEIKONIC SINGLE	Medicare DME Non-Rural Rate	\$64.68	\$77.07	83.9%
V2121		LENTICULAR LENS, SINGLE	Medicare DME Non-Rural Rate	\$66.51	\$82.23	80.9%
V2200		LENS SPHER BIFOC PLANO 4.00D	Medicare DME Non-Rural Rate	\$30.17	\$57.74	52.3%
V2201		LENS SPHERE BIFOCAL 4.12-7.0	Medicare DME Non-Rural Rate	\$30.17	\$67.73	44.5%
V2202		LENS SPHERE BIFOCAL 7.12-20.	Medicare DME Non-Rural Rate	\$30.17	\$89.56	33.7%
V2203		LENS SPHCYL BIFOCAL 4.00D/.1	Medicare DME Non-Rural Rate	\$30.17	\$57.64	52.3%
V2204		LENS SPHCY BIFOCAL 4.00D/2.1	Medicare DME Non-Rural Rate	\$34.34	\$59.90	57.3%
V2205		LENS SPHCY BIFOCAL 4.00D/4.2	Medicare DME Non-Rural Rate	\$38.51	\$69.80	55.2%
V2206		LENS SPHCY BIFOCAL 4.00D/OVE	Medicare DME Non-Rural Rate	\$42.39	\$66.01	64.2%
V2207		LENS SPHCY BIFOCAL 4.25-7D/.	Medicare DME Non-Rural Rate	\$34.34	\$67.27	51.0%
V2208		LENS SPHCY BIFOCAL 4.25-7/2.	Medicare DME Non-Rural Rate	\$38.51	\$72.36	53.2%
V2209		LENS SPHCY BIFOCAL 4.25-7/4.	Medicare DME Non-Rural Rate	\$42.39	\$73.32	57.8%
V2210		LENS SPHCY BIFOCAL 4.25-7/OV	Medicare DME Non-Rural Rate	\$46.56	\$78.18	59.6%
V2211		LENS SPHCY BIFO 7.25-12/.25-	Medicare DME Non-Rural Rate	\$38.51	\$103.49	37.2%
V2212		LENS SPHCYL BIFO 7.25-12/2.2	Medicare DME Non-Rural Rate	\$42.39	\$106.86	39.7%
V2213		LENS SPHCYL BIFO 7.25-12/4.2	Medicare DME Non-Rural Rate	\$46.56	\$107.95	43.1%
V2214		LENS SPHCYL BIFOCAL OVER 12.	Medicare DME Non-Rural Rate	\$50.71	\$102.60	49.4%
V2215		LENS LENTICULAR BIFOCAL	Medicare DME Non-Rural Rate	\$76.72	\$91.39	83.9%
V2218		LENS ANISEIKONIC BIFOCAL	Medicare DME Non-Rural Rate	\$89.23	\$106.31	83.9%
V2219		LENS BIFOCAL SEG WIDTH OVER	Medicare DME Non-Rural Rate	\$52.36	\$62.39	83.9%
V2220		LENS BIFOCAL ADD OVER 3.25D	Medicare DME Non-Rural Rate	\$32.93	\$39.25	83.9%

Appendix C5: Vision Rate Ratio Results

Vision Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
V2221		LENTICULAR LENS, BIFOCAL	Medicare DME Non-Rural Rate	\$81.24	\$95.75	84.8%
V2300		LENS SPHERE TRIFOCAL 4.00D	Medicare DME Non-Rural Rate	\$37.90	\$75.96	49.9%
V2301		LENS SPHERE TRIFOCAL 4.12-7.	Medicare DME Non-Rural Rate	\$43.97	\$80.85	54.4%
V2303		LENS SPHCY TRIFOCAL 4.0/.12-	Medicare DME Non-Rural Rate	\$42.06	\$72.32	58.2%
V2304		LENS SPHCY TRIFOCAL 4.0/2.25	Medicare DME Non-Rural Rate	\$44.62	\$77.54	57.5%
V2305		LENS SPHCY TRIFOCAL 4.0/4.25	Medicare DME Non-Rural Rate	\$48.79	\$86.64	56.3%
V2307		LENS SPHCY TRIFOCAL 4.25-7/.	Medicare DME Non-Rural Rate	\$48.18	\$82.58	58.3%
V2308		LENS SPHC TRIFOCAL 4.25-7/2.	Medicare DME Non-Rural Rate	\$52.94	\$85.98	61.6%
V2311		LENS SPHC TRIFO 7.25-12/.25-	Medicare DME Non-Rural Rate	\$52.94	\$93.64	56.5%
V2312		LENS SPHC TRIFO 7.25-12/2.25	Medicare DME Non-Rural Rate	\$56.17	\$94.18	59.6%
V2410		LENS VARIAB ASPHERICITY SING	Medicare DME Non-Rural Rate	\$74.78	\$125.65	59.5%
V2430		LENS VARIABLE ASPHERICITY BI	Medicare DME Non-Rural Rate	\$81.24	\$129.22	62.9%
V2500		CONTACT LENS PMMA SPHERICAL	Medicare DME Non-Rural Rate	\$40.92	\$90.36	45.3%
V2501		CNTCT LENS PMMA-TORIC/PRISM	Medicare DME Non-Rural Rate	\$81.78	\$159.01	51.4%
V2510		CNTCT GAS PERMEABLE SPHERICL	Medicare DME Non-Rural Rate	\$40.92	\$130.18	31.4%
V2511		CNTCT TORIC PRISM BALLAST	Medicare DME Non-Rural Rate	\$140.62	\$167.55	83.9%
V2513		CONTACT LENS EXTENDED WEAR	Medicare DME Non-Rural Rate	\$81.78	\$166.21	49.2%
V2520		CONTACT LENS HYDROPHILIC	Medicare DME Non-Rural Rate	\$40.92	\$109.60	37.3%
V2521		CNTCT LENS HYDROPHILIC TORIC	Medicare DME Non-Rural Rate	\$81.78	\$212.24	38.5%
V2522		CNTCT LENS HYDROPHIL BIFOCL	Medicare DME Non-Rural Rate	\$81.78	\$185.71	44.0%
V2523		CNTCT LENS HYDROPHIL EXTEND	Medicare DME Non-Rural Rate	\$132.84	\$158.26	83.9%
V2530		CONTACT LENS GAS IMPERMEABLE	Medicare DME Non-Rural Rate	\$214.12	\$255.10	83.9%
V2531		CONTACT LENS GAS PERMEABLE	Medicare DME Non-Rural Rate	\$347.32	\$576.82	60.2%
V2700		BALANCE LENS	Medicare DME Non-Rural Rate	\$27.23	\$54.29	50.2%

Vision Rate Ratio Results						
Procedure Code	Modifier	Procedure Description	Benchmark Source	Colorado Rate	Benchmark Rate	Rate Ratio
V2710		GLASS/PLASTIC SLAB OFF PRISM	Medicare DME Non-Rural Rate	\$29.60	\$81.25	36.4%
V2715		PRISM LENS/ES	Medicare DME Non-Rural Rate	\$9.62	\$12.22	78.7%
V2718		FRESNELL PRISM PRESS-ON LENS	Medicare DME Non-Rural Rate	\$9.62	\$30.01	32.1%
V2744		TINT PHOTOCHROMATIC LENS/ES	Medicare DME Non-Rural Rate	\$5.36	\$17.24	31.1%
V2745		TINT, ANY COLOR/SOLID/GRAD	Medicare DME Non-Rural Rate	\$5.36	\$11.04	48.6%
V2750		ANTI-REFLECTIVE COATING	Medicare DME Non-Rural Rate	\$12.08	\$20.06	60.2%
V2755		UV LENS/ES	Medicare DME Non-Rural Rate	\$15.76	\$18.45	85.4%
V2780		OVERSIZE LENS/ES	Medicare DME Non-Rural Rate	\$11.06	\$13.17	84.0%
V2781		PROGRESSIVE LENS PER LENS	Other States' Non-Facility Average Rate	\$62.34	\$67.41	92.5%
V2784		LENS POLYCARB OR EQUAL	Medicare DME Non-Rural Rate	\$7.18	\$50.47	14.2%



COLORADO

Department of Health Care
Policy & Financing

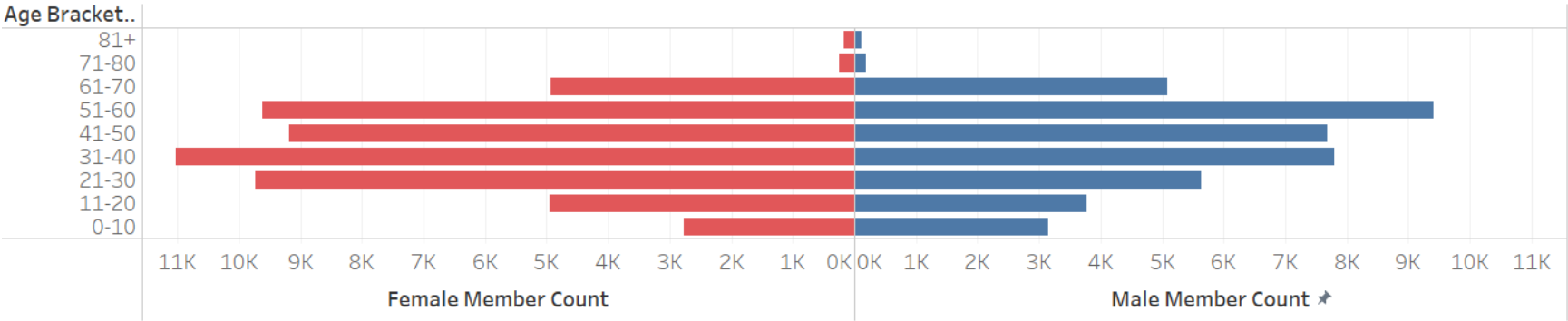
2022 Medicaid Provider Rate Review Analysis Report

Appendix D – Data Workbook:

- **Updated Population Pyramids – CY 2020**
- **Summary Statistics – CY 2020**
- **Top 10 Codes – CY 2020**
- **Distinct Utilizers over Time**
- **Active Providers over Time**
- **Population Age and Gender – CY 2020**
- **Rate Comparison Visuals – 2020**

Physician Services – Cardiology

Population Pyramid (CY 2020)

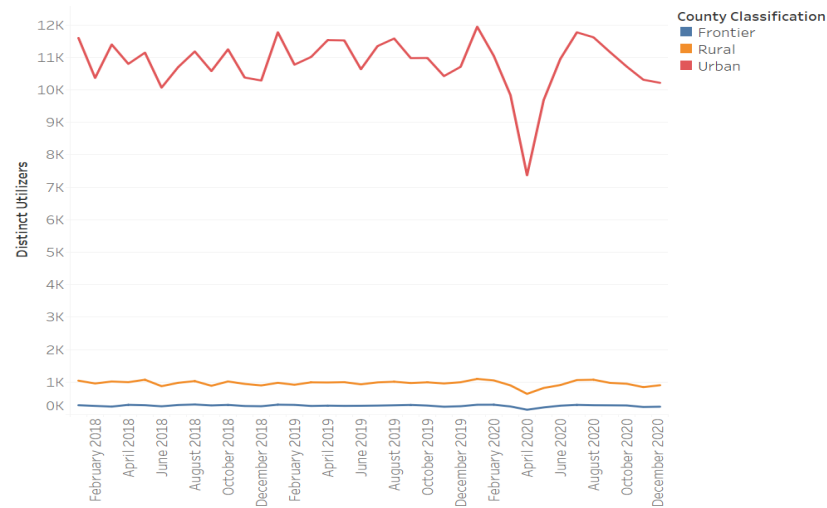


Metric	CY20
Total Paid Dollars	\$15,476,617
Distinct Utilizers	94,372
Distinct Billing Providers	903
Distinct Rendering Providers	4,382

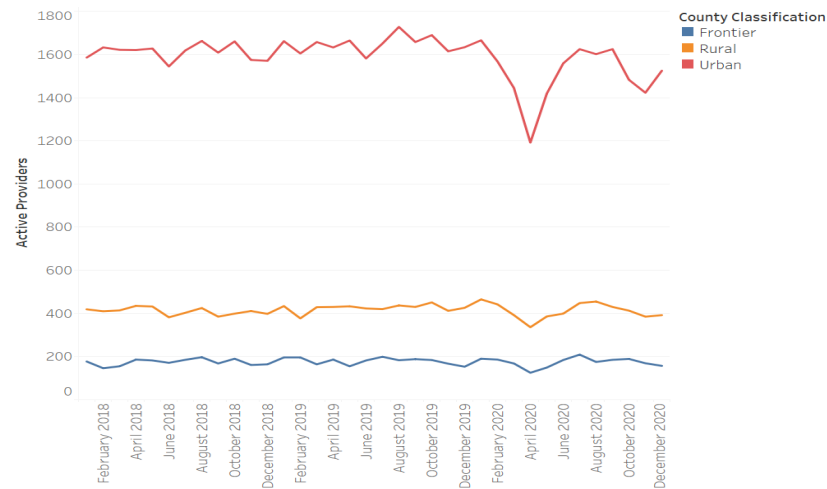
Unique Procedure Codes	% of Total Service Paid
145	57.7%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
93306	TTE W/DOPPLER COMPLETE	26				18,353	40,901	\$2,188,850
93010	ELECTROCARDIOGRAM REPORT					67,698	232,111	\$1,962,256
93306	TTE W/DOPPLER COMPLETE					2,990	6,136	\$1,204,746
93229	REMOTE 30 DAY ECG TECH SUPP					645	1,583	\$852,369
93000	ELECTROCARDIOGRAM COMPLETE					15,694	36,678	\$776,881
93458	L HRT ARTERY/VENTRICLE ANGIO	26				703	2,836	\$690,247
93303	ECHO TRANSTHORACIC	26				2,024	6,894	\$421,019
93303	ECHO TRANSTHORACIC					808	1,997	\$328,280
93325	DOPPLER COLOR FLOW ADD-ON					1,666	3,713	\$258,698
93308	TTE F-UP OR LMTD	26				3,652	8,763	\$240,651

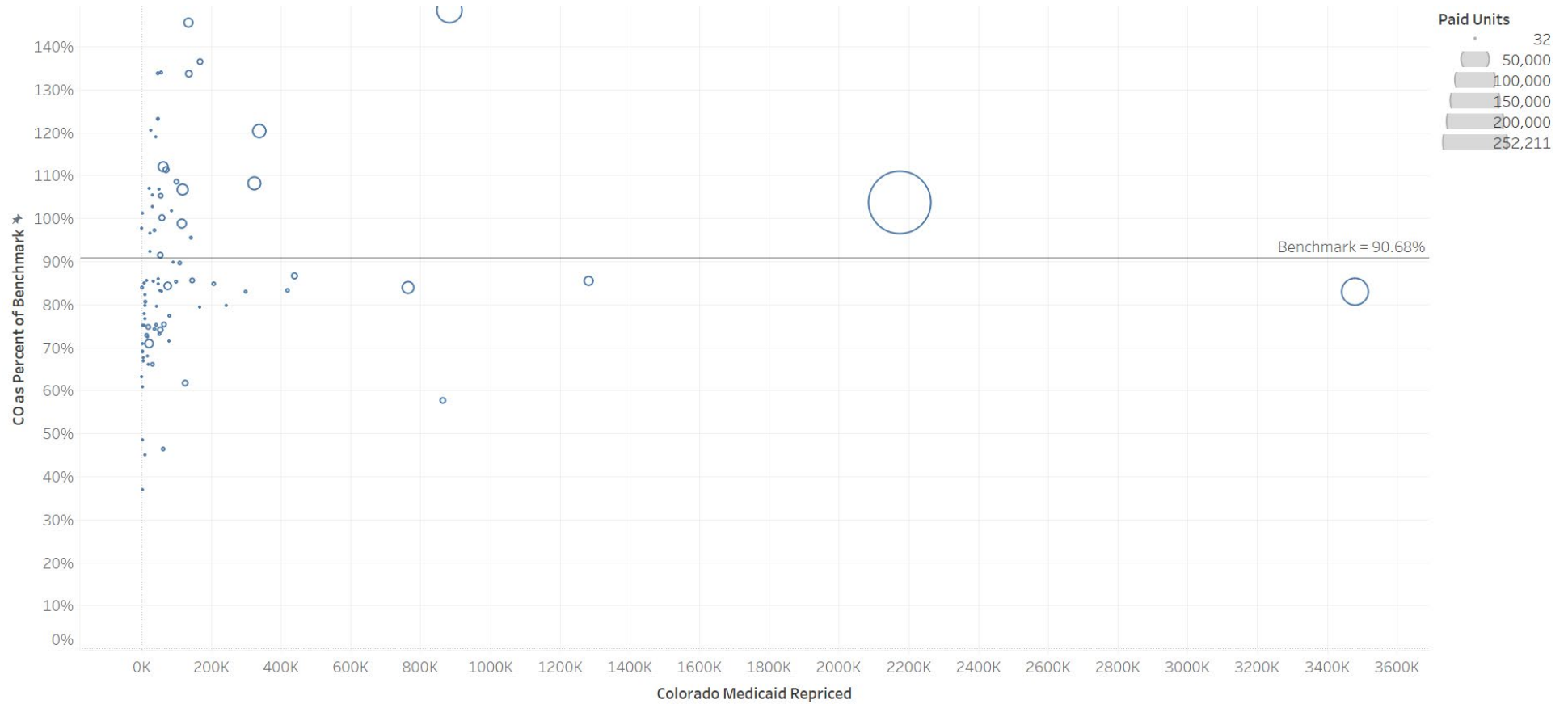
Cardiology – Distinct Utilizers Over Time



Cardiology – Active Providers Over Time

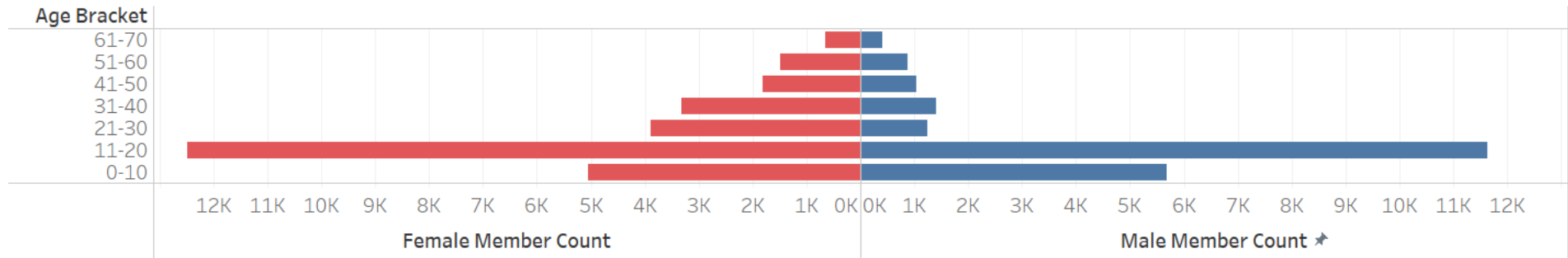


Cardiology – Rate Comparison Scatterplot (CY 2020)



Physician Services – Cognitive Capabilities Assessment (CCA)

Population Pyramid (CY 2020)

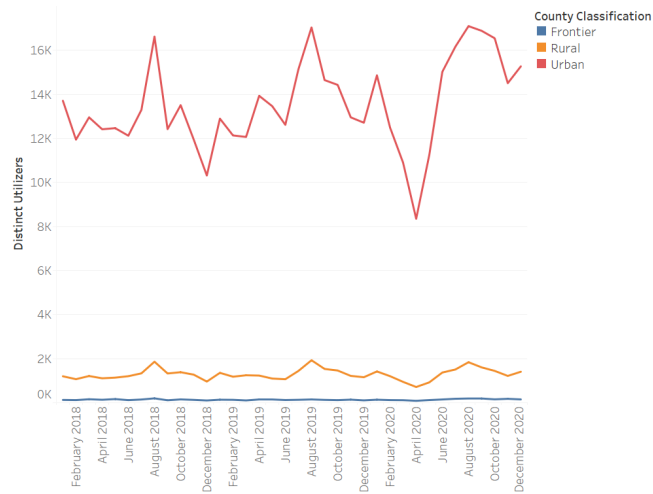


Metric	CY20
Total Paid Dollars	\$7,825,312
Distinct Utilizers	123,332
Distinct Billing Providers	591
Distinct Rendering Providers	2,155

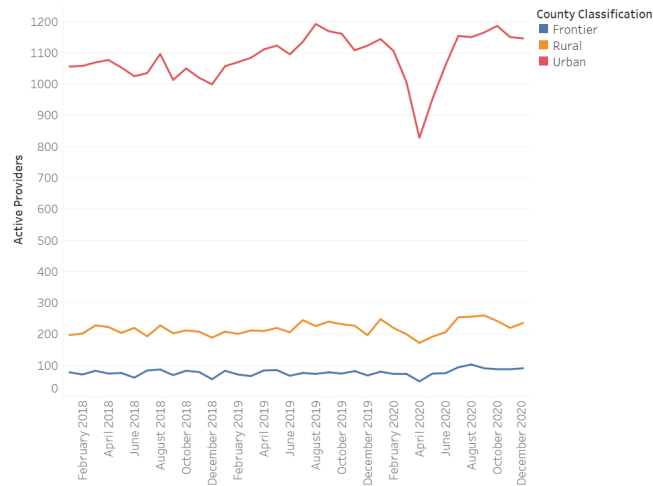
Unique Procedure Codes	% of Total Service Paid
14	71.5%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
96133	NRPSYC TST EVAL PHYS/QHP EA	HE				1,477	8,573	\$810,329
96137	PSYCL/NRPSYC TST PHY/QHP EA	HE				1,417	16,342	\$737,108
96133	NRPSYC TST EVAL PHYS/QHP EA					1,564	6,823	\$655,288
96137	PSYCL/NRPSYC TST PHY/QHP EA					1,579	11,854	\$540,504
96127	BRIEF EMOTIONAL/BEHAV ASSMT					29,376	42,079	\$531,668
96110	DEVELOPMENTAL SCREEN W/SCORE	EP				19,592	28,840	\$522,688
96132	NRPSYC TST EVAL PHYS/QHP 1ST	HE				1,486	4,155	\$498,005
96110	DEVELOPMENTAL SCREEN W/SCORE					29,120	44,406	\$481,821
G8510	SCR DEP NEG, NO PLAN REQD					33,425	41,594	\$450,726
G8431	POS CLIN DEPRES SCR N F/U DOC					11,071	13,255	\$366,357

