Rate Review Process: Preliminary Year Two Surgery and Anesthesia Analyses

Introduction

This document contains high-level, preliminary, rate comparison information, as well as access and utilization analysis information, related to all anesthesia services, certain surgeries, and other related procedures under review in year two of the rate review process. Services, and CPT code ranges, include:

- anesthesia 00100-01999, G9654, G9362, G9363;
- digestive systems 40490-49999;
- musculoskeletal systems 20005-29999;
- cardiovascular systems 33010-39599;
- integumentary systems 10021-19499;
- eye and ocular adnexa and auditory systems 65091-69990; and
- respiratory systems 30000-32999.

Information and analyses presented in this document are subject to change. Further analyses will occur leading up to the May 1st publication of the 2017 Medicaid Provider Rate Review Analysis Report. For example, while the rate comparison information contained in this document compares Health First Colorado (Colorado's Medicaid Program) rates to Medicare's non-facility rates, the final benchmarks may include other comparator rates, such as: additional comparison to Medicare's facility rates; a combined comparison to Medicare's non-facility and facility rates; and other state Medicaid rates, as appropriate and for instances when a Medicare rate is not available.¹

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

Brief descriptions of the information and analyses contained within this document are found below.

Rate Comparison

The rate comparison analysis is based on claims data for FY 2015-16 (July 1, 2015 – June 30, 2016). The above mentioned anesthesia, surgeries, and other related procedures, encompassed 4,665 Health First Colorado covered codes as of June 30, 2016 (including 95 manually priced codes). Out of the 4,570 codes with an established Health First Colorado rate, 4,511 had a comparable Medicare non-facility rate.²

¹ More information regarding Medicare definitions of non-facility and facility places of service can be found via: https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNMattersArticles/downloads/MM7631.pdf

² For the remaining 59 codes, the average of other state Medicaid rates was used for comparison. While this comparison is not shown in this document, it will be incorporated in the 2017 Analysis Report.

The top table for each Rate Comparison Analysis displays an aggregated payment comparison to Medicare. Below this table, a scatter plot chart displays:

- Vertical axis (y-axis) the rate ratio of Health First Colorado rates to the Medicare non-facility rates for each code (i.e., Health First Colorado rates as a percentage of Medicare's non-facility rates). The dark horizontal line represents what the Department pays, on average, as a percent of the corresponding Medicare non-facility rate, also referred to as the benchmark percent.
- Horizontal axis (x-axis) the total paid amount for each code. The dark vertical line represents the average paid amount.
- Circles each circle represents a specific code.
 - The location of the circle along the x-axis represents the total paid amount for that code.
 - o The location of the circle along the y-axis represents that code's rate ratio to Medicare.
 - The size of the circle represents paid units, which is a proxy for that code's utilization.
- Call-out boxes highlight specific codes. They are intended to showcase variation and provide a snapshot of those codes with both high and low rate ratios and/or high and low utilization.

The bottom table displays the 15 top codes by expenditure (also referred to as total paid), in descending order. This table includes: total units, sometimes blinded to protect private health information (PHI); Health First Colorado rates; Medicare non-facility rates; and a rate ratio (of Health First Colorado rates to Medicare's non-facility rates).

Access & Utilization

The access & utilization analysis is based on claims data from FY 2014-15 and FY 2015-16 (July 1, 2014 - June 30, 2016). In an effort to standardize metrics for different services, and reach more meaningful conclusions, the Department is developing an Access to Care Index, combining five access-related metrics:

- Penetration Rate the percent of full time-equivalent (FTE) members who used the service³
- Distance the percent of the population that traveled within 30 miles to receive services (measured in a straight line from the geographic center of the utilizer's zip code to the geographic center of the provider's zip code)
- Member to Provider Ratio the ratio of FTE members compared to active providers.
- Active Provider Months the average number of months that providers billed Health First Colorado, displayed over a 24-month time frame.
- Panel Estimate the average number of Health First Colorado members seen per rendering provider.

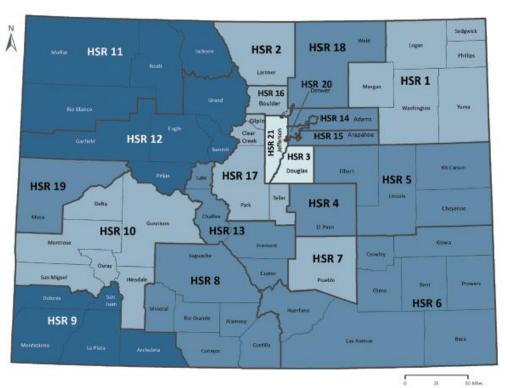
Preliminary index results are included here. For the purpose of identifying regions for potential investigation, the Department attributed points to each of the 21 Health Statistics Regions (regions), based on these metrics. For all metrics except distance, the Department assigned 20 points to regions in the top quartile, 15 points to regions in the second quartile, 10 points to regions in the third quartile, and 5 points to regions in the bottom quartile. For distance, points were assigned based on the percent of the population that traveled within 30 miles, assigning 20 points to regions where this percent was above 90%, 15 points to regions between 80-90%, 10 points to regions between 70-80%, and 5 points to regions

³ FTE calculations are obtained from monthly enrollment files over a 12-month period. For example, if one client was enrolled for nine months and another client was enrolled for three months, together they qualify as one FTE.

below 70%. While the total possible points a region could receive equals 100 points, no region received 20 points for all five metrics and, therefore, no region was attributed 100 points.

