

Rate Review Process: Preliminary Year Three Analyses

Introduction

This document contains high-level, preliminary rate comparison and access to care analyses and underlying methodologies for services under review in year three of the rate review process. The rate review process was enacted in June of 2015 ([Senate Bill 15-228](#)) and operates in accordance with the Colorado Medical Assistance Act, Section 25.5-4-401, C.R.S. (Colorado Revised Statutes). Findings from these analyses will be reported in the 2018 Medicaid Provider Rate Review Analysis Report, published on May 1, 2018 and may incorporate additional data, including stakeholder feedback, gathered over the next three months.

During the Medicaid Provider Rate Review Advisory Committee (MPRRAC) meeting on February 16, 2018, the Department will reference information contained within this document. The Department encourages committee members and stakeholders to:

- Review the information contained in this document.
- Prior to the MPRRAC meeting on February 16th, send questions regarding specific analyses, procedure codes, or preliminary results to Lila Cummings (lila.cummings@state.co.us).
- Attend the MPRRAC meeting on February 16th and provide feedback and observations related to this document, and to general year three service rate and access considerations.

For more information regarding MPRRAC meetings, visit the Department's [MPRRAC website](#).

Year three service groupings, listed in order from highest to lowest calendar year 2016 (CY 2016) expenditure, are:

- Primary Care and Evaluation and Management (E&M) (pp.9-11)
- Radiology Services (pp.12-14)
- Physical and Occupational Therapies (pp.15-17)
- Maternity Services (pp.18-20)
- Surgeries (pp.21-23)
- Other Services and Procedures (pp.24-26)

For more specific information regarding service groupings, see [Year Three Services and Top Procedure Codes by Paid Amount](#).

Pages 2-4 contain high-level, preliminary rate comparison and access to care analyses results. Pages 9-26 contain detailed rate comparison and access to care analyses information. Additional information for dental services will be provided ahead of the MPRRAC meeting on February 16, 2018.

It is important to note that the information and analyses contained in this document do not indicate whether rates are sufficient, nor do they indicate whether access is sufficient. Rather, it guides the Department in understanding, for each service, where further investigation should occur.

Rate Comparison Analysis

Rate benchmark comparisons provide a reference point regarding how Colorado Medicaid reimbursement rates compare to other payers. To identify rates for analysis, the Department first examines if a service has a corresponding Medicare rate. The Department relied primarily upon Medicare rates where available for multiple reasons including, but not limited to, the following:

- 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 is generally available to the public.
- Medicare rates are typically updated on a periodic basis.
- Most services covered by Colorado Medicaid are also covered by the Medicare program.

If a service does not have a corresponding Medicare rate, the Department identifies other state Medicaid agency rates for the same service and calculates an average for comparison. Where other state Medicaid agency rates are used for analysis, the Department relies upon rates from the same set of states as was used in the previous year's comparisons, namely: Nebraska, Arizona, Wyoming, Oregon, and Oklahoma. In selecting these states, the Department considered whether rates were recently updated and readily accessible, as well as whether the covered services and populations were similar. Additionally, some states were selected for geographic proximity. Finally, the Department eliminated states from consideration if the majority of the services were provided through a managed care delivery system.

Rate comparison analyses are based on administrative claims data from CY 2016. Preliminary rate benchmark comparisons for each service grouping are displayed below:

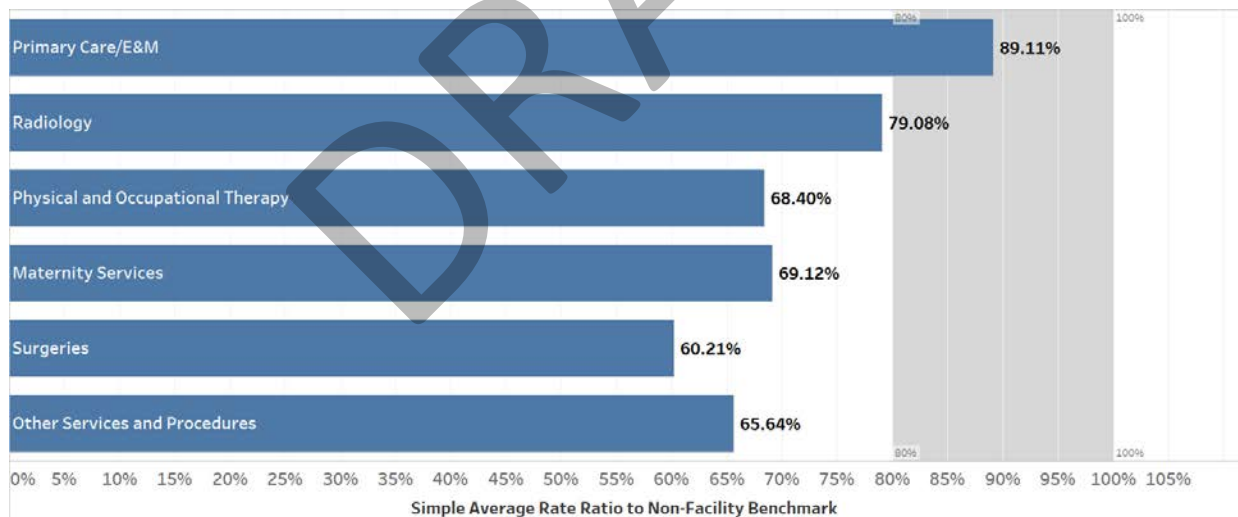


Figure 1 - Simple Average Rate Benchmark by Service Grouping

Access to Care Analysis

It is important to note that there is no single metric that can indicate whether access to care is sufficient for a specific service, a specific region, or for the state as a whole. Since metrics measure different aspects of access to care (e.g. utilization or travel distance), and because regions may perform well on some metrics and poorly on others, the Department developed the Access to Care Index (ACI) in an attempt to assess overall regional performance.

The ACI is also a tool that helps to standardize the access to care analysis and allow the Department to identify regions with lower ACI scores across multiple service groupings. Standardization is useful because service groupings have inherently different utilization patterns, so it is expected and appropriate for one service grouping to have lower utilization and provider availability than another.

Additionally, while the results of the ACI by region are informative and help to illustrate statewide variation, there are limitations. For example, if the ACI is relatively high in one region for a service grouping, access issues may still exist that are not easily detected through claims-based analysis. Likewise, if the ACI is relatively low in one region for a service grouping, there may be a shortage of providers in that geographic area that affects all payers and may not be properly addressed via changes in the Medicaid program alone, for example.

Currently, five metrics, all calculated exclusively using administrative claims data from CY 2015 and 2016, are incorporated into the ACI:

- penetration rate
- member to provider ratio
- travel distance
- provider panel estimate
- active provider months

Definitions for each metric are found on p.27.

ACI scores for each region and service grouping are displayed below:

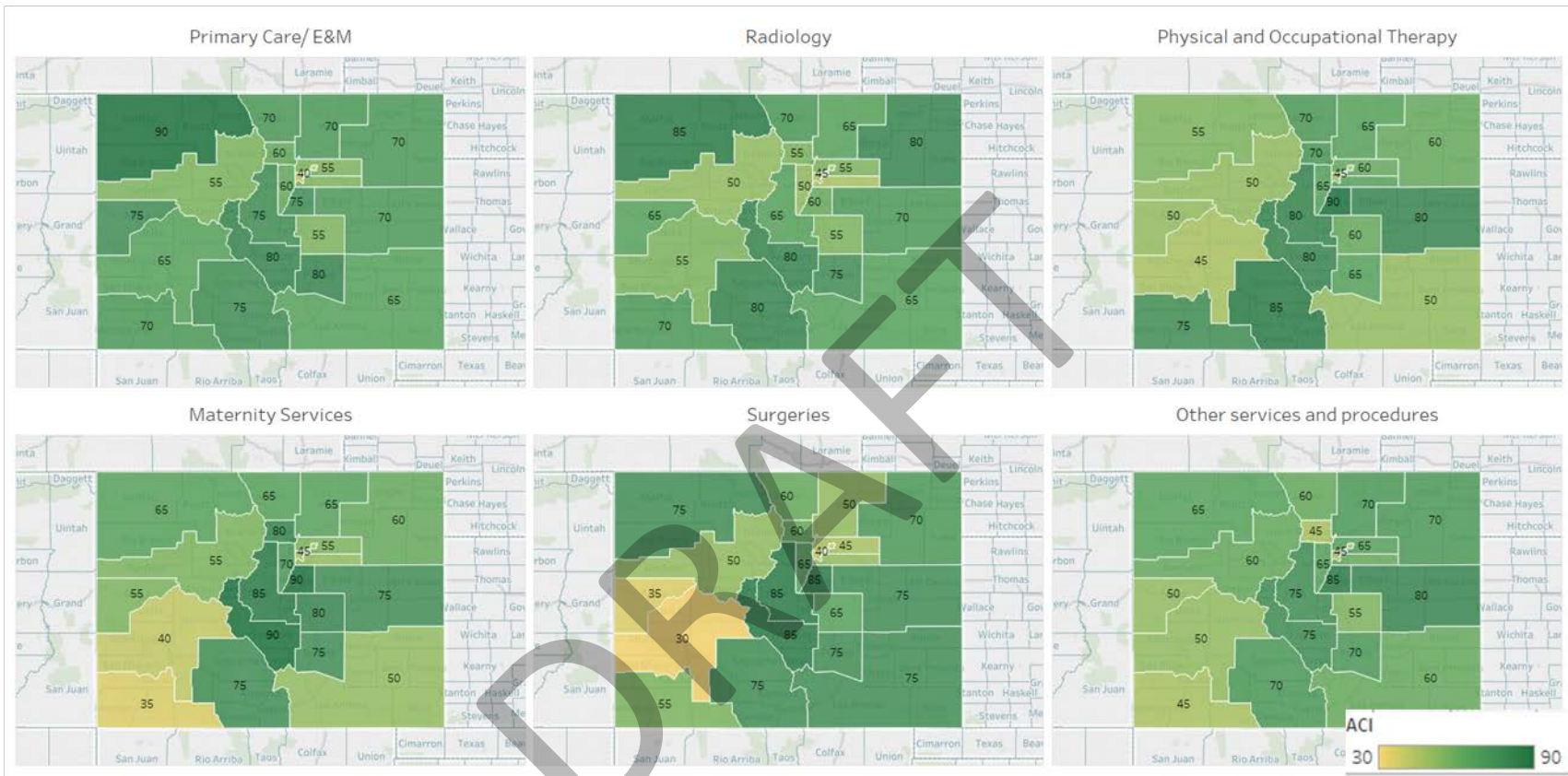
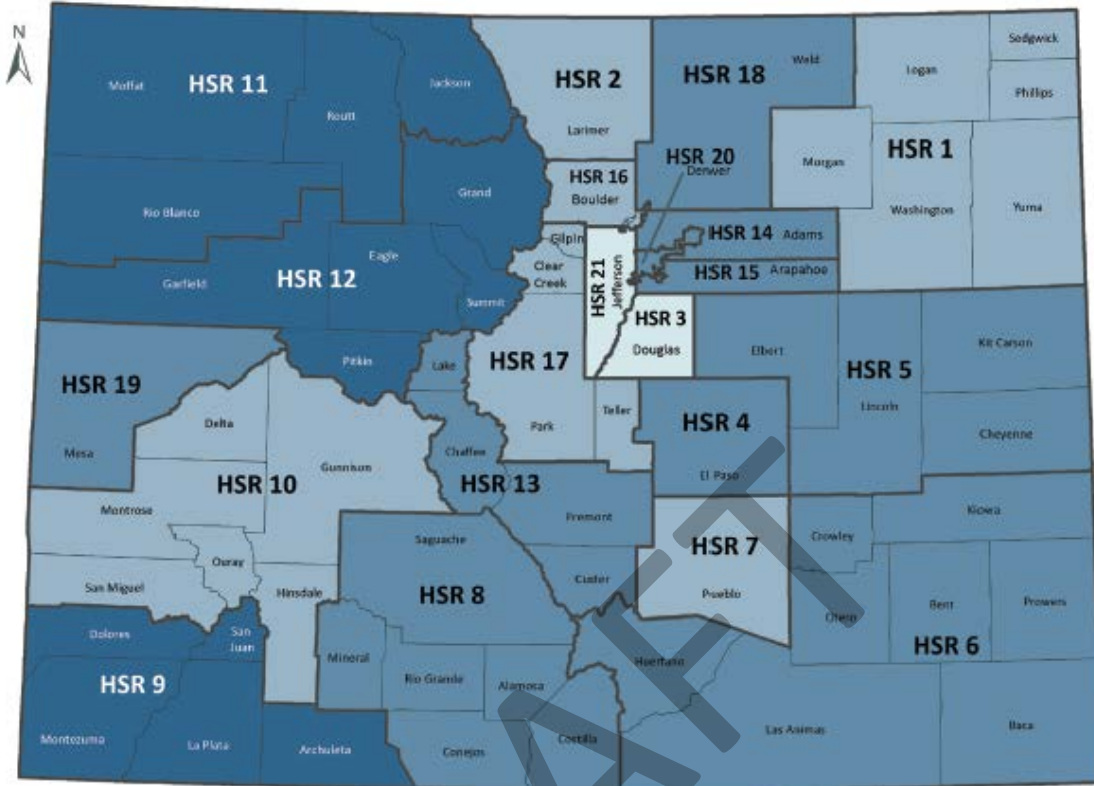


Figure 2 - ACI Scores by Service Grouping

Colorado Health Statistics Regions Map



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

More detailed rate comparison and access to care analyses information is contained on the following pages. **Bolded terms** are further defined on p.27.

Additional Rate Comparison Analysis Information

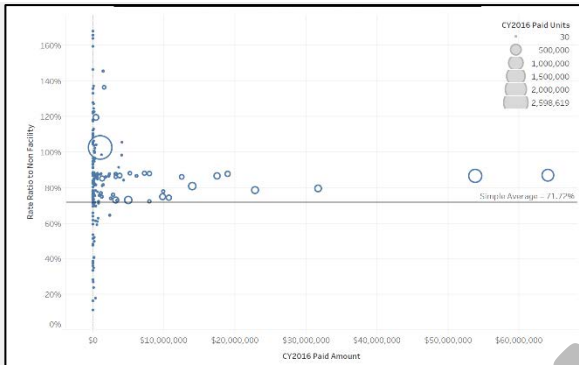
For each service grouping the following rate comparison information is provided:

Total Paid and Rate Ratio Table

Service Group	Total Paid CY2016	Simple Average Rate Ratio to Non Facility
Physical and Occupational Therapy	\$ 30,253,641	68.40%

The Total Paid and Rate Ratio Table contains information regarding the total paid amounts for the **professional portion of services** during CY 2016 and the **simple average rate ratio**.