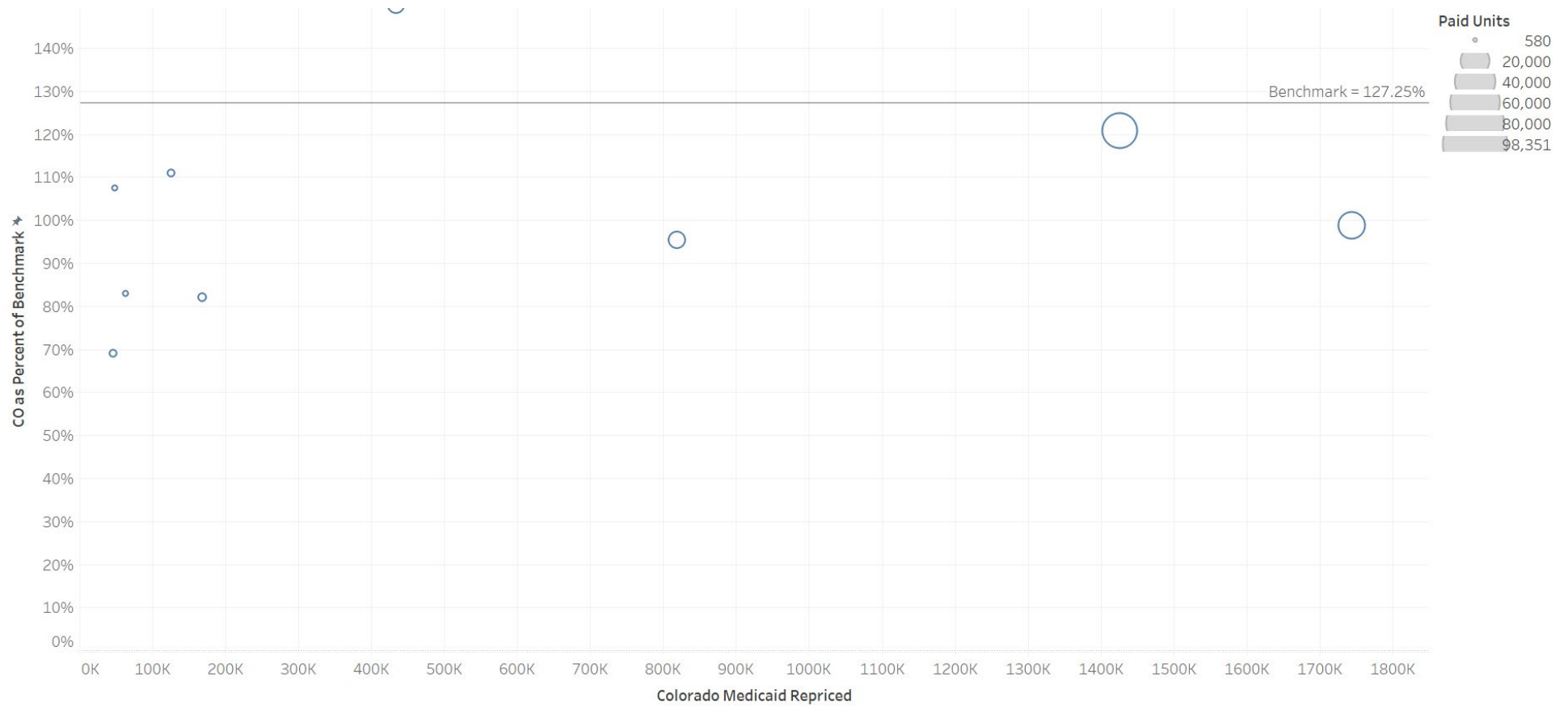
Cognitive Capabilities – Distinct Utilizers Over Time



Cognitive Capabilities – Active Providers Over Time

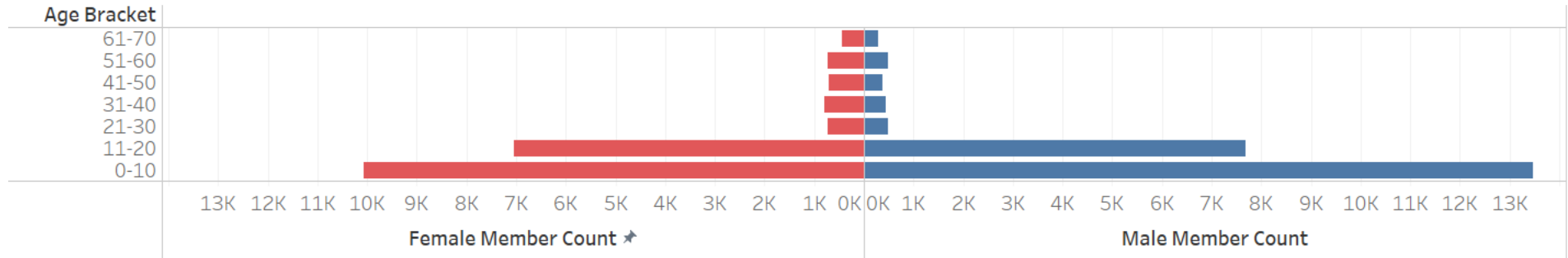


Cognitive Capabilities – Rate Comparison Scatterplot (CY 2020)



Physician Services – Ear, Nose, and Throat (ENT)

Population Pyramid (CY 2020)

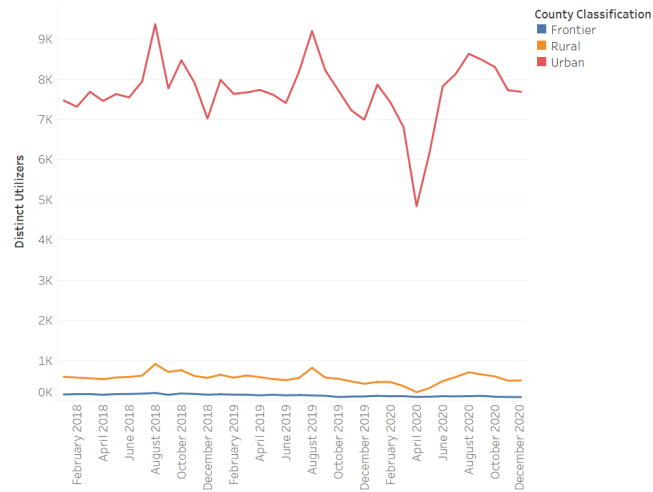


Metric	CY20
Total Paid Dollars	\$19,553,197
Distinct Utilizers	43,458
Distinct Billing Providers	522
Distinct Rendering Providers	1,553

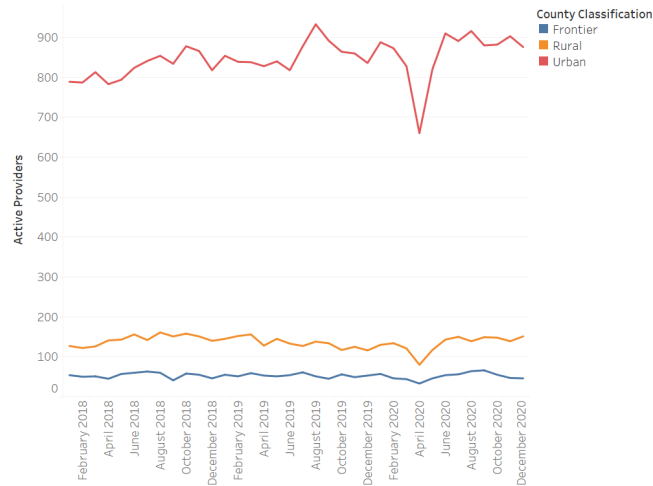
Unique Procedure Codes	% of Total Service Paid
63	65.3%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
92507	SPEECH/HEARING THERAPY	GN	96			3,967	82,122	\$4,961,318
92507	SPEECH/HEARING THERAPY	GN	97			1,852	28,703	\$1,746,017
92507	SPEECH/HEARING THERAPY	GN	96	GT		1,390	22,259	\$1,428,503
92507	SPEECH/HEARING THERAPY	GN	96	59		1,479	16,826	\$1,020,401
92507	SPEECH/HEARING THERAPY	GN	GT	97		1,041	12,215	\$805,969
92609	USE OF SPEECH DEVICE SERVICE	GN	96	59		313	8,153	\$631,624
92609	USE OF SPEECH DEVICE SERVICE	GN	96			346	8,042	\$587,526
92507	SPEECH/HEARING THERAPY	GN	TL			1,137	8,999	\$554,450
92523	SPEECH SOUND LANG COMPREHEN	GN	96			2,244	3,566	\$539,978
92507	SPEECH/HEARING THERAPY	GN	TL	GT		771	7,284	\$484,481

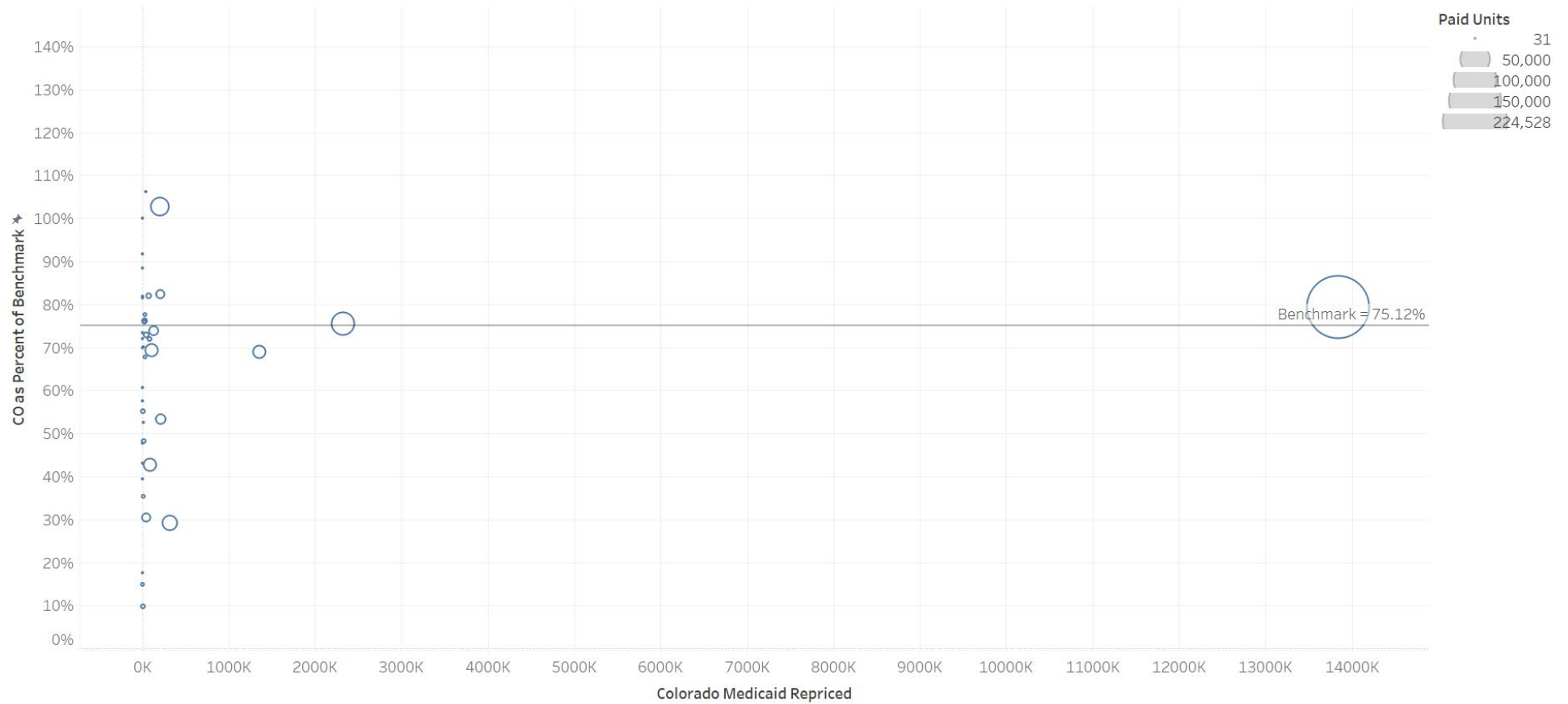
ENT – Distinct Utilizers Over Time



ENT – Active Providers Over Time

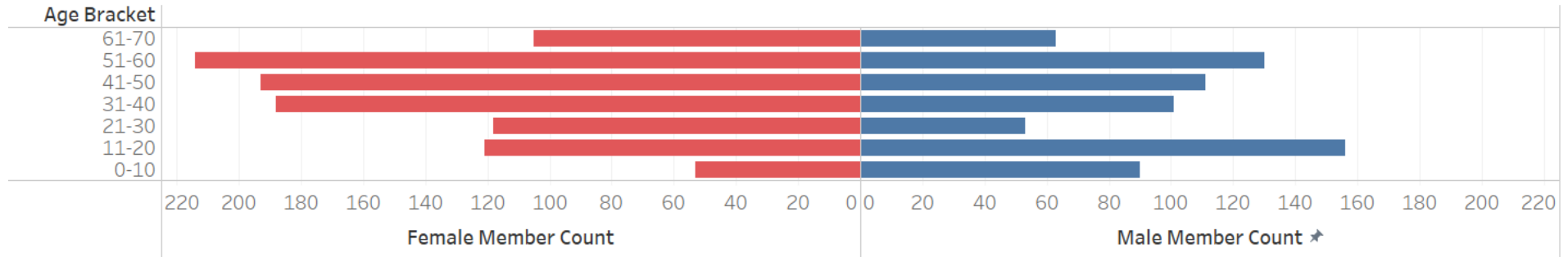


ENT – Rate Comparison Scatterplot (CY 2020)



Physician Services – Gastroenterology

Population Pyramid (CY 2020)

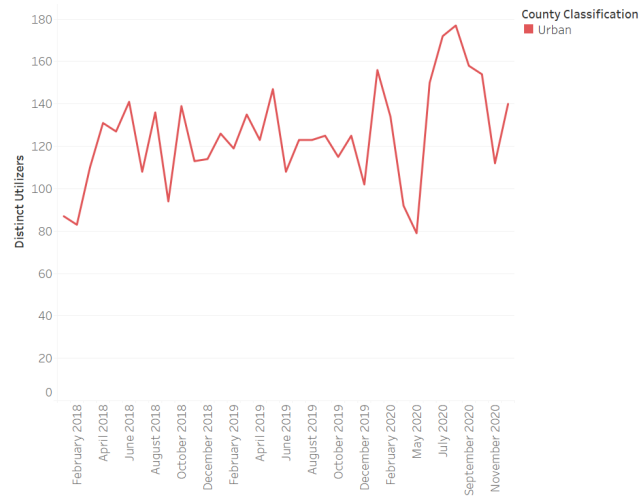


Metric	CY20
Total Paid Dollars	\$166,710
Distinct Utilizers	1,696
Distinct Billing Providers	43
Distinct Rendering Providers	165

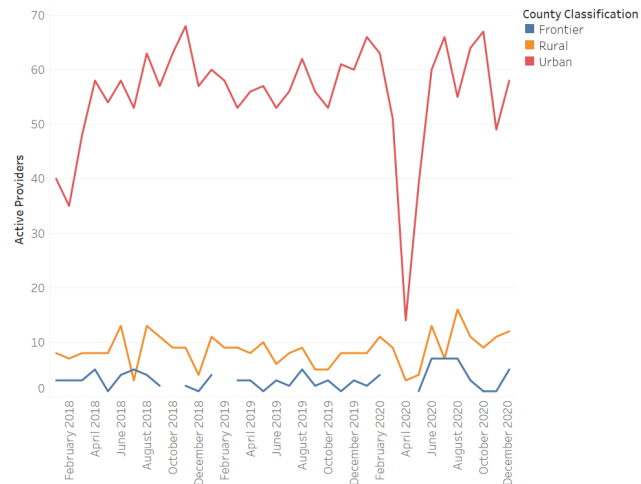
Unique Procedure Codes	% of Total Service Paid
14	77.8%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
91110	GI TRACT CAPSULE ENDOSCOPY					85	88	\$54,820
91112	GI WIRELESS CAPSULE MEASURE					PHI		\$16,295
91120	RECTAL SENSATION TEST					40	41	\$13,380
91110	GI TRACT CAPSULE ENDOSCOPY	GA				PHI		\$8,722
91110	GI TRACT CAPSULE ENDOSCOPY	26				64	65	\$7,960
91200	LIVER ELASTOGRAPHY					299	301	\$7,695
91035	G-ESOPH REFLX TST W/ELECTROD					PHI		\$6,104
91299	GASTROENTEROLOGY PROCEDURE	26				36	36	\$5,286
91038	ESOPH IMPED FUNCT TEST > 1HR	26				122	124	\$5,158
91037	ESOPH IMPED FUNCTION TEST					39	39	\$4,219

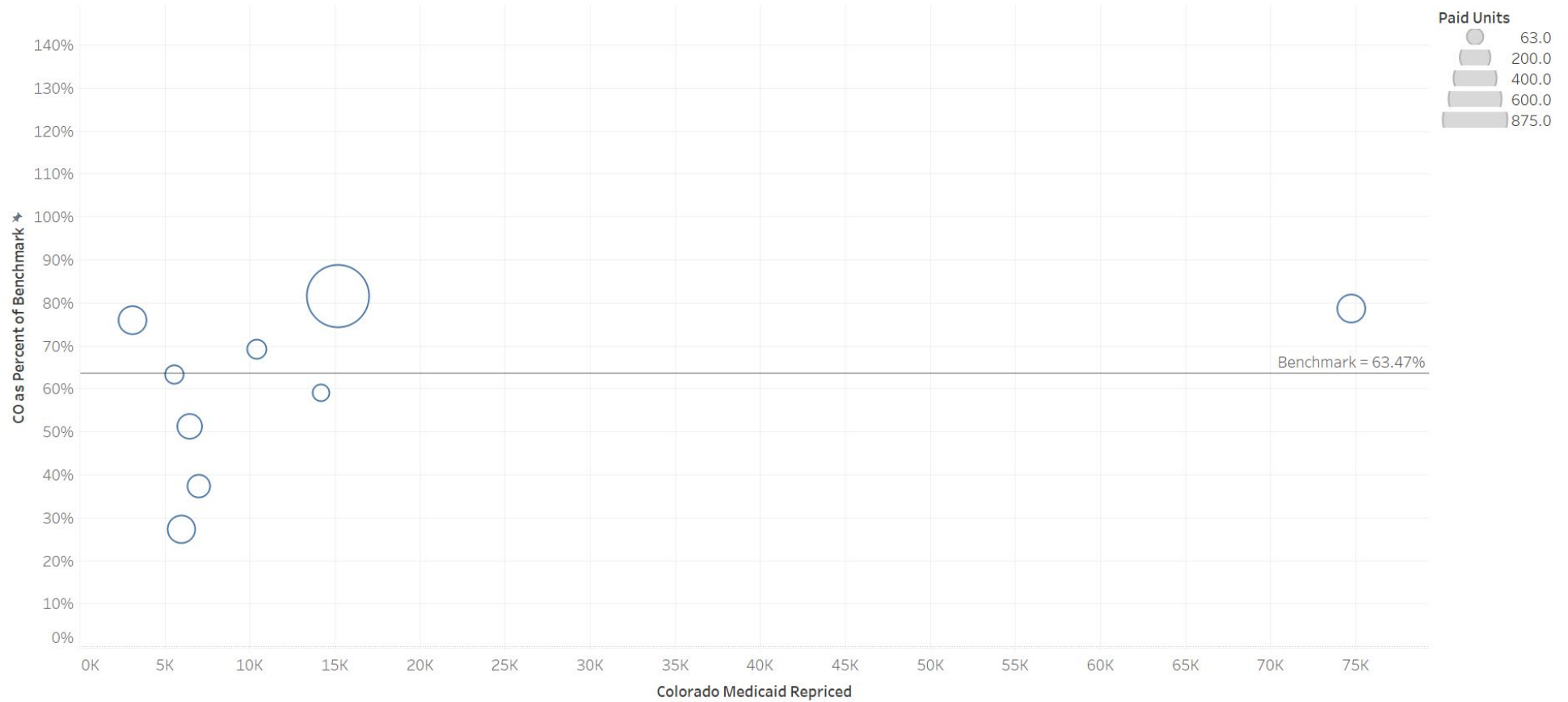
Gastroenterology – Distinct Utilizers Over Time



Gastroenterology – Active Providers Over Time

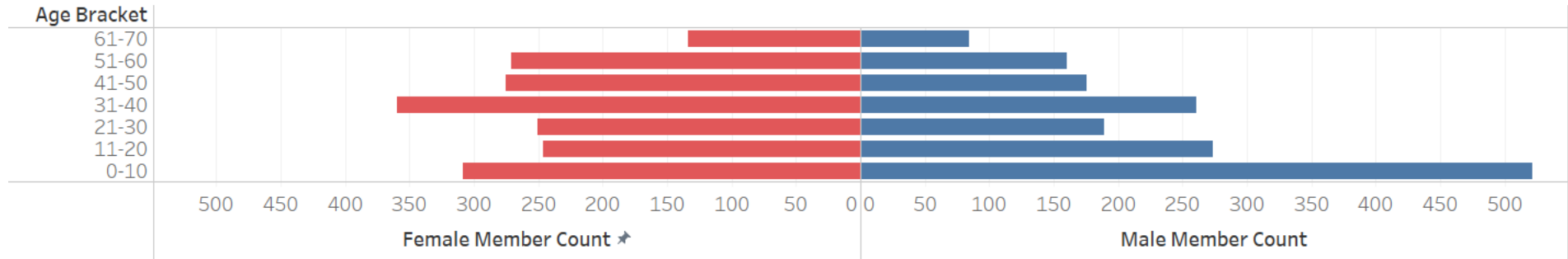


Gastroenterology – Rate Comparison Scatterplot (CY 2020)



Physician Services – Health Education Services

Population Pyramid (CY 2020)

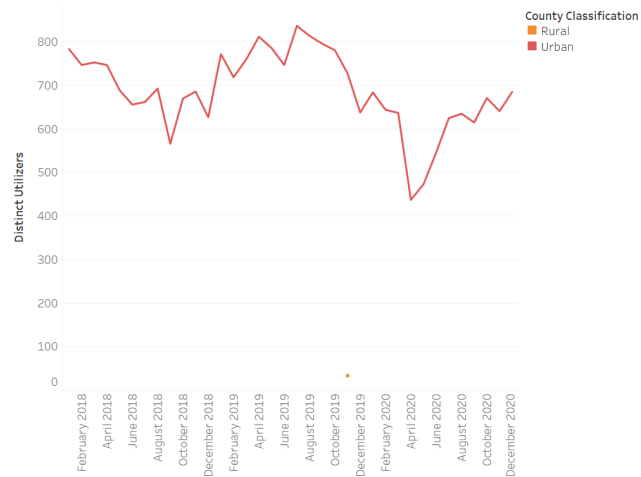


Metric	CY20
Total Paid Dollars	\$667,510
Distinct Utilizers	3,486
Distinct Billing Providers	240
Distinct Rendering Providers	539