The following pages contain the resulting Access to Care Index scores, by service They also depict service utilizers by age, gender, and population. Metric-specific charts (bottom of each page) contain circles that represent each region; where each circle falls along a continuum represents the quartile placement (or percent placement in the case of the distance metric).

Health Statistics Region Map Key

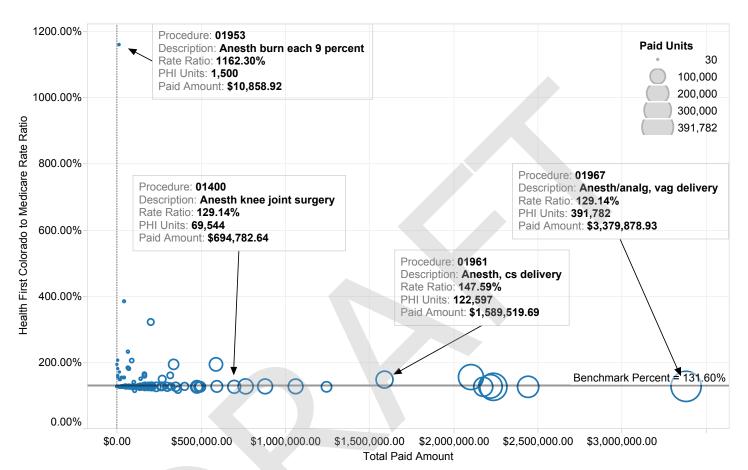


HSR 1: Logan, Morgan, Phillips, Sedgwick, Washington and Yuma	HSR 12: Eagle, Garfield, Grand, Pitkin and Summit
HSR 2: Larimer	HSR 13: Chaffee, Custer, Fremont and Lake
HSR 3: Douglas	HSR 14: Adams
HSR 4: El Paso	HSR 15: Arapahoe
HSR 5: Cheyenne, Elbert, Kit Carson and Lincoln	HSR 16: Boulder and Broomfield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



Rate Comparison Analysis: Anesthesia

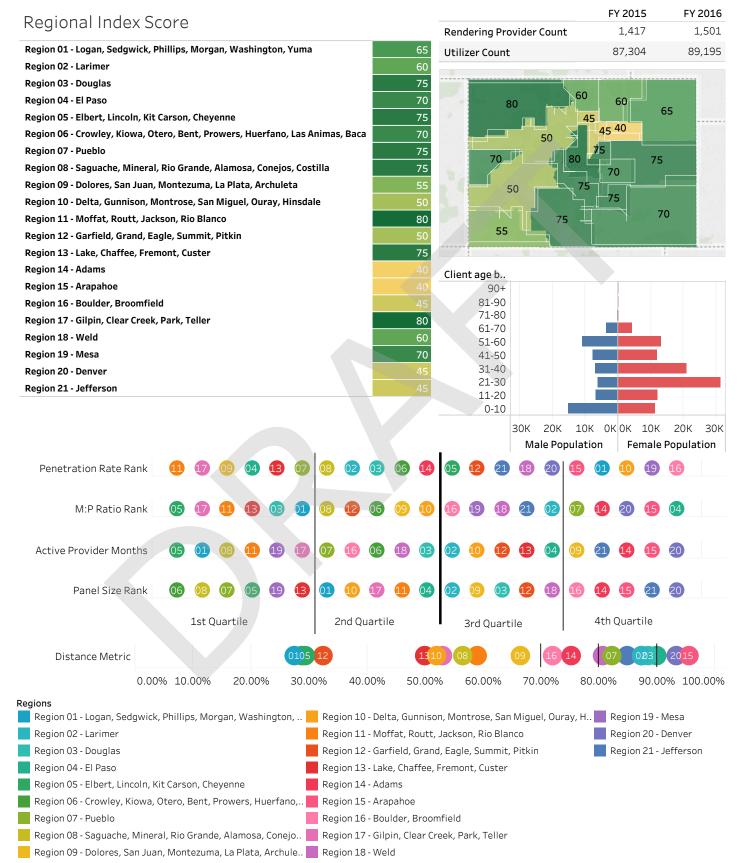
Sub-category of Service	Repriced Colorado	Repriced Medicare	Colorado to
	7/1/2016	1/1/2016	Medicare
Anesthesia	\$37,839,152	\$28,744,584	131.60%



Top Paid	Proc Cd	Proc Cd Desc	Total Claims	Paid Units	Paid Amount	Colorado to Medicare
1	01967	Anesth/analg, vag delivery	12,784	60,723	\$3,379,878.93	129.14%
2	00840	Anesth surg lower abdom	6,386	48,889	\$2,440,698.12	129.14%
3	00740	Anesth upper gi visualize	10,559	26,034	\$2,233,497.33	129.14%
4	00170	Anesth procedure on mo	7,906	38,824	\$2,219,728.32	129.14%
5	00790	Anesth surg upper abdo	5,154	40,856	\$2,172,840.00	129.14%
6	00810	Anesth low intestine scope	8,935	20,508	\$2,100,514.01	154.97%
7	01961	Anesth, cs delivery	4,073	23,567	\$1,589,519.69	147.59%
8	00670	Anesth spine cord surgery	1,434	25,385	\$1,240,381.91	129.14%
9	01922	Anesth cat or mri scan	3,049	15,918	\$1,061,804.81	129.14%
10	01480	Anesth lower leg bone su	3,072	22,024	\$877,480.46	129.14%
11	00400	Anesth skin ext/per/atrunk	3,174	17,727	\$764,404.74	129.14%
12	01400	Anesth knee joint surgery	2,287	16,224	\$694,782.64	129.14%
13	00300	Anesth head/neck/ptrunk	1,848	11,763	\$593,651.65	129.14%
14	00142	Anesth lens surgery	2,485	5,880	\$589,201.06	193.72%
15	00160	Anesth nose/sinus surgery	1,498	10,196	\$493,266.73	129.14%



