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May 15, 2017

Patti Vaughn
Benefits Administration Manager
Idaho Industrial Commission
700 S. Clearwater Lane, PO Box 83720
Boise, Idaho 83720

Re: Idaho Commercial Reimbursement Benchmarking

Dear Patti:

At the request of the Idaho Industrial Commission (IIC), Milliman is pleased to provide this report on commercial reimbursement in Idaho for specific DRGs and HCPCS. This analysis provides average commercial allowed amounts, those amounts as a percentage of Medicare, and percentiles of those allowed amounts. We understand that you will use this information to assess commercial reimbursement levels in the State of Idaho. This analysis may not be appropriate for other purposes.

This analysis is subject to the terms and conditions of the Contract for Actuarial Services between Milliman and the Idaho Industrial Commission dated March 15th, 2017.

Results

All requested tables of information are being provided in the attached exhibits. For your reference, the following table summarizes the average percent of Medicare in the data for each table using the HCPCS/DRG distribution in the data:

Table 1
Summary of 2016 Commercial Average Allowed
As a Percentage of 2016 Medicare

Table	Description	Percent of Medicare
Table 1	Inpatient DRG	230%
Table 2	Outpatient Surgery	149%
Table 3	Outpatient Radiology	428%
Table 4	Outpatient Medicine	221%
Table 5	Outpatient Evaluation and Management	234%
Table 6	Physician Surgery	186%
Table 7	Physician Radiology	234%
Table 8	Physician Medicine	116%
Table 9	Physician Evaluation and Management	151%

We have attached more detailed exhibits by HCPCS/DRG with average commercial payment amounts, those amounts as a percentage of 2016 Medicare, and the 10th, 25th 50th, 75th, and 90th percentile of the commercial payment amounts. For the HCPCS in the Table 9 list you provided us, we provide results separately by place of service. This is because of notably higher average reimbursement (around 50% higher) when performed at a non-facility location compared to a facility location. The exhibits we have provided are:

- Exhibit 1: Average Inpatient Commercial Charge, Percentage of Medicare and Percentiles by DRG
  - Includes requested Table 1 DRGs
- Exhibit 2: Average Outpatient Commercial Charge, Percentage of Medicare and Percentiles by HCPCS
  - Includes requested Tables 2-5 HCPCS
- Exhibit 3: Average Professional Commercial Charge, Percentage of Medicare and Percentiles by HCPCS
  - Includes requested Tables 6-8 HCPCS
- Exhibit 4: Average Professional Commercial Charge, Percentage of Medicare and Percentiles by HCPCS and Place of Service
  - Includes requested Table 9 HCPCS

A few observations from the exhibits:

- The range of amounts paid by specific DRG/HCPCS is relatively large. The ratio between the 10th percentile and 90th percentile is generally around 250%-300% for inpatient and outpatient services. Physician professional services tend to be lower at around 150%-200%.
- The average allowed is between the 25th percentile and the 75th percentile in most cases other than Table 6. Most Table 6 HCPCS have an average allowed lower than the 25th percentile due to a few outlier claims.

Methodology

Commercial reimbursement was calculated using the 2015 MarketScan commercial claim data for Idaho members. The MarketScan database (produced by Truven) covers tens of millions of lives across the United States. Average allowed and allowed percentiles were calculated for the DRG/HCPCS codes requested by the IIC.

The following adjustments were made to the MarketScan repricing:

- The exhibits use fiscal year 2016 Medicare allowed. A single year of trend was applied to put the 2015 MarketScan data on a 2016 basis. The 2015 to 2016 commercial allowed trends are listed below:
  - Inpatient: 1.0%
  - Outpatient: 4.3%
  - Professional: 0.5%

- MarketScan does not provide billed amounts, making it difficult to distribute allowed dollars when a claim is paid as a case payment. Due to this, we have excluded claims with case payments.