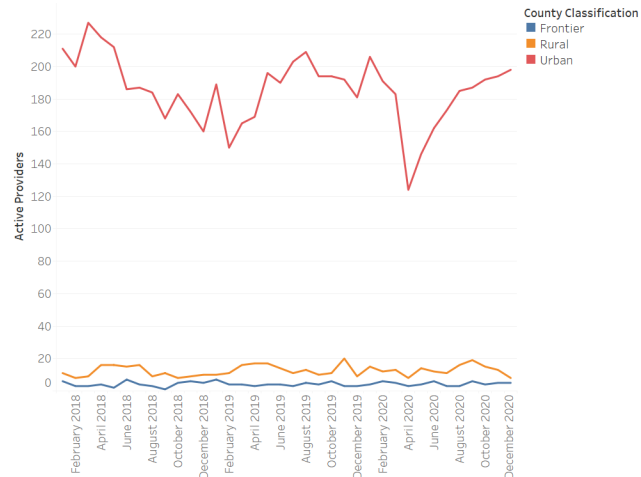
Unique Procedure Codes	% of Total Service Paid
11	81.0%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
92065	ORTHOPTIC/PLEOPTIC TRAINING					195	2,505	\$152,578
97535	SELF CARE MNGMENT TRAINING	GO	96			280	6,975	\$120,257
97535	SELF CARE MNGMENT TRAINING	GO	GT	96		116	5,461	\$94,461
97535	SELF CARE MNGMENT TRAINING	GO	96	59		272	4,098	\$69,471
97535	SELF CARE MNGMENT TRAINING	GP				965	1,484	\$25,658
99409	AUDIT/DAST OVER 30 MIN	59				305	389	\$25,555
97535	SELF CARE MNGMENT TRAINING	59	GO	96		93	1,195	\$20,626
97535	SELF CARE MNGMENT TRAINING	GO	96	GT	59	38	820	\$12,777
97535	SELF CARE MNGMENT TRAINING	GO				154	581	\$9,941
97535	SELF CARE MNGMENT TRAINING	GO	TL	GT	59	38	547	\$9,337

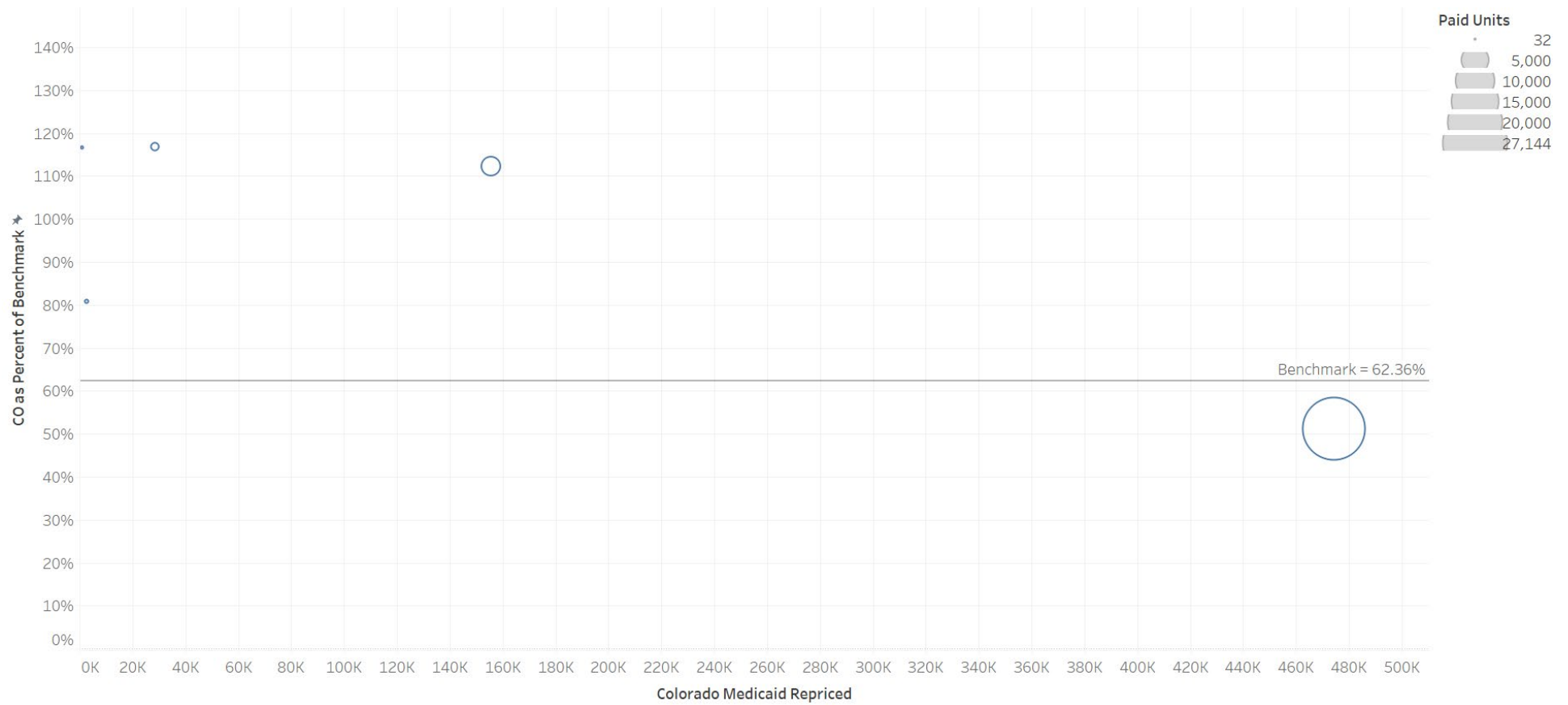
Health Education – Distinct Utilizers Over Time



Health Education – Active Providers Over Time

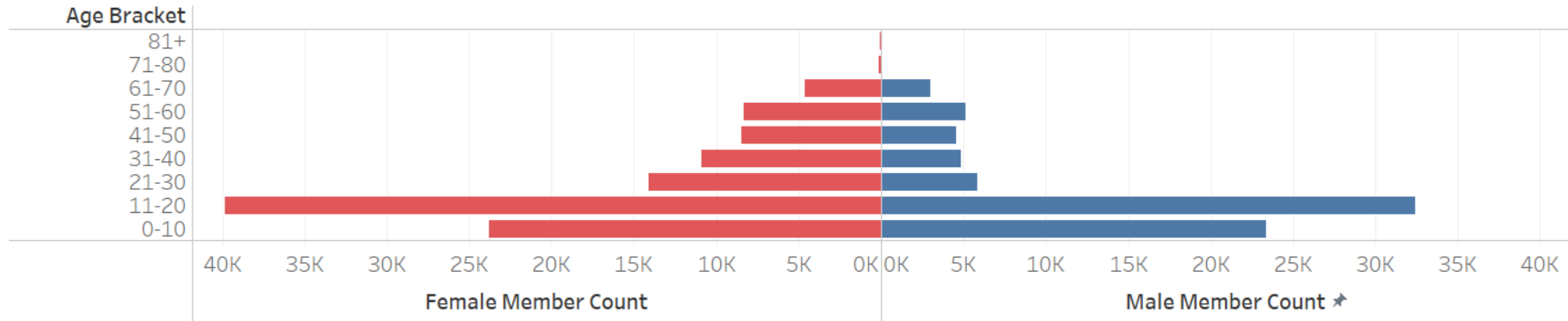


Health Education – Rate Comparison Scatterplot (CY 2020)



Physician Services – Ophthalmology

Population Pyramid (CY 2020)

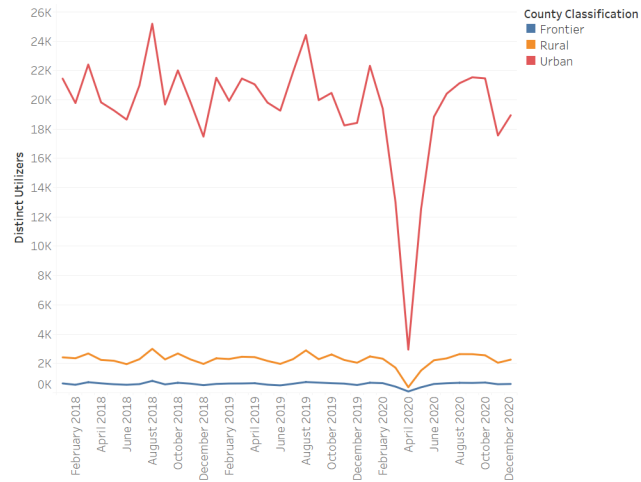


Metric	CY20
Total Paid Dollars	\$25,022,837
Distinct Utilizers	188,243
Distinct Billing Providers	529
Distinct Rendering Providers	1,119

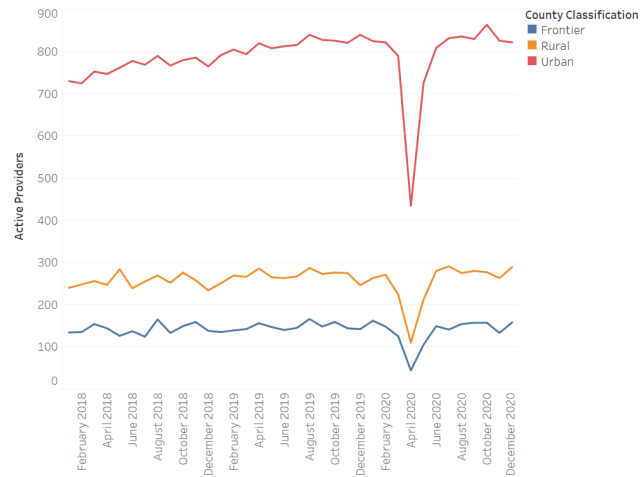
Unique Procedure Codes	% of Total Service Paid
50	93.6%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
92014	EYE EXAM&TX ESTAB PT 1/>VST					96,185	100,258	\$10,240,369
92004	EYE EXAM NEW PATIENT					68,968	70,281	\$8,408,783
92340	FIT SPECTACLES MONOFOCAL					76,857	119,251	\$2,006,924
92012	EYE EXAM ESTABLISH PATIENT					8,105	11,779	\$836,529
92250	EYE EXAM WITH PHOTOS					13,028	14,592	\$827,105
92134	CPTR OPTH DX IMG POST SEGMENT					6,244	9,972	\$350,718
92060	SPECIAL EYE EVALUATION					2,879	4,669	\$251,059
92310	CONTACT LENS FITTING					2,095	2,174	\$192,015
92340	FIT SPECTACLES MONOFOCAL	LT	RT			2,730	9,211	\$155,686
92065	ORTHOPTIC/PLEOPTIC TRAINING					195	2,505	\$152,578

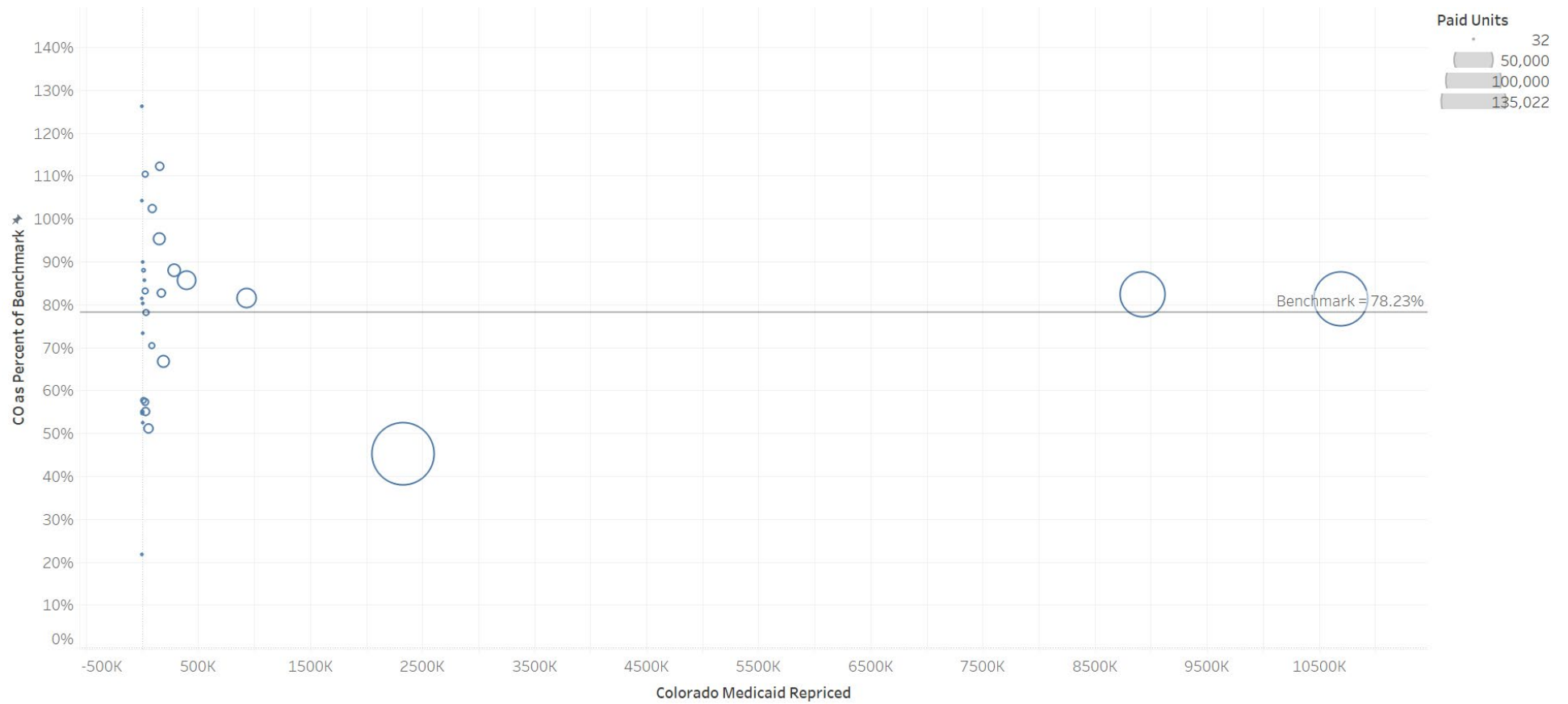
Ophthalmology – Distinct Utilizers Over Time



Ophthalmology – Active Providers Over Time

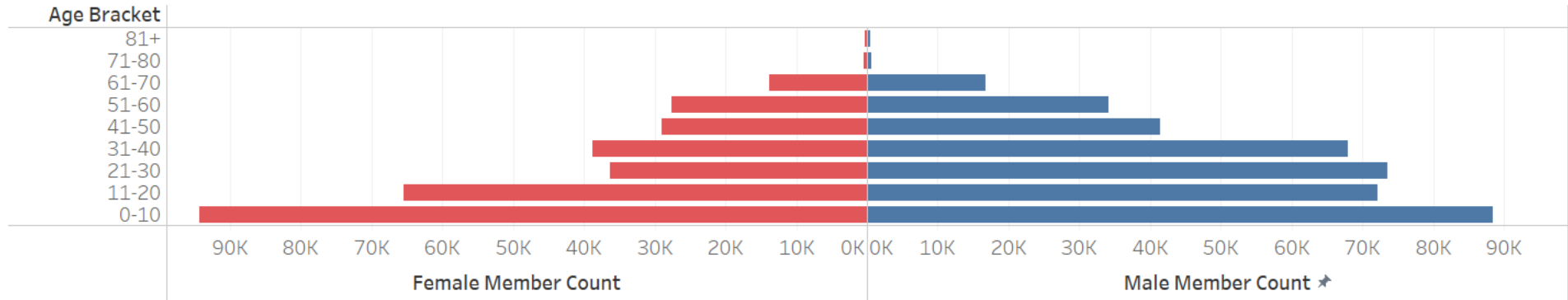


Ophthalmology – Rate Comparison Scatterplot (CY 2020)



Physician Services – Primary Care/E&M

Population Pyramid (CY 2020)

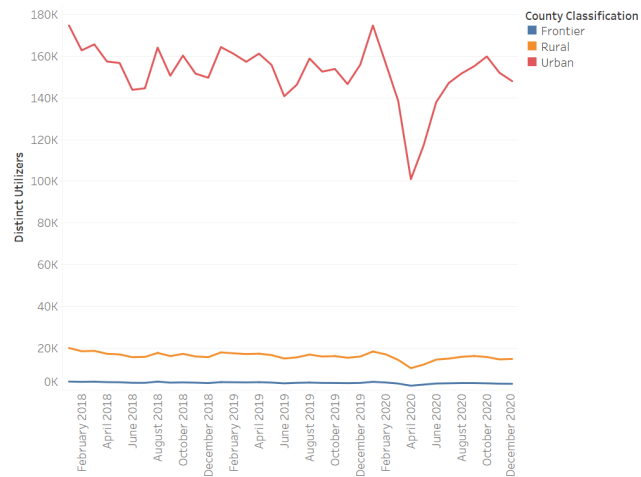


Metric	CY20
Total Paid Dollars	\$342,332,923
Distinct Utilizers	681,554
Distinct Billing Providers	3,330
Distinct Rendering Providers	19,338

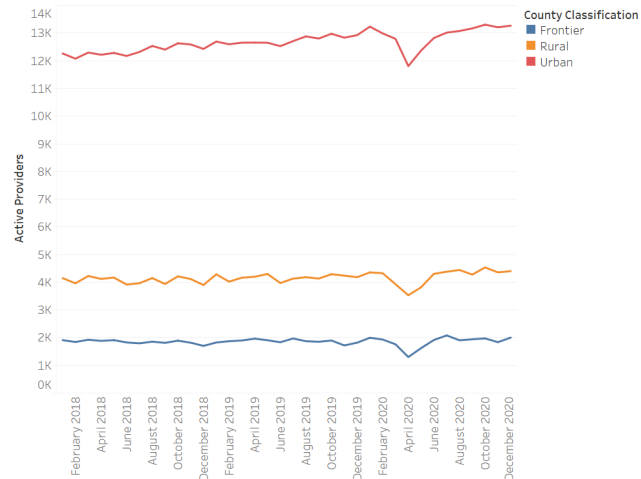
Unique Procedure Codes	% of Total Service Paid
117	50.7%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
99214	OFFICE/OUTPATIENT VISIT EST					205,698	443,257	\$42,282,381
99213	OFFICE/OUTPATIENT VISIT EST					217,242	398,727	\$25,647,195
99285	EMERGENCY DEPT VISIT					86,508	133,215	\$18,904,209
99204	OFFICE/OUTPATIENT VISIT NEW					80,640	93,918	\$13,853,664
99214	OFFICE/OUTPATIENT VISIT EST	25				83,611	145,045	\$13,827,130
99233	SUBSEQUENT HOSPITAL CARE					24,353	167,209	\$13,336,908
99284	EMERGENCY DEPT VISIT					102,693	138,370	\$13,175,975
99291	CRITICAL CARE FIRST HOUR					17,176	53,798	\$11,849,863
99203	OFFICE/OUTPATIENT VISIT NEW					107,272	121,858	\$11,677,290
99232	SUBSEQUENT HOSPITAL CARE					27,484	163,755	\$9,118,478

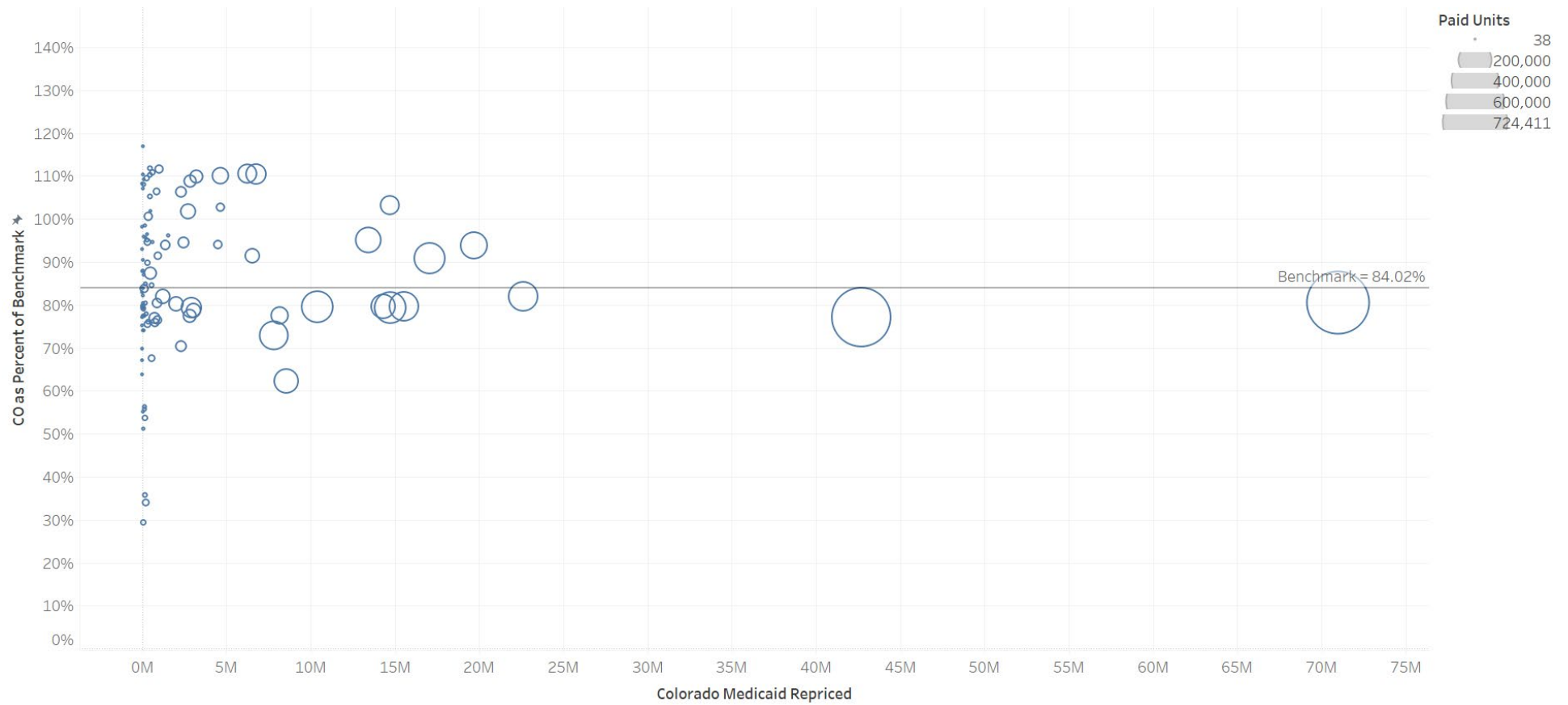
Primary Care – Distinct Utilizers Over Time



Primary Care – Active Providers Over Time

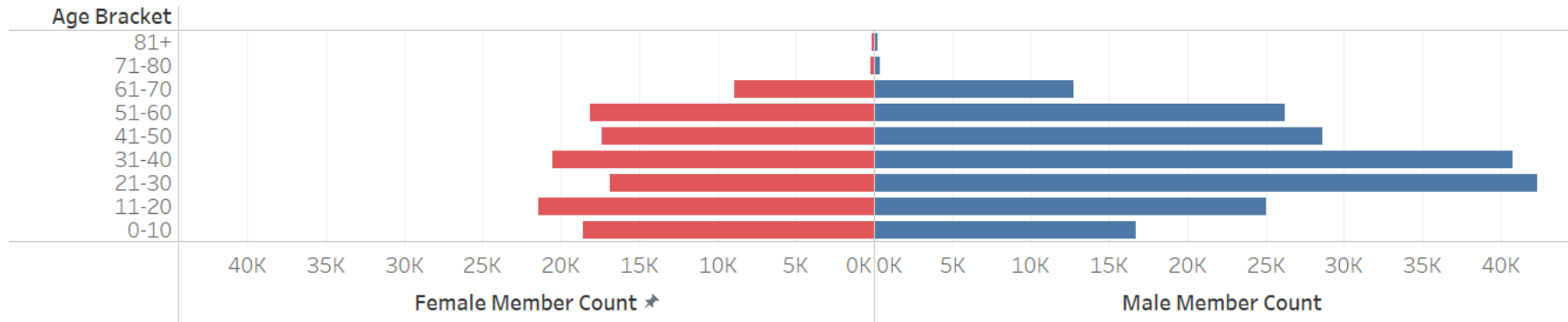


Primary Care – Rate Comparison Scatterplot (CY 2020)