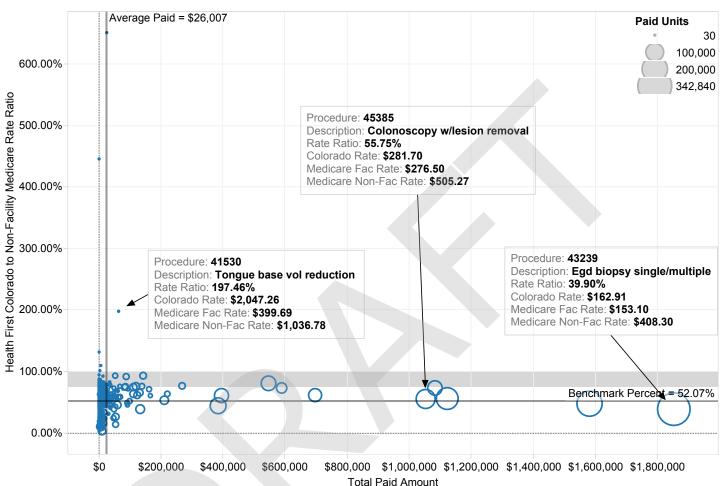
Utilization and Access Analysis: Anesthesia





Rate Comparison Analysis: Digestive Systems

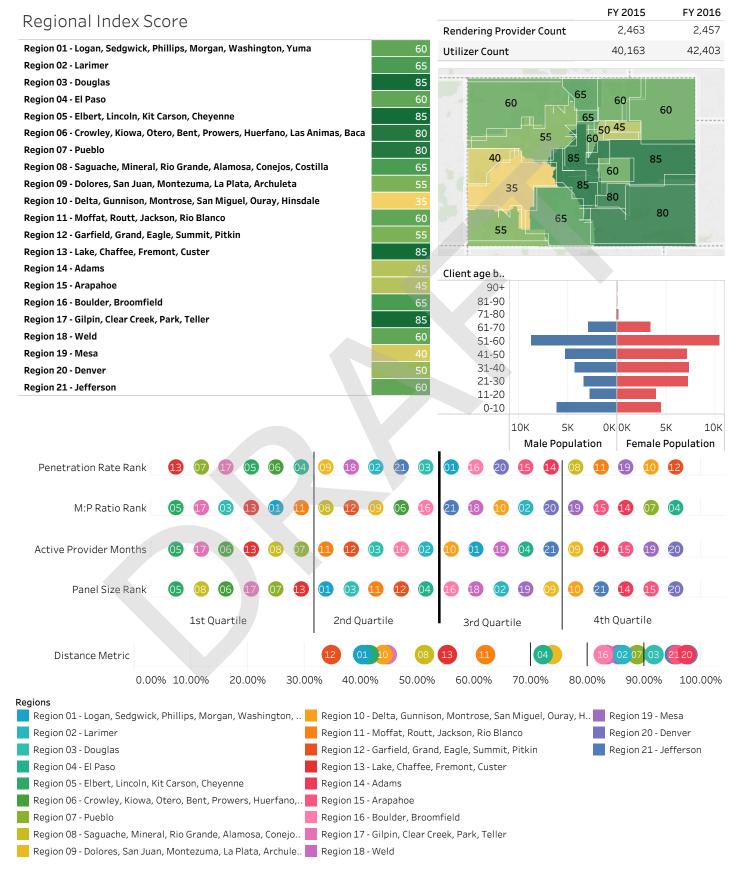
Sub-category of Service	Repriced Colorado	Repriced Non-Facility	Benchmark
	7/1/2016	Medicare 1/1/2016	Percent
Digestive Systems	\$17,108,628	\$32,857,572	52.07%