- Ø Certain HCPCS have very few claims without a modifier. To increase the credibility of the percentiles, Milliman reviewed all modifiers in the data set and kept claims with high frequency modifiers that do not greatly alter the average paid amount. Claim lines with the following modifiers were kept. All other claim lines with modifiers were excluded:
    - o Tables 2-5: 25, TC, GP, LT, RT, GO, 59
    - o Tables 6-9: 25, GP, LT, RT, AT, GO, 59
- Ø Services with specialties indicating that they were performed by assistants have been excluded. The specialty codes for these are 32, 43, 97, and Z0.
- Ø For HCPCS that should rarely or never have more than one unit, claim lines with multiple units were excluded. Unit-dependent HCPCS are shown in the exhibit on a 'per unit' basis. All HCPCS we identified as unit-dependent had two or more units on at least 20% of claim lines. All other HCPCS had multiple units on less than 3% of claim lines. The following HCPCS are unit-dependent:
    - o Table 4: 97110, 97112, and 97140
    - o Table 6: 22851
    - o Table 8: 97110, 97112, 97140, and 97530
- Ø As requested, ambulatory surgical centers are excluded in the calculations. We are unable to exclude critical access hospitals because they are not identifiable in the MarketScan data.

MarketScan is comprised of multiple contributors. Certain service categories are excluded for some contributors based on a review of the contributor coding by service category. Examples include:

- Ø Inpatient claims for MarketScan contributors where the ICD coding was not complete enough for DRG assignment.
- Ø Professional results for a subset of MarketScan contributors where HCPCS and Modifier were not reliably populated.

Medicare Amounts

The MarketScan data was repriced to 2016 Medicare allowed levels using the *Milliman Medicare Repricer*. The following considerations apply to the repricing results:

- Ø All repriced amounts reflect prospective amounts and do not reflect any settlements with CMS.
- Ø No adjustments are made for sequestration.
- Ø Repriced amounts are based on information released at the beginning of each year (Federal fiscal year for inpatient and calendar year for other types of services).
- Ø No adjustment is made for providers that participate in Medicare's Bundled Payment for Care Improvement (BPCI) initiative.

Facility Repricing

- Ø Medicare facility payments are provider-specific; however MarketScan does not include provider information. We used Medicare FFS data to estimate the provider mix in each member area.
- Ø Inpatient Medicare payments exclude Indirect Medical Education (IME), Disproportional Share (DSH), Uncompensated Care, and outlier payment components.

- Non-PPS hospitals are priced using PPS. This includes:
  - Critical access hospitals (paid at cost by Medicare)
  - Cancer and children's hospitals (paid at cost by Medicare)

- Inpatient new technology payments are not included. The impact of these payments varies from year to year, but is generally is very small (i.e. less than 1%).

- Inpatient rehabilitation and psychiatric hospital claims are priced using IPPS rather than the Rehab PPS and Psych PPS schedules.

Professional Repricing

- Medicare employs claim edits to deny payment for certain professional services. We assumed all professional services with a positive allowed amount were accepted for payment and included these services in the repricing analysis.

- No physician incentive payment adjustments are included, such as those under the Electronic Prescribing (eRx) Incentive Program, the Physician Quality Reporting System (PQRS), the Maintenance of Certification Program (MOC), or the Primary Care Incentive Payments (PCIP) program.

- Medicare makes additional payments for professionals in Health Professional Shortage Areas. These payments are not incorporated.

Data Reliance and Variability of Results

This report is not intended to benefit third parties. Regarding the contents of this report, Milliman makes no representations or warranties to third parties. Third parties are to place no reliance upon this report that would result in the creation of any duty or liability for Milliman or its employees to third parties, under any theory of law. Third parties receiving this report must rely on their own experts to draw conclusions about the report's contents.

In performing our analysis, we relied on data and other information provided to us by CMS and Truven Health MarketScan©. We have not audited or verified this data and other information, but we have reviewed it for reasonableness. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

Our estimates are not predictions of the future; they are estimates based on the assumptions. If the underlying data or other listings are inaccurate or incomplete, this analysis may also be inaccurate or incomplete. Emerging results should be carefully monitored with assumptions adjusted as appropriate.

We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have not found material defects in the data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

Please call us with any questions or concerns. We appreciate the opportunity to work with you on this review.