Physician Services – Radiology

Population Pyramid (CY 2020)

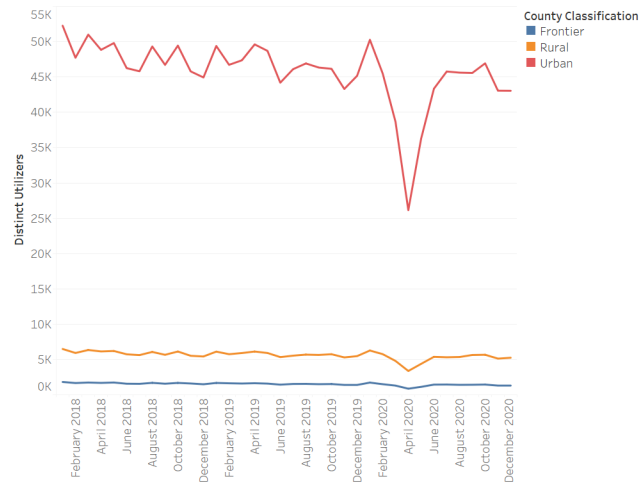


Metric	CY20
Total Paid Dollars	\$56,873,799
Distinct Utilizers	311,382
Distinct Billing Providers	1,363
Distinct Rendering Providers	7,261

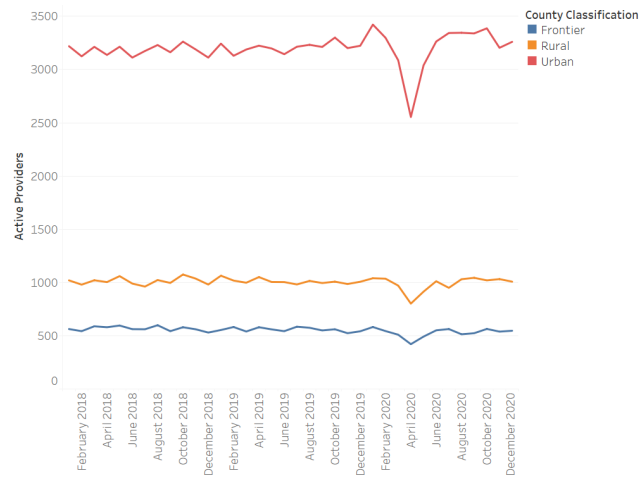
Unique Procedure Codes	% of Total Service Paid
504	24.6%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
74177	CT ABD & PELV W/CONTRAST	26				31,296	41,431	\$2,898,337
72148	MRI LUMBAR SPINE W/O DYE					5,106	5,220	\$2,053,628
70450	CT HEAD/BRAIN W/O DYE	26				25,866	34,839	\$1,426,704
72141	MRI NECK SPINE W/O DYE					3,274	3,345	\$1,334,570
71045	X-RAY EXAM CHEST 1 VIEW	26				58,497	117,534	\$1,213,475
76811	OB US DETAILED SNGL FETUS					5,767	6,089	\$1,198,000
70553	MRI BRAIN STEM W/O & W/DYE					1,887	1,978	\$1,196,269
93975	VASCULAR STUDY	26				6,340	7,220	\$959,353
76830	TRANSVAGINAL US NON-OB					9,384	10,805	\$855,366
76816	OB US FOLLOW-UP PER FETUS					7,626	13,475	\$833,562

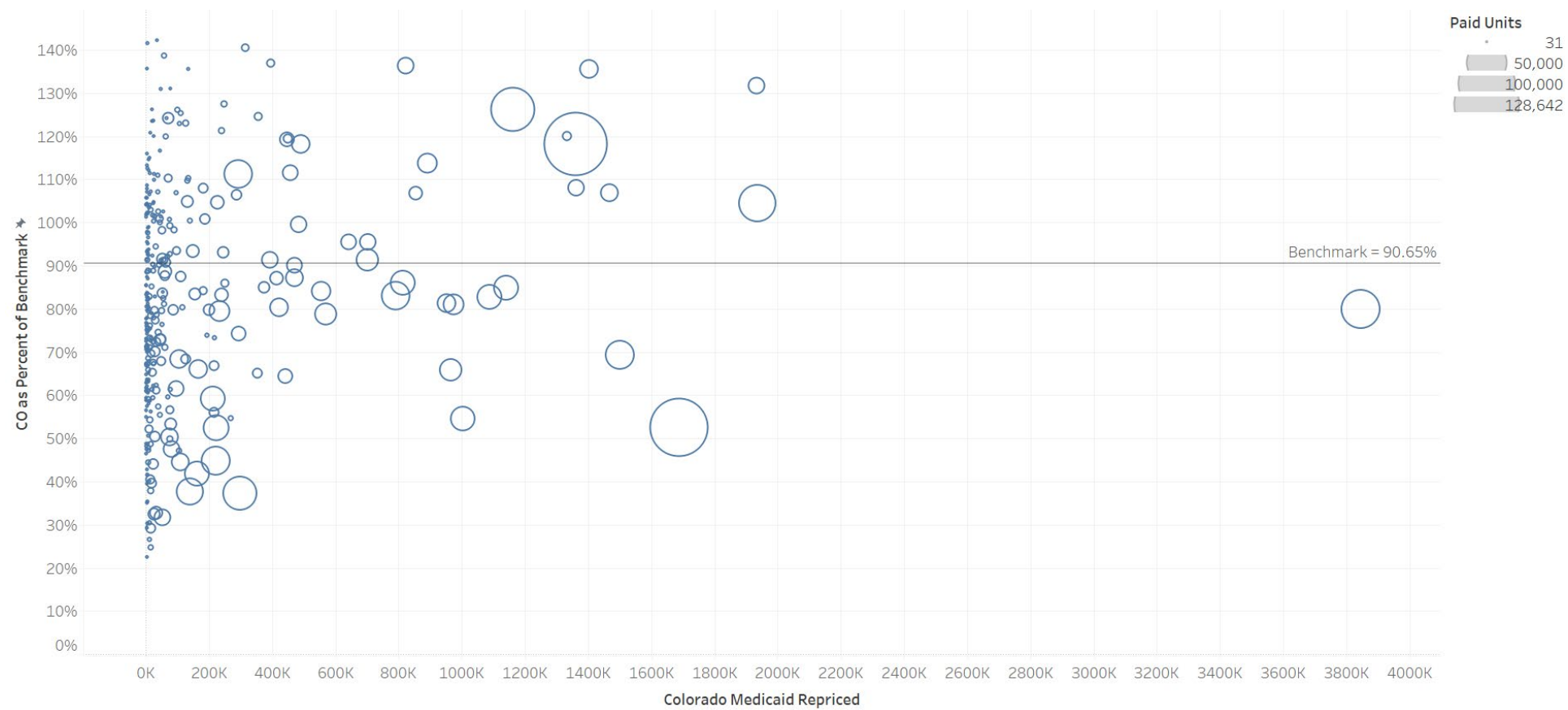
Radiology – Distinct Utilizers Over Time



Radiology – Active Providers Over Time

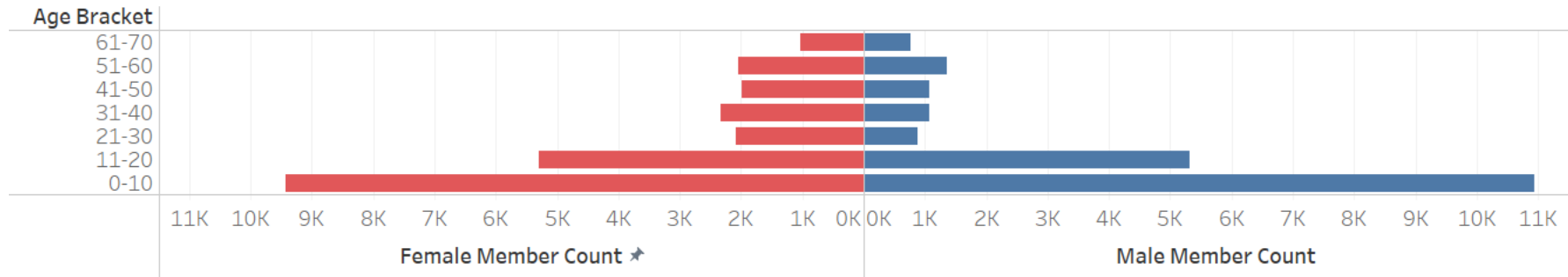


Radiology – Rate Comparison Scatterplot (CY 2020)



Physician Services – Respiratory

Population Pyramid (CY 2020)

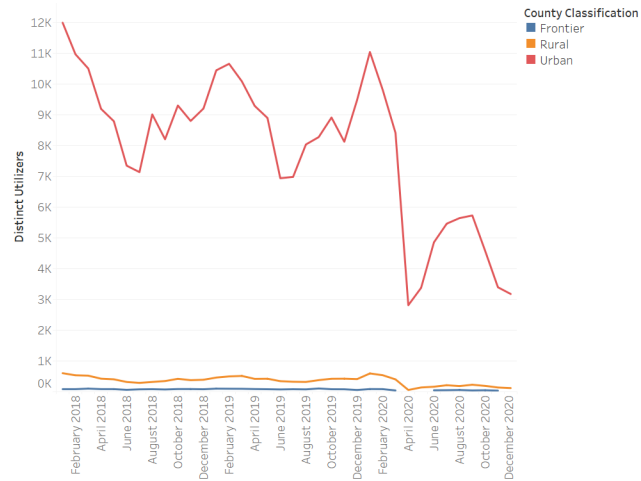


Metric	CY20
Total Paid Dollars	\$900,790
Distinct Utilizers	45,286
Distinct Billing Providers	614
Distinct Rendering Providers	2,153

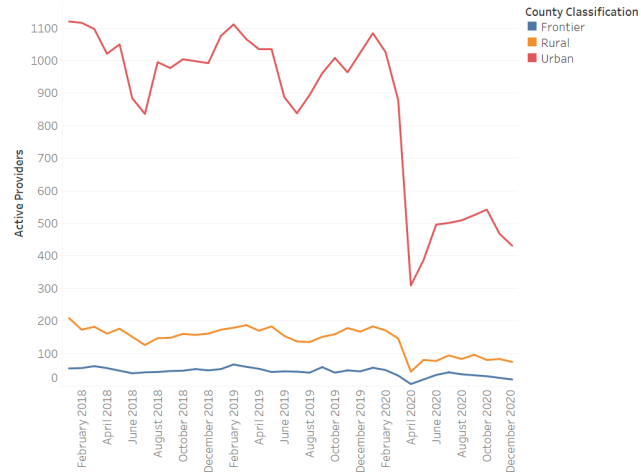
Unique Procedure Codes	% of Total Service Paid
31	75.6%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
94010	BREATHING CAPACITY TEST					4,652	7,302	\$225,613
94060	EVALUATION OF WHEEZING					2,112	2,258	\$88,897
94760	MEASURE BLOOD OXYGEN LEVEL					17,881	33,253	\$82,912
94640	AIRWAY INHALATION TREATMENT					4,234	4,726	\$60,426
94375	RESPIRATORY FLOW VOLUME LOOP					1,365	1,616	\$55,712
94760	MEASURE BLOOD OXYGEN LEVEL	59				9,756	19,178	\$47,757
94375	RESPIRATORY FLOW VOLUME LOOP	26				1,770	2,326	\$31,612
94729	CO/MEMBANE DIFFUSE CAPACITY					712	727	\$31,239
94060	EVALUATION OF WHEEZING	26				2,507	2,716	\$30,517
94762	MEASURE BLOOD OXYGEN LEVEL					721	995	\$26,516

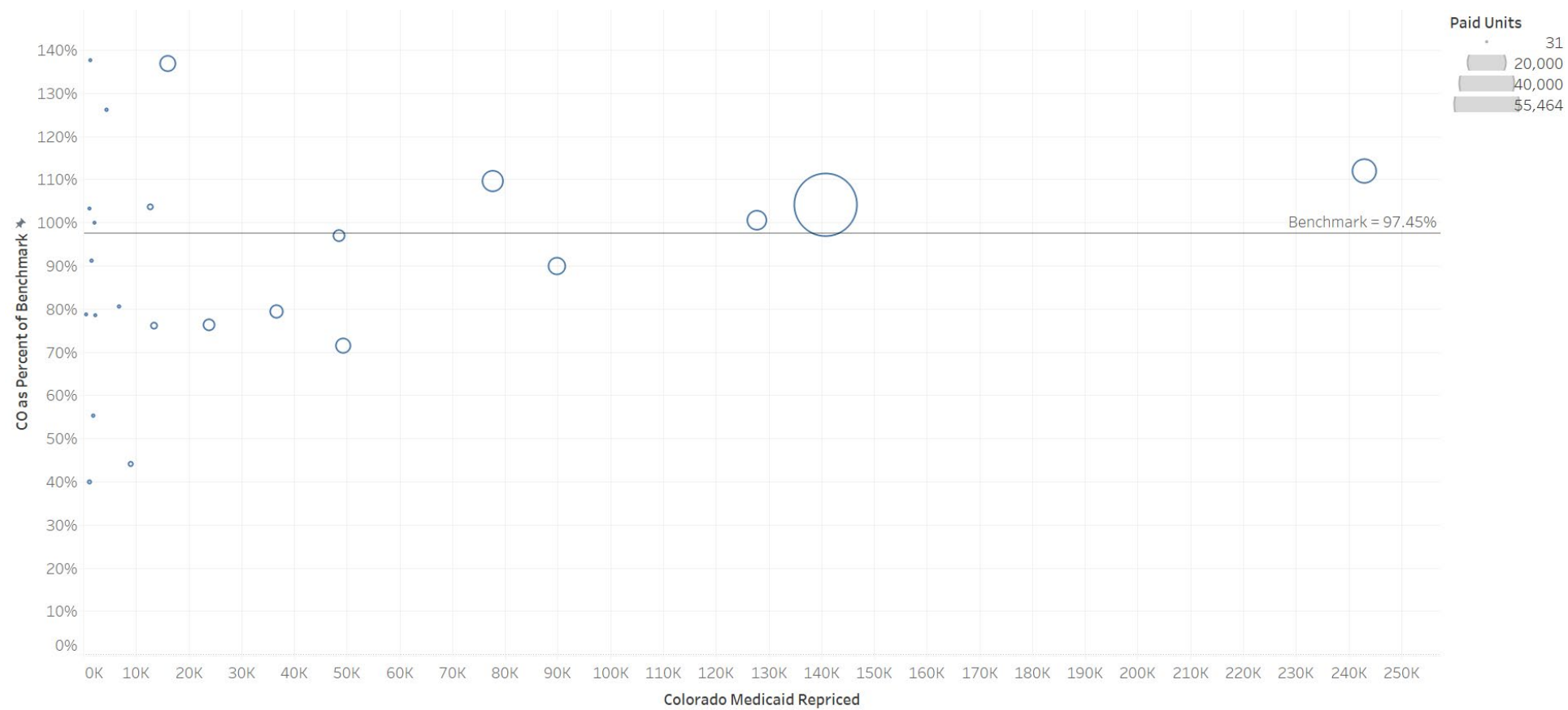
Respiratory – Distinct Utilizers Over Time



Respiratory – Active Providers Over Time

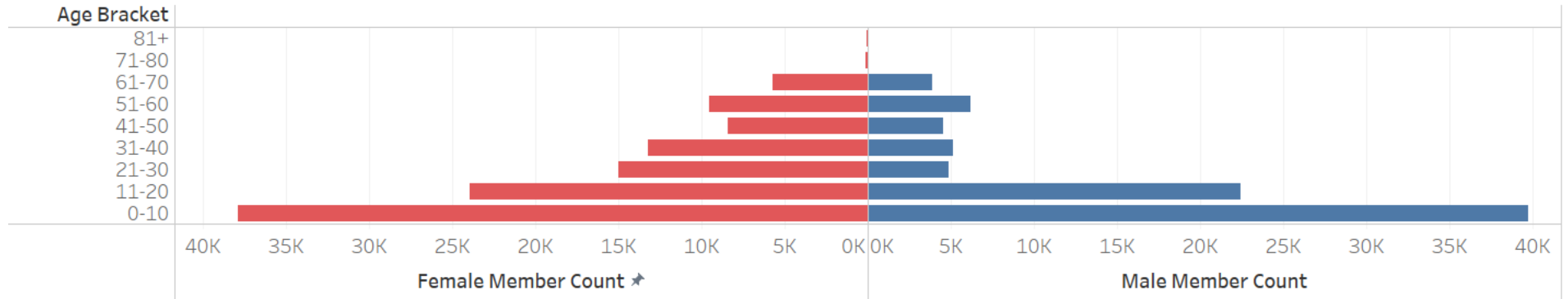


Respiratory – Rate Comparison Scatterplot (CY 2020)



Physician Services – Vaccines & Immunizations

Population Pyramid (CY 2020)

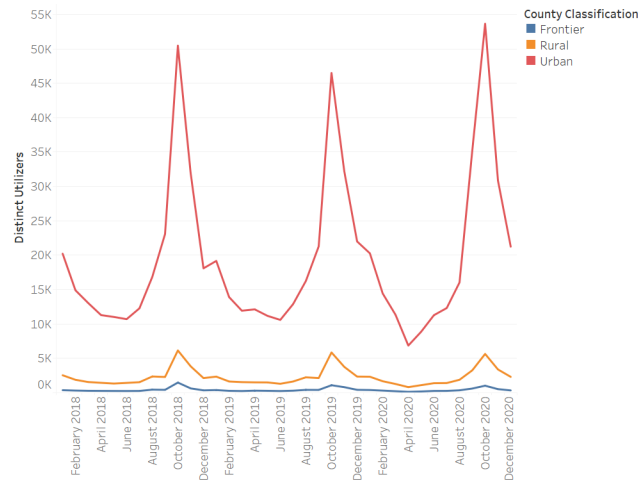


Metric	CY20
Total Paid Dollars	\$13,665,719
Distinct Utilizers	200,219
Distinct Billing Providers	1,508
Distinct Rendering Providers	5,861

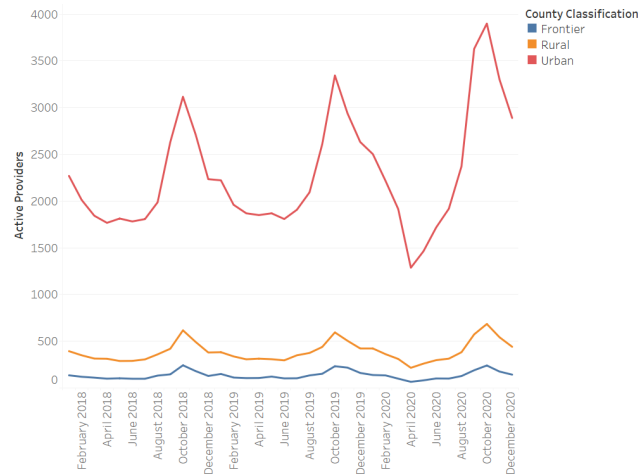
Unique Procedure Codes	% of Total Service Paid
46	87.4%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
90460	IM ADMIN 1ST/ONLY COMPONENT					72,373	248,042	\$4,788,469
90471	IMMUNIZATION ADMIN					124,218	149,532	\$2,877,369
90750	HZV VACC RECOMBINANT IM					4,495	6,009	\$873,329
90686	IIV4 VACC NO PRSV 0.5 ML IM					41,626	42,894	\$765,515
90715	TDAP VACCINE 7 YRS/> IM					15,997	16,075	\$715,937
90472	IMMUNIZATION ADMIN EACH ADD					24,422	50,748	\$567,089
90651	9VHPV VACCINE 2/3 DOSE IM					1,442	1,862	\$399,379
90682	RIV4 VACC RECOMBINANT DNA IM					7,676	7,708	\$396,757
90732	PPSV23 VACC 2 YRS+ SUBQ/IM					3,686	3,721	\$379,649
90460	IM ADMIN 1ST/ONLY COMPONENT	SL				2,569	9,526	\$184,228

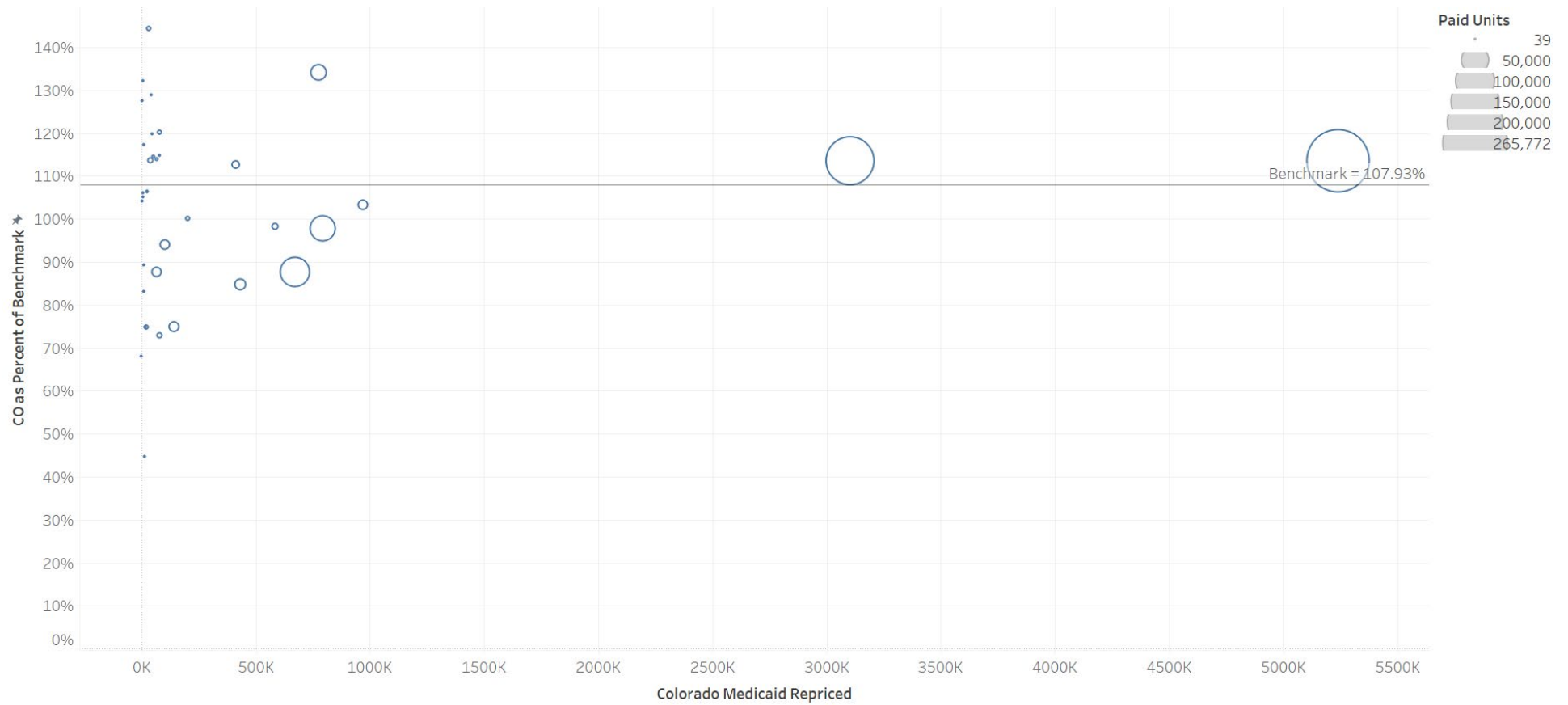
Vaccines & Immunizations – Distinct Utilizers Over Time