Top Paid	Procedure	Procedure Description	Paid Units	Paid Amount	Colorado Rate	Medicare Non-Fac Rate	Rate Ratio
1	43239	Egd biopsy single/multiple	11,428	\$1,851,499	\$162.91	\$408.30	39.90%
2	45380	Colonoscopy and biopsy	6,873	\$1,581,694	\$230.79	\$481.74	47.91%
3	45378	Diagnostic colonoscopy	5,115	\$1,124,044	\$220.61	\$389.89	56.58%
4	47562	Laparoscopic cholecystectomy	2,236	\$1,082,042	\$514.19	\$692.83	74.22%
5	45385	Colonoscopy w/lesion removal	3,888	\$1,052,002	\$281.70	\$505.27	55.75%
6	44970	Laparoscopy appendectomy	1,828	\$697,091	\$387.93	\$633.19	61.27%
7	47563	Laparo cholecystectomy/graph	1,151	\$587,910	\$553.22	\$752.87	73.48%
8	49083	Abd paracentesis w/imaging	2,296	\$547,201	\$242.67	\$302.34	80.26%
9	42820	Remove tonsils and adenoids	2,141	\$394,214	\$186.67	\$305.94	61.02%
10	43235	Egd diagnostic brush wash	2,697	\$383,027	\$142.55	\$319.98	44.55%
11	49406	Image cath fluid peri/retro	448	\$268,045	\$685.25	\$901.43	76.02%
12	43775	Lap sleeve gastrectomy	314	\$219,679	\$749.73	\$1,163.12	64.46%
13	49505	Prp i/hern init reduc >5 yr	753	\$209,796	\$288.49	\$547.69	52.67%
14	43644	Lap gastric bypass/roux-en-y	171	\$165,768	\$1,135.97	\$1,828.82	62.11%
15	49452	Replace g-j tube perc	274	\$160,746	\$656.74	\$928.06	70.76%



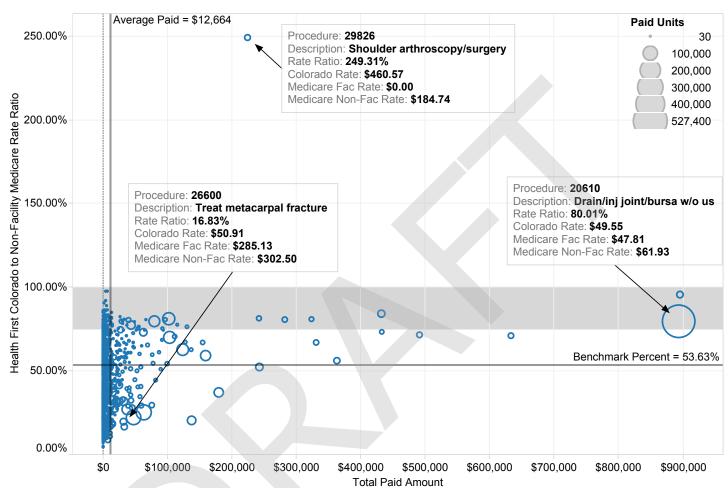
Utilization and Access Analysis: Digestive Systems





Rate Comparison Analysis: Musculoskeletal Systems

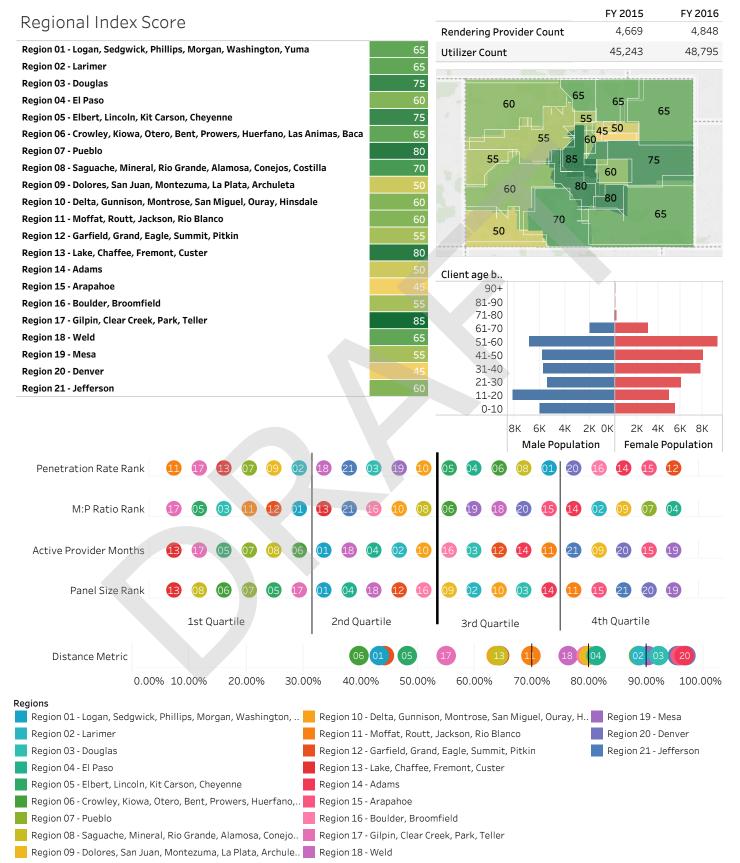
Sub-category of Service	Repriced Colorado	Repriced Non-Facility	Benchmark
	7/1/2016	Medicare 1/1/2016	Percent
Musculoskeletal Systems	\$18,283,505	\$34,094,459	53.63%