Rate Ratio Scatterplot



The Rate Ratio Scatterplot displays the **rate ratio**, utilization, and total paid amount for individual procedure codes, specifically:

- Vertical axis (y-axis) – the **rate ratio** of Colorado Medicaid rates to the **benchmark rates** for each service code. The dark horizontal line represents the **simple average rate ratio**.
- Horizontal axis (x-axis) – the total paid amount for each service code.
- Circles – each circle represents a specific service code. The size of the circle indicates the total paid units, which is a proxy for that code’s utilization.

Top Procedures by Total Paid Table

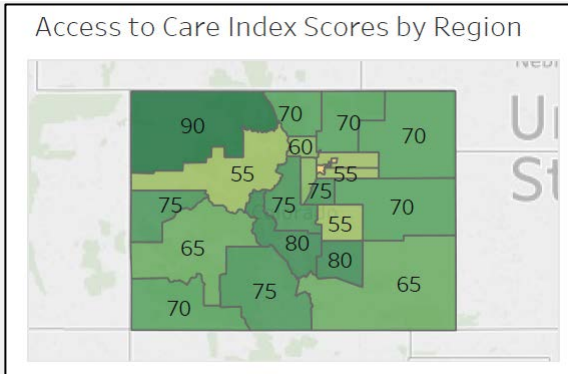
Procedure	Procedure Description	CY2016 Paid Units	Total Paid Amount	Colorado Rate	Non Facility Benchmark	Rate Ratio to Non Facility
99214	Office/outpatient visit est	642,820	\$64,100,672	\$94.44	\$108.75	85.84%
99213	Office/outpatient visit est	798,457	\$83,865,033	\$64.00	\$73.94	86.56%
99285	Emergency dept visit	203,622	\$31,732,013	\$139.99	\$175.86	79.60%
99284	Emergency dept visit	215,648	\$69,098,312	\$113.90	\$119.16	78.80%
99204	Office/outpatient visit new	122,830	\$10,962,782	\$145.47	\$166.17	87.54%
99203	Office/outpatient visit new	174,079	\$17,547,907	\$94.75	\$109.47	86.55%
99283	Emergency dept visit	247,017	\$13,954,124	\$50.78	\$62.81	80.85%
99215	Office/outpatient visit est	93,281	\$12,522,982	\$128.43	\$156.43	86.38%
99233	Subsequent hospital care	118,008	\$10,748,367	\$78.38	\$106.88	71.31%
99291	Critical care first hour	461,718	\$9,894,885	\$91.95	\$79.14	78.29%
99232	Subsequent hospital care	155,003	\$9,821,379	\$54.21	\$72.22	74.09%
99223	Initial hospital care	45,065	\$7,964,397	\$148.95	\$205.65	72.43%
99391	Per pm reveal est pat infant	84,199	\$7,938,489	\$88.11	\$100.13	88.00%
99392	Prev visit est age 1-4	72,830	\$7,319,554	\$94.11	\$106.95	87.99%
99205	Office/outpatient visit new	31,833	\$6,141,375	\$181.21	\$209.24	86.60%

The Top Procedures by Total Paid Table displays the top 15 codes, in descending order, by total expenditures (also referred to as total paid). This table includes: the procedure code and a short description; total paid units, which are sometimes blinded to shield protected health information (PHI); total paid amount; Colorado Medicaid rates; the **benchmark rate**; and the **rate ratio**.

Additional Access to Care Analysis Information

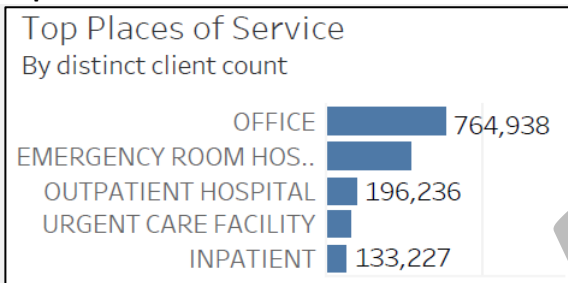
For each service grouping, the following access to care analysis information is provided:

ACI Map



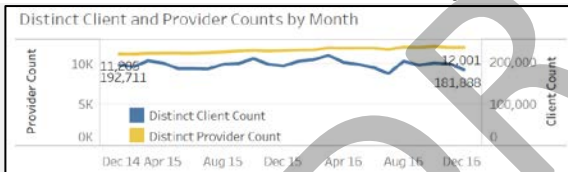
The ACI Map displays the ACI score for each **health statistics region (region)**. In year two of the rate review process, the Department developed the ACI to standardize metrics and reach more meaningful conclusions. Metrics used for the ACI are: **penetration rate; distance metric; member to provider ratio (M:P Ratio); active provider months; and panel estimate.**

Top Places of Service Bar Chart



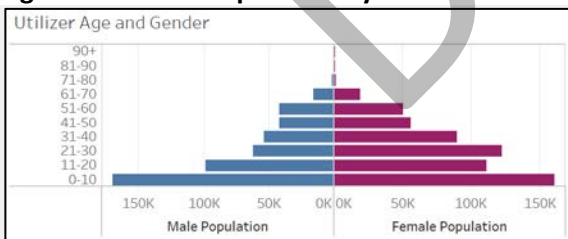
The Top Places of Service Bar Chart displays the top five **places of service.**

Distinct Client and Provider Counts by Month Chart



The Distinct Client and Provider Counts by Month Chart displays changes in the number of providers actively providing services, and the number of distinct clients utilizing services.

Age and Gender Population Pyramid



The Age and Gender Population Pyramid displays the age and gender of clients utilizing services.

ACI Dot Plot



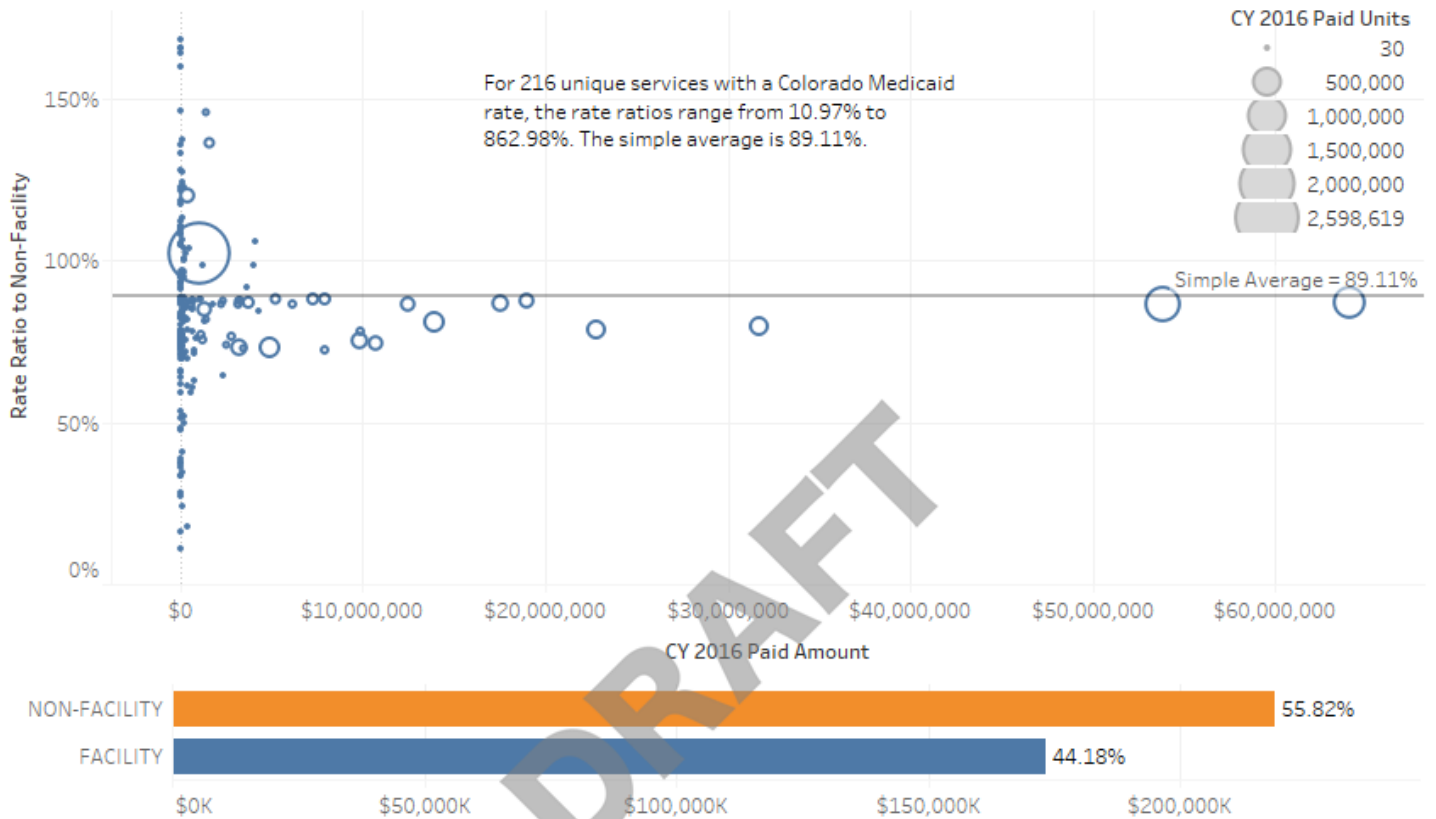
The **ACI Dot Plot** provides detail for each metric within each region’s ACI score. Metrics are displayed in columns and each circle represents the rank of the region for each metric, except the distance metric. For the distance metric, points are distributed based on the percent of utilizers who traveled within 30 miles. Quartiles are outlined with dotted vertical lines. For each ACI metric, points are awarded to each region based on quartiles: regions in the top quartile receive 20 points, regions in the second quartile receive 15 points, while regions in the third quartile receive 10 points, and those in the bottom quartile receive 5.¹ Resulting ACI scores are presented in the far-right column.

¹ Note, for primary care/E&M services and maternity services, the Department anticipates using different and additional metrics when calculating the ACI for the final 2018 Medicaid Provider Rate Review Analysis Report, which will be published May 1, 2018.



DRAFT
Rate Comparison Analysis:
Primary Care and Evaluation & Management (CY 2016)

Service Group	Total Paid CY 2016	Simple Average Rate Ratio to Non-Facility
Primary Care/ E&M	\$ 392,219,473	89.11%



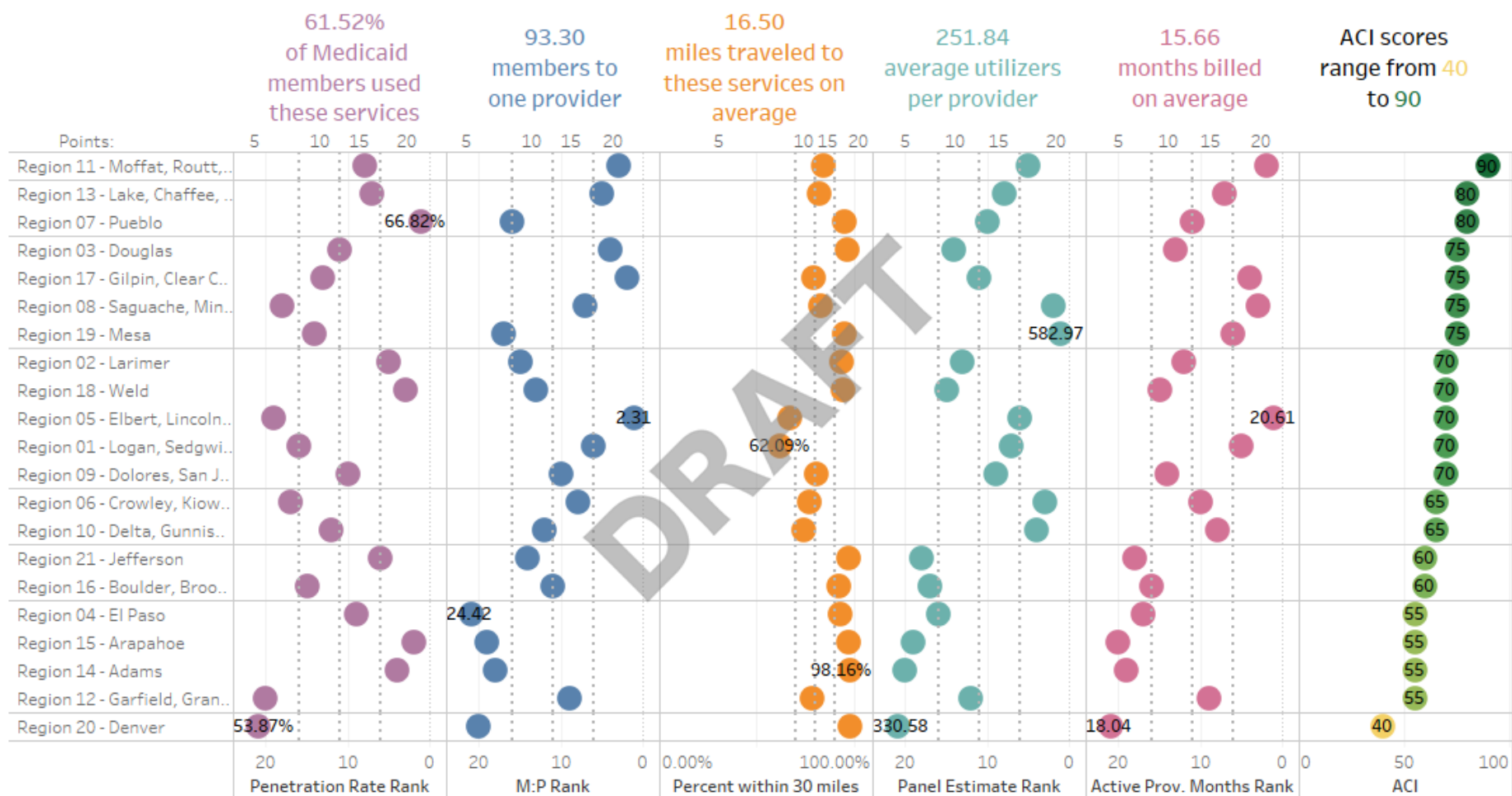
Total paid for services provided in a non-facility place of service was approximately \$219M or 55.82% of the overall paid. Total paid for services provided in a facility place of service was approximately \$173M or 44.18%.