Vaccines & Immunizations – Active Providers Over Time

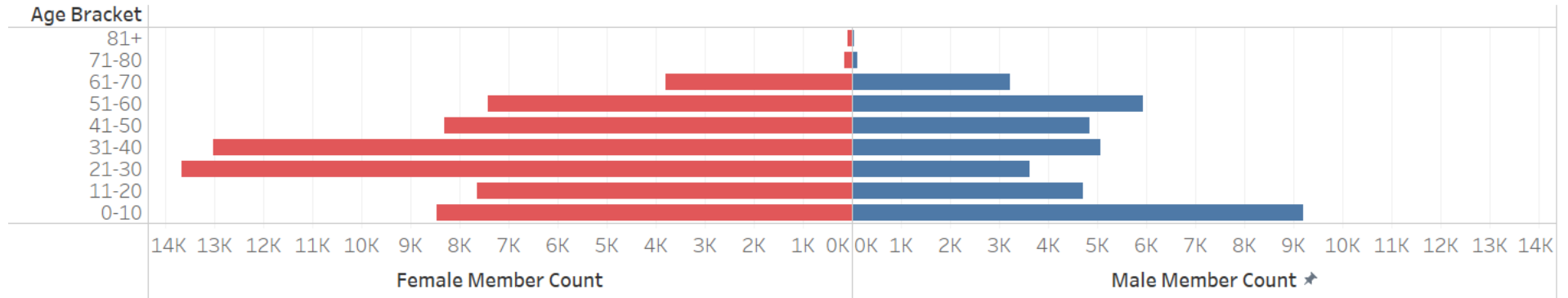


Vaccines & Immunizations – Rate Comparison Scatterplot (CY 2020)



Physician Services – Vascular

Population Pyramid (CY 2020)

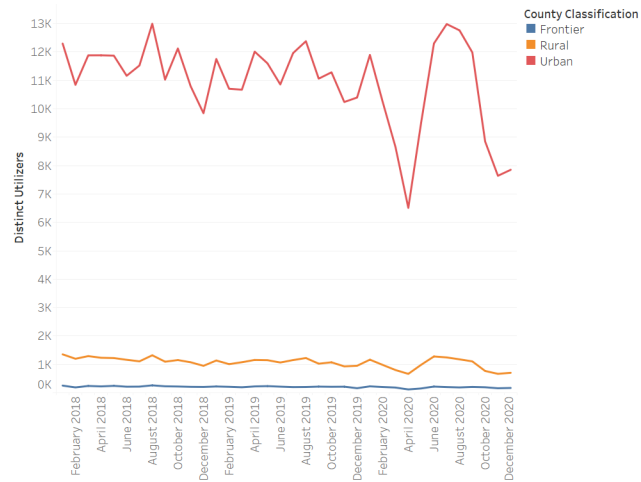


Metric	CY20
Total Paid Dollars	\$3,899,861
Distinct Utilizers	98,530
Distinct Billing Providers	1,013
Distinct Rendering Providers	3,758

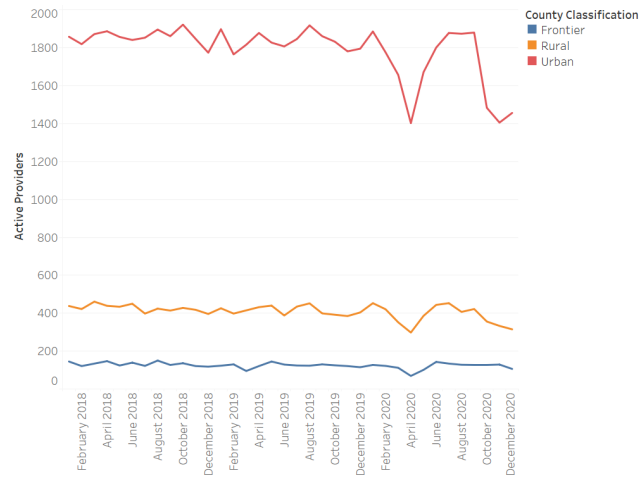
Unique Procedure Codes	% of Total Service Paid
25	68.7%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
93975	VASCULAR STUDY	26				6,335	7,215	\$958,812
93970	EXTREMITY STUDY	26				5,213	6,151	\$478,549
93970	EXTREMITY STUDY					1,425	1,783	\$284,796
36415	ROUTINE VENIPUNCTURE					50,877	79,911	\$238,489
93976	VASCULAR STUDY	26				2,860	3,139	\$154,574
93971	EXTREMITY STUDY					932	1,470	\$150,504
93975	VASCULAR STUDY					479	492	\$149,434
93976	VASCULAR STUDY	26	59			1,900	2,059	\$101,969
93976	VASCULAR STUDY					456	469	\$81,813
93971	EXTREMITY STUDY	LT				684	785	\$80,497

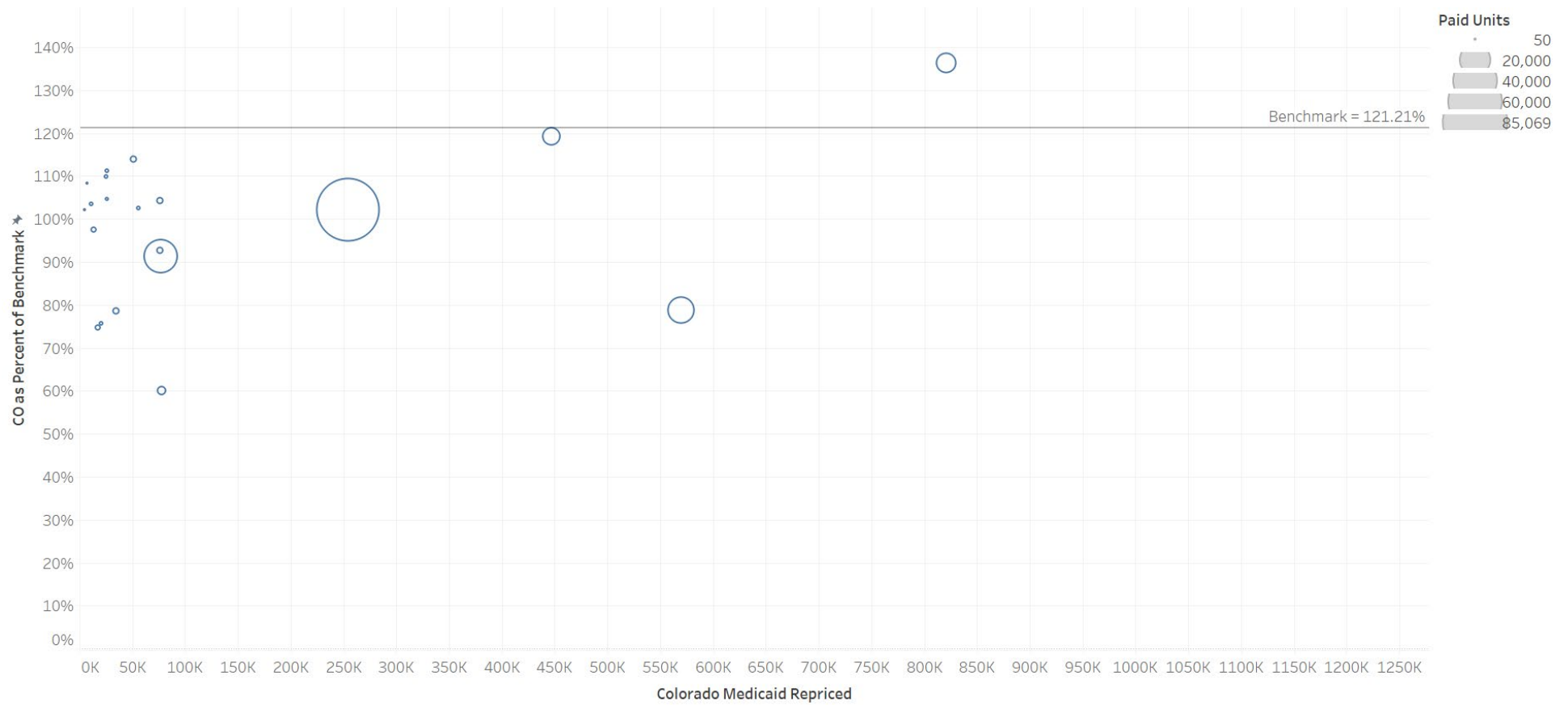
Vascular – Distinct Utilizers Over Time



Vascular – Active Providers Over Time



Vascular – Rate Comparison Scatterplot (CY 2020)



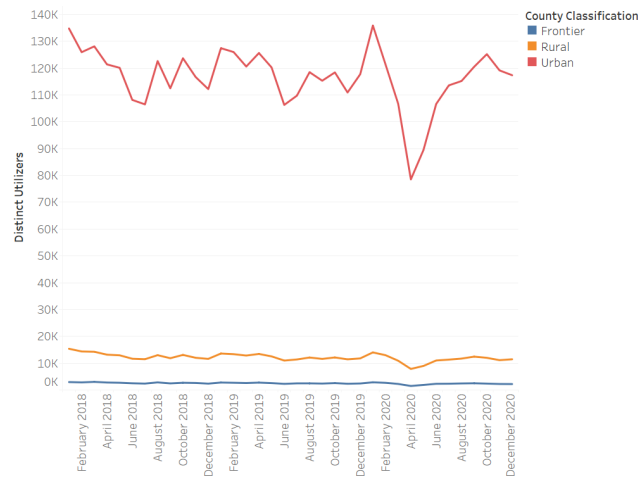
Physician Services – Women’s Health & Family Planning Services

Metric	CY20
Total Paid Dollars	\$193,945,603
Distinct Utilizers	549,376
Distinct Billing Providers	3,056
Distinct Rendering Providers	15,404

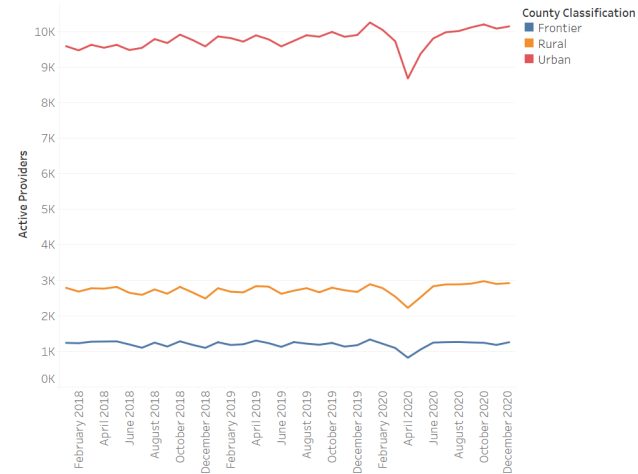
Unique Procedure Codes	% of Total Service Paid
90	71.5%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
99214	OFFICE/OUTPATIENT VISIT EST					205,741	443,395	\$42,264,019
99213	OFFICE/OUTPATIENT VISIT EST					217,349	398,942	\$25,633,831
99204	OFFICE/OUTPATIENT VISIT NEW					80,679	93,966	\$13,856,206
99214	OFFICE/OUTPATIENT VISIT EST	25				83,705	145,272	\$13,846,427
99203	OFFICE/OUTPATIENT VISIT NEW					107,345	121,947	\$11,684,858
99215	OFFICE/OUTPATIENT VISIT EST					38,658	69,711	\$8,925,618
99213	OFFICE/OUTPATIENT VISIT EST	25				84,631	124,946	\$8,033,340
99214	OFFICE/OUTPATIENT VISIT EST	GT				31,151	63,790	\$6,423,896
99205	OFFICE/OUTPATIENT VISIT NEW					22,003	24,885	\$4,581,015
99213	OFFICE/OUTPATIENT VISIT EST	GT				31,122	48,774	\$3,401,845

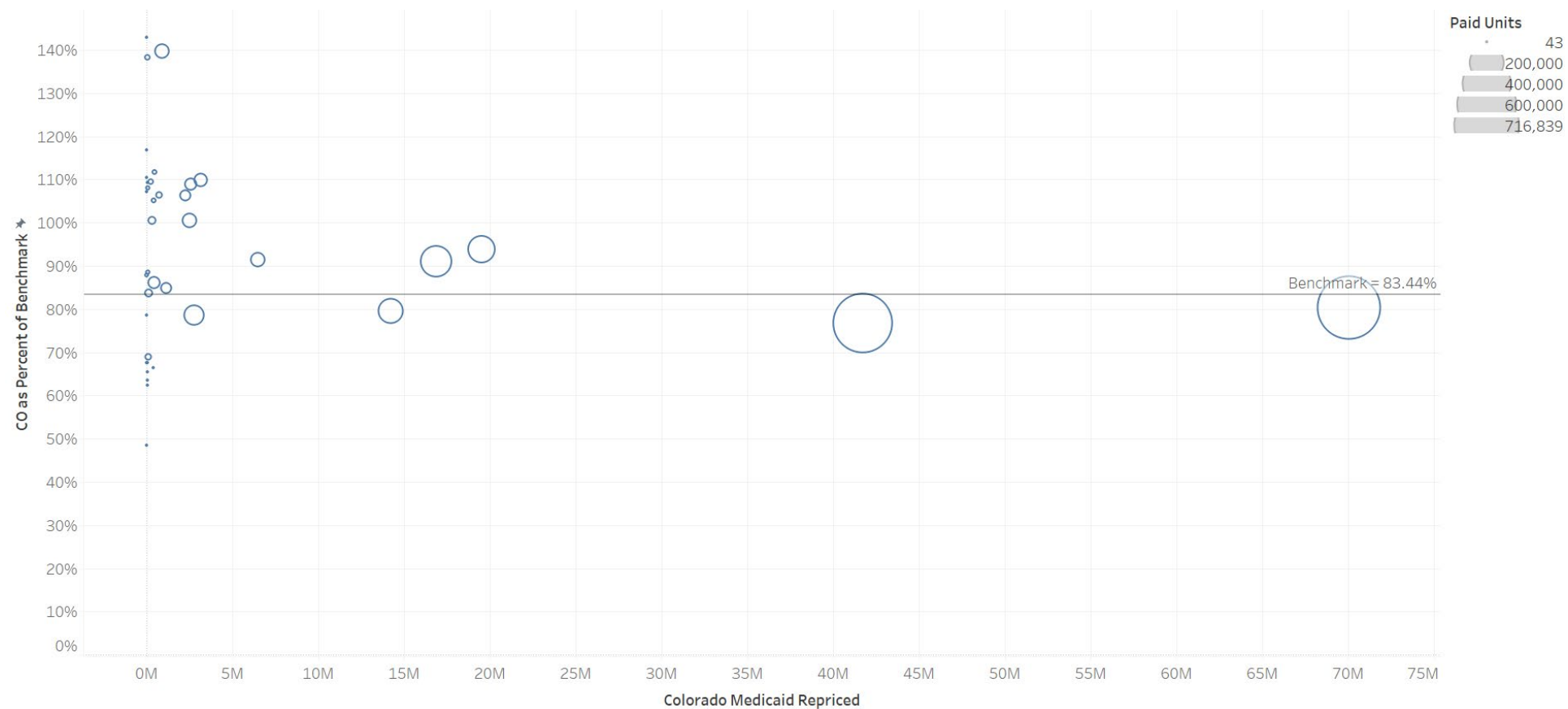
Women's Health & Family Planning Services – Distinct Utilizers Over Time



Women's Health & Family Planning Services – Active Providers Over Time

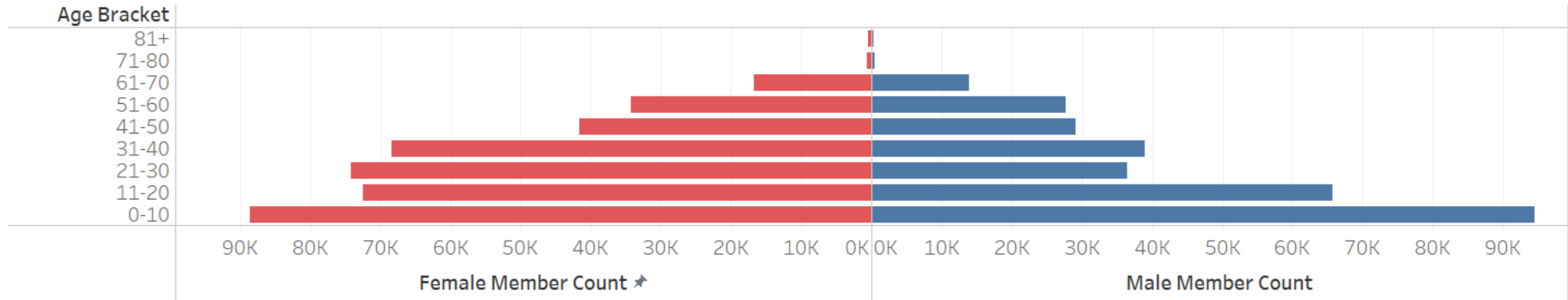


Women’s Health & Family Planning Services – Rate Comparison Scatterplot (CY 2020)



Physician Services – Other Physician Services

Population Pyramid (CY 2020)

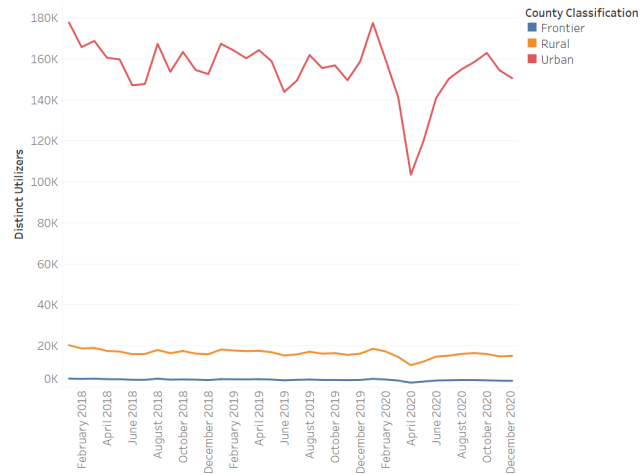


Metric	CY20
Total Paid Dollars	\$352,528,438
Distinct Utilizers	684,067
Distinct Billing Providers	3,407
Distinct Rendering Providers	19,674

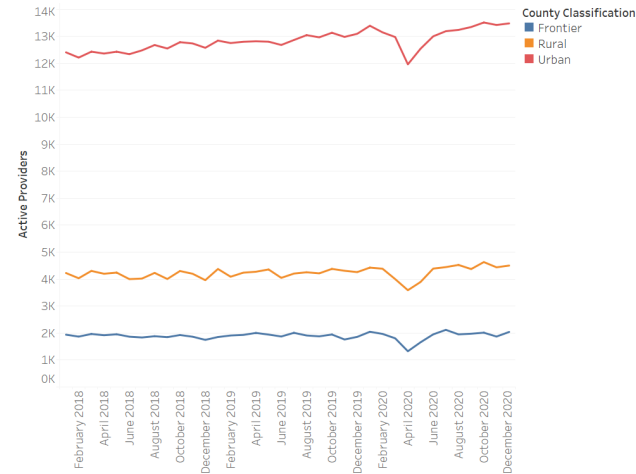
Unique Procedure Codes	% of Total Service Paid
273	49.3%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
99214	OFFICE/OUTPATIENT VISIT EST					205,770	443,443	\$42,299,203
99213	OFFICE/OUTPATIENT VISIT EST					217,350	398,940	\$25,659,931
99285	EMERGENCY DEPT VISIT					86,546	133,268	\$18,911,693
99204	OFFICE/OUTPATIENT VISIT NEW					80,680	93,965	\$13,860,393
99214	OFFICE/OUTPATIENT VISIT EST	25				83,681	145,230	\$13,844,425
99233	SUBSEQUENT HOSPITAL CARE					24,392	167,442	\$13,355,034
99284	EMERGENCY DEPT VISIT					102,736	138,418	\$13,180,615
99291	CRITICAL CARE FIRST HOUR					17,189	53,839	\$11,858,867
99203	OFFICE/OUTPATIENT VISIT NEW					107,327	121,925	\$11,683,514
99232	SUBSEQUENT HOSPITAL CARE					27,510	163,930	\$9,128,174

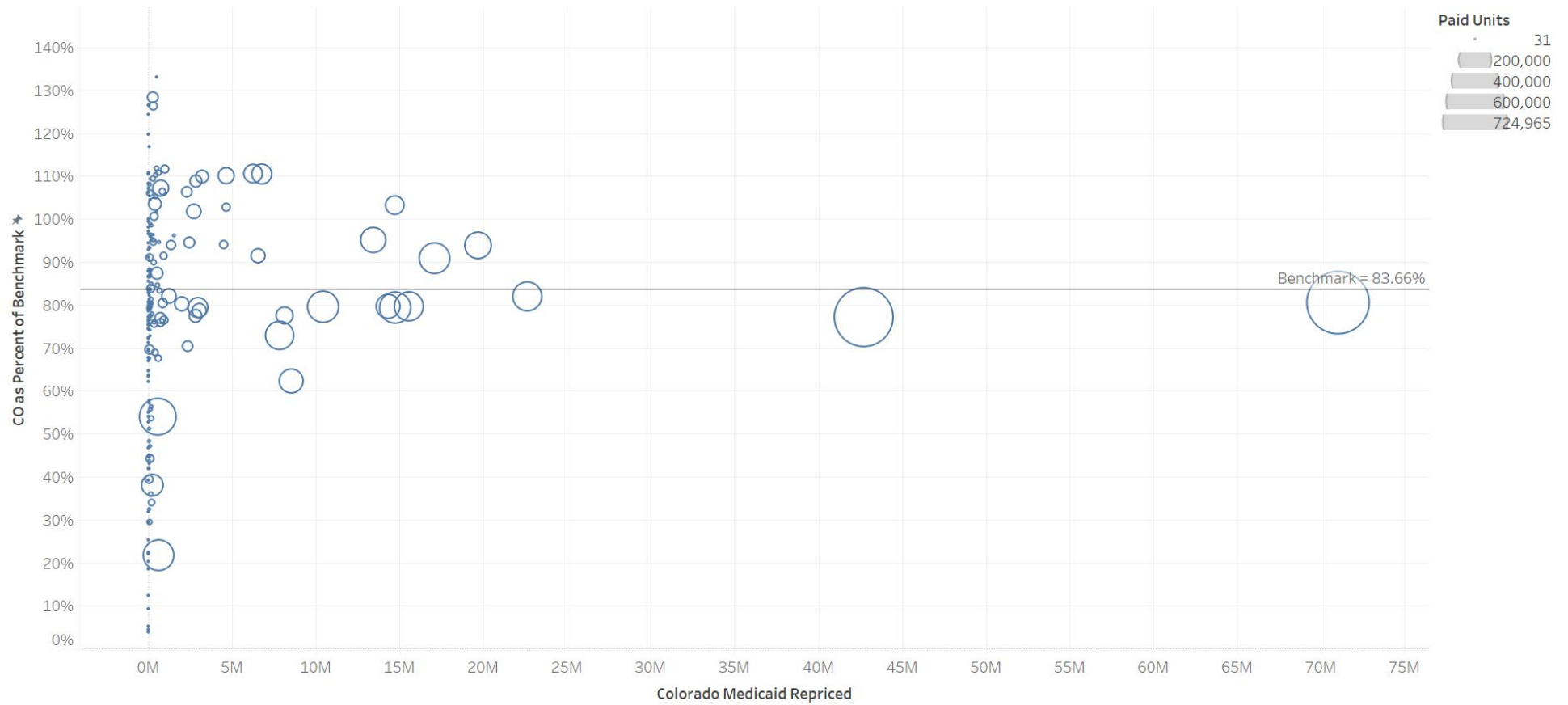
Other Physician Services – Distinct Utilizers Over Time