Top Paid	Procedure	Procedure Description	Paid Units	Paid Amount	Colorado Rate	Medicare Non-Fac Rate	Rate Ratio
1	27447	Total knee arthroplasty	694	\$895,543	\$1,357.60	\$1,419.06	95.67%
2	20610	Drain/inj joint/bursa w/o us	18,396	\$892,614	\$49.55	\$61.93	80.01%
3	22551	Neck spine fuse&remov bel c2	490	\$632,487	\$1,300.92	\$1,823.26	71.35%
4	27130	Total hip arthroplasty	511	\$490,064	\$1,018.20	\$1,419.42	71.73%
5	22633	Lumbar spine fusion combined	303	\$432,911	\$1,438.72	\$1,966.55	73.16%
6	22851	Apply spine prosth device	1,209	\$430,857	\$367.23	\$435.64	84.30%
7	29888	Knee arthroscopy/surgery	624	\$362,606	\$576.98	\$1,031.10	55.96%
8	29827	Arthroscop rotator cuff repr	450	\$329,709	\$741.59	\$1,102.00	67.29%
9	22614	Spine fusion extra segment	987	\$322,926	\$339.40	\$418.12	81.17%
10	22845	Insert spine fixation device	453	\$281,404	\$633.32	\$782.89	80.90%
11	29881	Knee arthroscopy/surgery	913	\$242,717	\$298.67	\$565.49	52.82%
12	22842	Insert spine fixation device	388	\$242,519	\$663.87	\$814.97	81.46%
13	29826	Shoulder arthroscopy/surgery	550	\$223,778	\$460.57	\$184.74	249.31%
14	25600	Treat fracture radius/ulna	1,426	\$178,796	\$125.92	\$337.69	37.29%
15	27096	Inject sacroiliac joint	1,693	\$159,840	\$98.09	\$165.93	59.12%



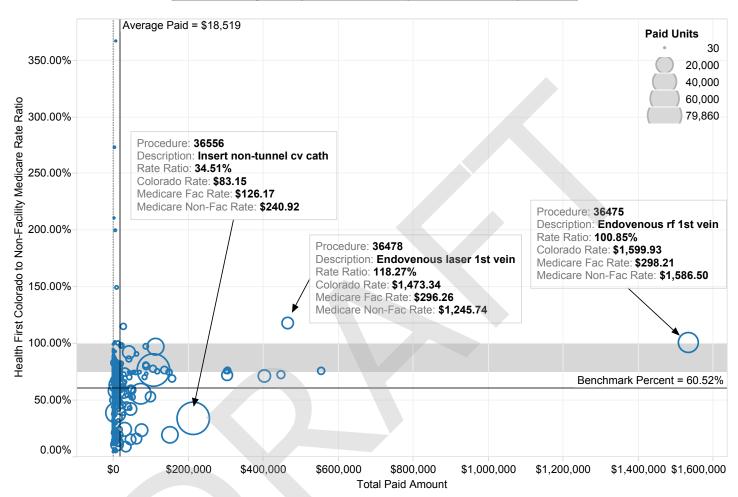
Utilization and Access Analysis: Musculoskeletal Systems





Rate Comparison Analysis: Cardiovascular Systems

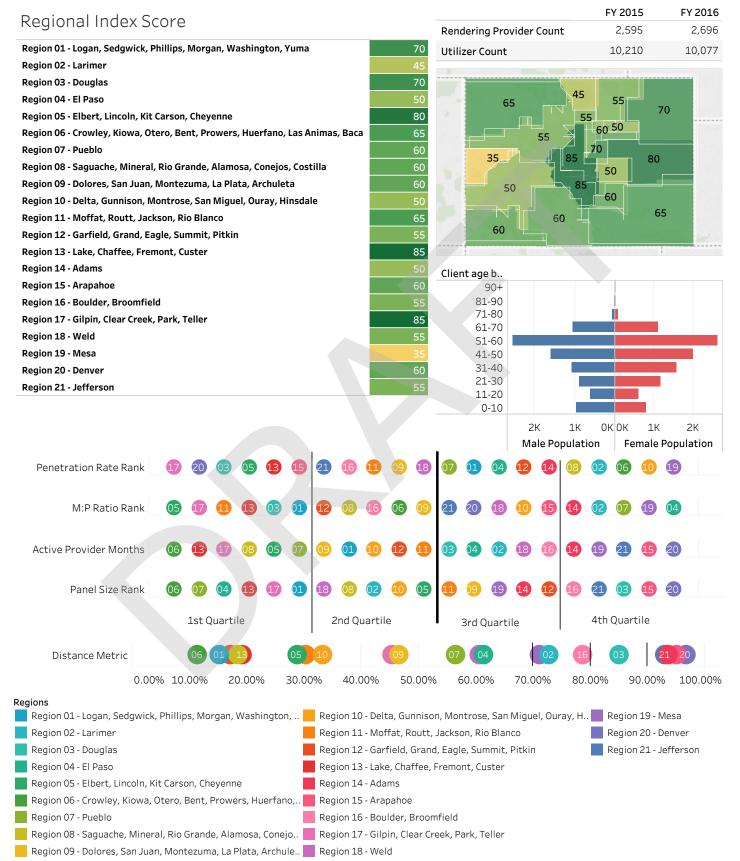
Sub-category of Service	Repriced Colorado	Repriced Non-Facility	Benchmark
	7/1/2016	Medicare 1/1/2016	Percent
Cardiovascular Systems	\$12,323,942	\$20,364,543	60.52%