Sincerely,

David C. Lewis
Senior Consultant

Attachments

Exhibit 1
Idaho Industrial Commision
Average Inpatient Commercial Charge, Percentage of Medicare and Percentiles by DRG

Table 1

		Average		Percentiles of MarketScan Allowed				
DRG	Description	2016 Marketscan Allowed[(1)]	%-age of 2016 Medicare[(2)]	10th	25th	50th	75th	90th
460	Spinal fusion except cervical w/o MCC	$46,244	197%	$26,505	$28,567	$42,937	$56,796	$77,242
468	Revision of hip or knee replacement w/o CC/MCC	$32,559	201%	$17,587	$19,941	$34,588	$38,922	$49,318
470	Major joint replacement or reattachment of lower extremity w/o MCC	$29,661	242%	$16,502	$22,495	$29,341	$38,926	$39,904
473	Cervical spinal fusion w/o CC/MCC	$27,434	207%	$14,108	$14,907	$30,232	$41,115	$41,115
494	Lower extrem & humer proc except hip,foot,femur w/o CC/MCC	$20,887	222%	$13,442	$17,712	$22,224	$24,945	$26,247
945	Rehabilitation w CC/MCC	$31,620	436%	$8,205	$15,169	$25,382	$46,323	$63,969

(1) Based on 2015 MarketScan data trended to 2016.

(2) Medicare amount excludes DSH, IME, UCP, and Outlier add-on payments.

Exhibit 2
Idaho Industrial Commision
Average Outpatient Commercial Charge, Percentage of Medicare and Percentiles by HCPCS
Excludes Modified Codes[2]

Tables 2 - 5

			Average		Percentiles of MarketScan Allowed					
Source	HCPCS	Description	2016 Marketscan Allowed[1]	%-age of 2016 Medicare[3]	10th	25th	50th	75th	90th	APC Code[4]
Table 2	20680	Removal of support implant	$3,078	286%	$1,818	$1,922	$2,703	$4,450	$4,450	5074
Table 2	23410	Repair rotator cuff acute	$5,620	125%	$3,232	$3,995	$4,277	$7,033	$7,501	5123
Table 2	23412	Repair rotator cuff chronic	$5,062	104%	$3,062	$3,995	$3,995	$5,271	$8,689	5123
Table 2	23430	Repair biceps tendon	$4,458	98%	$2,717	$3,818	$3,850	$3,952	$7,501	5123
Table 2	29806	Shoulder arthroscopy/surgery	$5,761	131%	$4,093	$4,093	$6,088	$6,313	$7,679	5123
Table 2	29807	Shoulder arthroscopy/surgery	$5,304	124%	$3,212	$4,505	$5,726	$5,726	$5,726	5123
Table 2	29822	Shoulder arthroscopy/surgery	$3,227	182%	$1,163	$2,240	$3,731	$3,972	$4,600	5122
Table 2	29823	Shoulder arthroscopy/surgery	$4,704	422%	$2,139	$3,345	$4,093	$7,583	$7,679	5122
Table 2	29824	Shoulder arthroscopy/surgery	$3,074	224%	$1,109	$2,078	$2,577	$4,033	$4,317	5122
Table 2	29826	Shoulder arthroscopy/surgery	$4,521		$1,980	$3,442	$4,093	$5,219	$7,679	
Table 2	29827	Arthroscop rotator cuff repr	$4,908	127%	$2,792	$4,093	$5,433	$5,523	$7,679	5123