Other Physician Services – Active Providers Over Time

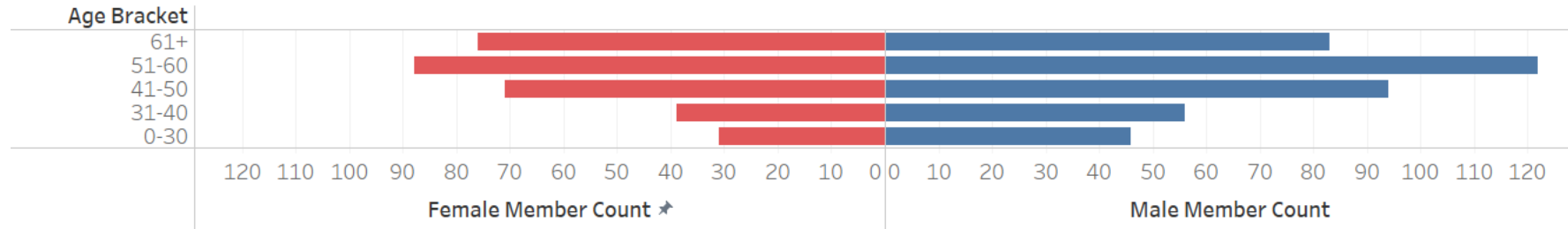


Other Physician Services – Rate Comparison Scatterplot (CY 2020)



Dialysis (Facility)

Population Pyramid (CY 2020)

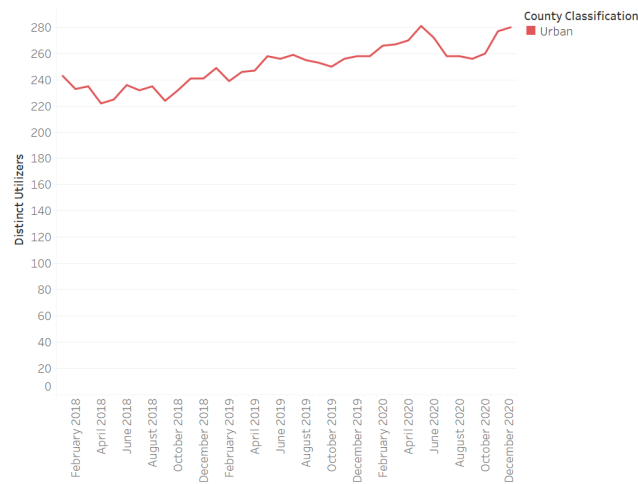


Metric	CY20
Total Paid Dollars	\$12,013,282
Distinct Utilizers	675
Distinct Billing Providers	82
Distinct Rendering Providers	1

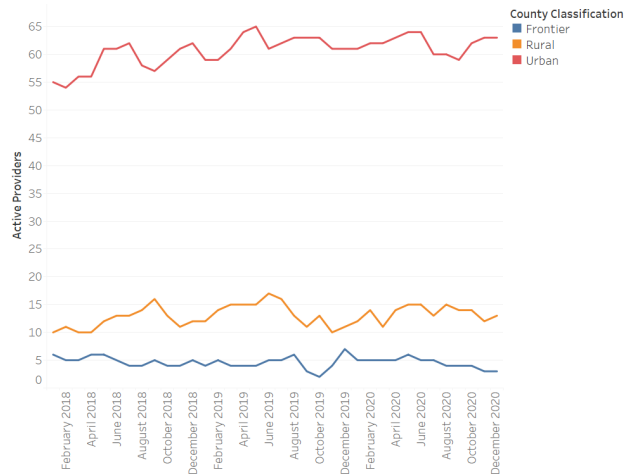
Unique Revenue Codes	% of Total Service Paid
6	100.0%

Rev Code	Revenue Code Description	Distinct Utilizers	Allowed Units	Paid Dollars
821	Hemodialysis, composite or other rate	618	46,646	\$9,309,351
851	Continuous cycling peritoneal dialysis	79	12,866	\$2,574,429
841	CAPD - Composite	PHI		\$109,187
881	Ultrafiltration	PHI		\$17,445
829	Hemodialysis, other	PHI		\$2,463
831	Peritoneal dialysis	PHI		\$406

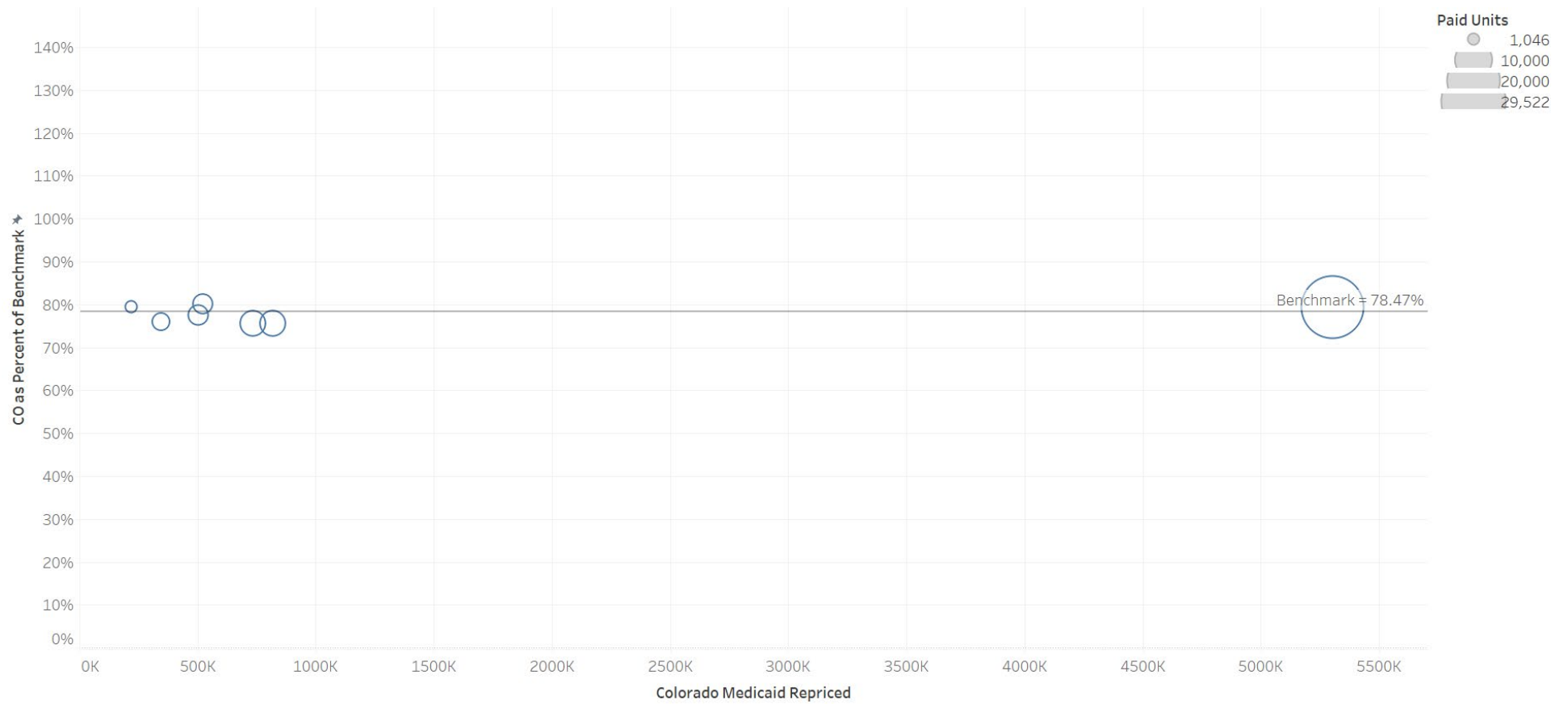
Dialysis (Facility) – Distinct Utilizers Over Time



Dialysis (Facility) – Active Providers Over Time

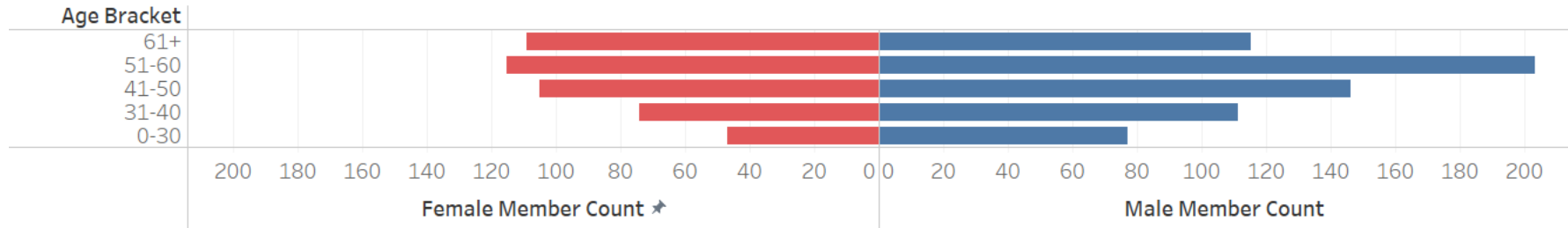


Dialysis (Facility) – Rate Comparison Scatterplot (CY 2020)



Dialysis (Non-Facility)

Population Pyramid (CY 2020)

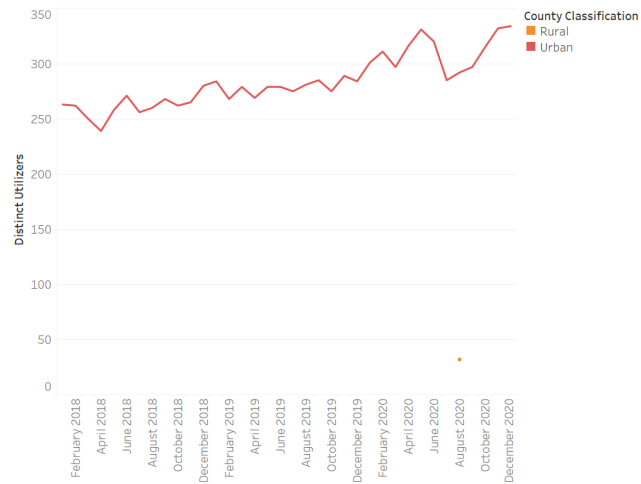


Metric	CY20
Total Paid Dollars	\$1,107,528
Distinct Utilizers	1,071
Distinct Billing Providers	24
Distinct Rendering Providers	160

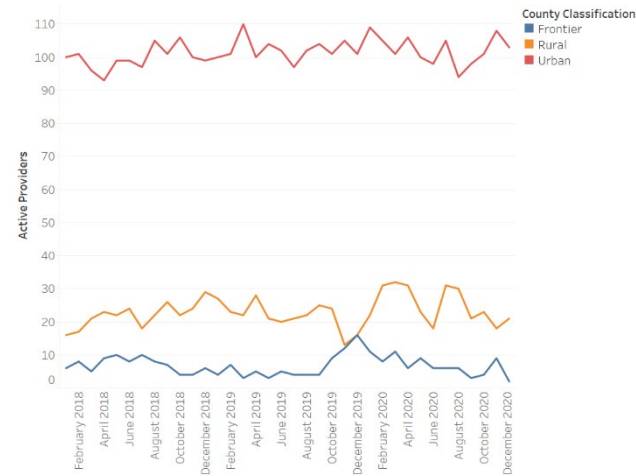
Unique Procedure Codes	% of Total Service Paid
20	95.4%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
90960	ESRD SRV 4 VISITS P MO 20+					451	2,177	\$457,205
90961	ESRD SRV 2-3 VSTS P MO 20+					406	1,237	\$209,501
90935	HEMODIALYSIS ONE EVALUATION					552	3,287	\$205,834
90966	ESRD HOME PT SERV P MO 20+					55	254	\$42,549
90962	ESRD SERV 1 VISIT P MO 20+					169	294	\$35,988
90945	DIALYSIS ONE EVALUATION					252	1,525	\$35,172
90947	DIALYSIS REPEATED EVAL					102	339	\$34,866
90970	ESRD SVC PR DAY PT 20+					119	2,679	\$15,699
90963	ESRD HOME PT SERV P MO <2YRS					PHI		\$12,952
90989	DIALYSIS TRAINING COMPLETE					PHI		\$7,035

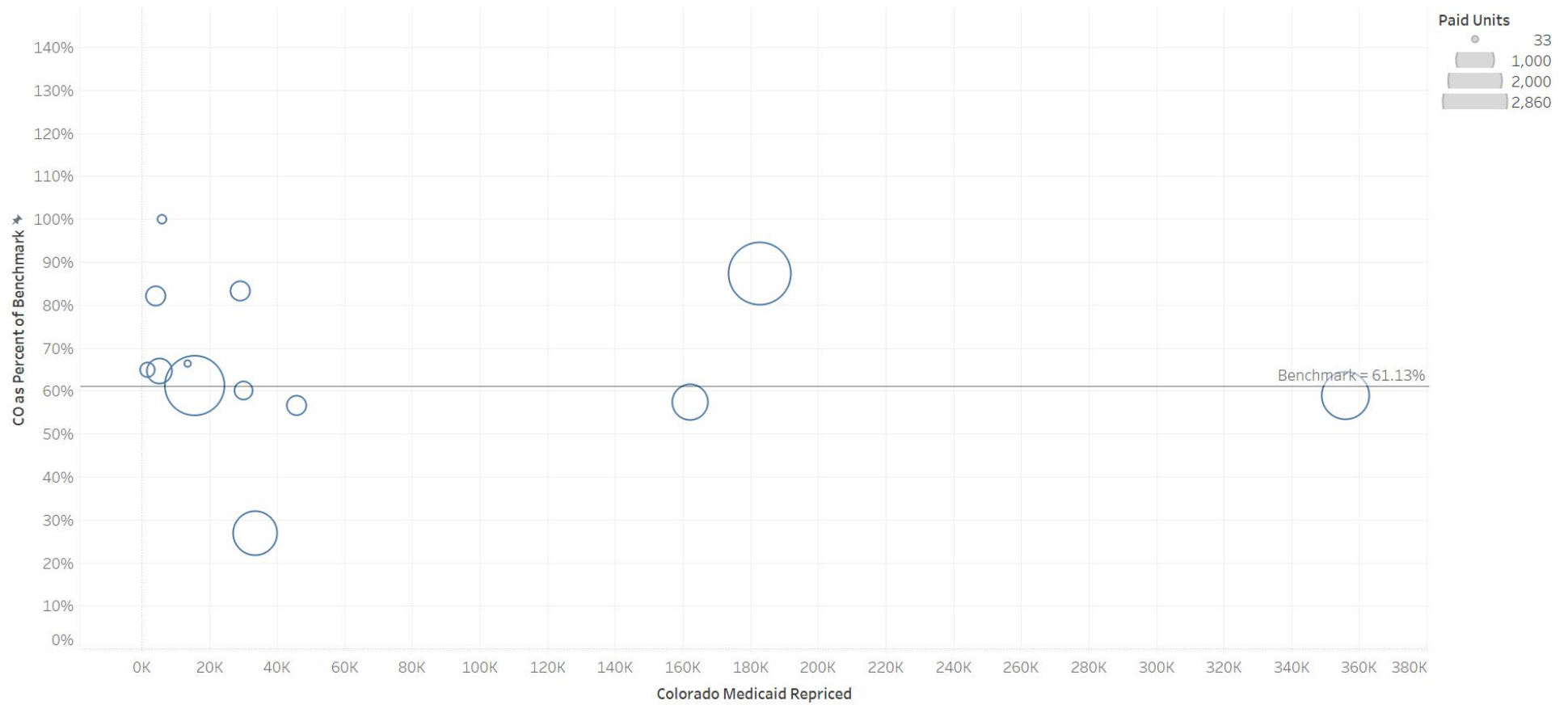
Dialysis (Non-Facility) – Distinct Utilizers Over Time



Dialysis (Non-Facility) – Active Providers Over Time

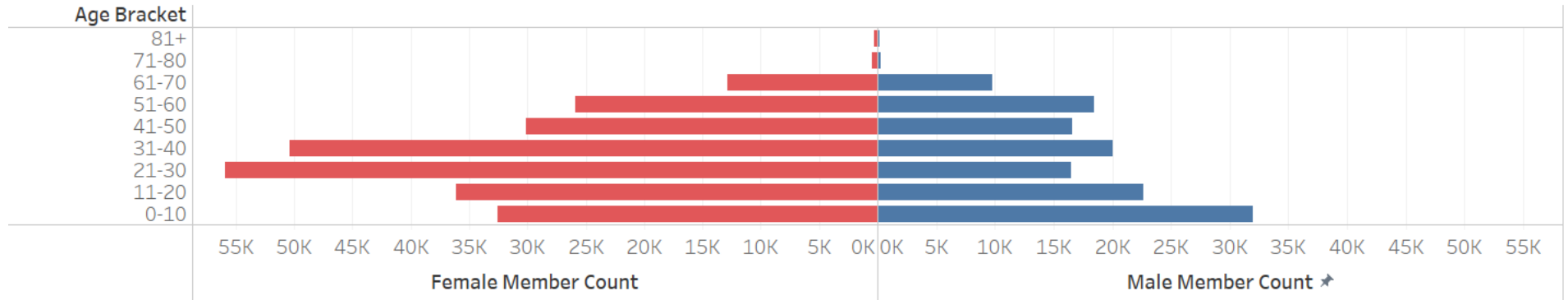


Dialysis (Non-Facility) – Rate Comparison Scatterplot (CY 2020)



Laboratory & Pathology

Population Pyramid (CY 2020)

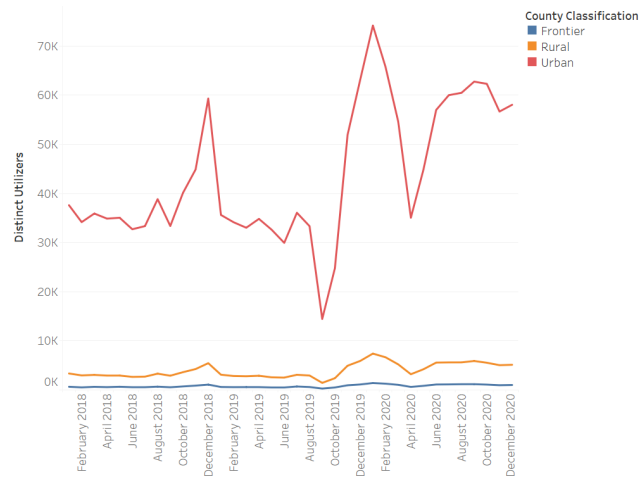


Metric	CY20
Total Paid Dollars	\$112,812,411
Distinct Utilizers	373,185
Distinct Billing Providers	1,461
Distinct Rendering Providers	6,303

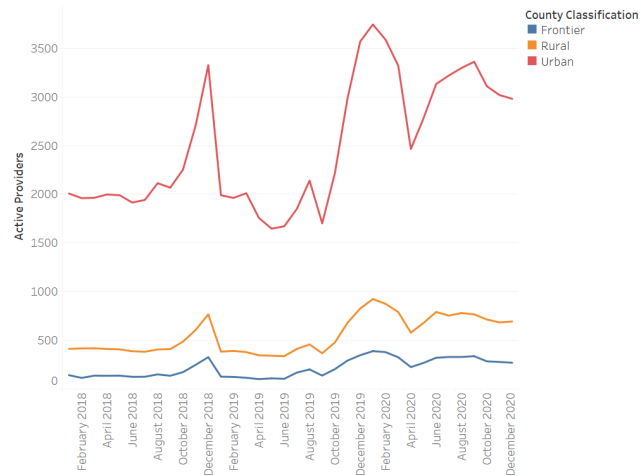
Unique Procedure Codes	% of Total Service Paid
1039	18.9%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
87633	RESP VIRUS 12-25 TARGETS					6,139	7,203	\$2,850,767
80050	GENERAL HEALTH PANEL					55,905	60,608	\$2,766,627
87491	CHYLM D TRACH DNA AMP PROBE					51,049	63,284	\$2,205,449
87591	N.GONORRHOEAE DNA AMP PROB					50,989	63,193	\$2,201,822
80358	DRUG SCREENING METHADONE					21,417	114,882	\$1,963,642
88305	TISSUE EXAM BY PATHOLOGIST	26				25,142	55,634	\$1,942,804
87798	DETECT AGENT NOS DNA AMP					8,640	53,930	\$1,871,092
81443	GENETIC TSTG SEVERE INH COND					830	835	\$1,847,714
80354	DRUG SCREENING FENTANYL					21,084	107,707	\$1,840,665
80353	DRUG SCREENING COCAINE					21,550	107,624	\$1,839,016