Primary Care and Evaluation & Management - Top 15 by Total Paid

Procedure	Procedure Description	CY 2016 Paid Units	Total Paid Amount	Colorado Medicaid Rate	Non-Facility Benchmark Rate	Rate Ratio to Non-Facility
99214	Office/outpatient visit est	642,120	\$64,100,672	\$94.44	\$108.75	86.84%
99213	Office/outpatient visit est	798,457	\$53,865,033	\$64.00	\$73.94	86.56%
99285	Emergency dept visit	203,622	\$31,712,013	\$139.99	\$175.86	79.60%
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ACI Metric Performance and Score Calculation - Primary Care/ E&M

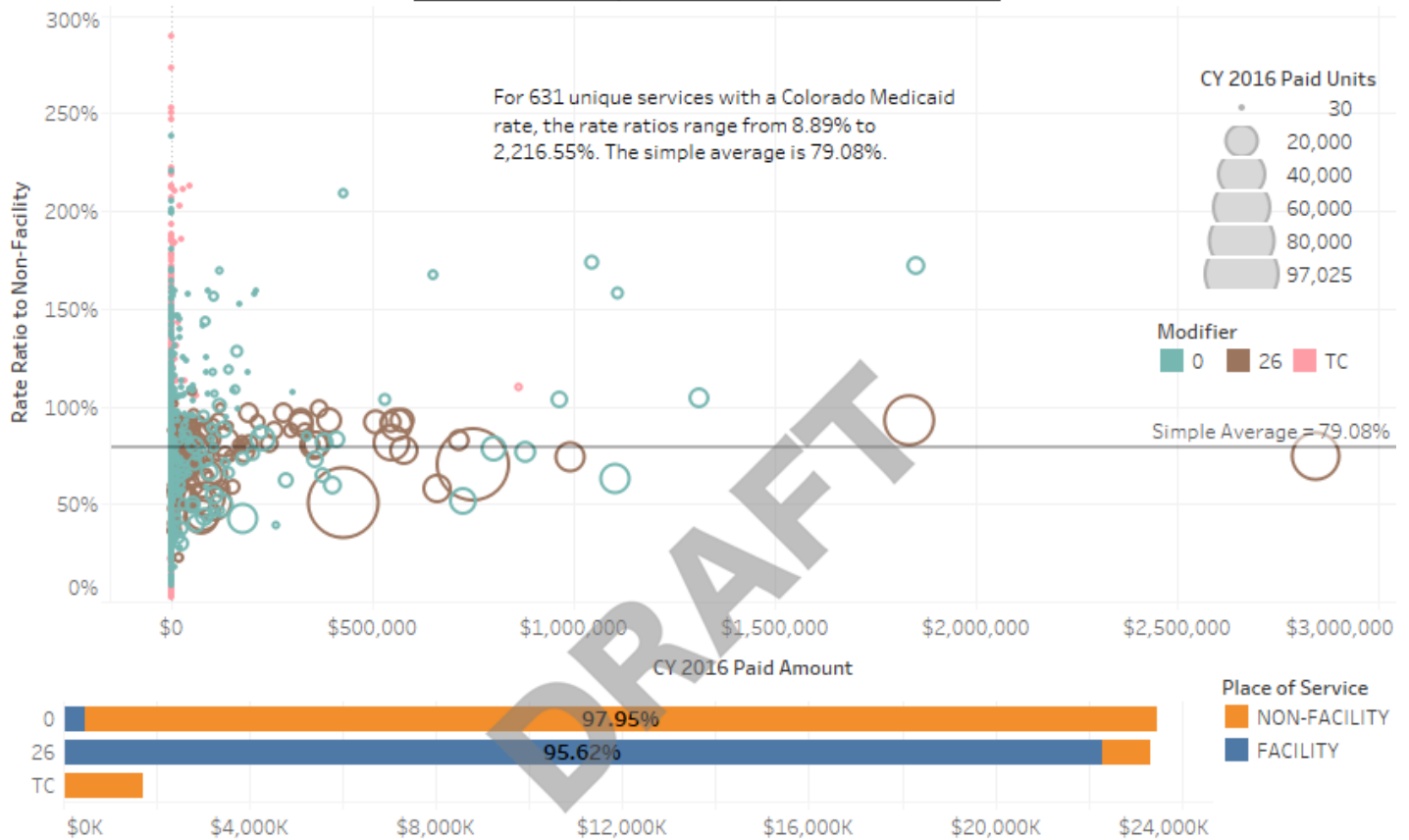
How to read this chart: The ACI dot plot displays information for each metric in every region. Metrics are displayed in columns and each circle represents the rank of the region for each metric (except the distance metric). Regions in the top quartile receive 20 points while those in the bottom receive 5 (quartiles are outlined with dotted vertical lines). For the distance metric, points are distributed based on the percent of utilizers that traveled within 30 miles. For context, the highest and lowest regions are labeled on the performance of each metric. Resulting ACI scores are presented in the last column. Statewide performance on the metrics are described above each metric on the chart.



The penetration rate ranges from 53.87% to 66.82%. The member to provider ratio ranges from 2.31 members per provider to 24.42. The distance metric ranges from 62.09% of utilizers traveling within 30 miles to 98.16%. Panels range from an average of 330.58 utilizers per provider to 582.97. Providers were active from an average of 18.04 months to 20.61. The resulting ACI scores range from 40 to 90.



Modifier	Total Paid CY 2016	Simple Average Rate Ratio to Non-Facility
Global (0)	\$ 23,478,384	81.87%
Professional (26)	\$ 23,330,553	75.65%
Technical (TC)	\$ 1,718,652	79.61%
Grand Total	\$ 48,527,589	79.08%



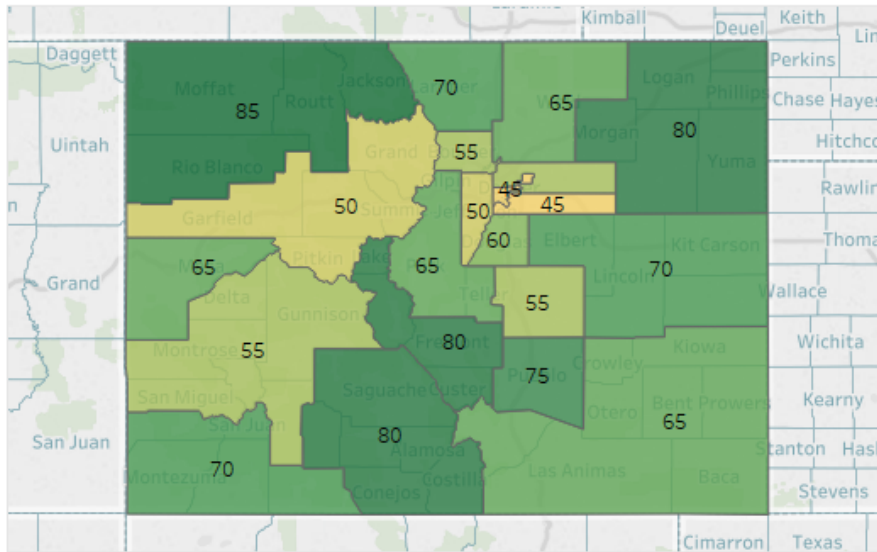
Total paid during CY 2016 by place of service detailed in color and further split by modifier. For claims with the global modifier (0), the total paid for services provided in a non-facility equals 97.95% (orange) and in a facility equals 2.05% (blue). For claims with the professional modifier (26), the total paid for services provided in a non-facility equals 4.38% (orange) and in a facility equals 95.62% (blue). Finally, For claims with the technical component modifier (TC), the total paid for services provided in a non-facility equals 99.53% (orange) and in a facility equals 0.47% (blue).

Radiology - Top Codes by Total Paid

Procedure	Modifier Split	Procedure Description	CY 2016 Radiology Units	Total Paid Amount	Colorado Medicaid Rate	Non-Facility Benchmark Rate	Rate Ratio to Non-Facility
74177	0	Ct abd & pelv w/contrast	1,301	\$339,668	\$266.62	\$315.47	84.52%
	26	Ct abd & pelv w/contrast	41,753	\$2,845,957	\$69.15	\$93.32	74.10%
	TC	Ct abd & pelv w/contrast	347	\$67,575	\$197.47	\$222.16	88.89%
72148	0	Mri lumbar spine w/o dye	4,852	\$1,852,755	\$389.28	\$226.82	171.63%
	26	Mri lumbar spine w/o dye	7,824	\$548,812	\$70.01	\$76.45	91.58%
	TC	Mri lumbar spine w/o dye	144	\$45,139	\$319.36	\$150.38	212.37%
70450	0	Ct head/brain w/o dye	634	\$123,602	\$199.36	\$117.72	169.35%
	26	Ct head/brain w/o dye	45,975	\$1,834,064	\$40.50	\$43.79	92.49%
	TC	Ct head/brain w/o dye	30	\$2,477	\$156.97	\$73.94	212.29%
70553	0	Mri brain stem w/o & w/dye	1,885	\$1,111,822	\$603.31	\$382.58	157.70%
	26	Mri brain stem w/o & w/dye	7,491	\$716,275	\$97.01	\$117.36	82.66%
	TC	Mri brain stem w/o & w/dye	52	\$25,181	\$491.63	\$265.22	185.37%

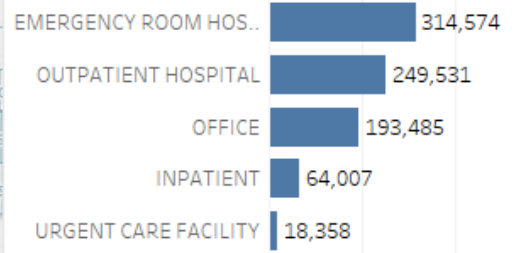
Access and Utilization - Radiology

Access to Care Index Scores by Region



Top Places of Service

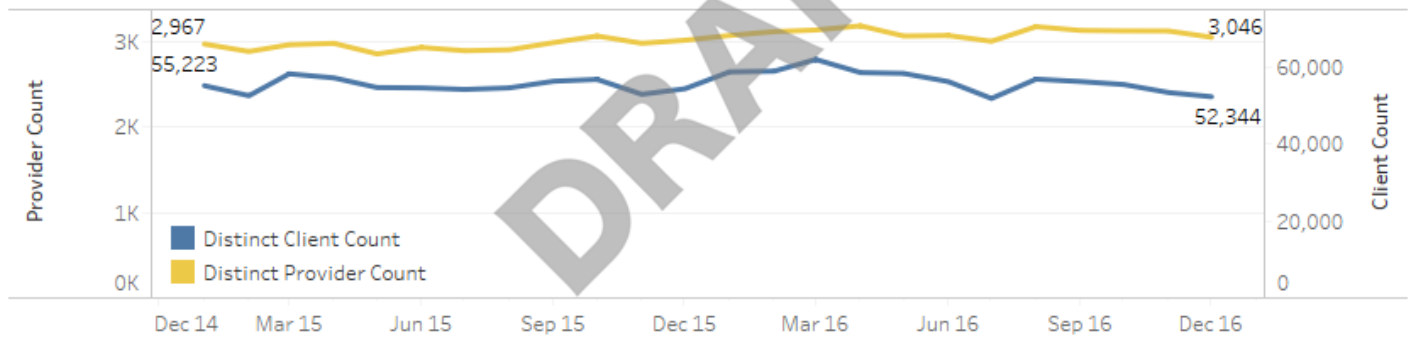
By distinct client count



The emergency room was the top place of service, serving 314,574 distinct clients; the outpatient hospital was the second highest, serving 249,531 distinct clients.

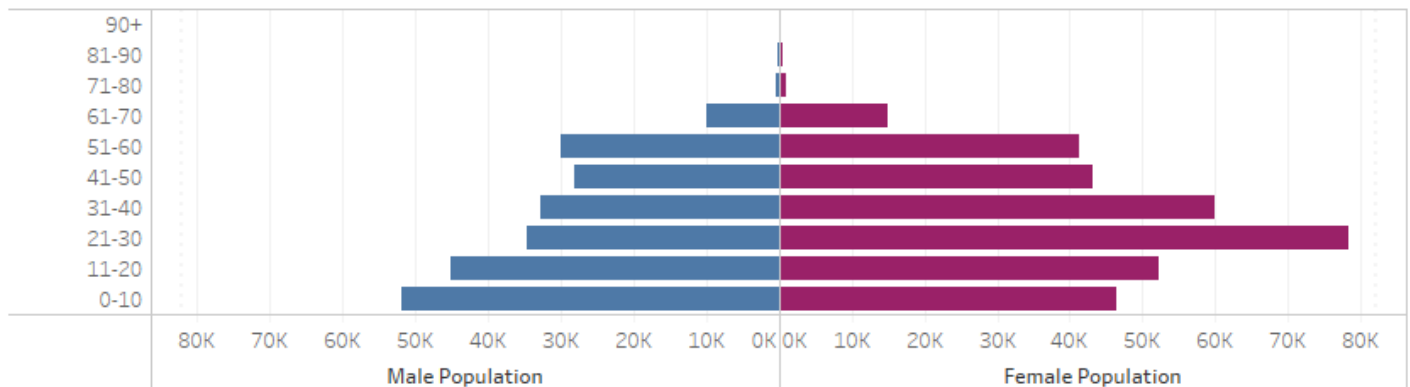
Access to Care Index (ACI) scores range from 45 to 85. Please refer to the following page for individual metric performance and score calculations.

Distinct Client and Provider Counts by Month



Though distinct client counts decreased from 55,223 in December 2014 to 52,344 in December 2016, there was a 2.68% year over year increase from CY 2015 to CY 2016. Providers increased from 2,967 in December 2014 to 3,046 in December 2016, and there was a 7.29% year over year increase from CY 2015 to CY 2016.