Top Paid	Procedure	Procedure Description	Paid Units	Paid Amount	Colorado Rate	Medicare Non-Fac Rate	Rate Ratio
1	36475	Endovenous rf 1st vein	998	\$1,533,662	\$1,599.93	\$1,586.50	100.85%
2	37243	Vasc embolize/occlude organ	121	\$553,101	\$7,632.09	\$10,051.26	75.93%
3	36478	Endovenous laser 1st vein	325	\$464,871	\$1,473.34	\$1,245.74	118.27%
4	37241	Vasc embolize/occlude venous	154	\$446,314	\$3,588.14	\$4,928.79	72.80%
5	36224	Place cath carotd art	376	\$401,202	\$1,346.06	\$1,872.68	71.88%
6	37244	Vasc embolize/occlude bleed	101	\$305,929	\$5,342.16	\$7,002.60	76.29%
7	36226	Place cath vertebral art	287	\$303,036	\$1,372.19	\$1,900.97	72.18%
8	37242	Vasc embolize/occlude artery	71	\$299,344	\$6,045.73	\$7,915.00	76.38%
9	36556	Insert non-tunnel cv cath	2,649	\$211,665	\$83.15	\$240.92	34.51%
10	33533	Cabg arterial single	125	\$155,385	\$1,375.25	\$1,976.83	69.57%
11	36561	Insert tunneled cv cath	664	\$151,102	\$233.85	\$1,214.34	19.26%
12	37238	Open/perq place stent same	90	\$148,105	\$3,241.61	\$4,332.85	74.81%
13	37191	Ins endovas vena cava filtr	132	\$136,488	\$2,100.89	\$2,716.74	77.33%
14	37221	Iliac revasc w/stent	62	\$116,949	\$3,623.43	\$4,810.23	75.33%
15	38221	Bone marrow biopsy	700	\$113,029	\$167.66	\$172.02	97.47%



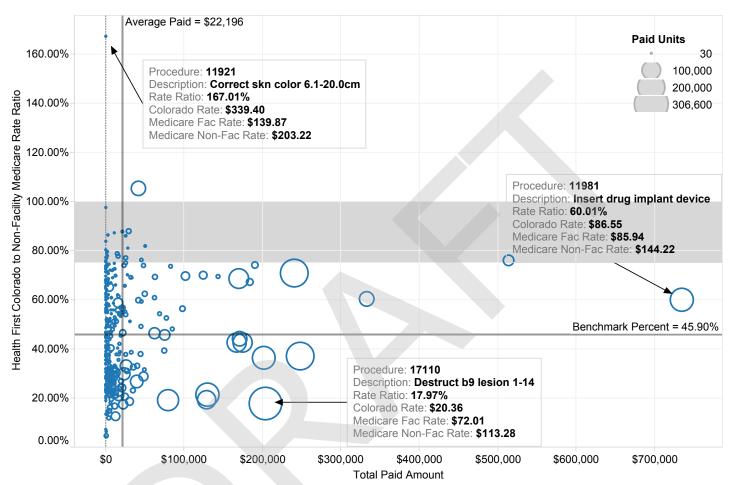
Utilization and Access Analysis: Cardiovascular Systems





Rate Comparison Analysis: Integumentary Systems

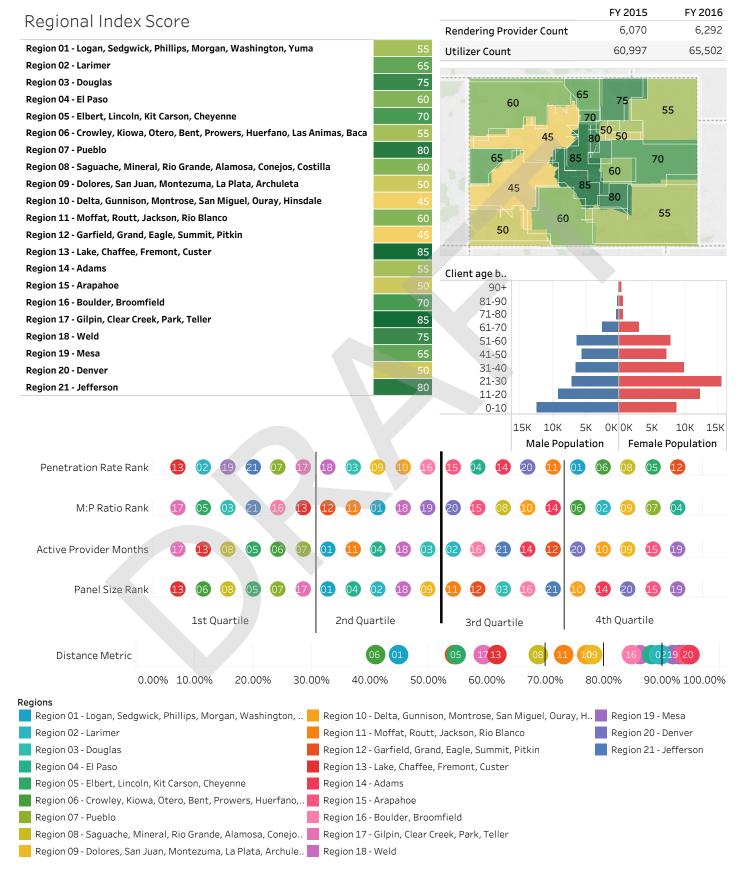
Sub-category of Service	Repriced Colorado	Repriced Non-Facility	Benchmark
	7/1/2016	Medicare 1/1/2016	Percent
Integumentary Systems	\$8,600,327	\$18,741,207	45.89%