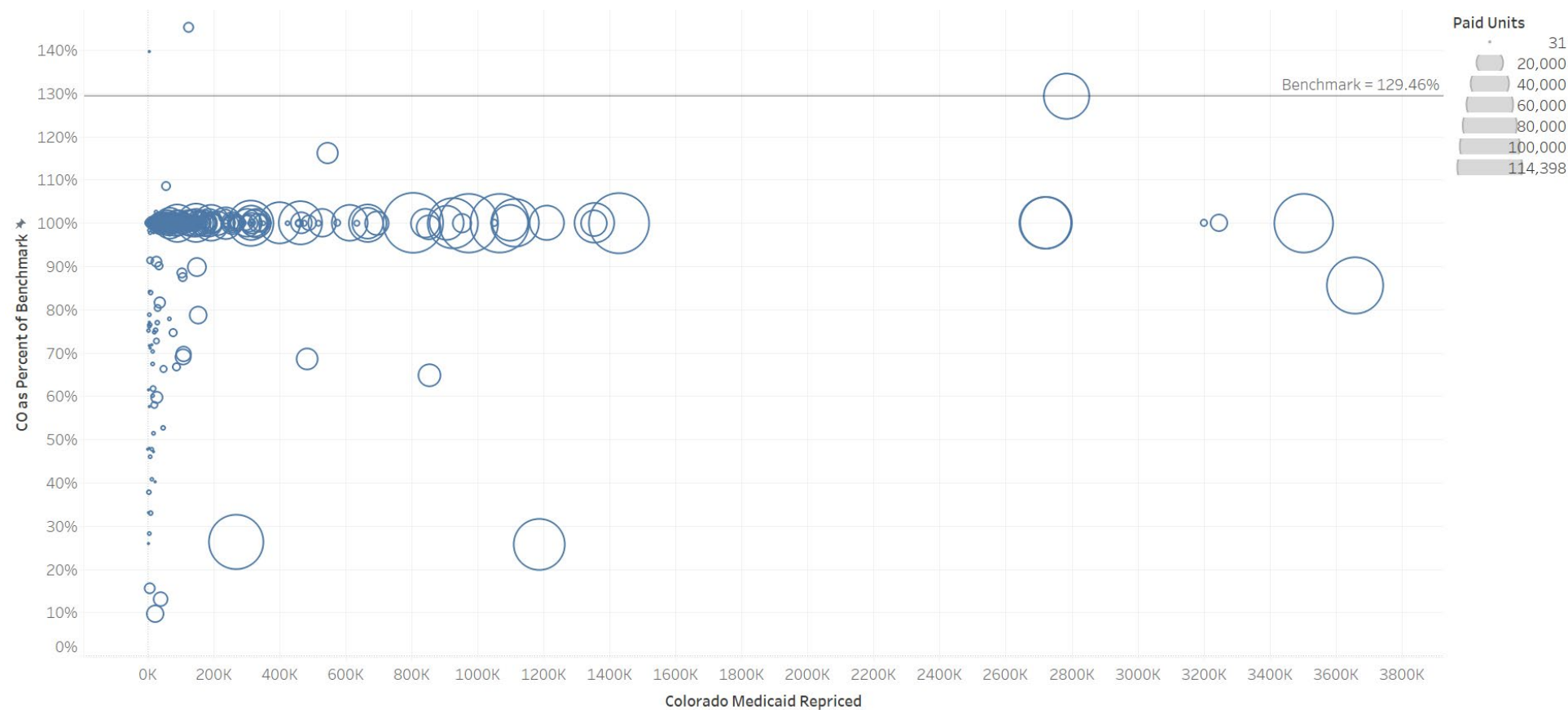
Laboratory & Pathology – Distinct Utilizers Over Time



Laboratory & Pathology – Active Providers Over Time

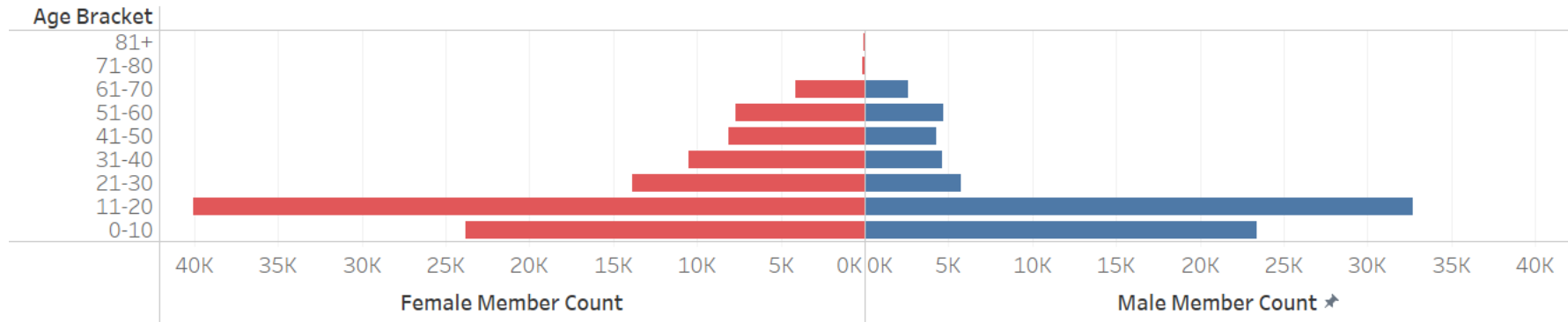


Laboratory & Pathology – Rate Comparison Scatterplot (CY 2020)



Eyeglasses & Vision

Population Pyramid (CY 2020)

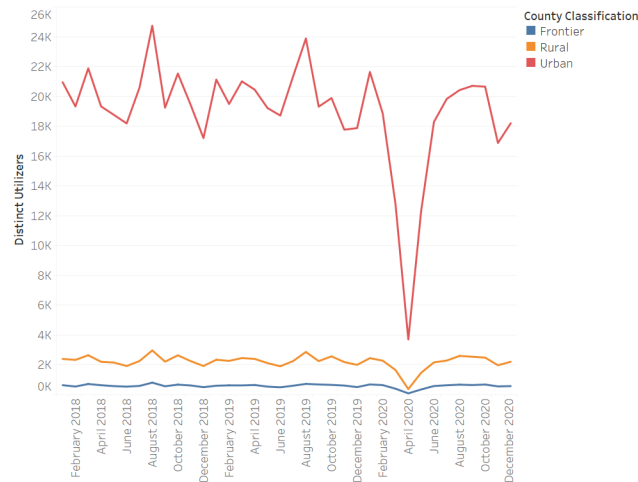


Metric	CY20
Total Paid Dollars	\$48,654,219
Distinct Utilizers	185,190
Distinct Billing Providers	551
Distinct Rendering Providers	1,207

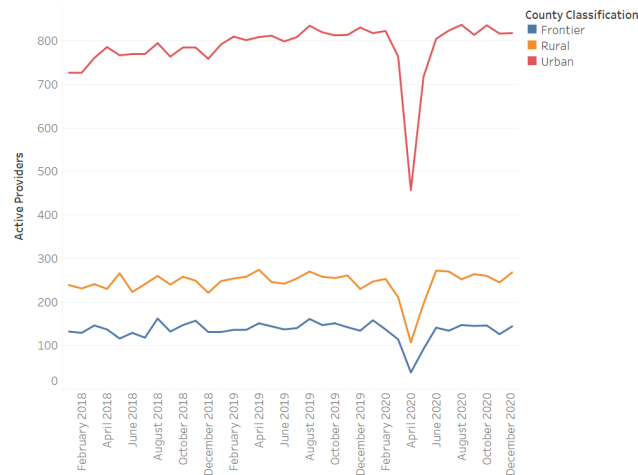
Unique Procedure Codes	% of Total Service Paid
104	85.6%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
92014	EYE EXAM&TX ESTAB PT 1/>VST					96,132	100,198	\$10,234,236
V2410	LENS VARIAB ASPHERICITY SING					49,404	146,056	\$9,777,823
92004	EYE EXAM NEW PATIENT					68,899	70,210	\$8,400,267
V2020	VISION SVCS FRAMES PURCHASES					85,963	128,854	\$4,602,134
V2103	SPHEROCYLINDR 4.00D/12-2.00D					41,198	101,275	\$2,365,646
92340	FIT SPECTACLES MONOFOCAL					76,807	119,162	\$2,005,428
V2784	LENS POLYCARB OR EQUAL					77,836	229,460	\$1,611,324
V2100	LENS SPHER SINGLE PLANO 4.00					21,242	45,928	\$943,121
V2104	SPHEROCYLINDR 4.00D/2.12-4D					12,398	29,624	\$865,716
V2750	ANTI-REFLECTIVE COATING					26,456	71,778	\$849,439

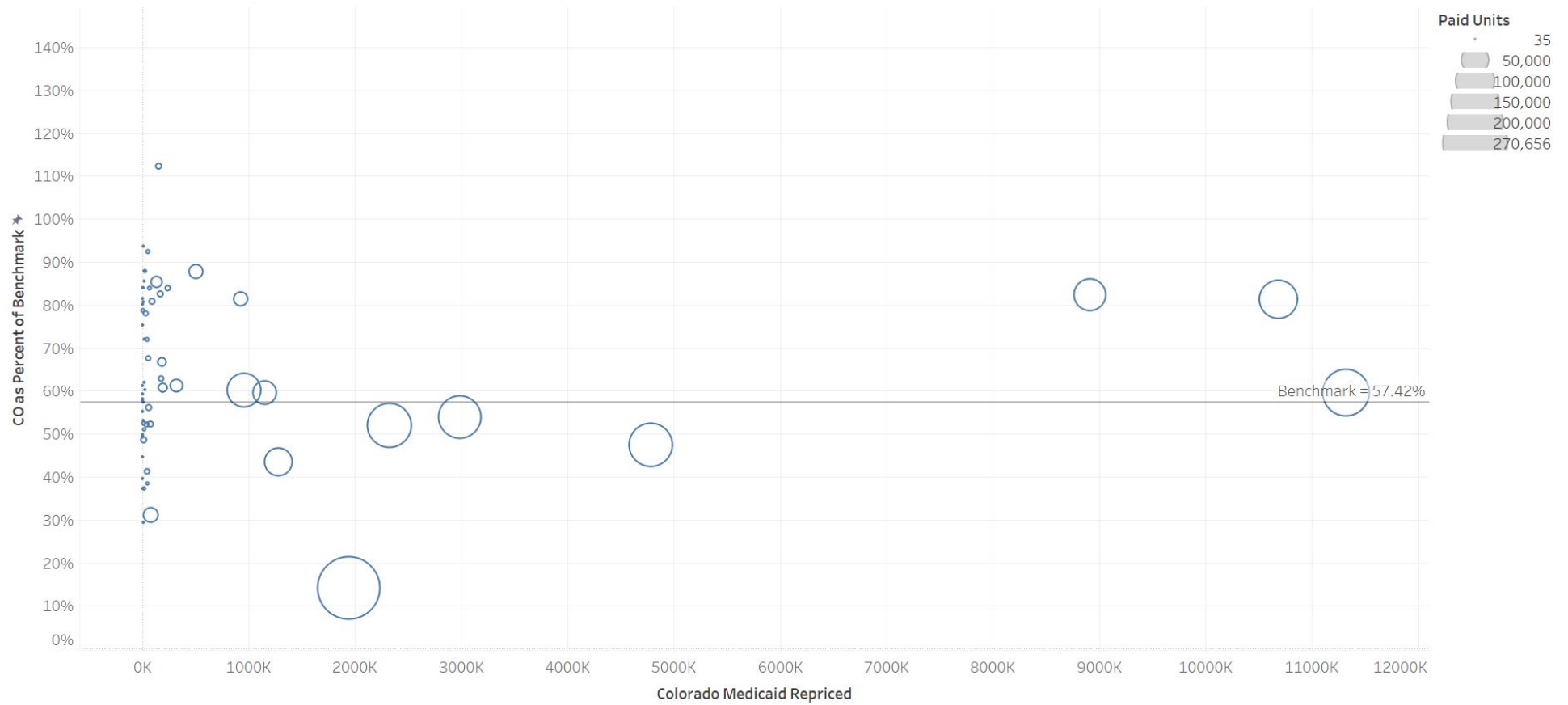
Eyeglasses & Vision – Distinct Utilizers Over Time



Eyeglasses & Vision – Active Providers Over Time

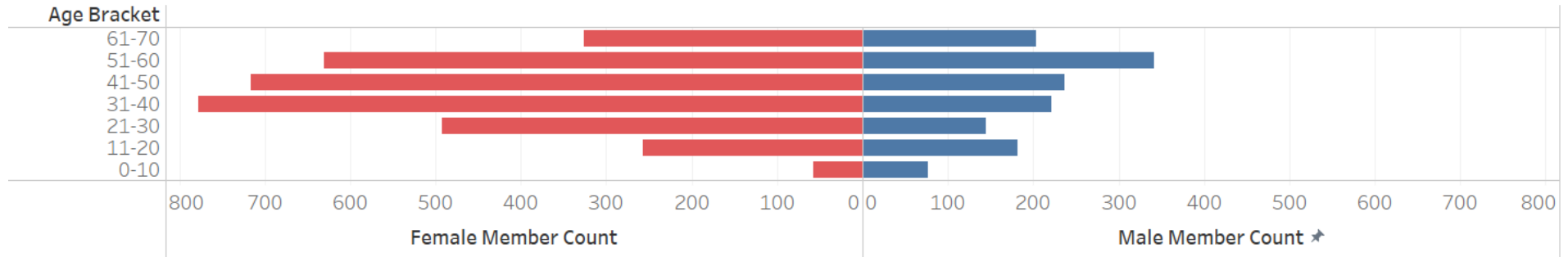


Eyeglasses & Vision – Rate Comparison Scatterplot (CY 2020)



Injections & Miscellaneous J-Codes

Population Pyramid (CY 2020)

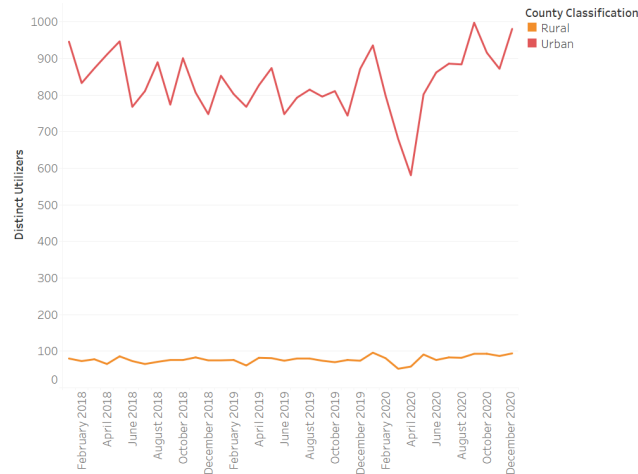


Metric	CY20
Total Paid Dollars	\$1,926,989
Distinct Utilizers	4,571
Distinct Billing Providers	255
Distinct Rendering Providers	629

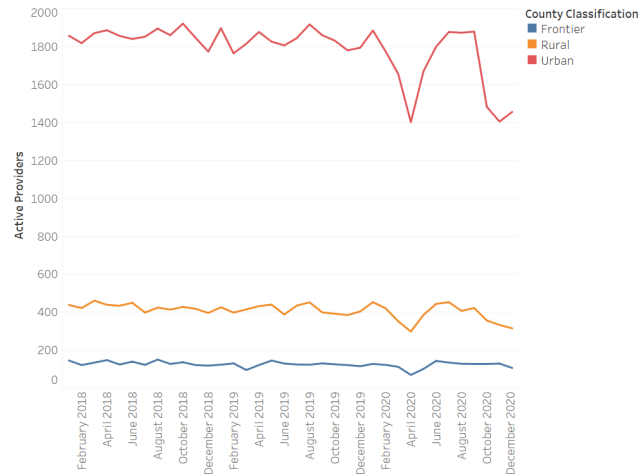
Unique Procedure Codes	% of Total Service Paid
16	96.7%

Proc Code	Procedure Code Description	Mod 1	Mod 2	Mod 3	Mod 4	Distinct Utilizers	Allowed Units	Paid Dollars
64615	CHEMODENERV MUSC MIGRAINE					1,649	4,383	\$498,572
Q5103	INJECTION, INFLECTRA					35	10,083	\$453,557
67028	INJECTION EYE DRUG	50				421	1,402	\$408,080
67028	INJECTION EYE DRUG	RT				445	1,162	\$186,661
67028	INJECTION EYE DRUG	LT				425	1,166	\$185,568
Q5104	INJECTION, RENFLEXIS					PHI		\$47,751
11900	INJECT SKIN LESIONS </W 7					1,379	2,187	\$37,500
64612	DESTROY NERVE FACE MUSCLE	50				82	224	\$25,805
67028	INJECTION EYE DRUG					44	85	\$13,070
64612	DESTROY NERVE FACE MUSCLE					43	80	\$7,107

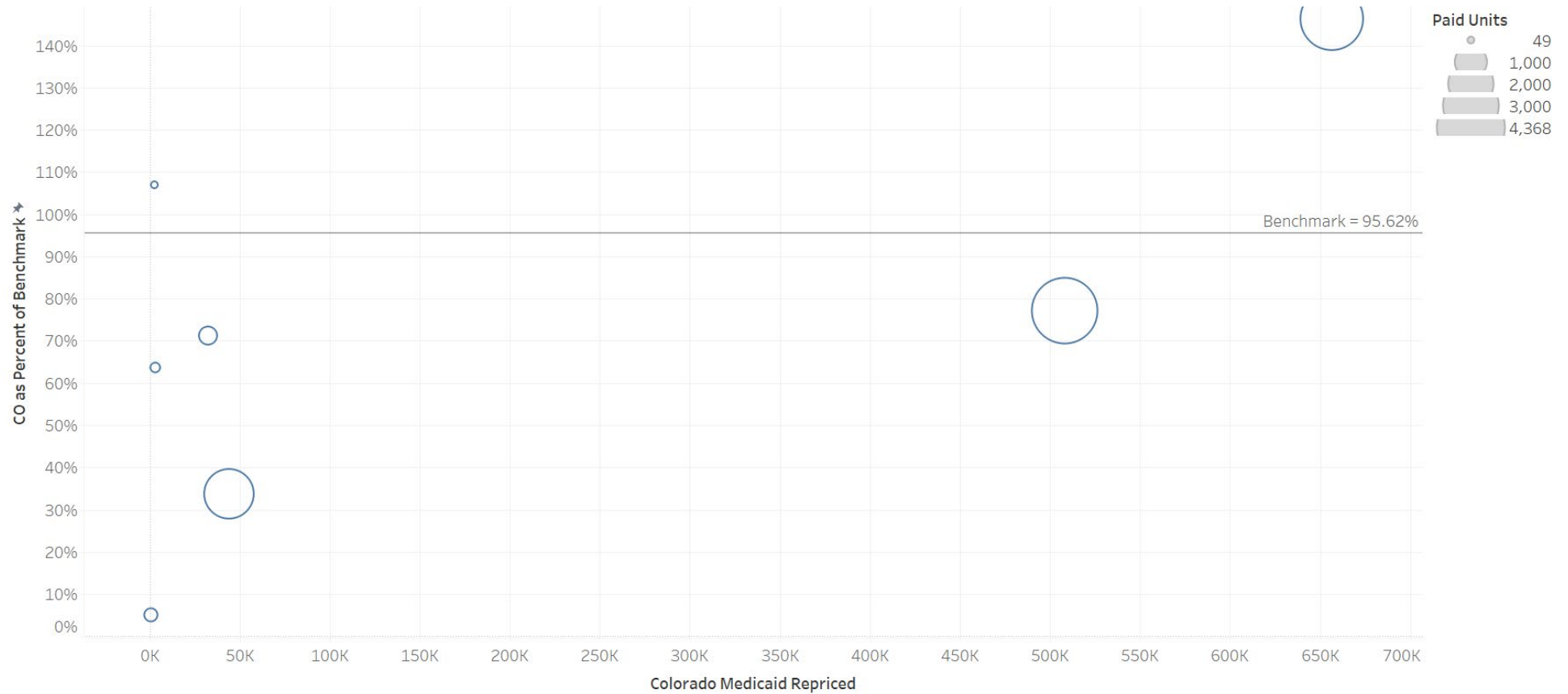
Injections & Miscellaneous J-Codes – Distinct Utilizers Over Time



Injections & Miscellaneous J-Codes – Active Providers Over Time

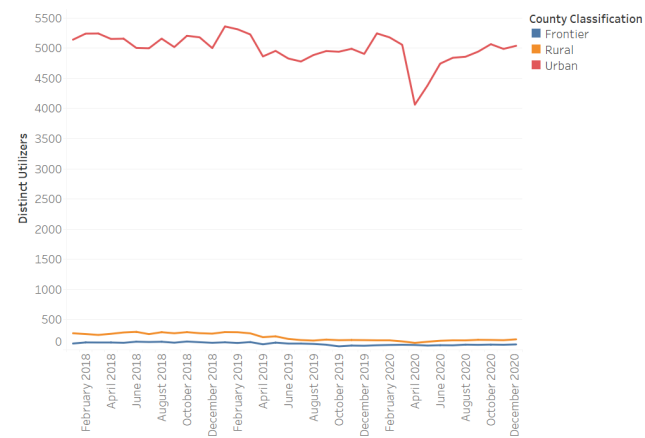


Injections & Miscellaneous J-Codes – Rate Comparison Scatterplot (CY 2020)

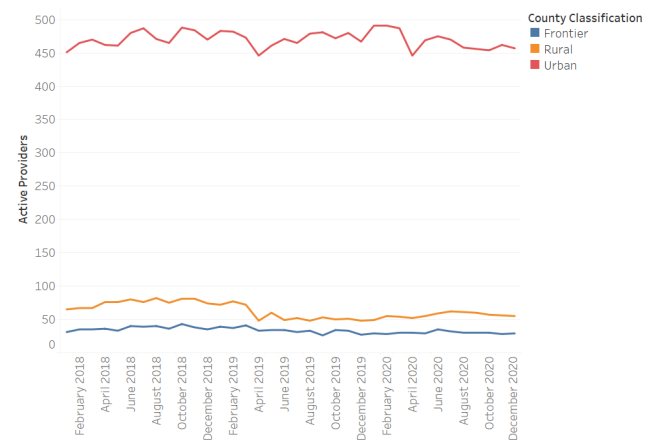


Outpatient ST

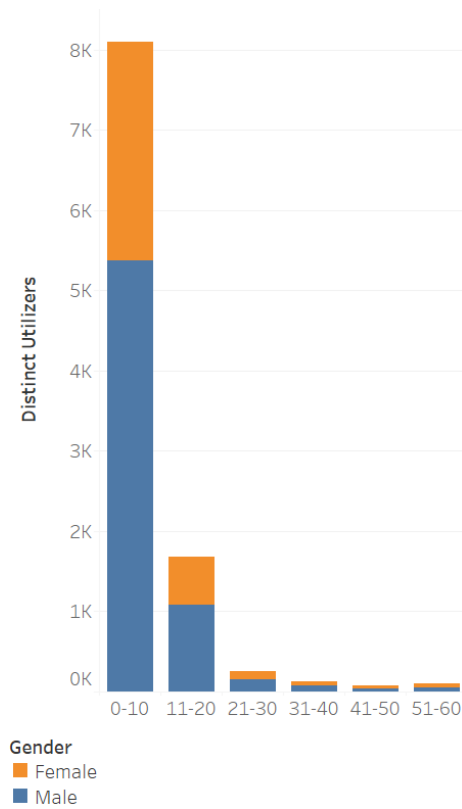
Outpatient ST – Distinct Utilizers Over Time



Outpatient ST – Active Providers Over Time

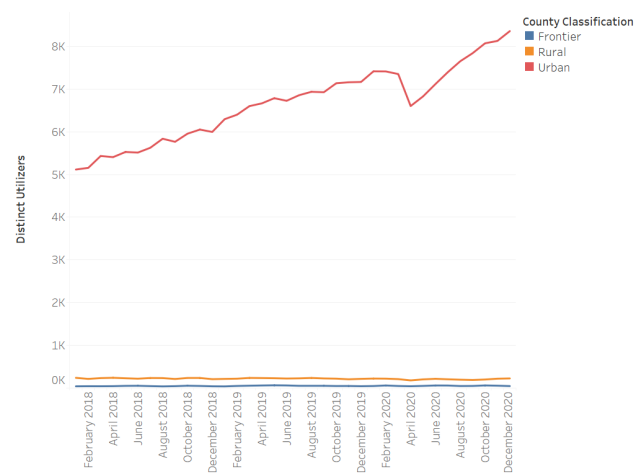


Outpatient ST – Utilizer Demographics (CY 2020)

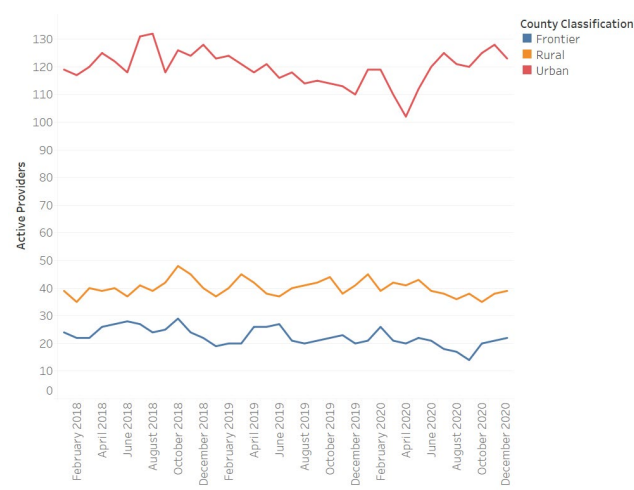


Home Health

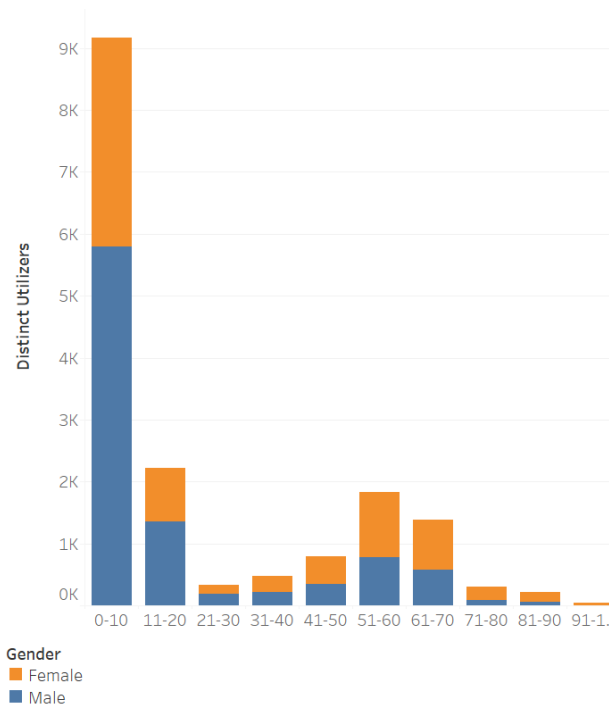
Home Health – Distinct Utilizers Over Time



Home Health – Active Providers Over Time



Home Health – Utilizer Demographics (CY 2020)



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Appendix E -COVID-19 Impact on Year Two (Cycle Two) Services

COVID-19 Pandemic Impact on Year Two (Cycle Two) Services

The Department recognizes that data from CY 2020 will show the impact of the COVID-19 pandemic, including the stay-at-home order from March 15, 2020-May 1, 2020. The Department felt that CY 2019 data was not recent enough to represent valid utilization and provider claims data; CY 2020 allowed for the most recent data that also had enough claims data run-out to depict the most accurate utilization and provider data for the base data used in the rate comparison and access to care analyses.