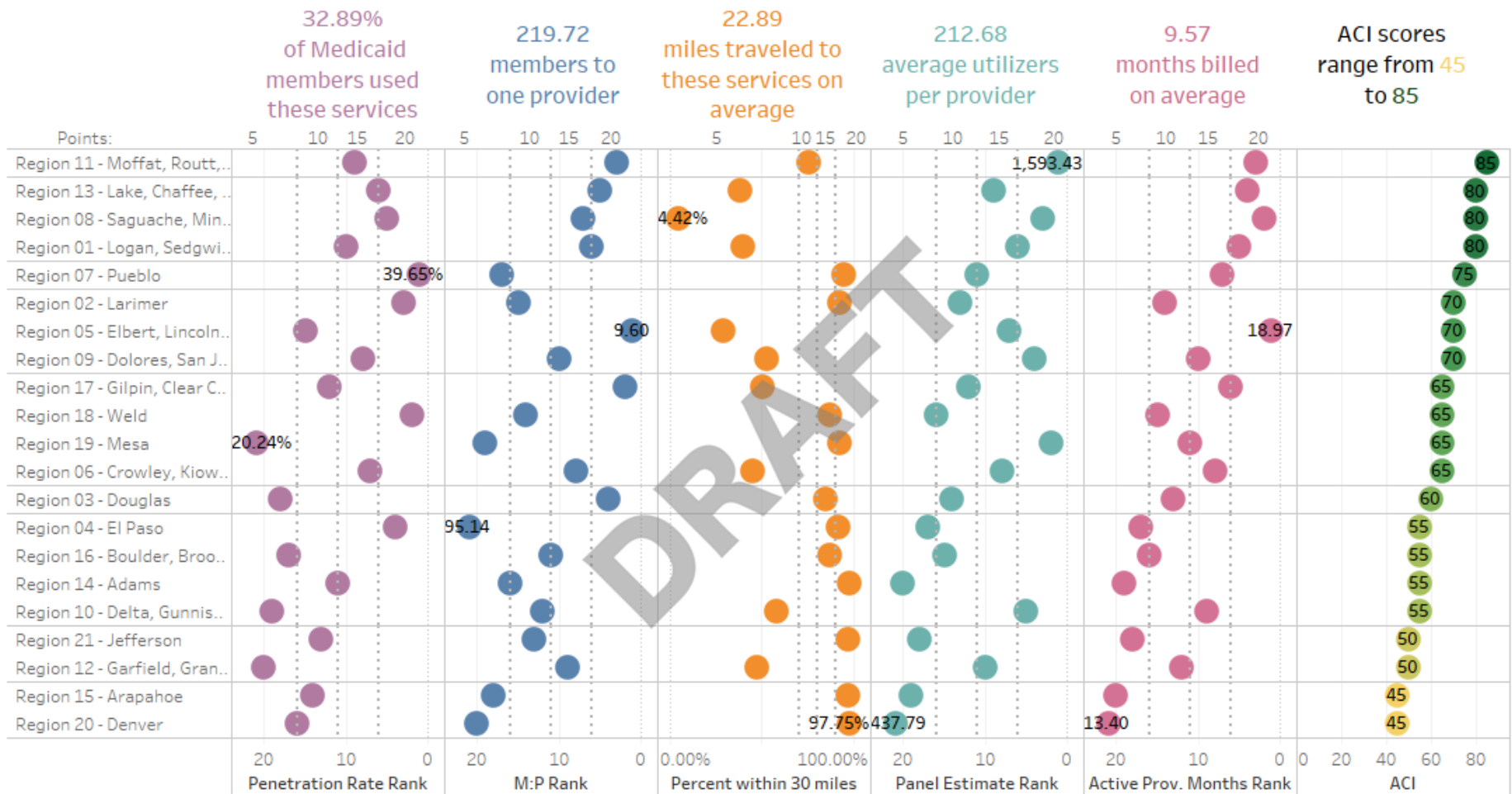
Utilizer Age and Gender



Women of childbearing age were the highest utilizers of these services.

ACI Metric Performance and Score Calculation - Radiology

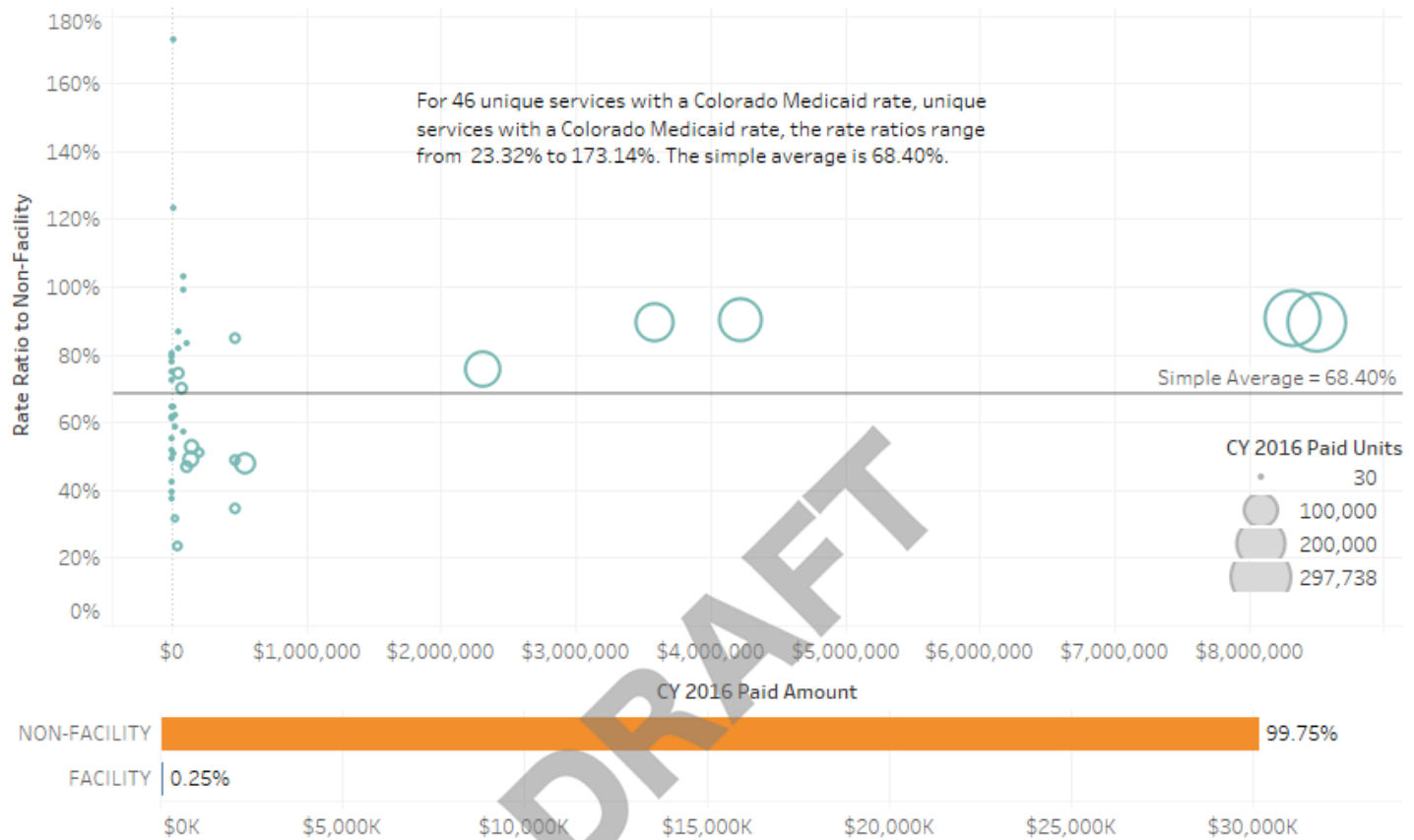
How to read this chart: The ACI dot plot displays information for each metric in every region. Metrics are displayed in columns and each circle represents the rank of the region for each metric (except the distance metric). Regions in the top quartile receive 20 points while those in the bottom receive 5 (quartiles are outlined with dotted vertical lines). For the distance metric, points are distributed based on the percent of utilizers that traveled within 30 miles. For context, the highest and lowest regions are labeled on the performance of each metric. Resulting ACI scores are presented in the last column. Statewide performance on the metrics are described above each metric on the chart.



The penetration rate ranges from 20.24% to 39.65%. The member to provider ratio ranges from 9.60 members per provider to 95.14. The distance metric ranges from 4.42% of utilizers traveling within 30 miles to 97.75%. Panels range from an average of 437.79 utilizers per provider to 1,593.43. Providers were active from an average of 13.40 months to 18.97. The resulting ACI scores range from 45 to 85.



Service Group	Total Paid CY 2016	Simple Average Rate Ratio to Non-Facility
Physical and Occupational Therapy	\$ 30,253,641	68.40%



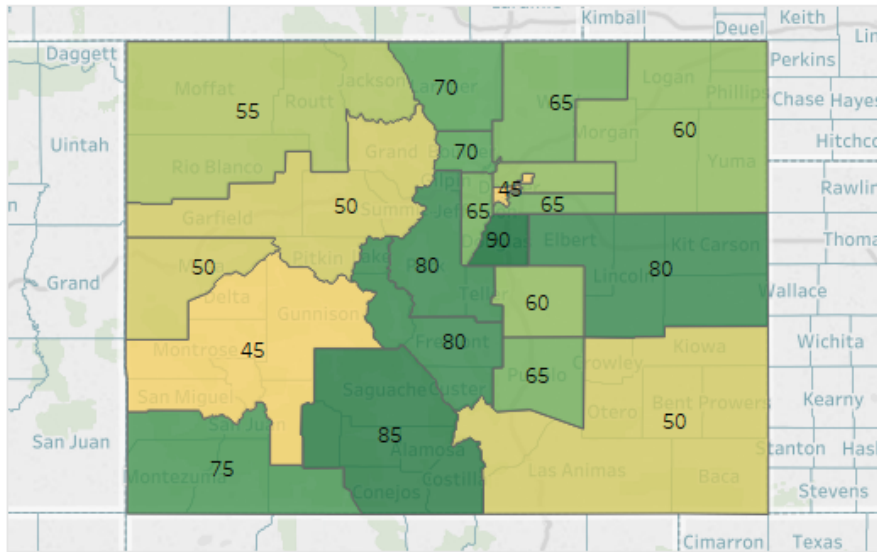
Total paid for services provided in a non-facility place of service was approximately \$30M or 99.75% of the overall total paid. Total paid for services provided in a facility place of service was approximately 0.25%.

Physical and Occupational Therapy - Top 15 Codes by Total Paid

Procedure	Procedure Description	CY 2016 Paid Units	Total Paid Amount	Colorado Medicaid Rate	Non-Facility Benchmark R..	Rate Ratio to Non-Facility
97110	PT ONE OR MORE AREAS EA 15 MIN	297,737	\$8,503,531	\$29.54	\$33.02	89.46%
97530	Therapeutic activities	269,647	\$8,323,812	\$32.16	\$35.53	90.52%
97140	Manual therapy 1/> regions	157,227	\$4,223,545	\$27.55	\$30.51	90.30%
97112	Neuromuscular reeducation	123,179	\$3,584,287	\$30.84	\$34.46	89.50%
97533	Sensory integration	105,647	\$2,314,102	\$22.49	\$29.79	75.50%
97535	Self care mngmt training	33,242	\$547,083	\$17.04	\$35.53	47.96%
97161	Physical therapy evaluation: low complexity	6,877	\$466,290	\$28.36	\$81.83	34.66%
97162	Physical therapy evaluation: moderate complexity	6,877	\$466,290	\$39.94	\$81.83	48.81%
97163	Physical therapy evaluation: high complexity	6,877	\$466,290	\$69.49	\$81.83	84.92%
97164	Re-evaluation of physical therapy	5,458	\$208,468	\$28.36	\$55.63	50.98%
97032	APP MODALITY TO ONE OR MORE AREAS	14,249	\$142,468	\$10.21	\$19.38	52.68%
97014	Electric stimulation therapy	18,088	\$141,330	\$7.95	\$16.15	49.23%
97597	Rmvl devital tis 20 cm/<	1,753	\$106,897	\$63.60	\$76.45	83.19%
97124	P T--- EACH 15 MIN MASSAGE	8,689	\$106,587	\$12.47	\$26.56	46.95%
97165	Occupational therapy evaluation, low complexity	1,377	\$90,045	\$45.39	\$79.32	57.22%

Access and Utilization - Physical and Occupational Therapy

Access to Care Index Scores by Region



Top Places of Service

By distinct client count

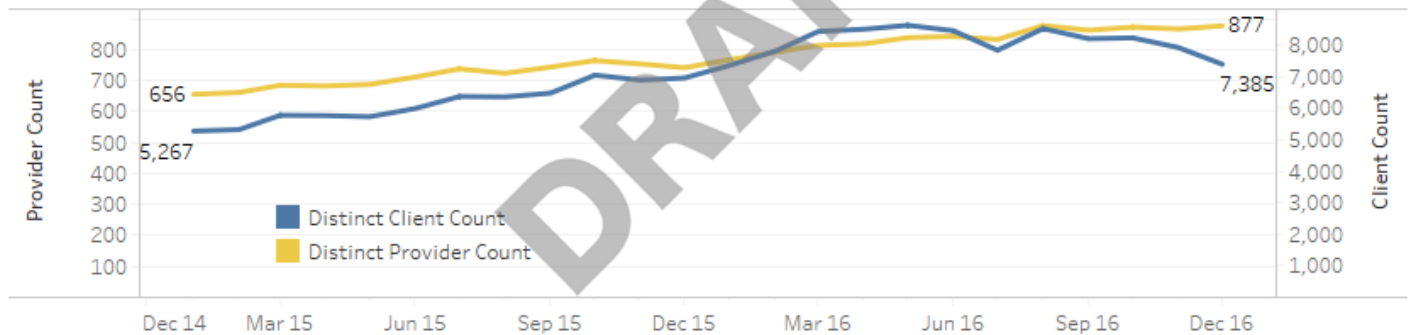
OFFICE	41,527
HOME	4,381
OUTPATIENT HOSPITAL	667
INDEPENDENT CLINIC	483
INPATIENT	147

The office was the top place of service, serving 41,527 distinct clients; the home was the second highest, serving 4,381 distinct clients.