Table 2	29828	Arthroscopy biceps tenodesis	$5,002	325%	$1,779	$4,093	$6,088	$6,088	$6,313	5123
Table 2	29880	Knee arthroscopy/surgery	$3,464	162%	$2,136	$2,577	$3,731	$3,778	$4,751	5122
Table 2	29881	Knee arthroscopy/surgery	$3,384	160%	$1,912	$2,393	$3,447	$4,392	$4,751	5122
Table 2	29888	Knee arthroscopy/surgery	$6,184	92%	$4,355	$4,711	$6,429	$7,400	$8,220	5124
Table 2	49505	Prp i/hern init reduc >5 yr	$3,904	154%	$2,154	$2,827	$3,557	$5,243	$5,243	5341
Table 2	49650	Lap ing hernia repair init	$5,665	152%	$2,229	$4,201	$6,206	$7,585	$7,585	5361
Table 2	63030	Low back disk surgery	$6,586	138%	$4,189	$4,375	$6,175	$7,446	$9,560	5123
Table 2	64483	Inj foramen epidural l/s	$817	148%	$453	$652	$659	$1,203	$1,203	5442
Table 2	64721	Carpal tunnel surgery	$2,149	171%	$1,325	$1,617	$1,814	$3,033	$3,033	5431
Table 3	70450	Ct head/brain w/o dye	$655	528%	$333	$515	$630	$675	$1,054	5570
Table 3	72125	Ct neck spine w/o dye	$739	1691%	$438	$480	$650	$814	$1,392	5570
Table 3	72141	Mri neck spine w/o dye	$1,061	381%	$721	$882	$1,059	$1,180	$1,587	5581
Table 3	72146	Mri chest spine w/o dye	$1,076	476%	$721	$882	$1,087	$1,180	$1,468	5581
Table 3	72148	Mri lumbar spine w/o dye	$1,078	431%	$738	$882	$1,111	$1,180	$1,587	5581
Table 3	72158	Mri lumbar spine w/o & w/dye	$1,573	380%	$774	$1,278	$1,671	$1,792	$2,126	5582
Table 3	73221	Mri joint upr extrem w/o dye	$1,043	395%	$546	$882	$1,113	$1,180	$1,491	5581
Table 3	73222	Mri joint upr extrem w/dye	$1,145	257%	$757	$782	$996	$1,465	$1,680	5582
Table 3	73721	Mri jnt of lwr extre w/o dye	$1,021	386%	$546	$882	$1,038	$1,180	$1,491	5581
Table 3	74177	Ct abd & pelv w/contrast	$1,584	444%	$690	$1,114	$1,428	$1,899	$2,169	5572
Table 4	97001	Pt evaluation	$131	185%	$84	$122	$127	$135	$164	
Table 4	97032	Electrical stimulation	$31	308%	$29	$29	$29	$29	$38	
Table 4	97110	Therapeutic exercises	$53	280%	$44	$44	$50	$55	$64	
Table 4	97112	Neuromuscular reeducation	$53	246%	$42	$42	$51	$55	$61	
Table 4	97140	Manual therapy 1/> regions	$51	296%	$44	$44	$47	$52	$61	
Table 5	99283	Emergency dept visit	$443	232%	$236	$344	$413	$549	$602	5023
Table 5	99284	Emergency dept visit	$725	229%	$355	$618	$689	$844	$1,021	5024
Table 5	99213	Office/outpatient visit est	$115	115%	$25	$76	$115	$142	$190	
Table 5	99282	Emergency dept visit	$270	255%	$177	$222	$293	$308	$308	5022
Table 5	99285	Emergency dept visit	$1,113	253%	$672	$994	$1,203	$1,222	$1,269	5025