The Department recognizes that many services were impacted by the COVID-19 pandemic; however, some services may have been disproportionately impacted (e.g., respiratory). It remains to be seen how the COVID-19 pandemic, as well as the increased utilization of telemedicine and telehealth, will impact health care services in the long-term, since the full impacts have yet to be captured by current data. As such, the Department has kept this impact in mind as conclusions were drawn.

The Department will continue to monitor the impact of the COVID-19 pandemic to determine if there were any residual or long-lasting effects on member access and/or provider retention and if there are any opportunities for improving member access and provider retention to ensure a return to (or to exceed) pre-pandemic levels, including, but not limited, to rate changes, policy updates, and changes to service delivery options or reimbursement methodology.

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Appendix F -COVID-19 Impact on Respiratory Services

COVID-19 Pandemic Impact on Respiratory Services

The 2022 Medicaid Provider Rate Review Analysis Report reviewed service utilization for CY 2020 and includes data from the beginning of the ongoing COVID-19 pandemic. The Department recognizes that many services were impacted by the COVID-19 Pandemic; however, some services may have been disproportionately impacted, including Respiratory services. As indicated in the data, utilization for Respiratory services drastically decreased during the beginning of the COVID-19 pandemic, March 2020, among all county classifications. There was another dip in utilization during November and December of 2020. It remains to be seen how the COVID-19 pandemic, as well as the increased utilization of telemedicine and telehealth, will impact health care services in the long-term. For example, Respiratory utilization and reimbursement may be directly or indirectly impacted by the increase in telemedicine utilization and expansion of telemedicine benefits, among other factors, including increased COVID-19 related, Respiratory hospitalization. However, the full impacts have yet to be captured by current data.

Below shows recent Respiratory utilization, provider accessibility, utilizers per provider (panel size), and top utilized procedure codes for CY 2020 and CY 2021. Please note that the start of the Public Health Emergency is mandated as March 15, 2020.

Methodology and Considerations

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

The data used to create the visuals in Appendix F is from claims data in the Medicaid Management Information System (MMIS) from January 2020 to December 2021 and does not include claims run-out data; in addition, this data set did not undergo an incurred but not reported (IBNR) adjustment. The Department plans to present this data with an IBNR adjustment performed to better estimate an annualized level of utilization after all services rendered have been fully realized.

Definitions

Monthly service utilization trends were calculated as the total, distinct monthly service utilizers, for Respiratory services. This calculation is then broken up by RAE-frontier, urban, or rural.

Monthly active provider trends were calculated as the total monthly active service providers, for Respiratory services. This calculation is then broken up by RAE-frontier, urban, or rural.

Monthly service utilizers per providers (panel size), in participants per provider, were calculated as the total monthly service utilizers divided by the total monthly active provider, for Respiratory services. This calculation is then broken up by RAE-frontier, urban, or rural.

Monthly service utilization trends were broken down by total monthly utilizers for each procedure code. Note, some procedure code data is blinded for PHI.

Respiratory Service Utilizers Over Time

Figure F-1 illustrates, for Respiratory services, the monthly service utilization trends from January 2020 to December 2021. Service month is on the x-axis and distinct utilizers of Respiratory services are on the y-axis, indicating the higher y-position, the more distinct utilizers of Respiratory services during that month. Utilizers are broken up by RAE. The red line represents Respiratory service utilizers who reside in Urban counties, the orange line represents Respiratory service utilizers who reside in Rural counties, and the blue line represents Respiratory service utilizers who reside in Frontier counties.

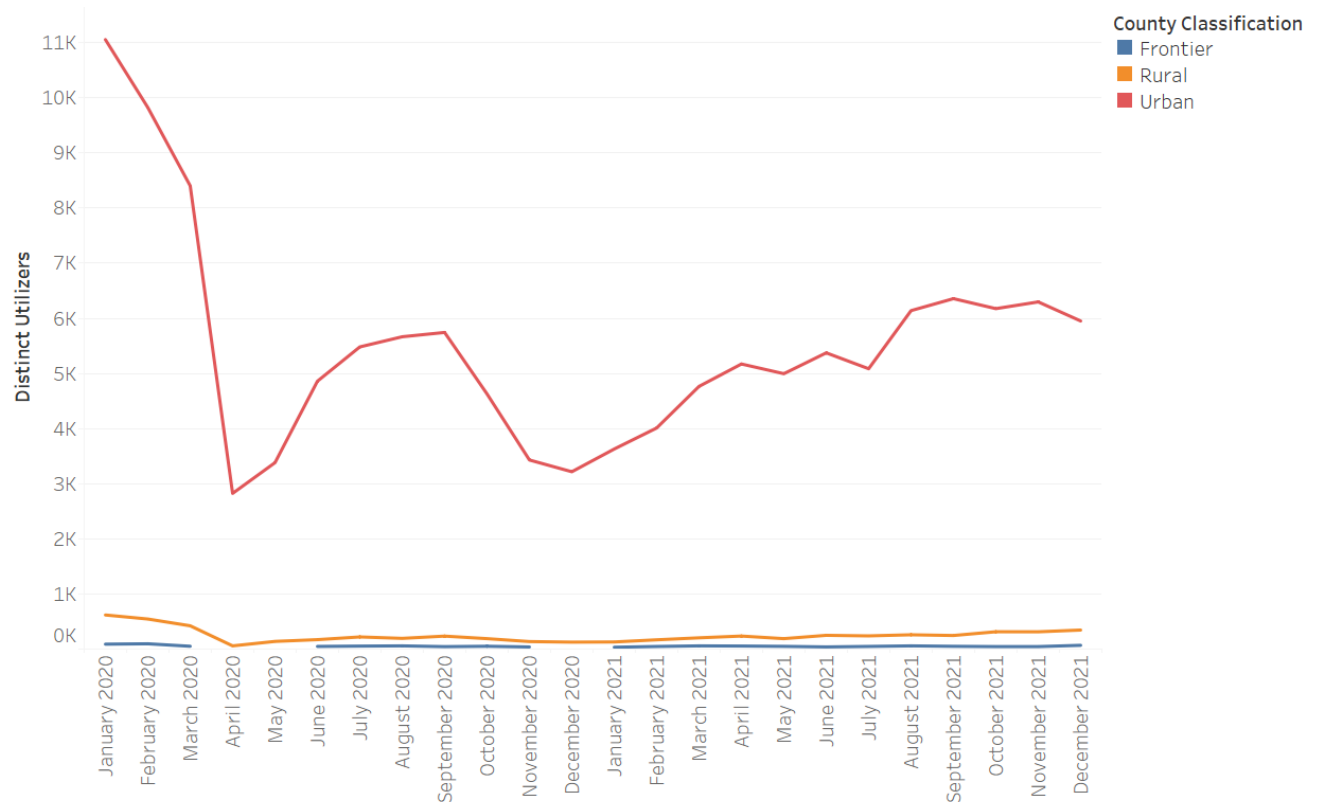


Figure F-1. Utilization for Respiratory services between January 2020 and December 2021

Respiratory Active Providers Over Time

Figure F-2 illustrates, for Respiratory services, the monthly active service provider trends from January 2020 to December 2021. Service month is on the x-axis and active providers of Respiratory services are on the y-axis, indicating the higher y-position, the more distinct active providers of Respiratory services during that month. Active providers are broken up by RAE. The red line represents Respiratory service providers who reside in Urban counties, the orange line represents Respiratory service provider who reside in Rural counties, and the blue line represents Respiratory service providers who reside in Frontier counties.

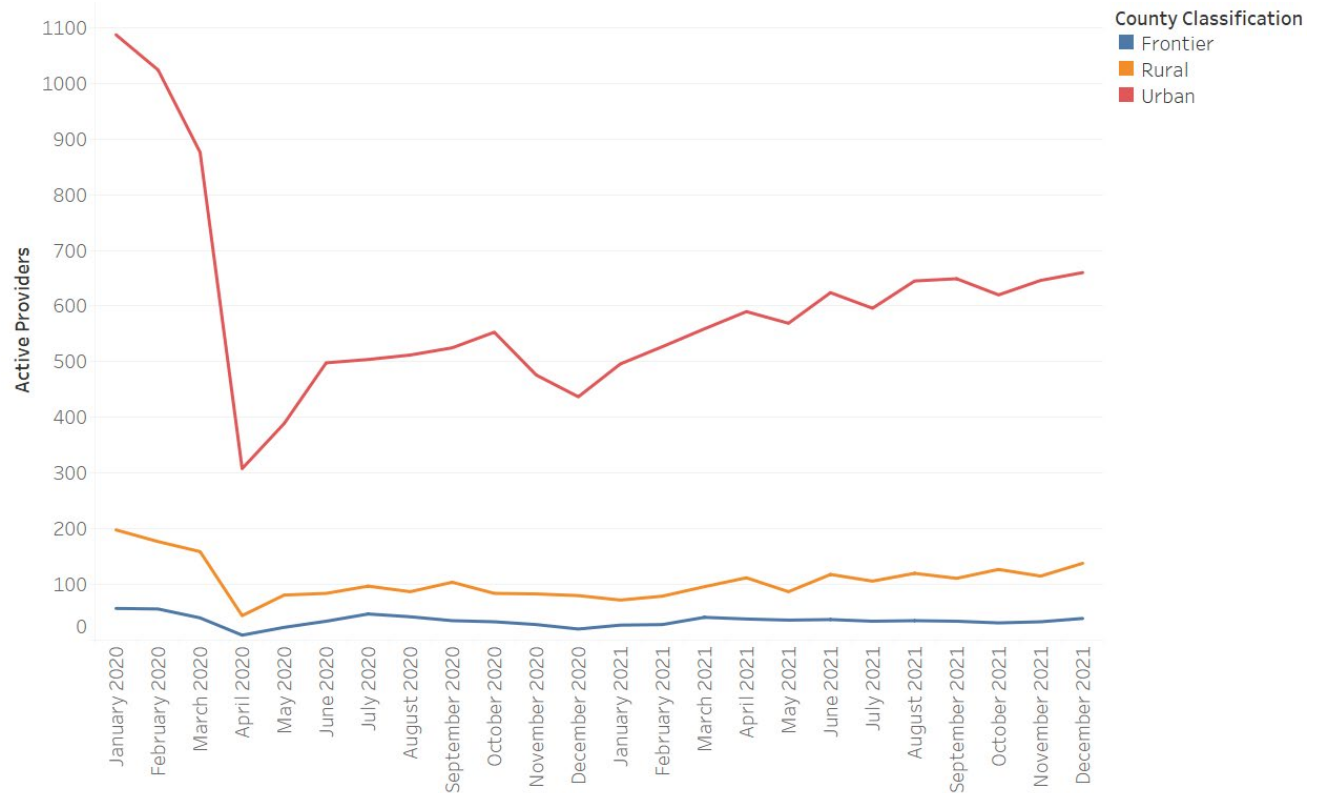


Figure F-2. Active provider trends for Respiratory services between January 2020 and December 2021

Respiratory Utilizers per Provider (Panel Size) Over Time

Figure F-3 illustrates, for Respiratory services, the average monthly utilizers per active provider trends from January 2020 to December 2021. Service month is on the x-axis and utilizers per active provider of Respiratory services are on the y-axis, indicating the higher y-position, the more utilizers per provider of Respiratory services during that month. Utilizers per provider are broken up by RAE. The red line represents Respiratory service utilizers per provider in Urban counties, the orange line represents Respiratory service utilizers per provider in Rural counties, and the blue line represents Respiratory service utilizers per provider in Frontier counties.

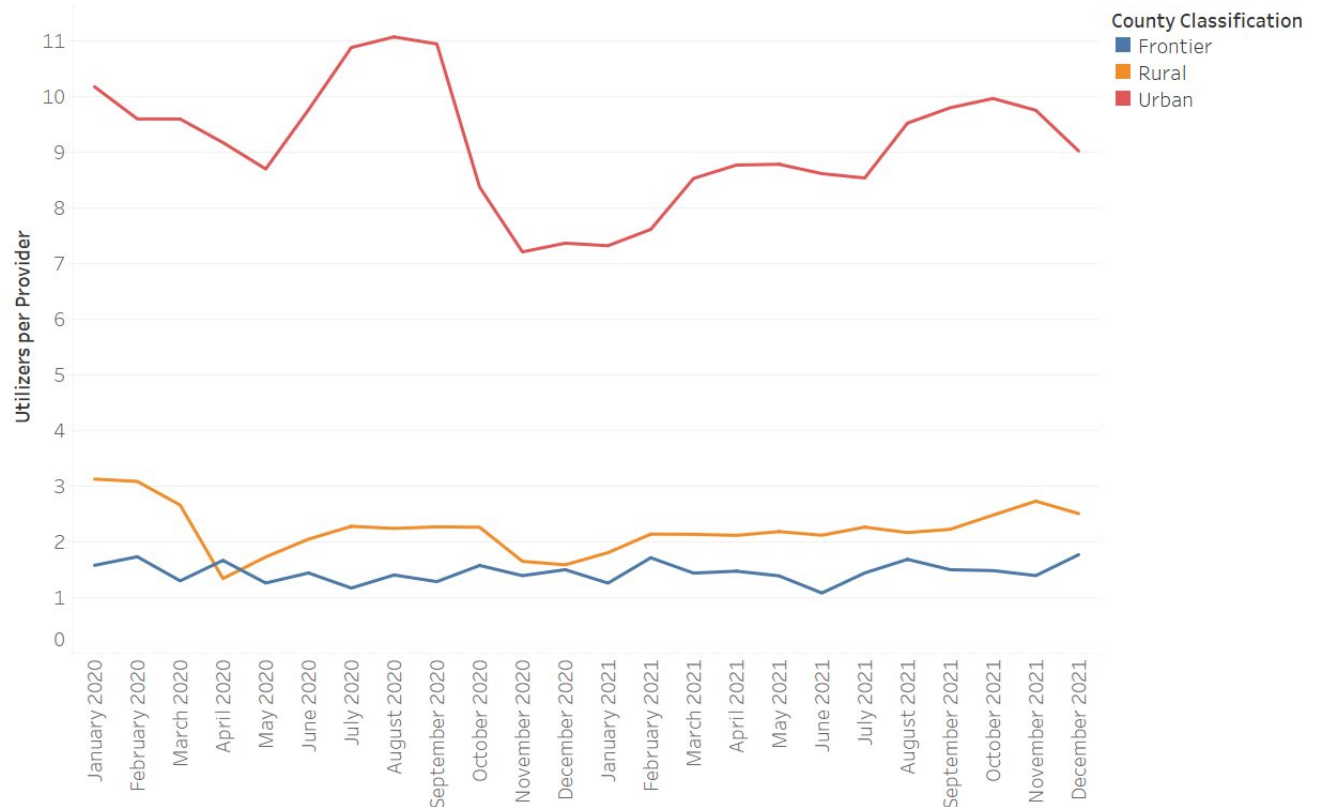


Figure F-3. Utilizers per provider (panel size) for Respiratory services between January 2020 and December 2021

Respiratory Utilizers per Provider (Panel Size) Over Time

Figure F-4 illustrates, for Respiratory services, the utilizer trends from January 2020 to December 2021 for each procedure code. Service month is on the x-axis and distinct utilizers are on the y-axis, indicating the higher y-position, the more utilizers during that month. There are 14 different colors to differentiate the procedure codes under review. Please note that some procedure codes were blinded for PHI. Notable distinctions include that the most utilized procedure code was 94760 before, and during the COVID-19 pandemic, and utilization of procedure code, 94010 increased following the start of the Public Health Emergency.

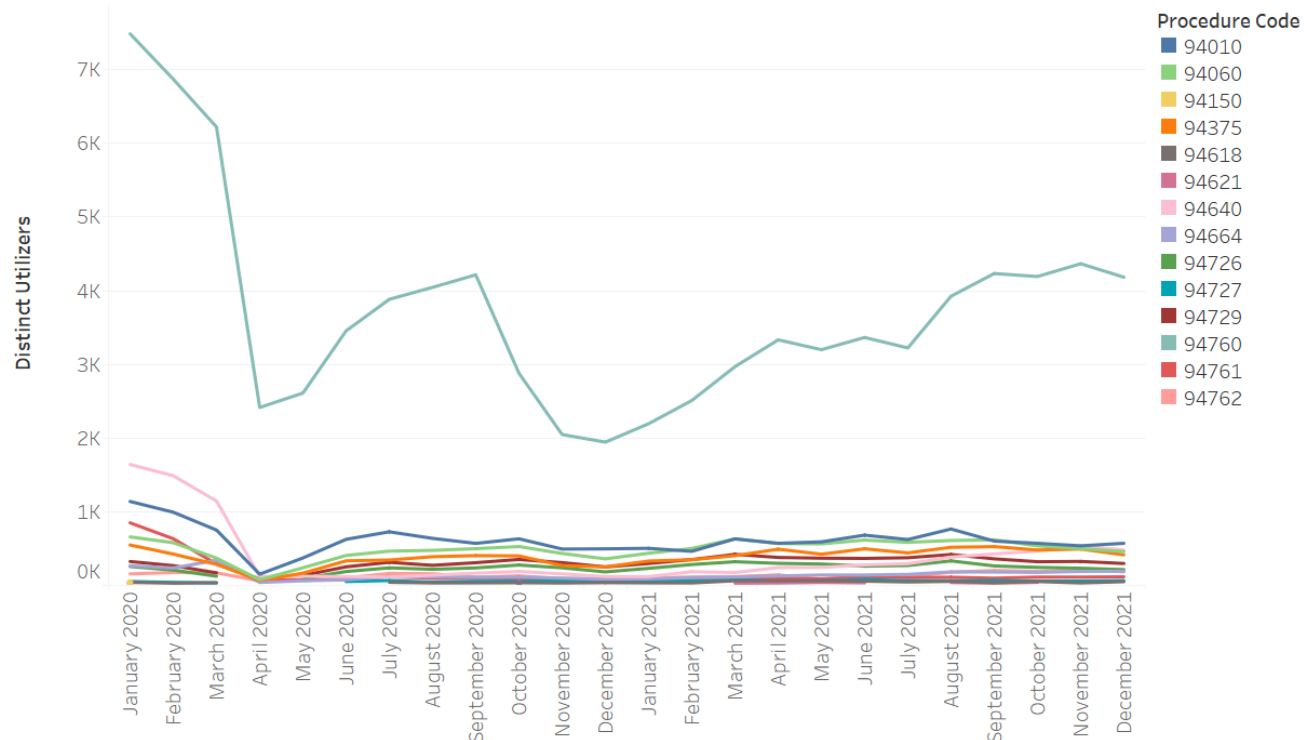


Figure F-4. Utilization broken down by procedure code for Respiratory services between January 2018 and December 2020

Conclusions

While it is difficult to draw conclusions on limited data, the Department has noted these evolving trends and is currently investigating whether Respiratory services have been disproportionately impacted by the COVID-19 pandemic, and further impacted by the increasing use of telemedicine or telehealth services. The data shows there is a slight turnaround in both numbers of utilizers and providers at the beginning of CY 2021. These trends do not return to pre-COVID-19 trends but have shown a steady increase in utilization and number of active providers. Additional research, and stakeholder engagement, will help identify where there may be opportunities, if any, to improve access to care and provider retention, and ensure appropriate reimbursement of high value services.

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Appendix G – Physical/Occupational Therapy (PT/OT), Speech Therapy (ST), and Home Health PT/OT/ST Rate Comparison Methodology



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Policy & Financing

Physical/Occupational Therapy and Speech Therapy Per Diem Calculation Methodology

In order to compare outpatient physical therapy/occupational therapy and speech therapy (PT/OT/ST) to Home Health PT/OT/ST, we needed to calculate the per day expenditure.

Home Health is paid by revenue codes on a per diem basis; the therapists can offer many services but are reimbursed a single daily rate.

Outpatient Physical/Occupational and Speech therapies are reimbursed based on procedure codes. Multiple procedure codes can be billed the same day. Also, some procedure codes are billed in 15-minute units increments whereas others are untimed codes. To calculate the per day rate for PT/OT/ST, all the dollars paid for the untimed codes were added to the paid totals for timed codes, then divided by the total service days during the period. Service days were calculated as the difference between the beginning service day and ending service day + 1 to include the start date.