Top Paid	Procedure	Procedure Description	Paid Units	Paid Amount	Colorado Rate	Medicare Non-Fac Rate	Rate Ratio
1	11981	Insert drug implant device	5,123	\$734,810	\$86.55	\$144.22	60.01%
2	19083	Bx breast 1st lesion us imag	1,065	\$513,642	\$523.69	\$689.32	75.97%
3	11982	Remove drug implant device	2,043	\$332,865	\$98.77	\$163.79	60.30%
4	12001	Rpr s/n/ax/gen/trnk 2.5cm/<	7,361	\$247,384	\$33.94	\$91.20	37.21%
5	11721	Debride nail 6 or more	7,385	\$240,005	\$32.58	\$45.87	71.03%
6	17110	Destruct b9 lesion 1-14	10,220	\$202,961	\$20.36	\$113.28	17.97%
7	12011	Rpr f/e/e/n/l/m 2.5 cm/<	4,999	\$201,428	\$40.73	\$111.86	36.41%
8	19081	Bx breast 1st lesion strtctc	392	\$190,564	\$527.43	\$712.91	73.98%
9	17311	Mohs 1 stage h/n/hf/g	436	\$183,991	\$455.81	\$677.85	67.24%
10	11042	Deb subq tissue 20 sq cm/<	3,561	\$174,814	\$50.91	\$119.40	42.64%
11	11750	Removal of nail bed	2,182	\$171,176	\$81.46	\$184.69	44.11%
12	17000	Destruct premalg lesion	3,726	\$169,476	\$46.84	\$68.43	68.45%
13	12002	Rpr s/n/ax/gen/trnk2.6-7.5cm	3,549	\$166,792	\$47.52	\$111.10	42.77%
14	15734	Muscle-skin graft trunk	152	\$143,074	\$1,086.08	\$1,559.18	69.66%
15	10060	Drainage of skin abscess	5,189	\$129,922	\$25.46	\$120.07	21.20%



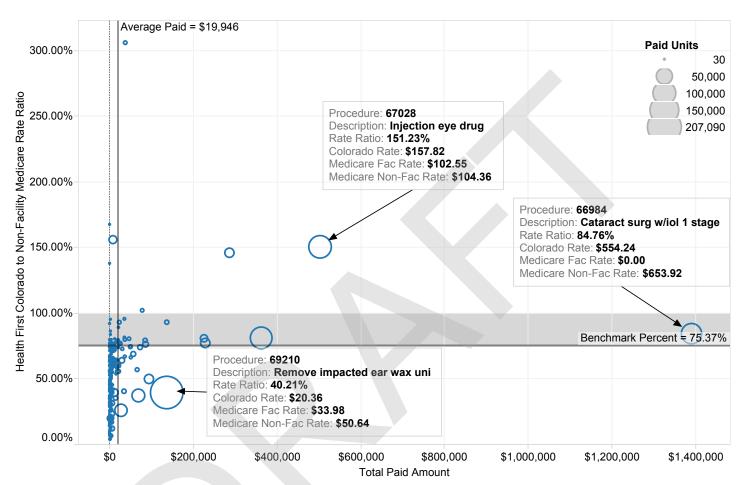
Utilization and Access Analysis: Integumentary Systems





Rate Comparison Analysis: Eye and Auditory Systems

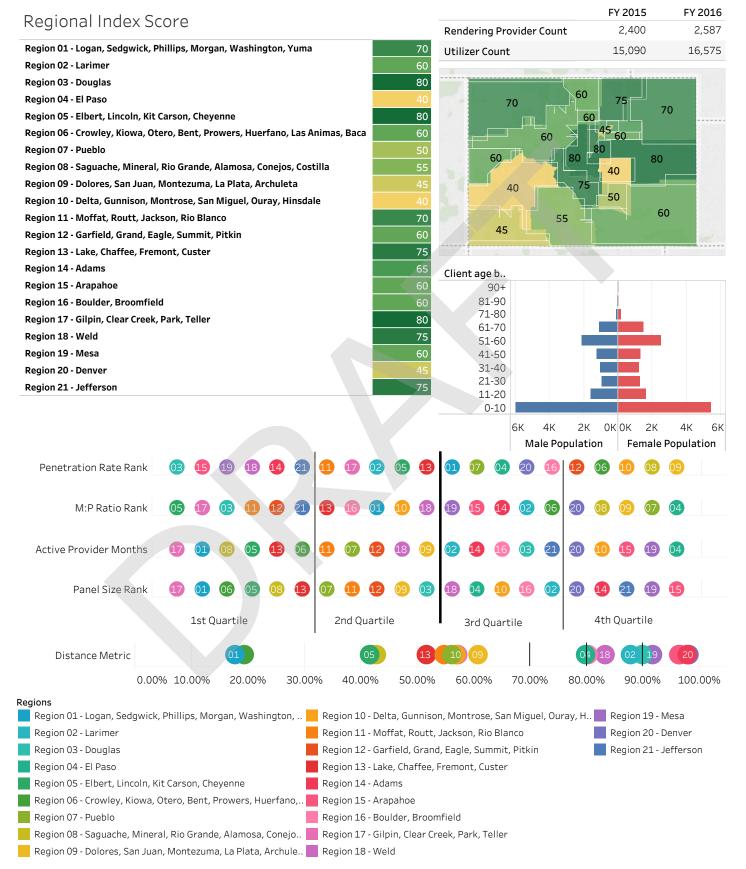
Sub-category of Service	Repriced Colorado	Repriced Non-Facility	Benchmark
	7/1/2016	Medicare 1/1/2016	Percent
Eye and Auditory Systems	\$5,749,890	\$7,629,362	75.37%