(1) Based on 2015 MarketScan data trended to 2016.
(2) Only the following modifiers are included: 25, TC, GP, LT, RT, GO, 59
(3) HCPCS 29826 is bundled, so it does not have a percent of Medicare amount.
(4) A few HCPCS do not have APC codes because they are either bundled or paid using a different method than APC.

Exhibit 3
Idaho Industrial Commision
Average Professional Commercial Charge, Percentage of Medicare and Percentiles by HCPCS
Excludes Modified Codes[2]

Tables 6 - 8

			Average		Percentiles of MarketScan Allowed				
Source	HCPCS	Description	2016 Marketscan Allowed[1]	%-age of 2016 Medicare	10th	25th	50th	75th	90th
Table 6	22551	Neck spine fuse&remov bel c2	$3,187	187%	$2,564	$3,164	$3,278	$3,358	$3,358
Table 6	22633	Lumbar spine fusion combined	$3,381	183%	$2,264	$3,189	$3,563	$3,650	$3,650
Table 6	22851	Apply spine prosth device	$777	182%	$583	$759	$786	$805	$805
Table 6	29823	Shoulder arthroscopy/surgery	$1,098	208%	$562	$1,075	$1,201	$1,214	$1,396
Table 6	29824	Shoulder arthroscopy/surgery	$1,184	196%	$640	$1,144	$1,296	$1,448	$1,506
Table 6	29826	Shoulder arthroscopy/surgery	$355	198%	$323	$344	$344	$348	$396
Table 6	29827	Arthroscop rotator cuff repr	$1,986	187%	$1,777	$2,008	$2,057	$2,080	$2,293
Table 6	29881	Knee arthroscopy/surgery	$1,007	191%	$806	$1,045	$1,047	$1,059	$1,161
Table 6	29888	Knee arthroscopy/surgery	$1,862	186%	$1,654	$1,911	$1,911	$1,915	$2,038
Table 6	63030	Low back disk surgery	$1,792	178%	$1,296	$1,784	$1,856	$1,901	$1,901
Table 7	70450	Ct head/brain w/o dye	$319	275%	$263	$292	$334	$334	$396
Table 7	72141	Mri neck spine w/o dye	$534	242%	$409	$409	$560	$655	$655
Table 7	72148	Mri lumbar spine w/o dye	$533	243%	$407	$407	$558	$656	$656
Table 7	72158	Mri lumbar spine w/o & w/dye	$861	231%	$692	$692	$948	$1,003	$1,056
Table 7	73030	X-ray exam of shoulder	$52	180%	$32	$52	$52	$57	$57
Table 7	73221	Mri joint upr extrem w/o dye	$530	225%	$212	$430	$590	$683	$683
Table 7	73222	Mri joint upr extrem w/dye	$853	225%	$174	$804	$944	$1,044	$1,044
Table 7	73721	Mri jnt of lwr extre w/o dye	$544	231%	$147	$430	$589	$684	$684
Table 7	74177	Ct abd & pelv w/contrast	$824	263%	$656	$781	$781	$854	$872
Table 7	76942	Echo guide for biopsy	$145	236%	$112	$112	$112	$136	$208
Table 8	97001	Pt evaluation	$84	111%	$77	$86	$86	$86	$86
Table 8	97014	Electric stimulation therapy	$16	113%	$14	$15	$17	$18	$18
Table 8	97035	Ultrasound therapy	$14	131%	$12	$14	$15	$15	$15
Table 8	97110	Therapeutic exercises	$35	130%	$30	$33	$36	$36	$36
Table 8	97112	Neuromuscular reeducation	$35	118%	$30	$33	$38	$38	$38
Table 8	97140	Manual therapy 1/> regions	$32	133%	$28	$32	$34	$34	$34
Table 8	97530	Therapeutic activities	$36	129%	$30	$33	$39	$39	$39
Table 8	98941	Chiropract manj 3-4 regions	$38	106%	$35	$38	$38	$40	$40
Table 8	97545	Work hardening	HCPCS Have No/Very Little Utilization						
Table 8	99199	Special service/proc/report							
Table 8	99359	Prolong serv w/o contact add							
Table 8	99455	Work related disability exam							
Table 8	99456	Disability examination							

(1) Based on 2015 MarketScan data trended to 2016.
(2) Only the following modifiers are included: 25, GP, LT, RT, AT, GO, 59

Exhibit 4
Idaho Industrial Commision
Average Professional Commercial Charge, Percentage of Medicare and Percentiles by HCPCS and Place of Service
Excludes Modified Codes[2]

Table 9

		Facility							Non-Facility						
		Average		Percentiles of MarketScan Allowed					Average		Percentiles of MarketScan Allowed				
HCPCS	Description	2016 Marketscan Allowed[1]	%-age of 2016 Medicare	10th	25th	50th	75th	90th	2016 Marketscan Allowed[1]	%-age of 2016 Medicare	10th	25th	50th	75th	90th
99202	Office/outpatient visit new	$78	153%	$49	$55	$73	$75	$85	$110	146%	$77	$105	$118	$125	$126
99203	Office/outpatient visit new	$107	138%	$72	$75	$110	$129	$131	$160	147%	$128	$153	$159	$179	$180
99204	Office/outpatient visit new	$178	135%	$122	$127	$169	$210	$221	$245	147%	$198	$235	$244	$268	$276
99212	Office/outpatient visit est	$34	132%	$24	$25	$36	$38	$43	$64	147%	$48	$61	$65	$73	$73
99213	Office/outpatient visit est	$63	122%	$46	$49	$50	$77	$87	$112	153%	$95	$107	$121	$122	$122
99214	Office/outpatient visit est	$98	124%	$70	$75	$78	$127	$134	$165	153%	$138	$159	$174	$181	$181
99283	Emergency dept visit	$105	167%	$89	$93	$101	$106	$110	Not Applicable to Non-Facility						
99284	Emergency dept visit	$193	162%	$170	$178	$201	$202	$202							
99358	Prolong service w/o contact	HCPCS Have No/Very Little Utilization													
99359	Prolong serv w/o contact add														
99455	Work related disability exam														
99456	Disability examination														

(1) Based on 2015 MarketScan data trended to 2016.
(2) Only the following modifiers are included: 25, GP, LT, RT, AT, GO, 59