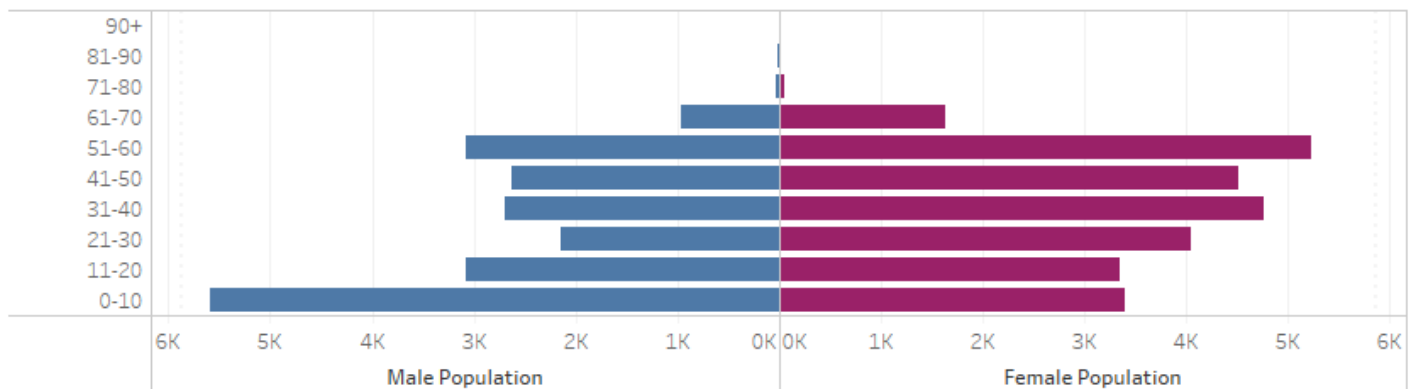
Access to Care Index (ACI) scores range from 45 to 90. Please refer to the following page for individual metric performance and score calculations.

Distinct Client and Provider Counts by Month



Distinct client counts increased from 5,276 in December 2014 to 7,385 in December 2016, and there was a 27.51% year over year increase from CY 2015 to CY 2016. Providers increased from 656 in December 2014 to 877 in December 2016, and there was a 20.85% year over year increase from CY 2015 to CY 2016.

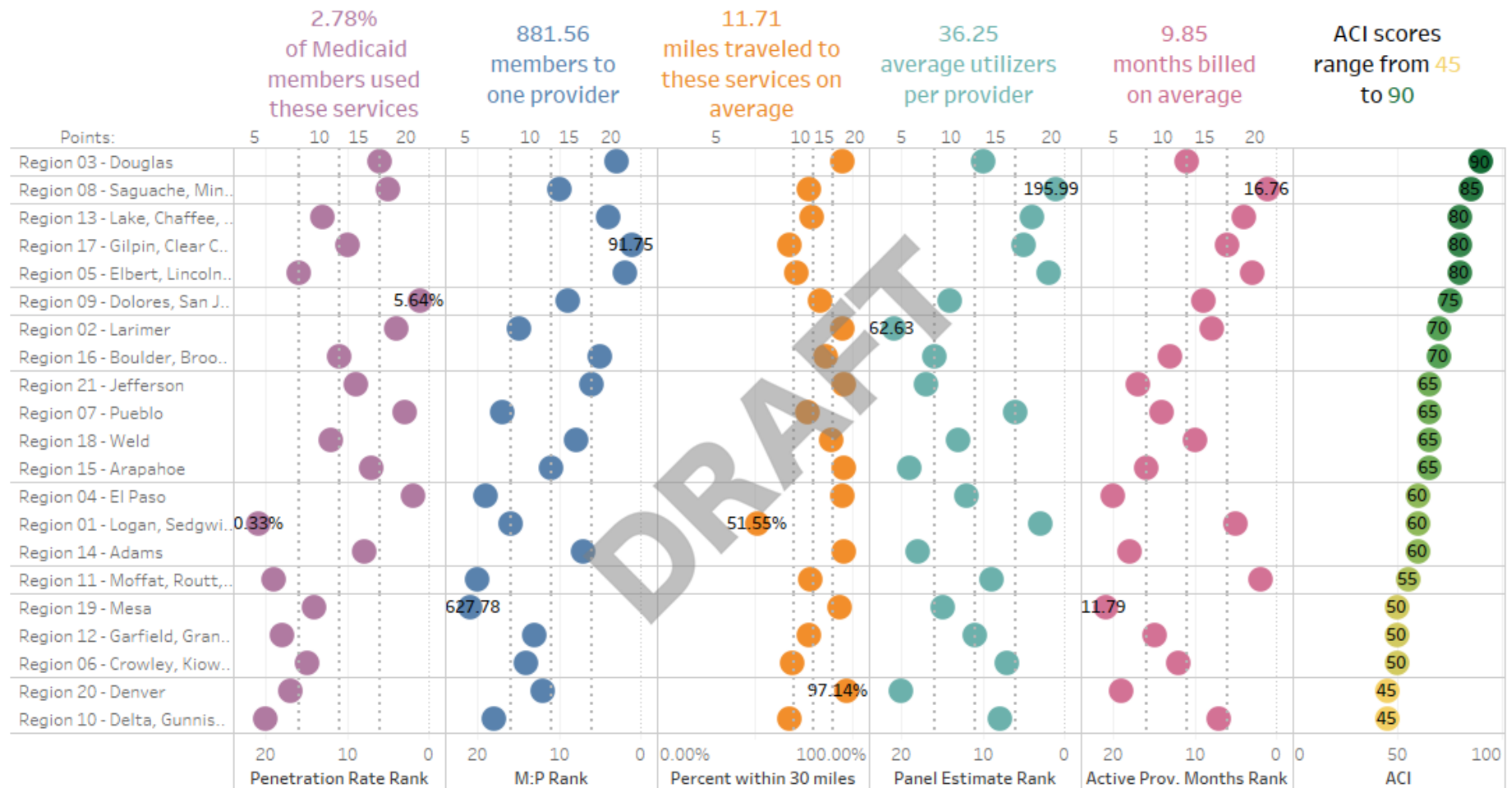
Utilizer Age and Gender



Boys between the ages of 0-10 were the highest utilizers of these services.

ACI Metric Performance and Score Calculation - Physical and Occupational Therapy

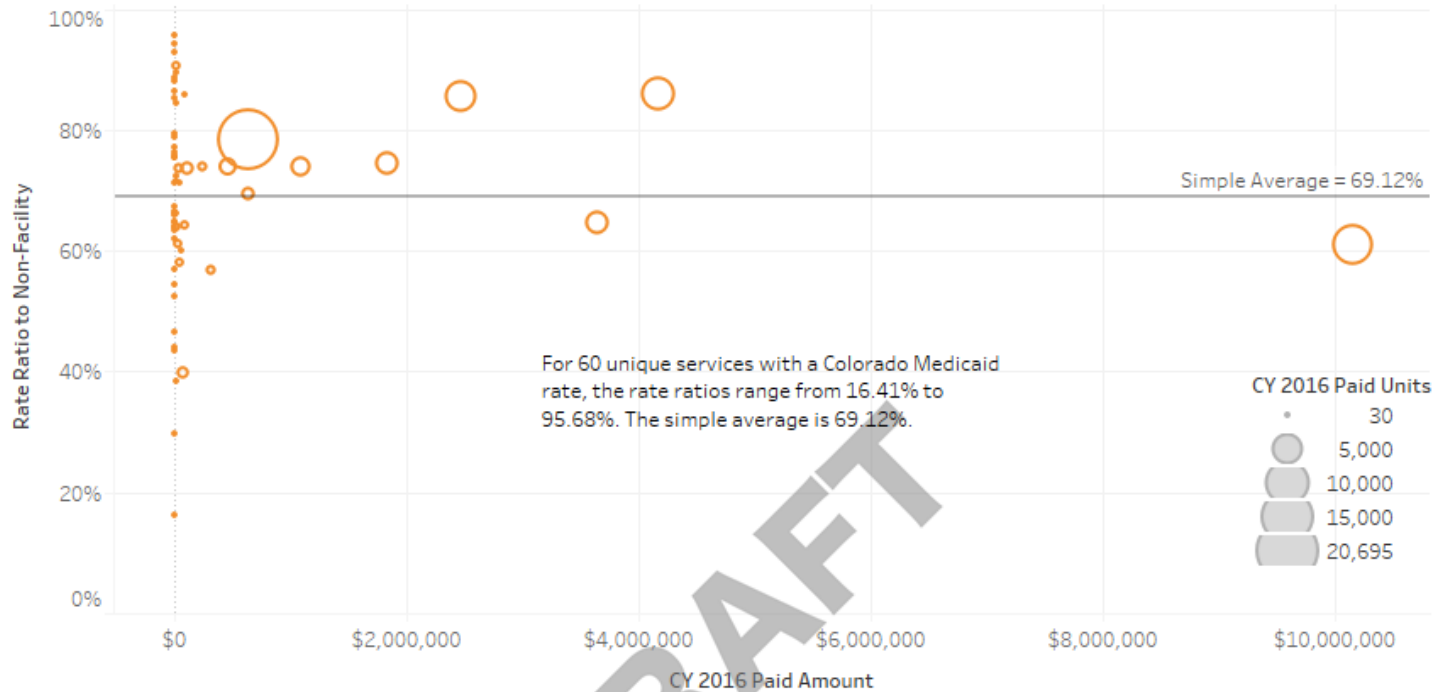
How to read this chart: The ACI dot plot displays information for each metric in every region. Metrics are displayed in columns and each circle represents the rank of the region for each metric (except the distance metric). Regions in the top quartile receive 20 points while those in the bottom receive 5 (quartiles are outlined with dotted vertical lines). For the distance metric, points are distributed based on the percent of utilizers that traveled within 30 miles. For context, the highest and lowest regions are labeled on the performance of each metric. Resulting ACI scores are presented in the last column. Statewide performance on the metrics are described above each metric on the chart.



The penetration rate ranges from 0.33% to 5.64%. The member to provider ratio ranges from 91.75 members per provider to 627.78. The distance metric ranges from 51.55% of utilizers traveling within 30 miles to 97.14%. Panels range from an average of 62.63 utilizers per provider to 195.99. Providers were active from an average of 11.79 months to 16.76. The resulting ACI scores range from 45 to 90.



Service Group	Total Paid CY 2016	Simple Average Rate Ratio to Non-Facility
Maternity Services	\$ 27,300,275	69.12%



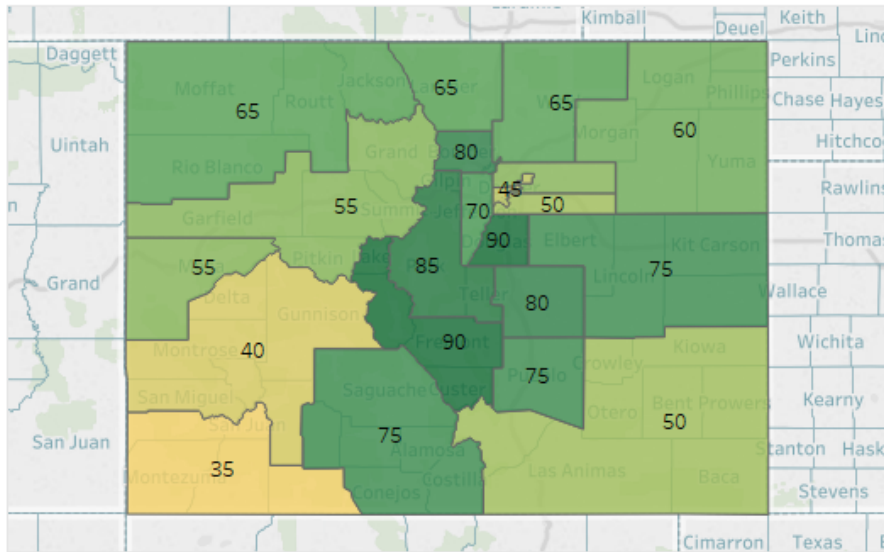
Total paid for services provided in a facility place of service was approximately \$24M or 89.74% of the overall total paid. Total paid for services provided in a non-facility place of service was approximately \$2.8M or 10.26%.

Maternity and Delivery - Top 15 Codes by Total Paid

Procedure	Procedure Description	CY 2016 Paid Units	Total Paid Amount	Colorado Medicaid Rate	Non-Facility Benchmark ..	Rate Ratio to Non-Facility
59400	TOTAL OBSTETRICAL CARE INCLUDING ANTEPAR	8,618	\$10,145,598	\$1,202.83	\$1,974.57	60.92%
59409	VAGINAL DELIVERY	5,810	\$4,159,735	\$729.62	\$848.49	85.99%
59510	Cesarean delivery	2,571	\$3,637,299	\$1,443.74	\$2,234.80	64.60%
59514	CAESAREAN DEL	5,005	\$2,468,124	\$855.23	\$999.92	85.53%
59410	VAGINAL DEL ONLY INCL POSTPARTUM CARE	2,346	\$1,830,886	\$796.38	\$1,067.38	74.61%
59426	ANTEPARTUM CARE ONLY	1,819	\$1,081,228	\$604.35	\$818.37	73.85%
59515	CESAREAN DEL ONLY INCLUDING POSTPARTUM C	694	\$628,367	\$925.10	\$1,334.24	69.34%
59025	FETAL NON-STRESS TEST	20,692	\$625,944	\$30.91	\$39.79	78.36%
59425	ANTEPARTUM CARE ONLY	1,387	\$458,981	\$337.62	\$457.18	73.85%
59610	ANTE POSTPART VAG DEL AFT C/SECT	264	\$311,082	\$1,209.72	\$2,123.70	56.96%
59612	VAGINAL DEL ONLY AFTER CESAR DELIVERY	319	\$231,321	\$739.25	\$999.50	73.96%
59430	MATERNITY POSTPARTUM CARE ONLY (INDEPEND	757	\$100,962	\$136.63	\$185.54	73.64%
59620	Attempted vbac delivery only	112	\$88,180	\$923.72	\$1,074.05	86.00%
59151	LAP TR ECTOPIC PREG W/SALPIN &/OR OOPHOR	183	\$79,424	\$481.82	\$748.52	64.37%
59820	TR OF MISS AB COMPLETED SURG FIRST TRIME	540	\$72,977	\$137.66	\$344.51	39.96%

Access and Utilization - Maternity Services

Access to Care Index Scores by Region



Top Places of Service

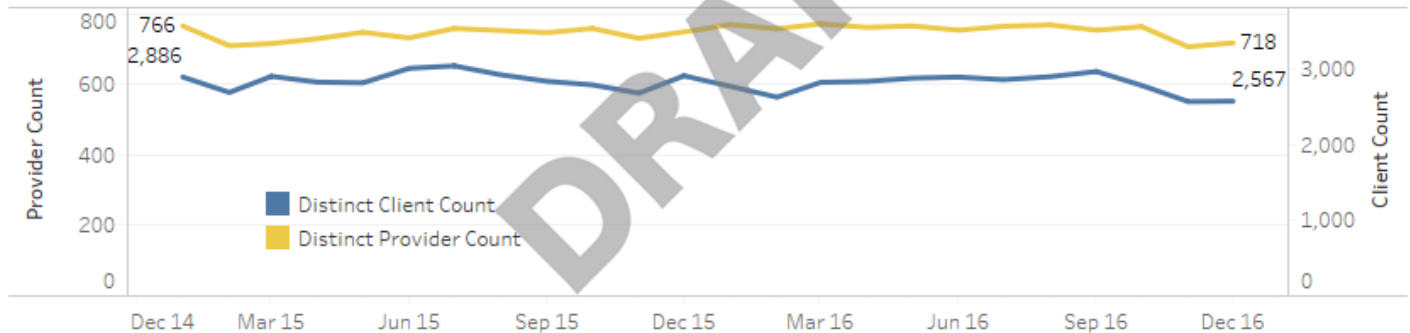
By distinct client count

INPATIENT	45,455
OFFICE	14,148
OUTPATIENT HOSPITAL	10,625
EMERGENCY ROOM HOS..	1,059
URGENT CARE FACILITY	30

The inpatient hospital was the top place of service, serving 45,455 distinct clients; the office was the second highest, serving 14,148 distinct clients.