Top Paid	Procedure	Procedure Description	Paid Units	Paid Amount	Colorado Rate	Medicare Non-Fac Rate	Rate Ratio
1	66984	Cataract surg w/iol 1 stage	2,712	\$1,390,016	\$554.24	\$653.92	84.76%
2	67028	Injection eye drug	3,317	\$502,389	\$157.82	\$104.36	151.23%
3	69436	Create eardrum opening	3,072	\$362,750	\$135.76	\$167.63	80.99%
4	67228	Treatment x10sv retinopathy	563	\$285,022	\$509.10	\$348.13	146.24%
5	67311	Revise eye muscle	570	\$228,687	\$475.16	\$611.75	77.67%
6	66982	Cataract surgery complex	343	\$223,375	\$660.47	\$813.08	81.23%
7	69210	Remove impacted ear wax uni	6,903	\$135,952	\$20.36	\$50.64	40.21%
8	67108	Repair detached retina	114	\$135,352	\$1,239.49	\$1,327.44	93.37%
9	66821	After cataract laser surgery	551	\$91,819	\$169.70	\$337.09	50.34%
10	69631	Repair eardrum structures	118	\$84,460	\$733.78	\$925.03	79.33%
11	67210	Treatment of retinal lesion	211	\$84,158	\$407.28	\$529.46	76.92%
12	67040	Laser treatment of retina	77	\$76,377	\$1,094.23	\$1,067.30	102.52%
13	67314	Revise eye muscle	150	\$72,170	\$509.10	\$688.65	73.93%
14	68761	Close tear duct opening	1,281	\$68,417	\$56.00	\$150.65	37.17%
15	67113	Repair retinal detach cplx	93	\$63.975	\$830.85	\$1,442.56	57.60%



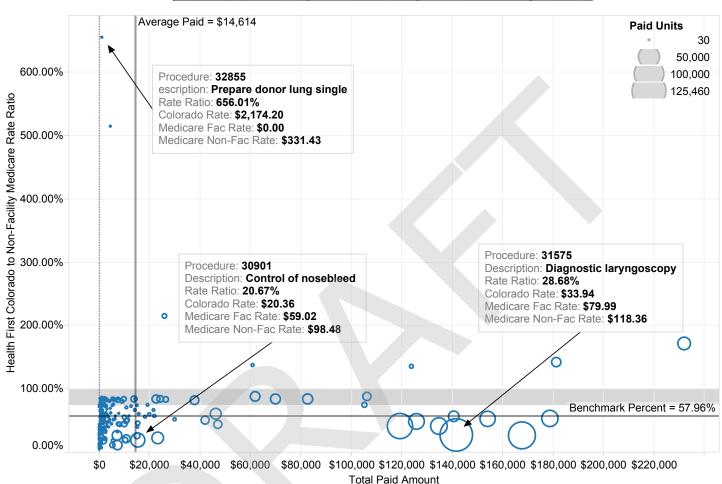
Utilization and Access Analysis: Eye and Auditory Systems





Rate Comparison Analysis: Respiratory Systems

Sub-category of Service		Repriced Colorado	Repriced Non-Facility	Benchmark	
		7/1/2016	Medicare 1/1/2016	Percent	
Respiratory	Systems	\$4,036,692	\$6,964,434	57.96%	



Top Paid	Procedure	Procedure Description	Paid Units	Paid Amount	Colorado Rate	Medicare Non-Fac Rate	Rate Ratio
1	32555	Aspirate pleura w/ imaging	628	\$231,795	\$513.17	\$298.31	172.03%
2	32557	Insert cath pleura w/ image	341	\$181,154	\$760.26	\$530.98	143.18%
3	31624	Dx bronchoscope/lavage	1,052	\$178,620	\$172.75	\$322.82	53.51%
4	31231	Nasal endoscopy dx	2,868	\$167,560	\$58.72	\$217.18	27.04%
5	31622	Dx bronchoscope/wash	923	\$153,765	\$169.70	\$313.62	54.11%
6	31575	Diagnostic laryngoscopy	4,182	\$141,527	\$33.94	\$118.36	28.68%
7	30520	Repair of nasal septum	437	\$140,583	\$373.34	\$646.23	57.77%
8	30140	Resect inferior turbinate	1,088	\$134,784	\$186.67	\$456.89	40.86%
9	31237	Nasal/sinus endoscopy surg	969	\$125,706	\$134.06	\$268.25	49.98%
10	31296	Sinus endo w/balloon dil	60	\$123,628	\$2,949.73	\$2,154.21	136.93%
11	31500	Insert emergency airway	2,528	\$119,305	\$47.52	\$114.26	41.59%
12	31276	Sinus endoscopy surgical	265	\$106,290	\$462.94	\$527.91	87.69%
13	31295	Sinus endo w/balloon dil	98	\$105,296	\$1,574.82	\$2,112.93	74.53%
14	31255	Removal of ethmoid sinus	404	\$82,562	\$355.01	\$418.18	84.89%
15	31579	Diagnostic laryngoscopy	384	\$70,011	\$183.28	\$218.65	83.82%



Utilization and Access Analysis: Respiratory Systems