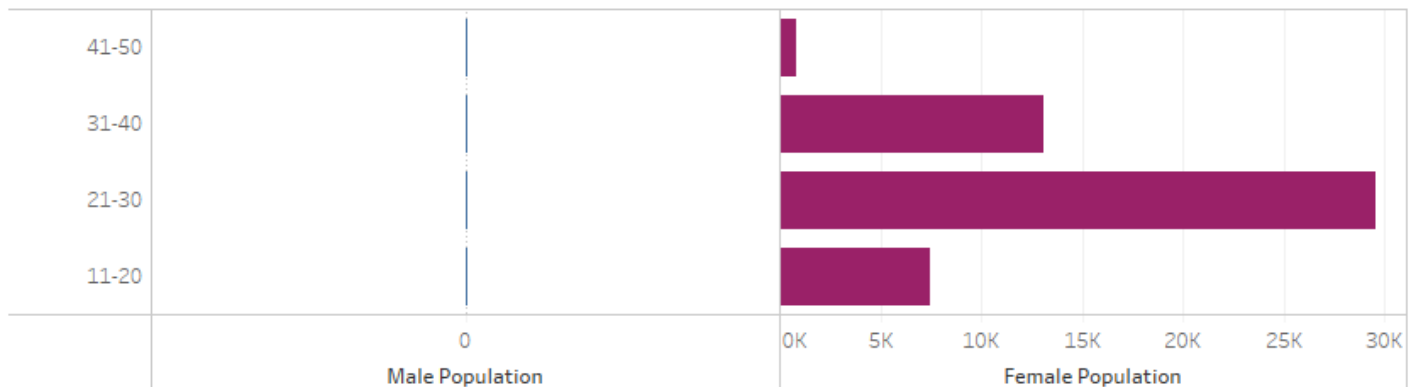
Access to Care Index (ACI) scores range from 45 to 90. Please refer to the following page for individual metric performance and score calculations.

Distinct Client and Provider Counts by Month



Distinct client counts decreased from 2,886 in December 2014 to 2,567 in December 2016, and there was a 1.64% year over year decrease from CY 2015 to CY 2016. Providers decreased from 766 in December 2014 to 718 in December 2016, and there was a 3.68% year over year increase from CY 2015 to CY 2016.

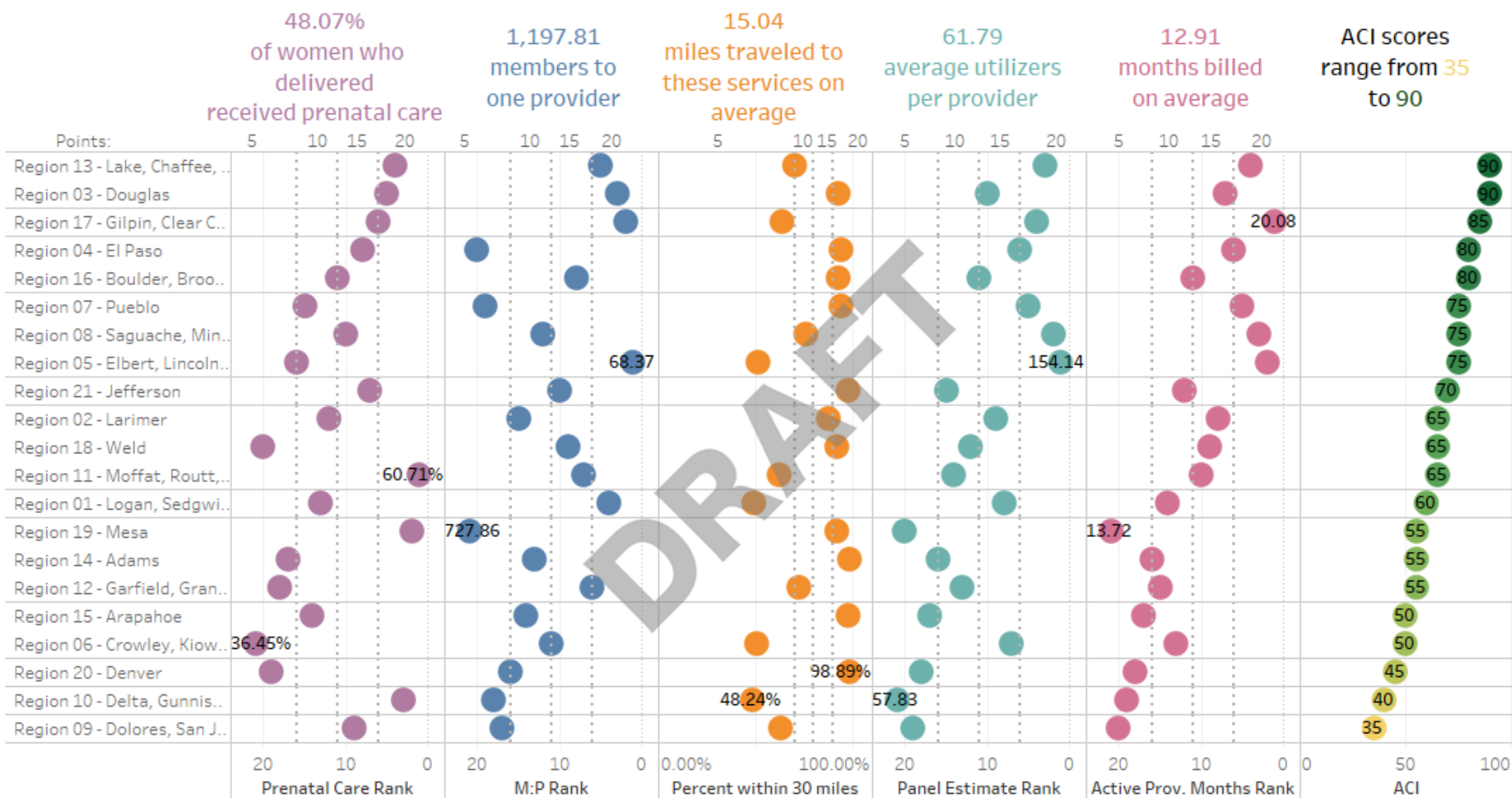
Utilizer Age and Gender



Women between the ages of 21-30 were the highest utilizers of these services.

ACI Metric Performance and Score Calculation - Maternity Services

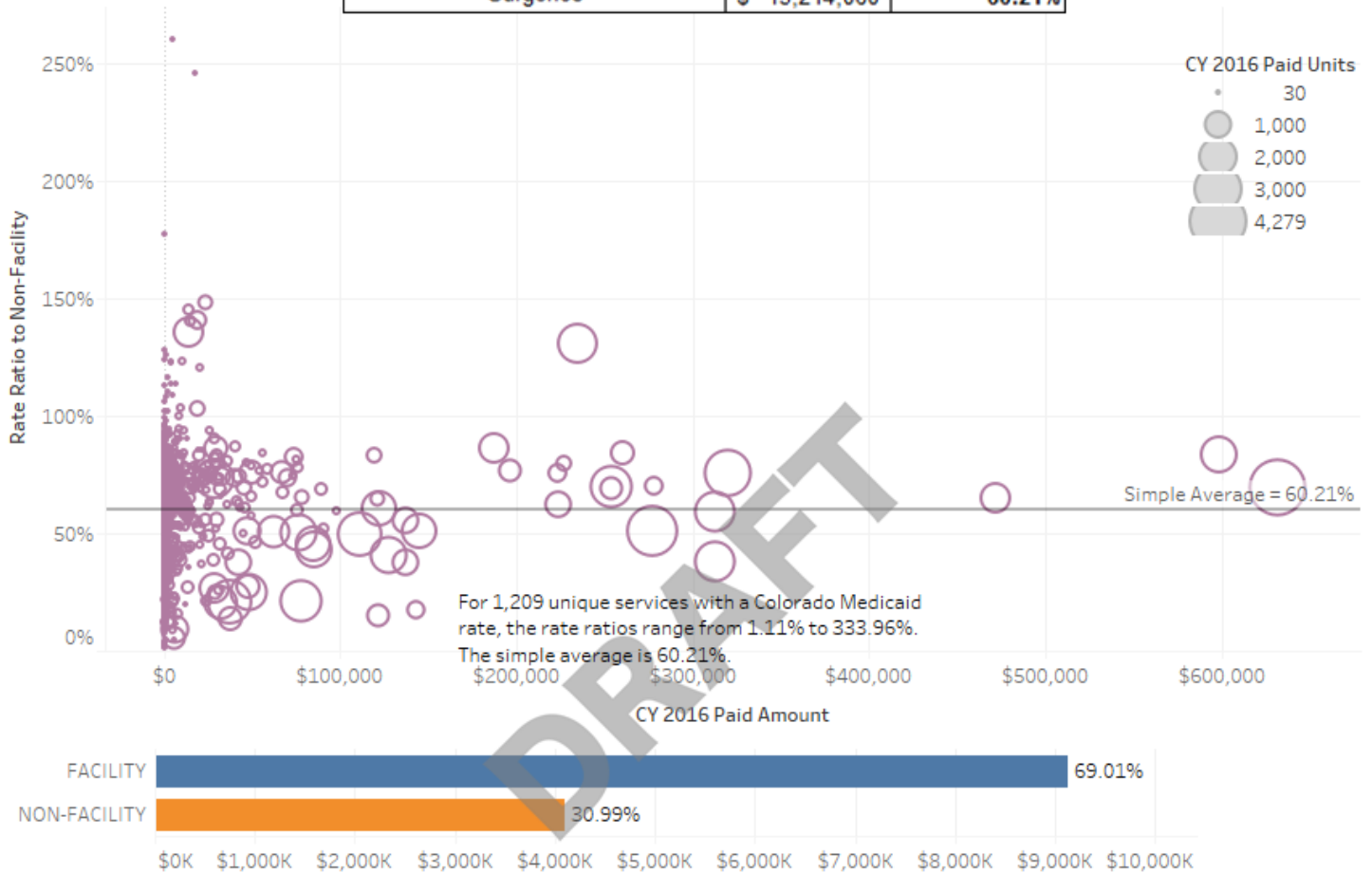
How to read this chart: The ACI dot plot displays information for each metric in every region. Metrics are displayed in columns and each circle represents the rank of the region for each metric (except the distance metric). Regions in the top quartile receive 20 points while those in the bottom receive 5 (quartiles are outlined with dotted vertical lines). For the distance metric, points are distributed based on the percent of utilizers that traveled within 30 miles. For context, the highest and lowest regions are labeled on the performance of each metric. Resulting ACI scores are presented in the last column. Statewide performance on the metrics are described above each metric on the chart.



The percent of women who delivered who received prenatal care ranges from 36.45% to 60.71%. The member to provider ratio ranges from 68.37 members per provider to 727.86. The distance metric ranges from 48.24% of utilizers traveling within 30 miles to 98.89%. Panels range from an average of 57.83 utilizers per provider to 154.14. Providers were active from an average of 13.72 months to 20.08. The resulting ACI scores range from 35 to 90.



Service Group	Total Paid CY 2016	Simple Average Rate Ratio to Non-Facility
Surgeries	\$ 13,214,060	60.21%

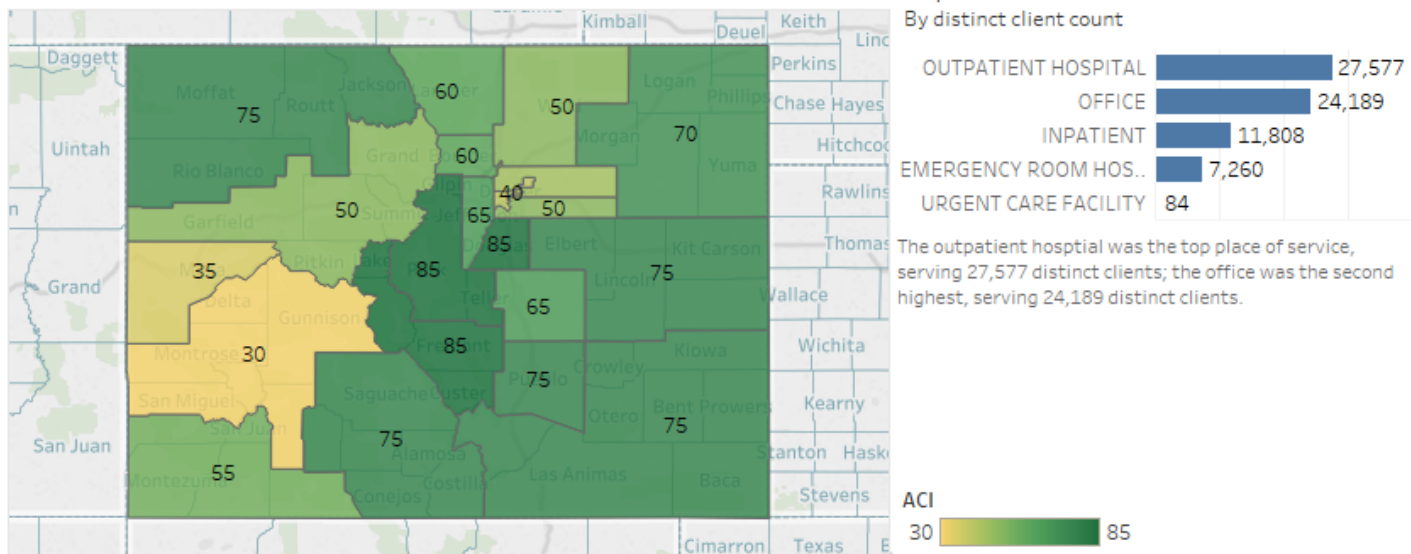


Total paid for services provided in a facility place of service was approximately \$9M or 69.01% of the overall paid. Total paid for services provided in a non-facility place of service was approximately \$4M or 30.99%.

Procedure	Procedure Description	CY 2016 Paid Units	Total Paid Amount	Colorado Medicaid Rate	Non-Facility Benchmark ..	Rate Ratio to Non-Facility
64483	Inj foramen epidural l/s	4,278	\$631,363	\$153.49	\$221.44	69.31%
64635	Destroy lumb/sac facet jnt	1,736	\$598,233	\$353.10	\$421.34	83.80%
58571	Tlh w/t/o 250 g or less	1,088	\$471,695	\$597.81	\$920.19	64.97%
64615	Chemodenerv musc migraine	2,912	\$319,865	\$112.54	\$149.30	75.38%
62322	Njx interlaminar lmb/sac	2,149	\$312,628	\$94.75	\$158.99	59.59%
62323	Njx interlaminar lmb/sac	2,149	\$312,628	\$94.75	\$248.71	38.10%
63030	Low back disk surgery	425	\$278,068	\$707.59	\$1,012.07	69.92%
64493	Inj paravert f jnt l/s 1 lev	3,428	\$276,788	\$89.13	\$174.07	51.20%
64633	Destroy cerv/thor facet jnt	739	\$260,383	\$359.30	\$426.00	84.34%
57454	Bx/curett of cervix w/scope	2,364	\$253,600	\$108.41	\$155.76	69.60%
58662	Laparoscopy excise lesions	608	\$253,453	\$503.50	\$726.03	69.35%
64484	Inj foramen epidural add-on	2,056	\$234,376	\$116.67	\$89.01	131.08%
63047	Remove spine lamina 1 lmb	327	\$226,988	\$916.15	\$1,150.60	79.62%
64721	NEUROPLASTY-ARM, MEDIAN AT CARPAL TUNNEL	875	\$223,948	\$275.33	\$441.44	62.37%
50590	LITHOTRIPSY EXTRACORPOREAL SHOCK WAVE	408	\$223,686	\$561.67	\$741.11	75.79%

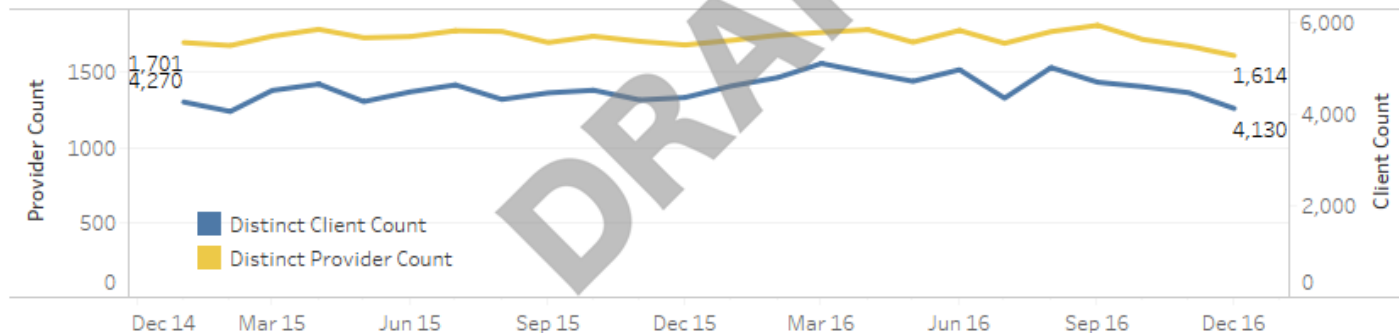
Access and Utilization - Surgeries

Access to Care Index Scores by Region



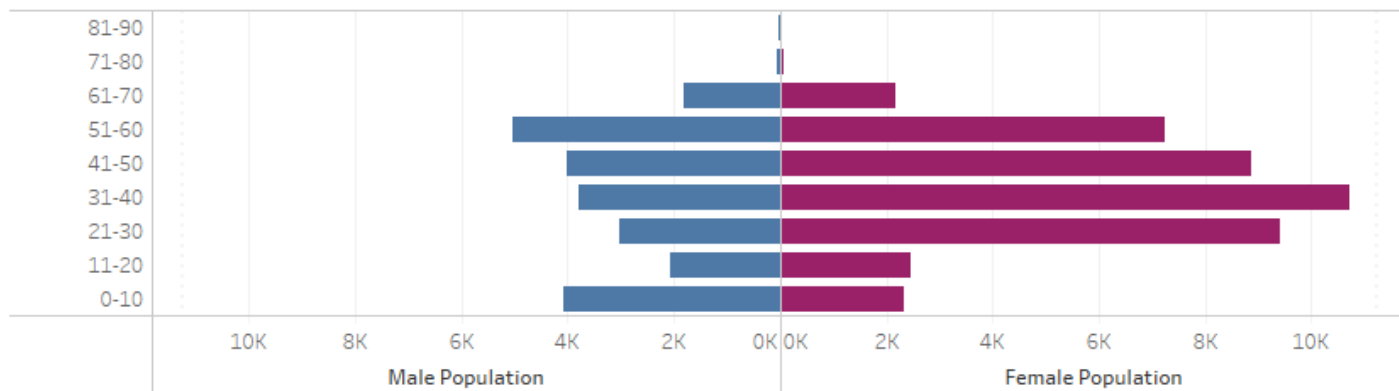
Access to Care Index (ACI) scores range from 30 to 85. Please refer to the following page for individual metric performance and score calculations.

Distinct Client and Provider Counts by Month



Distinct client counts decreased from 4,270 in December 2014 to 4,130 in December 2016, and there was a 4.25% year over year increase from CY 2015 to CY 2016. Providers decreased from 1,701 in December 2014 to 1,614 in December 2016, and there was a 2.71% year over year increase from CY 2015 to CY 2016.

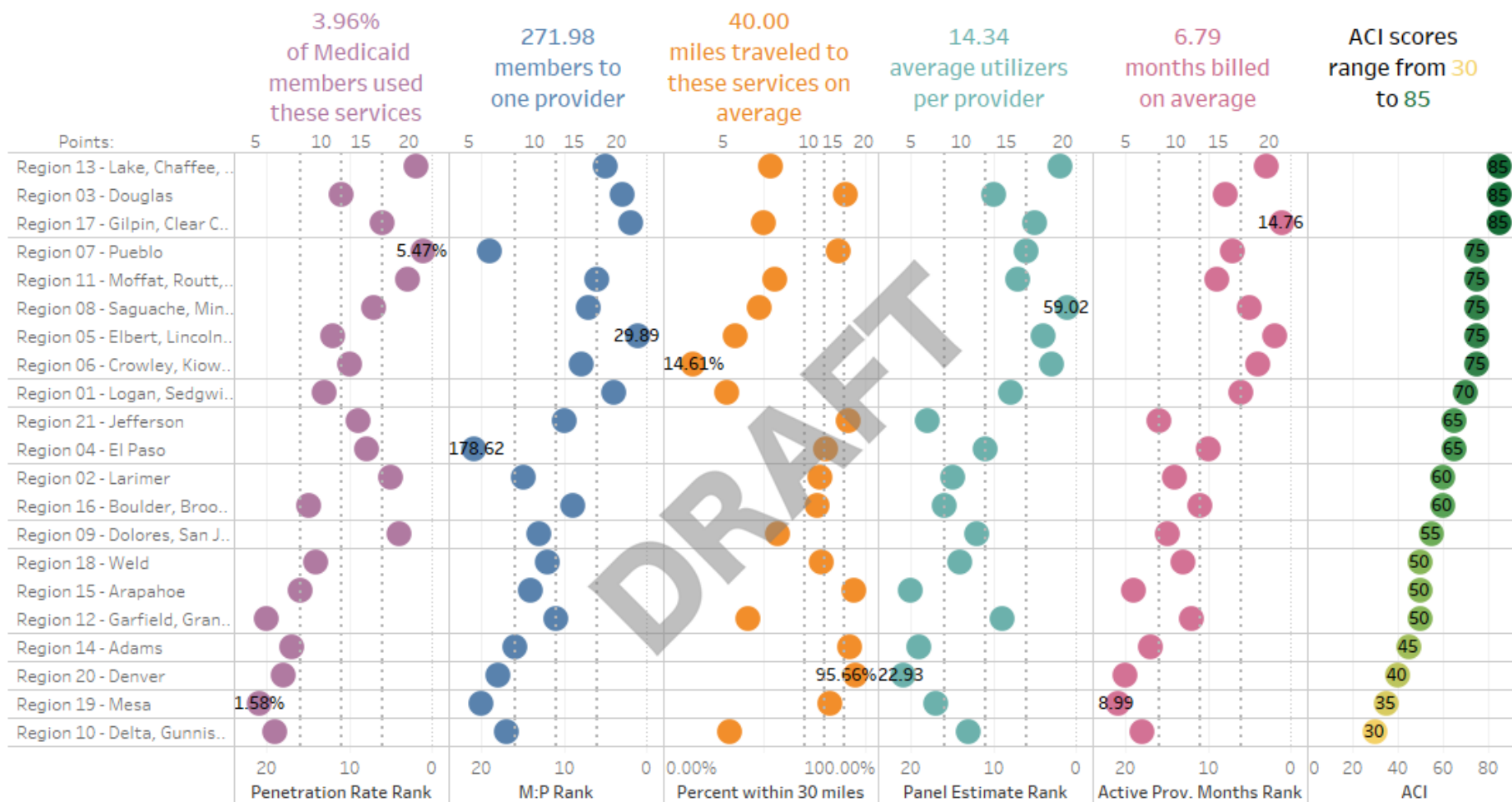
Utilizer Age and Gender



Women between the ages of 31 and 40 were the highest utilizers of these surgeries.

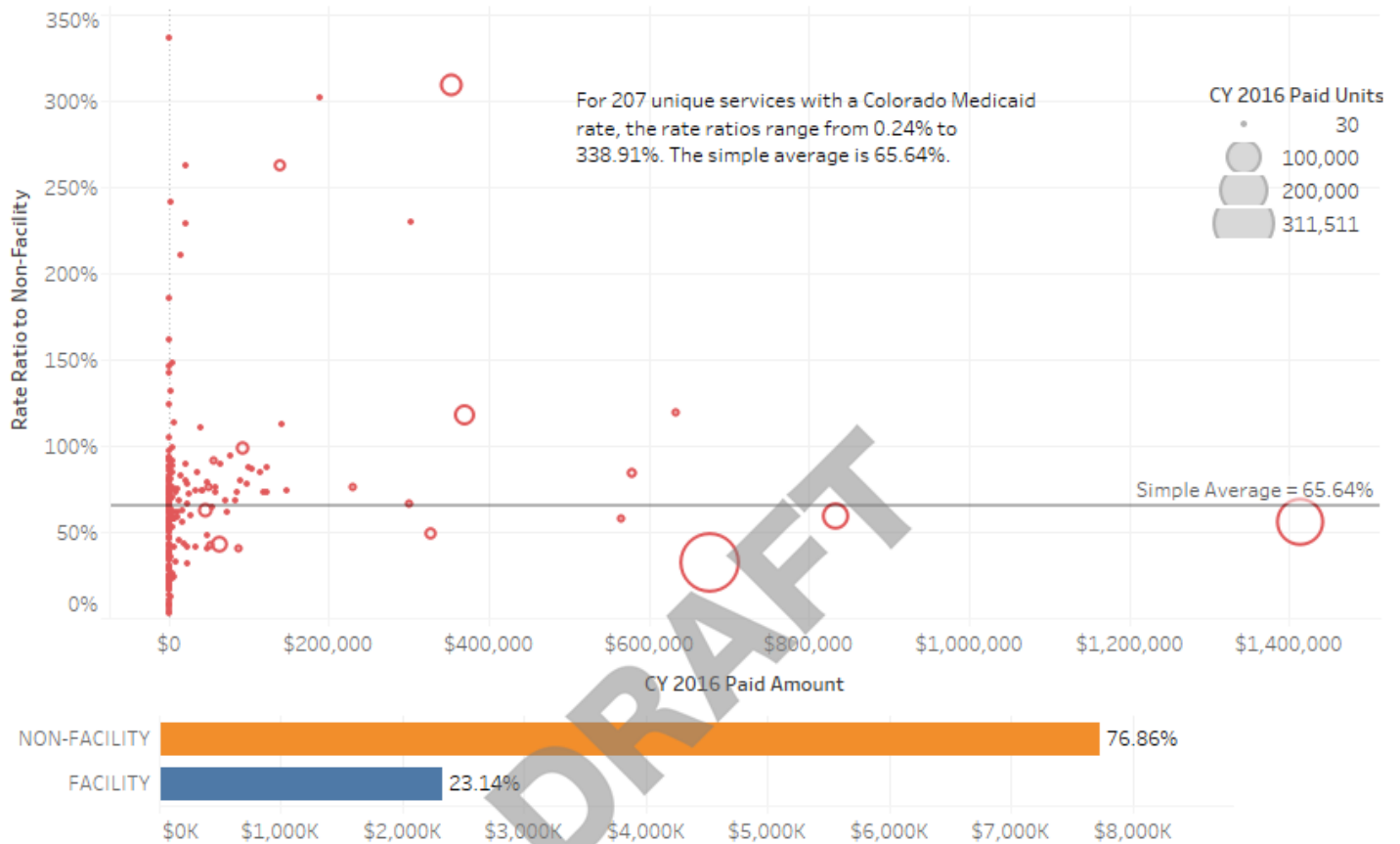
ACI Metric Performance and Score Calculation - Surgeries

How to read this chart: The ACI dot plot displays information for each metric in every region. Metrics are displayed in columns and each circle represents the rank of the region for each metric (except the distance metric). Regions in the top quartile receive 20 points while those in the bottom receive 5 (quartiles are outlined with dotted vertical lines). For the distance metric, points are distributed based on the percent of utilizers that traveled within 30 miles. For context, the highest and lowest regions are labeled on the performance of each metric. Resulting ACI scores are presented in the last column. Statewide performance on the metrics are described above each metric on the chart.





Service Group	Total Paid CY 2016	Simple Average Rate Ratio to Non-Facility
Other Services and Procedures	\$ 10,055,334	65.64%



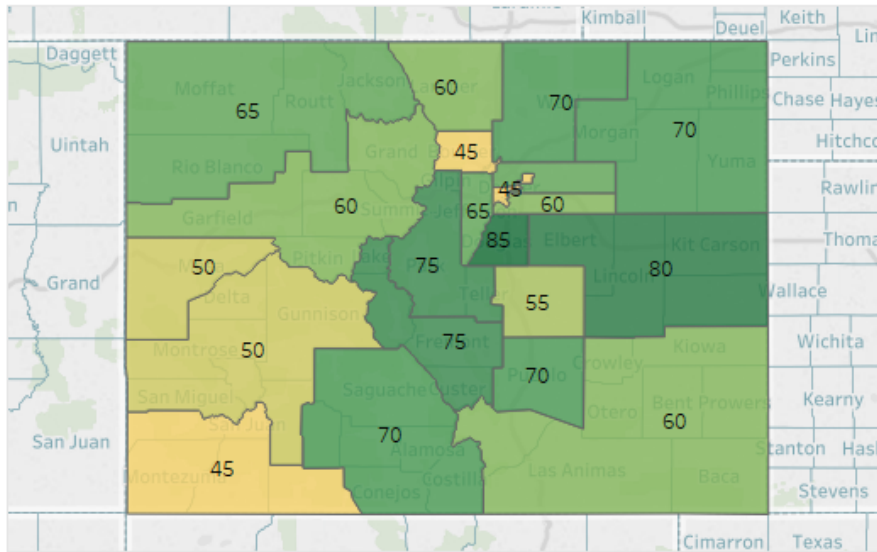
Total paid for services provided in a non-facility place of service was approximately \$7.7M or 76.86% of the overall paid. Total paid for services provided in a facility place of service was approximately \$2.3M or 23.14% (blue).

Other Physician - Top 15 Codes by Total Paid

Procedure	Procedure Description	CY 2016 Paid Units	Total Paid Amount	Colorado Medicaid Rate	Non-Facility Benchmark Ra..	Rate Ratio to Non-Facility
95165	Antigen therapy services	193,069	\$1,413,864	\$7.44	\$13.28	56.02%
96372	Ther/proph/diag inj sc/im	55,251	\$832,603	\$15.36	\$25.84	59.44%
95004	Percut allergy skin tests	311,510	\$675,191	\$2.21	\$6.82	32.40%
95811	Polysom 6/>yrs cpap 4/> parm	3,522	\$633,709	\$183.02	\$185.18	119.66%
96413	Chemo iv infusion 1 hr	5,056	\$579,247	\$117.07	\$139.61	83.86%
95951	MONITOR - LOCAL CEREBRAL SEIZURE	3,008	\$564,308	\$190.42	\$329.16	57.93%
95117	Immunotherapy injections	31,072	\$369,760	\$12.22	\$10.41	117.39%
99173	Visual acuity screen	37,377	\$353,705	\$9.99	\$3.23	309.29%
99152	Mod sed same phys/qhp 5/>yrs	6,451	\$327,725	\$25.52	\$52.04	49.04%
95813	Eeg over 1 hour	1,064	\$302,064	\$295.23	\$186.72	229.62%
95810	Polysom 6/> yrs 4/> param	3,408	\$299,430	\$89.15	\$147.00	66.11%
95886	Musc test done w/n test comp	3,730	\$229,281	\$62.40	\$82.83	75.72%
95812	Eeg 41-60 minutes	938	\$188,801	\$218.19	\$97.59	302.89%
95911	Nrv cndj test 9-10 studies	914	\$148,330	\$165.11	\$223.57	73.90%
95806	Sleep study unatt&resp efft	875	\$141,563	\$165.57	\$148.12	112.87%

Access and Utilization - Other Physician Services and Procedures

Access to Care Index Scores by Region



Top Places of Service

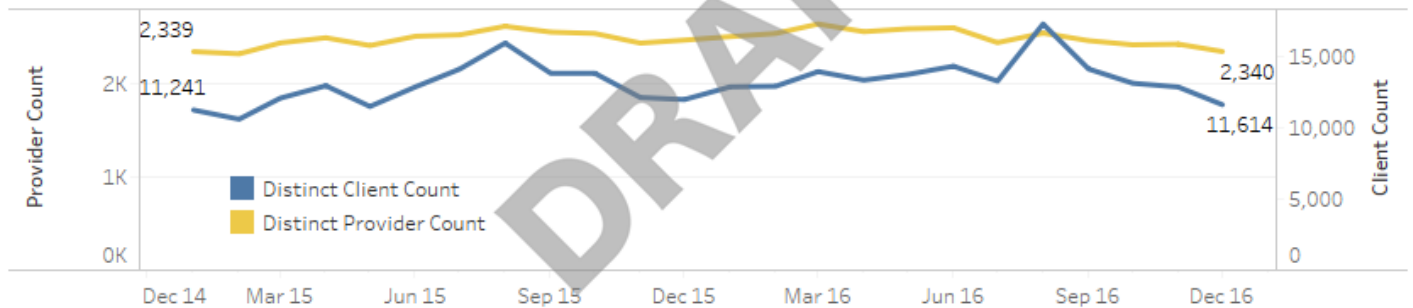
By distinct client count

OFFICE	140,668
OUTPATIENT HOSPITAL	22,513
URGENT CARE FACILITY	9,839
INPATIENT	7,199
EMERGENCY ROOM HOS..	2,377

The office was the top place of service, serving 140,668 distinct clients; the outpatient hospital was the second highest, serving 22,513 distinct clients.

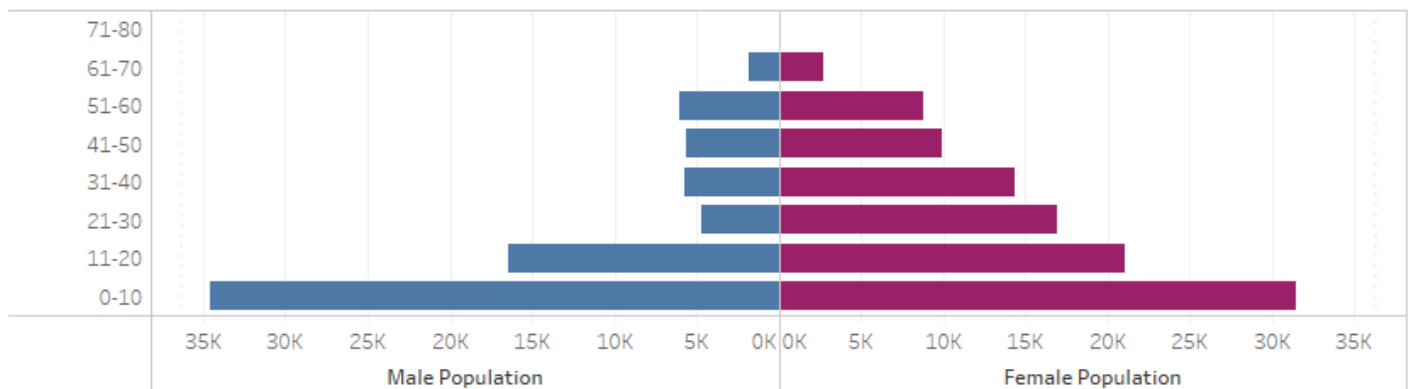
Access to Care Index (ACI) scores range from 45 to 85. Please refer to the following page for individual metric performance and score calculations.

Distinct Client and Provider Counts by Month



Distinct client counts increased from 11,241 in December 2014 to 11,614 in December 2016, and there was a 6.10% year over year increase from CY 2015 to CY 2016. Providers remained constant with 2,339 in December 2014 to 2,340 in December 2016, and there was a 3.55% year over year increase from CY 2015 to CY 2016.

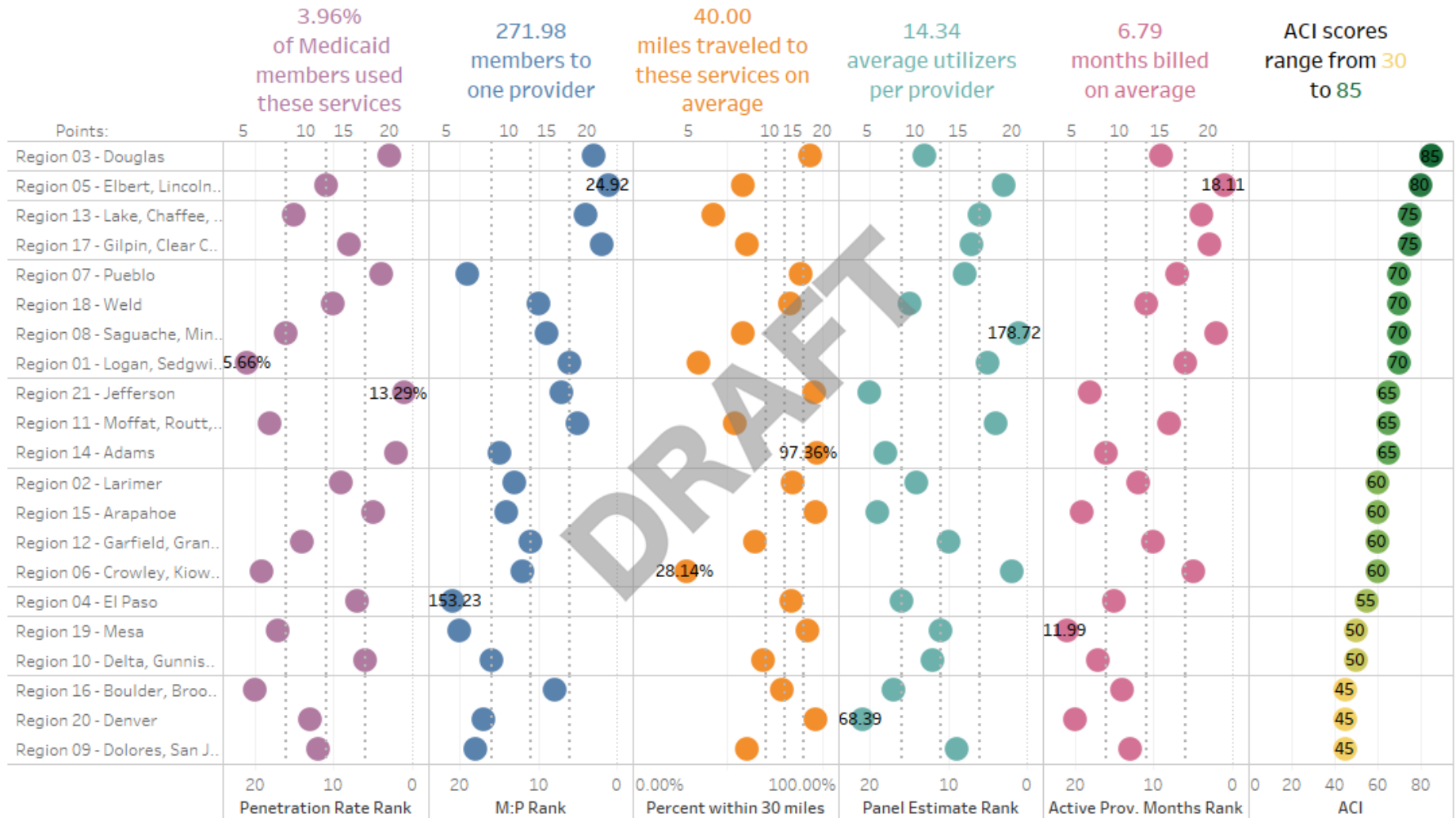
Utilizer Age and Gender



Children under the age of 10 were the highest utilizers of these services.

ACI Metric Performance and Score Calculation - Other Services and Procedures

How to read this chart: The ACI dot plot displays information for each metric in every region. Metrics are displayed in columns and each circle represents the rank of the region for each metric (except the distance metric). Regions in the top quartile receive 20 points while those in the bottom receive 5 (quartiles are outlined with dotted vertical lines). For the distance metric, points are distributed based on the percent of utilizers that traveled within 30 miles. For context, the highest and lowest regions are labeled on the performance of each metric. Resulting ACI scores are presented in the last column. Statewide performance on the metrics are described above each metric on the chart.



The penetration rate ranges from 5.66% to 13.29%. The member to provider ratio ranges from 24.92 members per provider to 153.23. The distance metric ranges from 28.14% of utilizers traveling within 30 miles to 97.36%. Panels range from an average of 68.39 utilizers per provider to 178.72. Providers were active from an average of 11.99 months to 18.11. The resulting ACI scores range from 45 to 85.

Definitions

Active Provider Months	The average number of months that providers billed Colorado Medicaid over a 24-month time frame.
Benchmark Rates	Rates to which Colorado Medicaid rates are compared.
Distance Metric	The distance metric measures the percent of Colorado Medicaid clients who traveled within 30 miles to receive services.
Health Statistics Region	The Colorado Department of Public Health and Environment developed 21 Health Statistics Regions using statistical and demographic criteria. The regions are displayed on p.5. For more information, see Colorado Health Data – Health Disparities Profiles .
Member to Provider (M:P) Ratio	The M:P ratio is the number of clients per active rendering provider.
Panel Estimate	The average number of clients seen per rendering provider.
Penetration Rate	The percent of enrolled Colorado Medicaid clients who utilized a service.
Place of Service	Place of Service (POS) codes are two-digit codes placed on professional claims to indicate the setting where a service was provided. POS codes are frequently categorized into non-facility and facility settings. For a list of POS codes, see the Center for Medicare and Medicaid Service’s (CMS) Place of Service Codes for Professional Claims.
Professional Portion of Services	Professional services refer to services submitted on CMS-1500 claim forms, which is the form used for submitting physician and professional claims for providers. This form is different from the UB-04 form, which is the claim form for institutional facilities such as hospitals or outpatient facilities.
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%.
Simple Average Rate Ratio	The average of all service-specific rate ratios for a service grouping, including services with no utilization. This average does not incorporate service utilization information. The simple average is sometimes referred to as the simple average rate ratio.
Units	Units are quantities associated with a procedure and 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 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 may need to be incorporated to account for payer differences.